Summary

Morey is summoned to a fantasy world under siege by the forces of darkness, called a Hero by the natives. He undertakes a journey to the sword of legend in order to obtain the power to save the world. Unknown to them, they got two 'Heroes' for the price of one.

Dumped into a strange and dangerous fantasy world, Cato struggles to find out what happened to him and where he is. And how to survive, there's still an army of monsters to worry about after all. For the enemy is far more dangerous than anyone had ever figured and without help, there might be no one left to save by the time Morey finds the sword.

Perhaps there are advantages to not being a Hero. And perhaps not all the legends are true...

Mirrored on Fictionpress
"What's happening?"

"I don't know!"

Amarante prayed as the court wizards shouted at each other across the circle. The Summoning was not going well.

Why? Was it not the Inath's darkest hour, as hordes of the dead assailed the borders of human lands? The legends said that-

She never got to wonder any further. With a brilliant flash of discharging magic, everyone in the summoning room was knocked flat.

"Are you all right, my queen?" Etani rolled off Amarante and helped her up.

Amarante nodded her thanks, "what happened to the ritual?"

On the Summoning point, a circular stone dais that was the focus of all their efforts, lay a strangely dressed young man.

"It worked!" "By the gods, it worked!"

Whispers ran around the room. Queen Amarante stared at Inath's saviour, the Hero in their legends.

None of them realized just how much the ritual had misfired.

Cato struggled to open his eyes. It felt like his entire body was on fire.

There was a vague sense of green above him. Shifting and rustling. Wait, that was a forest.

Leaves and trunks came into focus as Cato groaned and pushed himself up. How did he get here? He was just reading a book in his room when... when what? He didn't remember anything after that.

Kidnapping? Hallucination? Dream? He frowned as his mind threw up ever crazier explanations. The air was sharp and fresh with the smell of wood. The wood and leaves under him covered a layer of harder ground. Too real to be a dream.

Did Cato hit his head somewhere? He had heard of people like that, who suddenly became unable to talk.

Gripped with a sudden fear, he said aloud, "Testing, testing, can I talk?"

Nope, still talking. Hm.

With a sigh, Cato got onto his feet, holding on to a nearby tree.

The sun above was bright but only parts of it made it through the leafy canopy. The forest floor was covered with sparse undergrowth, with ferns and bushes everywhere.

If it wasn't for the strange plants, Cato would have thought it was a normal forest.
One of the nearby bushes had what looked like pearly white droplets hanging on the end of its leaves. That was unlike anything he had ever seen before. And the fungus-like growths on some of the trees were winking on and off with a soft glow. In fact, now that he looked around, most of everything in the forest was glowing faintly.

That was... very strange. Bioluminescence? No, that was way too weak to be visible in broad daylight.

Cato put aside wandering thoughts. He was stuck in the middle of nowhere. No phone, no water, no food. Only a pen. There were better things to worry about than glowing fungi as long as he didn't touch or eat them.

There was no one to answer how he got here and where this was. Luckily it seemed he wasn't injured but he had better find a way back to civilization quickly.

He picked a downhill direction at random and started making his way over the broken uneven ground.

Morey sipped the fruity soup and nodded at the Queen. The sweet flavour in his mouth was quite welcome after the endless shocks. Especially since nothing in this world appeared to be normal.

"So you mean to say you summoned me in order for me to save your world. You're saying I'm a Hero mentioned in your legends?"

The queen nodded, together with the other three wizards listening in.

Morey frowned, "Are you sure?"

They froze.

"I mean, I don't feel like a Hero. I never held a gun or a sword in my entire life. I have never killed anything other than annoying insects. I'm not anything special!"

"But, but," Amarante sputtered, "but we summoned you! The legends said that in Inath's darkest hour, a Hero will come to save us!"

Uuhh. That sounded suspiciously vague. Maybe this world had their own Nostradamus. And maybe they were right, he had seen magic from the wizards themselves. Or maybe she was just lying. For what though?

Still, Morey couldn't believe he was a Hero like something out of a fantasy game.

"Please, we are begging you, help us. Monsters roam the land and the zombie army strikes at our border. We are losing towns and villages year after year. There is no other hope left," the queen bowed her head.

Ah.. Morey rubbed his head, feeling uncomfortable. Perhaps there was more to this than he had heard. "I can't promise anything, but for now, I will listen to what you have to say."

"You have to find the Sword of Legend and with that you can turn the tide."

Nope, he shouldn't have expected anything better.
Cato walked and walked and walked. His throat was starting to dry and the sun was beginning to set but the forest seemed to just continue onwards without end.

The incline began to get steeper after another hour or so then the forest ended abruptly at a steep edge. That would be a good point to see where he was going.

The view of the valley was expansive. The side of the mountain he was on rolled downwards in thick forest until it abruptly gave way to meadows and what looked like crop fields. The crops weren't anything like he recognized however, there wasn't any cereal-like crop that was red in colour Cato knew of. There was a village down there, the houses clustered together behind a low wooden fence. A thin stream of smoke from the central fire and small figures moving around indicated that it was occupied.

Wood houses and a single dirt road leading out of the valley. He really was in the middle of nowhere. But maybe they could tell him the nearest city was.

Then Cato looked up and got the third shock today.

Hanging in the sky was a blood-red orb. Taking up almost a sixth of the sky, Cato could just about make out some cloud-like things on it. What the heck was that?! The moon was not supposed to be red!

The small observations since he woke up suddenly began to coalesce into an idea. It wasn't one he liked or wanted to believe but it made sense. Weird mushrooms, the twisty trees that didn't look like wood, the strange not-quite-rabbit that he spotted some time ago. That red moon. Especially the moon.

He wasn't on Earth.
Cato stumbled over the rock and managed to catch himself on a branch. In front of him was the last few bushes and then open grassland. His throat burned with thirst and hunger, and his t-shirt and pants were uncomfortably damp and dirty. Perhaps those people in the village could help him.

He had finally made his way out of the forest. The sun had set already, leaving only a dim glow and the light from the huge red moon in the sky. The chirping daytime insects had given way to an unfamiliar warbling sound. What passed for this world's birds, some which didn't seem to have wings, had all gone to sleep.

It was good that the moon was bright enough to see by, not to mention the way the sky seemed to glow slightly. He could get to the village tonight.

A rustle from behind him made him jump.

He looked back to find himself staring at a dog-shaped creature the size of a horse. The dark coat made it blend into the forest's darkness at night and its paws padded forward almost silently. Uhoh.

His weariness disappeared in a flush of adrenaline and Cato broke into a dead run towards the village. Behind him, the dog-thing bounded after him, the low growl in its chest awoke some primal fear made his legs move almost without telling them to.

The creature didn't have much stamina, long before Cato had to slow down, the creature was already panting and heaving. Its heavy footfalls, unlike the stalking silence from earlier, told him that it was still somewhere behind him. He continued to press onwards, fear and tension coiling. That thing would eat him if he got caught.

And so a strange sort of chase ensued. Every time the dog-thing bounded up, Cato ran away, and it would eventually fall behind. Then both of them would slow down while regaining their strength and then another chase and escape would happen.

An hour later, Cato felt like his heart was going to explode in his chest, when the village cropped up over the next hill. The wooden fence had a closed gate but he could see lights and fire burning behind it.

"Help! Someone! Anyone!!" he screamed, running towards the wall.

The crunch of sand and soil behind him spurred him into a final sprint.

There were voices, tinged with confusion and alarm. He approached the wall at a flat out run and collapsed against the wooden surface, panting and wheezing. His legs wobbled and screamed at him. He tried to scream for them to open up but his breath wouldn't come.

The creature came bounding out of the night, running into the circle of illumination cast by the fires on the wall. A spear was thrown down at it, followed by an sharp blur. Then rocks and other things began to rain down amid shouts and clanging sounds above.

The creature took a few hits but didn't seem to be injured. Even so, it stopped short and flailed around, whining, before running back into the darkness.

"Bring him inside! Quickly!" voices shouted from above.
The gate creaked open and three people rushed out towards Cato. His heart continued to pound in his ears but at least it appeared that he was saved.

Then he got yet another shock of his life.

The woman in front of him had furry animal ears sticking out the top of her head. Her huge eyes also seemed to reflect the wavering light, the iris was sharper than any human's. Behind her, a long bushy tail waved around cautiously.

They're not human!

"Ugh," Cato woke up to a bright light shining in his eyes and something soft under him.

He scrambled up and fell off the bed with a thud. Ouch.

Come to think of it the same thing had happened to him just... yesterday? He looked around to see that he had been sleeping on a bed made of fur. The morning sunlight coming in the window reflected off the slanting roof that also doubled as a wall. The house looked like it was made of wood planks, with knobs and cracks that hadn't been sanded down. The other end of the room had a set of wooden stairs heading downwards.

So now what, was he going to wake up in yet another place?

There was a thudding from below as someone came running up the creaking stairs and soon enough a young girl's head popped up. She was the one who he saw yesterday. In daylight, she looked a little younger than he was. No, she wasn't a girl, she had those huge furry ears sticking out the side of her head and the yellow eyes.

Yup, still in this crazy world.

"You're awake! Uh, are you ok?" her eyes almost shone with curiousity. No wait, they were actually shining. What the heck?

Cato rubbed his head, something sounded weird there. "I think so? I don't hurt anywhere," he lied. Muscle aches were probably not an important complaint.

"Oh good! Mama! He's awake and he says he's fine!" she shouted back down the stairs.

"Can he come down for breakfast?" a woman's voice came back up. That was her mother Cato supposed.

"Well, come down when you're ready, Mama can be very scary if you keep her waiting. "

Before he could even reply, she disappeared down the stairs.

With a sigh, Cato got up from the floor. There was no toilet around here and his clothing weren't exactly clean after last night's trek and mad chase.

With another sigh, he picked his way down the steep staircase carefully, sincerely hoping the natives here at least understood how to clean teeth.

Cato gingerly washed his hands in the water barrel. There was no running water, no electricity and
the sun was starting to get hot. He had to improvise a toothbrush with a bunch of sharp-smelling herbs on a metal stick. He also put off visiting the outhouse once he was told it was near the walls. Once more beating in the fact that he was not on Earth.

Was this how people lived before the modern era? Cato couldn't imagine how uncomfortable life was about to get for him. He still couldn't quite believe that none of the houses had a toilet but if they didn't have a sewer system then it was understandable.

He went back into the kitchen.

"Good morning! You must be hungry," said the mother of the girl from this morning. She waved to him from behind her mother.

Their clothing was plain. Mostly grey and brown fabric stitched together, Cato could even see that the edges had to be stitched inwards to avoid fraying but the quality was really bad. Or was it just his machine-made and dyed modern clothing having a tighter weave than any hand-powered weaver could make?

"Thank you," he nodded and received a wooden spoon and bowl of... something. The leafy vegetables and chunks of meat-like things floating in oily water was not what he thought of as soup.

Oh, it was quite good. The bits of meat were a bit chewy and... well, Cato had read somewhere than all meat tasted like chicken. He sat down and practically gulped the entire bowl down before noticing they were staring at him.

"Sorry, did I do something?" Cato asked warily.

"Oh no," the mother said, her tail swished back and forth distractingly. Was she nervous? "You're just not quite what we expected."

Well of course, he didn't have a tail. Perhaps humans here all had furry ears and bushy tails. "I'm not from around here."

"Are you from Inath?" the girl piped up, ears twitching, "You look like a human!"

The woman shushed her frantically, "I'm sorry, please don't mind her."

Cato shook his head, it was almost like they were frightened of him. "I don't mind. And yes, I'm human. Are you not human?" he couldn't keep a slightly incredulous tone out of his voice.

They looked at each other for a while then the girl's mother seemed to take the lead, "The humans are three days to the south. They call their country Inath."

Are they were afraid of humans? "I'm not from Inath, I don't know who they are."

The mother just looked confused. Then the tension was broken by the girl, "We don't know who you are either."

"I- I'm sorry, I'm Cato Lois," he bowed. Oops, he had just gone ahead and eaten without even introducing himself.

Breakfast went more jovially after that. He got to try a plate of oily flatbread that went very well with the minty cream sauce.

He nodded at the girl from this morning, "what's your name?"
"I'm Danine, mama's Irl. Say, where did you come from if not from Inath? Those clothes look like they might be from Inath."

Cato had to look away. Her eyes were glittering, actually glittering. How that worked he still hadn't figured out.

"I'm from Earth."

"Where's that?"

Cato thought for a while. Come to think of it, where was Earth in relation to all this? How did he get here? "I don't know. I'm... lost. I woke up in a forest nearby and I just walked until I got here."

Danine looked a little downcast at not getting an answer but immediately brightened up, "So, your turn."

Eh? They were taking turns asking questions? Cato asked the first one that came to mind, "I don't see any adult men. Where are they?"

"Papa went out to tend to the farms. I used to help as well but the monsters are getting more active lately and we aren't allowed out anymore."

Ah, that explained the wooden palisade. Monsters huh. "Was that thing I ran from last night a monster?"

Irld shook her head, "that was just a Reki. They're persistent but the more wild breeds tend to get tired easily. They're not that dangerous."

The mood turned sour instantly. Right as Cato was wondering what landmine he had stepped on, Danine put on a smile and half-dragged him out of his chair.

"Come on, let me show you around the village. The Elka towers are really cool!"

Cato looked back at Irld staring at the table but couldn't find anything to say.

"What was that about?" Cato asked.

"A Reki killed my younger brother last year," Danine said, "It's why I'm not allowed to go too far outside the walls now."

Oh. "I'm sorry for bringing that up."

Danine nodded and they continued walking in silence.

The village was cramped. The buildings were clumped into rows, with barely any space between each house. Almost everything was made of wood, only a few buildings were stone. Fire was strictly controlled, only the central cooking fire shared by all families was allowed. When Cato asked about winter heat, Danine didn't understand what winter was. Sigh, more evidence that this wasn't Earth, as if he needed any.

Three stone buildings were in the center of the village and towered almost four storeys tall. They were more unique in construction, a solid pillar of stone surrounded by a spiral of steps jutting outwards at intervals, supporting a small wooden house. Why it was built like that became clear enough later.
Those were the Elka towers Danine named. Most of the villagers he saw had the same furry ears and tail but his jaw dropped when a person with massive wings glided overhead to land on one of the towers. He would have found it very hard to believe that people could fly but with a wingspan of more than five meters supporting what looked like a child's body, Cato wasn't quite so sure anymore.

Even so, they either required a ridiculously long running start, for which there was the central street that ran straight from one entrance to the other, or they dived off a cliff. Hence why they had built their homes so high.

The winged people, of which there were only two families, were called the Elka. The tailed humans were called Fuka and both of them came under the term 'demihuman', meaning humans with monster or animal traits. How these demihumans came to be was a mystery, especially once Cato confirmed that humans and demihumans were unable to interbreed. So how? He didn't dare ask whether demihumans and animals could interbreed but he suspected the answer there was no as well.

In any case, the toilets were less stinky than he imagined, the broad leafy plants used in place of paper had some natural scent removal properties, so it wasn't unbearable. It still stank though.

"Oh hey, is that the weird human you picked up last night?"

A large man with the same furry ears laughed and clapped Danine on the shoulder as they walked past one of the rare stone buildings.

"Good morning, Toal, hard at work again today, hm?" she said dryly, eyeing the tiny fire in the forge.

"Heh, not much to do," the blacksmith said, "perhaps I'll just take it easy."

"Hey, Alison's shears still need repairing!" Danine frowned, "and what about those needles Mama wanted? Come on, get to work already."

Toal turned to Cato with a perfectly executed shrug, "Almost like my wife's still around."

"Toal, I'm sure she would be very sad to hear that's all you remember," Danine scowled, "surely not..."

"Of course not," he rubbed Danine's ears affectionately, "although if you grow any more beautiful, I might just have to ask for your hand. Hahaha!"

"Ew! No way! You're old enough to be my father," Danine smacked his hand away, "now stop teasing me and get back to work."

Cato remained silent throughout the exchange. It seemed that he had stumbled into quite a dangerous world. Come to think of it, despite how cramped the village buildings were, there wasn't quite enough people in the street to occupy everything.

Had there been some sort of war recently? That might explain their animosity to Inath.

Danine was busy wrestling Toal back into the workshop when another Elka came soaring over the village. He banged on the metal pot loudly, crying, "Monster! Run for your lives! It's a Tremor!!"
"Tremor!" "Aaaaa!" "Tremors!"

The village exploded into screams and cries as people rushed around in a panic. "What... what's going on?" Cato looking around. Calm down, panicking just because they were was not going to help.

Danine's face was white with fear and she gripped his wrist almost hard enough to break it. "We must find somewhere high and stay there! A Tremor attacks through the ground!" she said urgently before dragging him off. Toal followed them while glancing around urgently.

"Wait, what do you mean by attacks through the ground?" Cato wriggled his wrist in pain but she didn't let up.

"If you stay on the ground, you're dead! It drags you underground and those it eats are gone, we never find them again!" Danine scanned the village perimeter, "We're running to the walls! Follow me!"

"Hole at the road!" the Elka circling above the village cried out. Easy for him to say, Cato thought, a flying human wouldn't need to worry about this.

More screams and crying ensued as there was a general rush away from the gate facing the road. Children were crying and men and women shouted at each other, building into a clamour that seemed to rattle Cato's thoughts.

The three of them ran for the walls as fast as their legs could carry them. Then the entire gate buckled and creaked as it tore off its poor foundations. The straggling farmer scrabbled futilely as the ground itself began to sink into a deep hole almost six meters across.

"Help me!" he screamed in desperation. One woman shouted and struggled at the doorsteps of the nearby house but she was restrained by the others there.

Then he slipped over the edge and disappeared, a half-choked scream suddenly cutting off. Cato's imagined crunching sounds didn't come. Somehow the silence was worse.

Then he saw it. No, only its trail. A ripple in the ground as the surface was pushed upwards, as if some huge monster was travelling just below the surface. And it was heading right towards them.

Danine and Toal dashed forwards faster than Cato could have believed possible, dropping into a loping run on all fours. Danine reached the ladder first and practically ran to the top. Toal was not far behind.

Cato blocked out her cries as he ran faster than he had ever done. And not a moment too soon. The monster was almost on him when he took a flying leap onto the ladder. There was a sharp stab of pain from his ankle but he ignored it, clinging on for dear life.

The monster seemed to pause for a moment then shot off in another direction.

As Cato slowly and painfully untangled himself from the rungs, Danine helped to pull him up. Man, she was stronger than Cato expected, but if she could run like that then perhaps he shouldn't be
surprised. He giggled hysterically at the mundanity of that thought. They were all busy trying not to
die and he kept thinking that the Fuka girl was stronger than him.

There was cracking sound of wood and more screams as a house began to collapse, foundations
undermined by another hole. The people inside scattered in all directions, screaming and flailing
madly.

A young child among them tripped and fell onto the ground and could only lay there crying as she
watched another man right next to her falling into a hole that missed her by inches.

Most of the others had reached the dubious safety of houses but one woman was still on the ground
on the other side of the street. The monster shot towards her and suddenly stopped once the woman
ran through the open door.

"Run!" Danine screamed at the girl, but she had completely frozen in fear. She just stared at the hole
next to her, not reacting to the shouts from all around her.

Cato glanced around, heart still hammering from his exertion and panic, there was no trace of the
tremor. Where was it?

The gate, finally succumbing to its damage, twisted off its hinges and crashed into the hole beneath
it. Immediately, the trail started up again from where it last stopped, shooting straight towards the
gate.

Then it swerved around and shot off to the house nearby. The woman there was being wrestled
down by two men, still struggling to go to where her husband had died at the gate.

The two men gave up trying to hold her down and ran for their lives as the house began to fold up.
They made it to the house on the other side of the street but the tremor had eaten the woman and
made it halfway there before it stopped again.

Oh, so that was how it worked.

Cato sucked in a deep breath, and shouted at the top of his voice, "Stay there! Don't move!"

The contradictory message had Danine looking at him incredulously.

"Stay there! The tremor attacks movement!"

"Stay there!" Danine joined in.

The girl just shivered, not listening. At least she wasn't going to move.

The screams and cries echoing across the village began to subside into whimpering and sobs but no
one dared to move too much. The tremor was waiting down there.

Cato panted for breath and looked around. Wait, the Elka was still up there and he needed to tell the
farmers still outside to stand still.

He waved to the Elka and the winged human circled lower.

"Tell the farmers to stand still or find somewhere to sit down and not move! No matter what, don't
move!"

The Elka nodded and swooped away to convey his message.
The other Elka, the one who came back first, dived off the Elka towers and she took up his place circling in the sky.

That was a good messaging system they had, but it was a shame that the Elkas couldn't do anything. Arrows or even just stones might help against a more traditional enemy but the tremor was as untouchable to the Elkas as they were to it.

Cato looked around the platform behind the wooden wall and spotted an unlit torch. He threw it over the wall into the fields. Nothing happened. Damn, did it need to be heavier?

"What are you doing, boy?" Toal asked.

"I think if we throw something heavy, the tremor might go after it. If the Elkas can drop enough of them, we might lure the tremor out of the village."

Danine raised an eyebrow and Toal unhooked a hook-shaped tool from his belt. "Let's pry out one of these boards here and we'll try it. Stand back."

With a few expert twists, Toal managed to extract the nail, then together with Danine, they ripped the wooden plank out of the frame.

Toal lifted it up threw it outside the walls.

The tremor responded the instant the plank hit the ground, zooming towards it. The plank rolled to a halt and so did the tremor.

"Another one?" Toal asked.

Cato shook his head, "It'll take too long," he looked around again, "can we tie a rope to it? If we drag the plank along the outside of the wall, the tremor might chase it. That should be enough to get the girl to safety."

"Wait, wait! I got it!" Danine interrupted.

Kee turned and dropped a bit as he saw that tremor fall behind. No matter how fast the tremor could move, a flying Elka would easily outrun it. Even when he had to exert himself mightily to pull along that weight. He circled back one more time to let it catch up.

It took a few false starts and not a few broken strings, but they finally found a combination of smaller planks and thin rope that an Elka could lift while flying and yet attracted the tremor.

Luckily the thing had turned out to be quite stupid. Despite letting it almost catch the bait, the monster kept on blindly chasing and making futile holes. A bait supported from above was not going to drop into any hole, so all it got for it's trouble was a few stalks of wind eyes and an unfortunate grass racer.

As he approached the forest, Ka and Ri began to bang on their pans and boards. Some animal was startled by that and the tremor ignored the bait to zoom off into the trees.

With a sigh, Kee hauled up the bait and turned back to the village. Ka, the best spotter amongst them and his most-stuck up brother, was going to circle around for a while to watch if it came back out.
Hot food and a chance to fold his aching wings would be good, Kee thought, especially after watching so many people get eaten.

Cato sank down onto the platform as his legs gave way suddenly amid cries of relief. The Elka, Kee, had come back with the bait and given the signal for success. The tremor was gone! They were safe!

Wails and sobs permeated through the crowd as families assessed the damage to life and limb, but Cato was far too tired to deal with all that.

"That was a great idea, Danine," Toal said.

"Thank you, Cato gave it to me though," Danine nodded at him.

Cato waved aside her praise. It was really just all spur of the moment. And the final plan wasn't even thought up by him.

Even though the danger had passed, he didn't really feel like he had accomplished anything. Not with the families of casualties crying in the street or around the holes.

"I should go check up on my mother," Danine said and began to climb down the ladder.

Toal nodded and gestured for Cato to go after her.

He tried to get up and nearly toppled off the platform. A sharp pain from his ankle, where he smashed it against the ladder, stabbed upwards.

"Gh!" he clenched his teeth against the pain. Was it broken? The throbbing subsided to a low level, but he was dimly aware of the pain, now that he noticed it.

Danine looked up at him, "Are you all right?"

"His ankle's injured," Toal said for him. Cato tried to block off the pain mentally but it looked like he might be having trouble getting down that ladder.

"Oh, how are we going to get him down then?" Danine asked.

"Can she catch me, maybe? You guys are stronger than I thought."

Danine shook her head, "I'll probably break a leg if you do that. Our arms are stronger than humans but our bones are also lighter. We have to be careful about our strength."

Cato raised an eyebrow, that was interesting.

"Go fetch some rope, I'll lower him down," Toal said.

Later that morning, Danine's mother helped bandage his twisted ankle. Cato had had to lean on Danine to get back but after seeing how strong she was, he wasn't going to be embarrassed about leaning on a girl.

"Lucky you," Ird said, "I saw that tremor go after you from our window. I almost thought you were done for."

"Do you know who was taken yet?" Danine asked.

"Milland. And his wife. That I know about. There's two or three others I don't know but that's far less than a tremor took the last time," Irld tied off the bandage expertly, "Your father is safe. He got the message and sat on a rock until it left. Aeye told me on his way back."

A visible amount of tension lifted from Danine's shoulders but she didn't say anything.

"Who's going to take over the mill then? Their son is only six."

Irld shook her head, "His cousin, probably. She's grown up with him and must have learnt a thing or two. It'll be hard on her, unless she gets married quickly."

Cato fiddled with the bandage. The adrenaline rush was fading and the throbbing in his foot matched the thoughts that were trying to crowd into his head.

Monsters. Now he understood the melancholy that followed Irld around. Really understood it. Watching those people getting eaten in front of him was disturbing. He couldn't imagine his parents or sister dying like that. Toal was missing his wife, Danine her brother. And now a few more people had lost family members too.

Danine and Irld were talking as they cleaned a bundle of leaves, as if they couldn't hear the still audible wails from the outside. No, it wasn't that. They were just used to it. Were monsters that common? Could a person really get used to seeing people die around them?

And they even called that dog-creature 'not that dangerous'. What was wrong with this world?!

"What?" Danine looked at him, "Are you all right?"

Oops, he must have said that out loud. Cato shook his head, "I'm fine. Sorry."

"You look kind of pale. Are you sure?"

"Yes. " Cato nodded.

They continued to clean the vegetables in silence. The air thickened as the crying outside seemed to seep through the walls and open windows.

"Have you never seen anyone die before today?" Irld asked suddenly.

Cato shook his head. Well, one did not count watching movies as 'seeing people die' but he didn't think he would be able to explain the difference between fiction and reality here.

"What sort of country is Earth? Do you not have monsters there?" Danine asked.

"No. Not really. Not like this. I mean, we have things like tigers and sharks, but I've never heard of them kill more than a few people a year."

"Does the Earth army kill them? We used to have far less monster attacks before the Inath army retreated and left us here."

Cato shook his head again, "The army didn't kill them. We had rangers and sometimes the police to do it. Not even a rampaging bear is dangerous as this tremor."

"There are worse things than tremors," Irld commented flatly, "even tremors eventually eat their fill and leave. I remember, Danine, your grandfather used to talk of flights of night cryers wiping out
entire armies and villages."

"I've heard that story before," Danine said, "still, your country must have been a peaceful one. I wish I heard of it before, none of the Inaths had ever mentioned Earth."

"We're not even on the same planet. But it was safer, yes," Cato said.

"I want to see it. Once the monsters have gone away, will you show me?"

Cato scratched his head, unsure how to respond. "I'm not sure. I don't know where Earth is from here. And I don't think the monsters are going to go away either."

"Then tell me about it! What sort of food did you eat?"

Cato raised an eyebrow. Of all the things she could have asked, she wanted to know of food?

He talked of rice and bread. The description of chicken made Danine's mouth water visibly. Even Irld looked a bit hungry.

She continued to ask more questions and details and Cato continued to spin stories made of remembered news and daily life. It was amusing to see their reactions to the most inane things, like running water. Danine's tail kept twitching when he talked of skyscrapers. It made him think of cats and high places, maybe the Fuka were not as human as they appeared or acted. Somewhere in there, he forgot to be shocked at seeing people getting eaten by monsters.
Cato sat halfway up the steps of the Elka tower, watching the Fukas go about their business. His throbbing ankle did not relish the prospect of getting back down.

The village looked archaic. Like a medieval village out of the middle ages.

From three storeys up, it looked picturesque. It could pass for a tourist resort, with its unpainted wooden houses and simple clothing. If any of them went so far to be authentic as to eschew proper roads and crammed all the buildings inside a palisade with spikes of wood pointing outwards.

Down on the ground, the lack of running water and electricity made life uncomfortable for Cato. He was already feeling the heat and Irlid did not have enough water for him to waste it by showering, without hot water. The communal toilet pits at one edge of the village stank badly and weren't even segregated by sex.

Oh, to miss the conveniences of modern life. These people who lived like this all the time had no idea and would call him pampered beyond belief. But it still didn't change the fact that he was feeling hot, sweaty and unclean.

Surprisingly, he didn't miss his parents or his sister so much as the fact that he didn't have his computer. Or Internet. Cato wondered what kind of person that made him.

"Oh, you're that strange guy Danine brought in the other day," a voice made him look up, "I recognize that clothing."

The little girl looked down at him, peering over the edge of the steps from the platform above.

"Are you one of the Elkas? What's your name?" Cato asked. He couldn't see her wings from here.

"I'm Ri, the youngest of Ka."

She clambered over the edge and swung herself inwards around the edge. Her half-extended wings flapped once and she landed heavily on the steps above him.

Cato's hand was already halfway to her. To jump down like that? What if she fell off? No, they could fly, of course, she wouldn't be afraid of heights.

Ri stood up completely unruffled and performed a strange wriggle that folded her wings into a neat but extremely large stack. It reminded him of an elementary school student carrying an overloaded schoolbag. If schoolbags were made of fluffy white feathers and were larger than the kid herself. Indeed, from the way she leaned forward to walk towards him, she was clearly top-loaded.

"Are you all right? You didn't break a leg or something?" Cato asked worriedly. That landing was hard! He heard her feet slap into the stone with a sharp crack.

"Why would I?" Ri cocked a head curiously.

"Um... Normally people don't jump from their first floor to the ground. You could break bones that way." Cato had the sinking feeling that he was just going to get told off for lacking basic knowledge.

Ri just shrugged, "Here, put your hands out."
She got him to try lifting her from her feet, and Cato's eyes almost popped out when he saw her standing on his hands. She weighed only a few kilograms?! She was definitely heavier than that! Even her wings alone should be tens of kilograms!

"I can make myself lighter. It helps me fly," Ri said. She gradually got heavier and Cato let her step off.

"That's amazing! How do you do it?"

Ri shrugged again, "I don't know. I just... do it?"

Cato sighed. Oh well.

"Can you make yourself so light you just float into the air?" Cato asked after a moment. In retrospect, those wings didn't look big enough to fly with, so some sort of ability to help seemed obvious.

Ri frowned, "Maybe? But I wouldn't try it. Just flying already makes me too tired."

They sat in silence for a moment then Ri piped up.

"Have you seen my wings?" she asked brightly.

"May I?"

She grinned broadly and unfurled her right side past him and out into the air.

And it kept on going. The wingtip was almost four meters away and the wing itself was almost a meter in breadth before she stopped. The trailing edge of the feathers nearest her body were all the way down to her knees.

"It's not as big as Ka's," Ri complained and tried to stretch it out a bit, "I guess I'm still just a kid."

Despite her apparent complaints, the pride in her face was obvious. She watched him closely as he stared wide-eyed.

"It's beautiful," Cato said. The white-grey feathers were tiny and soft. Almost like a coat of downy fur.

"They must be really powerful, to be able to lift you," he wondered aloud, "they might even be able to knock me down!"

Ri shook her head, "Ka always said that we must take care of our wings. If I hit something, they could break and I'll never fly again."

Cato nodded, that made sense too. He reached out...

"Eee?" Ri flushed and jerked away as he brushed a hand over the feathers. Wait what? What did he do now?

She made that strange wriggle again and tucked away her wing before staring at him wide eyed.

"Sorry, was I not supposed to touch you?"

"Ah, ah," she backed away, face going completely red, "Grooming is for couples only!"

And with that, she half-ran, half-tumbled off the stairs to the street below. A few moments later, a
white pair of wings soared into the sky.

Oh, whew. At least he hadn't done their equivalent of groping her. Maybe it was more like trying to brush her hair. "Sorry, I didn't know!" he shouted uselessly.

Cato remembered that feeling of pure softness under his fingers, like a pillow of feathers.

Cato was about to make his way down the stairs when he saw a shadow covering the valley from one side. At first it looked like an unusually fast storm cloud but no cloud moved that fast. The world got darker and darker until the sun went out completely a few minutes later.

He looked up at the sky when it was dim enough to look and got yet another shock. The sun was being completely eclipsed by the giant red moon, plunging the land into a midday night! In fact, apart from the central cooking fire and Toal's forge, there was almost no other light source. The minutes of darkness seemed to quiet even the village as people spoke softer and moved more carefully in the darkness.

The stars were clearly visible and their radiance shone brightly, in defiance of the sun's corona around the giant red moon. In fact, there were a few large and bright ones visibly moving across the sky. One of the brightest crossed a weaker one while Cato stood on the stone stairs watching the clear night sky.

"Ah, there you are. Finally."

He was jerked out his reverie at Danine's voice. She sounded slightly out of breath.

"I... just wanted some time alone," Cato muttered.

"It's all right. What were you doing?"

Oh. "I never got a chance to ask about the moon," Cato pointed at the massive red orb the size of a fist, still hiding the sun, "do you have any idea what that is?"

Danine raised an eyebrow, "you don't know about Selna? The god of the moons lives there."

"And the eclipse? What do you call the sun?"

"OH! You came from the Farside!" Danine eyes were glittering again, "No wonder you don't seem to know anything."

What did she mean by Farside? And while it was true that he didn't know anything about this world, it also stung a bit.

"Mama always told me that the sun was the source of life. The elder also said that Selna is there to tell us where we are," she puffed up her chest proudly, "you see, Selna always stays in the same place. It has a different place in the sky depending on where you go. For example, in Inath, Selna is lower in the sky than here. And, every day, the Little Night happens as the sun crosses behind Selna. The time of the Little Night, tells you how close to the Farside you are. Very early and late Little Nights means you are closer to the Farside. Since our Little Night happens in late afternoon, we're quite far away."

Ha... that was the damnest thing Cato had ever heard. That was nothing at all like the little he knew of astronomy, but it had an internal consistency that made him feel like he was the one being
ridiculous.

"The Inath scholars might be able to tell you more about the lesser moons," Danine continued, pointing at the two bright dots Cato was watching earlier, "I can't ever remember how to identify which ones they are. And they say some people can use them to navigate on the Farside where you can't see Selna."

Cato looked back at the night sky, wondering how many moons there were. Apparently Danine thought the scholars didn't know either.

They watched the other tiny moons chase each other around the sky, some of them even seemed to go backwards at times.

The celestial dance came to an end a while later as the sun began to peek out from behind Selna again, chasing away the darkness for another few hours before nightfall.

"Come on, since you don't know anything, let me show you the piyos. They're really cute!" Danine bounded down the stairs two at a time.

Enough with that, he knew this was an unfamiliar world. Cato sighed and picked his way down more carefully. His twisted ankle protested every time he took a step.

He looked up one more time at the points of light chasing each other in the brightening sky. It was fascinating, in a detached way. When there were monsters to worry about, the stars somehow seemed less important.

He stepped carefully over the furry balls, trying to find a spot that wasn't about to be occupied by the fluffy animals.

This was just one of the handful of piyo pens in the village. Built on the second floor, with solid walls and doors to keep the furballs inside. According to Danine, the piyos didn't like high places and would stay away from the windows.

She picked one up and stroked it for a while until it began to purr gently.

"Here, it should be fine," she passed it to him with a grin.

Cato nodded and held the piyo with both hands. It squirmed and mewed until he worked out how to avoid crushing it. The long brown fur was amazingly cool, despite how hot he felt, it was even taking the heat away from his fingers. Was this how the piyos cooled off?

The coat also seemed to conceal four stubby but powerful legs, they were almost invisible under that fur. The long tail, as long as the piyo's body, had much shorter fur except a tennis ball sized bob of white fur at the end.

"The tail bob here tells you whether they're male or female," Danine explained, "white ones, like the one you're holding, are male. Browns are female. They eat almost anything, including grass and anything we eat, so feeding them is easy."

The ball twisted out of his grasp and scampered up his arm before Cato could react. Then it nestled down on his head, the white bob on the tail hanging just above his eyes. Come to think of it, most of the piyos were sleeping on the floor curled up with their tails, the smaller ones curled up against the brown-tailed mothers. Only the nearest few were investigating them curiously, sniffling at feet and
rubbing against his leg.

"Aw, it likes you. That's so cute!" Danine grinned.

Cato shook his head slowly. The piyo chirped in annoyance and jumped off his head to curl around his shoulders then ran down to the floor. "Sorry, did I disturb it?"

"Nah, it's all right. They're dumb. It won't remember that for more than a few minutes."

"Hm. Do you keep them as pets perhaps?" Cato asked. Their fur looked like it might be useful. In fact, the bed he woke up in was probably piyo fur.

Danine blinked at him for a while, "no? We eat them. They're delicious and the fur coat makes for good clothing. You had some in the soup this morning."

Hah. They were indeed delicious. But still... "Don't you find it a bit disturbing? That you're eating these exceedingly cute critters?"

Danine just stared at him, "Huh?"

"I mean, you called them cute, yes?"

She nodded and gathered up the disturbed piyo that was circling on the floor morosely. "Mhm, look at it!" she stroked it for a while to calm it down, "how can you not call it cute?"

"And you don't find anything wrong with eating them?" Cato asked again.

Danine cocked her head, "Uh? No?"

Ha... he could only sigh at that.
"You have to put yourself into the attack," the battlemage shouted, "gather your magic into your fist and make it hard."

Morey tried to focus and nodded. Magic! He couldn't quite believe that magic existed, and that he could use it!

The language thing was more miraculous though. None of the wizards understood how the ritual had overwritten Morey's understanding of English with Inath. It was frustrating, but at least it let him talk to the natives here. He would never have gotten a decent shower if they had had to resort to pantomiming. This world's sanitation was truly horrendous.

His excitement dampened considerably after fainting in his first attempt. The wizard said he never saw anyone manage to burn out on their first try but Morey still stung with the embarrassment at dinner later.

He felt the magic gathering into his fist and then hardened it. His skin immediately solidified and became as heavy as a hammer, as if his hand was encased in an iron block.

"Then hit the- my Queen! What are you doing here?"

"Relax Etani," Amarante said, "I'm just curious."

Morey bowed to the queen together with the battlemage. "I'm practicing magic under your knight's instructions. There's no way I can survive a journey to the Sword of Legend without learning how you fight."

"In just two days! Truly, you must be the Hero."

Morey looked down at his frozen hand and shrugged, "I still don't feel like one. Etani here could best me any day of the week in a fight."

How to use magic was similar to meditation, so there was some overlap there. Was that why he could pick it up so fast? Or was it because he was special in some way that the queen believed.

Morey was finding out that not everyone thought he was the Hero mentioned in Inath's legends. The queen's husband and general in charge of the war against the zombie hordes was one of those who thought Morey ought to earn his keep on the frontlines.

He swung his fist and it smashed through the wooden target without any feeling of pain. "I'll try my best," he said.

Two days later, the tremor came back. No one was eaten, word had gotten around that the tremor attacked movement. The Elkas lead it out of the village with the same trick. Another day later, the tremor attacked again. This time, a stray piyo hadn't been properly locked up on the second floor and the tremor demolished a house, killing three.

Cato sipped the piyo soup in silence. Danine's tail was drooping over the back of her chair. Three attacks in a row had drained everyone's energy.
"It's not working," Cato said, "while you avoid the tremor, somewhat, you can't keep doing this."

Danine sighed but said nothing.

"Is there a way to lead it out of the valley?" Cato asked.

Irld shook her head, "the Elka's can't bait it through a forest and we're surrounded on all sides. The only way out is using that road, and no one's used it since the Inaths retreated so it got overgrown."

Was there really no way to get rid of the tremor? "What about killing it? Has anyone done it before?" Cato asked.

"The Inath army can kill tremors quite easily. It hides underground, so normal weapons won't reach it. The Inath battlemages, however, can strike it with their magic."

Wait, magic?! Cato had never heard of any magic.

"Can anyone use magic here?" Cato asked. Even novices might be able to do something.

Danine shook her head, "the Inath never taught us. They don't trust anyone other than humans."

Darn. It implied that magic was not something innate, but could be taught. Much good it would do them if they didn't have any idea where to start.

Cato ate the last of the soup and hobbled over to the wash basin. "Then there is only one thing to do. We must study the tremor to find a weakness."

"What did you see?"

The girl shivered on her bed, dried streaks of tears on her face.

Cato tried again, more gently. "Please, I know it's painful. Your father was right next to you. But we need to know what you saw in that hole."

She whimpered again.

The girl's mother wrung her hands at the bedside, "she's been like that since the tremor came. She won't even eat. She loved her father greatly."

"It's ok, we're here," Danine knelt down next to the bed, stroking the girl's hair, "we'll make sure you're all right."

The girl shied away from Danine's hands, starting to cry again.

The mother hurried over and cradled her, "isn't this enough? Don't push her anymore."

"Madam, she was right next to the hole. She must have seen where her father went to. I believe it is crucial information," Cato pressed.

"For what? You can't even tell me what you want to know, why must you torment my daughter?"

"Because I want to kill that tremor," Cato gulped, "I need to know everything I can about it if I am to try."
"Are you a wizard then? No, you would not have run from the reki if you knew magic. You can't fight a tremor without magic, everyone knows that."

Cato shook his head, "Nevertheless. I will kill the monster. I have decided it."

Danine raised an eyebrow at him, Cato nodded back. There was no going back now.

The girl responded weakly, "You... can't do it. It's... not even... in this world..."

What? Cato asked, "What do you mean? Why are you so scared of it?"

"I saw nothing... just... a nothing... pure blackness. It swallowed father... it's going to swallow us all..." she burst into tears. No, not just tears, it was despair. "I felt it... it wanted to eat me..."

"It wanted to eat you? How did you know that?"

"I felt it! In here!" she stabbed a finger in her chest and doubled over coughing.

Her mother patted her back and glared at Cato, "please go. She has told you what you wanted."

Cato sighed and nodded in agreement. At the doorway, he turned around and asked one last question, "can I know her name?"

"Rein."

Blackness hm? A feeling of malice?

Cato stood over the hole at the gate. There was no blackness in it. And definitely no supernatural feelings of being eaten but then the tremor wasn't around now.

It was just a hole in the soil. A deep and broad one yes, but not so deep that the sunlight didn't reach to the bottom.

Danine helped slide him into the hole. His ankle was starting to hurt again but Cato ignored it. He would be fine.

"It's really just a hole," Danine commented as she slid down after him.

"Mhm," Cato said, feeling the floor. The soil on the bottom didn't feel any different from the top. The earthworms were already chewing through it to loosen the soil.

He looked around and tried to pry a pebble out of the sides. The pebble didn't come out.

What? Danine wandered over and grabbed the pebble and yanked it out in a shower of soil and sand.

Cato frowned. That was... strange. The soil around here wasn't that hard. He padded his way around the hole, touching and poking at the dirt, one large patch was slightly harder than the rest.

He looked up. Hm, interesting. The hard patch lined up with the furrow of ground that was the tremor's trail. It was thrust up, as if something had pushed it upwards. Cato had assumed that it was because of the tremor moving below it, but then the soil would be looser under the trail, not more compact.

Cato picked his way up the steep sides and squatted down to look at the trails. He had half a hunch
but a piece was still missing.

"What are you doing this time, boy?" Toal waved to him and walked up. "Geh, you're here too."

A claw-like hand latched itself over the side of the hole and Danine rose up from the edge. "Slacking off again? Have you finished making the gate hinges?"

"Um. I was just taking a break! They're almost done! I swear!"

Cato interrupted the one-sided argument, "excuse me, but Toal, do you have a spade or some tool for digging?"

"Huh?"

The soil under the houses were more sandy, having been sheltered from rain and plants for decades in some cases.

They stood outside the oldest house that had been attacked. The ruins were still being cleared away for a new house but the hole was already revealed. Two tracks lead to it, one when the tremor went there, and another when the tremor left.

"If I recall correctly, the tremor attacked the next building over there," Cato said, "so this is the trail it left going there."

He nodded at Danine and Toal, "we dig here. Straight down."

The three of them scraped and bashed at the hard soil of the road. The pushed up ground soon gave way. The Fukas clearing away the wreckage of the house looked and pointed at them but did not approach.

They dug a shallow hole when Toal's spade rang differently. The blade skittered over the suddenly hard soil and he had to lean on it to cut into the surface.

"Hmm," Cato looked into the hole they dug. The top layer, from the road, was soil. Packed down from years of walking, but still soil. Below it, was a highly compact mixture of soil and sand.

It looked like the soil from underneath the building but squeezed in between the normal soil.

So THAT was where all the soil from the hole was going to. Cato nodded. The tremor sucked up the soil to make a hole and dumped it when it moved.

But then how did the tremor move? It couldn't dig through the soil, or the trail would be even bigger and the soil would be cracked and disturbed. But the soil was perfectly packed down, so tightly that even the spades had trouble.

And what about the blackness Rein had seen at the bottom of the hole?

Cato had a feeling that he wasn't going to get all the answers he wanted. Still, from the size of the trail, the tremor should be about three meters across.

"Hey, what's this?"

Toal said as his spade hit something harder. The tip of the sharp grey spike broke off as the spade hit it and Cato picked it up.
The spike went further down and Toal began to gently but laboriously scrape around it.

The thing wasn't solid. There was a complicated not-quite-honeycomb hollowness, large bubbles of sand and dirt filled spaces. He had never seen any rock that looked like that.

Wait a minute...

"Um, that may not be a-" Too late. Toal had dug around the spike and was finding another shorter broken one next to it.

It was the bones of a forearm. And only a few days old too, the occasional bits of flesh and tendon stuck to it was starting to rot.

As Toal slowly dug up the skeletal arm, the onlookers whispered to each other, obviously in some distress. The bones stopped just below the shoulder.

"Any idea who it was?" Cato asked, brushing away some sand to look at the bones. Were those teeth marks? Did tremors bite?

Danine shook her head. Of course, there wasn't enough left for identification.

He poked at a squishy tendon. It looked a bit... digested. Strange.

Or actually not strange. Somehow, the tremor was eating them and this was what was left. Maybe it's stomach had teeth or the dirt and people it sucked up went into a mouth.

Still, he could work with that. If it ate people, and animals, then the tremor was a living thing like anything else. Somehow that was a little disappointing.

But, if it lived, it could be killed.

"How do you deal with the dead?" Cato asked, "Do you bury them?"

Danine said with a sigh, "the elder will know what to do."

Danine showed him through the door into the small house near the center of the village.

The inside was lined with jars and pots along every surface except the floor. There was a complex smell in the air, heavy with strange chemicals and solvents. Cato recognized what looked like a crude distillation apparatus over a cold fire circle in the center of the house.

"Tulore? Are you here?!" Danine raised her voice.

"My ears are still working," the middle-aged woman said as she walked out of the kitchen, drying her hands, "what do you want?"

Somehow, Cato had expected an old crone but no, the woman was only slightly older than Irlid.

"We found this under the tremor's trail. I think it's a arm of someone it ate. Is there any last rites you do?" Cato explained, holding out the bones wrapped with a rough sackcloth.

"Not for the taken. I will not have them curse this land. You should not have done that."

Nope, her style of talking was exactly like he imagined. Not all things were different. She moved the
apparatus off the fireplace.
"Done what?" Cato asked. What did he do this time?
"Do you not even understand? The monsters are too dangerous to trifle with. You do not know what sort of danger it might have been, or still might be," the woman took the bones from him and cast them into the circle.

Immediately, the pieces of wood there flared up into open flame.

"Pry no further and pray you have not done any harm. Wash your hands with this, burn the shovels and disturb the dead no more," Tulore pressed a handful of black powder into each of their hands.

"Why?" Cato asked.
"Anti-curse," Tulore said, as if that was any explanation.
"I don't understand."
"Of course not. Or you wouldn't have done it! Now go!"

She practically shoved them out the door and slammed it in their face. The Fukas outside started to wander away oh so innocently, as if they hadn't been listening with all ears not two seconds ago.

"You sure know how to rile her up. I never seen her get so angry even when Danine has one of her episodes- Gah!" Danine interrupted Toal by jabbing an elbow into his chest.

"I don't understand what she's saying. No, I do understand what she is saying but not why and what it means," Cato looked at Danine expectantly. Surely she knew?

Danine shook her head mutely and started walking down the street. Toal and Cato followed.

"Let me explain," Toal rubbed his chest, "Our Danine here has quite a reputation of troublemaking. The elder doesn't like her because she asks too many questions."

Ah, and clearly Cato had been asking too many questions.

"So you understand what Tulore was saying?" Cato asked.

Toal shook his head, "She's the elder, inherited from her mother. We just follow what she says."

Danine sniffed, "Doesn't stop her from explaining when she likes it."

Cato looked at the black powder in his hands. Better go wash. Just in case.

"So, what exactly does Tolure do?" Cato asked Irlid once he, thoroughly, washed his hands.

"She's the elder and you shouldn't call her by name," Irlid pinched Danine on the ear, "did Danine do that again?"

"Hey, I don't see what's the point!" Danine squirmed and pried her mother off.

"It's basic respect, Danine. I don't see why you find it so hard to understand."
"She's just an old woman, I bet half the stuff she says is just made up!- Owowow..."

"Forgive me," Irlid said to Cato, "this daughter of mine is a little unruly as you can see. Perhaps if you go back to apologize, without Danine mind, the elder might tell you a bit more."

Cato sighed, "it's all right. I'd rather hear it from you. The elder doesn't seem to like me."

"She never likes anyone," Danine complained as she rubbed her ears.

"The elder learnt the craft from her mother. She makes potions and dispels curses. The elder has always defended this village since ages ago, until the Inaths came with their stronger magic and took over, but they just ignored the line of the elders."

Magic huh. Well, with monsters and demihumans around, Cato had been half expecting something like that. No, actually, that was not a good reason. How did he know what magic was like? He didn't and shouldn't make assumptions.

"What sort of curses does the elder deal with? Perhaps an example?"

"The elders' knowledge is most famous for the death heat. Sometimes, we begin to sweat and our bodies are extremely hot to the touch. The elder gives us a potion, made from secret ingredients known only to the elder line, and it often goes away within a few days. Danine here was cursed too when she was younger, but you couldn't see that from her ingratitude. Without her, cursed children often die. Even the Inaths sometimes ask for potions."

Danine darted behind him to escape her mother's grasping hand. Cato frowned. Where did that sound familiar?

"You mean, it's a fever?"

"What's a fever?" Irlid asked.

Cato shook his head. It was impossible to explain if this was what he thought it was. The germ theory of disease was a bit out of Irlid's depth. Well, perhaps the elder might understand, if she was really growing antibiotics. Since Cato himself was alive and breathing, and able to eat this world's food, then their biology was probably somewhat familiar. He should investigate how different it could be but for a situation like this, he could afford to take a chance.

"It's all right, I'll ask her myself."

Tulore might not be too receptive to him now, but if she had medicine, she might have other things. And Cato had an idea regarding that.

"I'm sorry for the commotion earlier," Cato bowed slightly, wondering if that was how they expressed apology. He had forgotten to ask.

"What's that you have there?" Tulore sniffed the sweet scent wafting from the covered basket under his arm.

"Irlid told me to bring this with me, she baked some flatbread."

Tulore shook her head with a smile. She took the basket and bit into a flatbread immediately, "she knows me too well. Well, what do you want?"
Cato nodded. Tulore appeared much more at ease when Danine wasn't around. And that flatbread had noticeably improved her mood too. "I'm sorry for coming back with more questions. Toal told me you dislike them. But I must have my answers. No one else seems to study the tremor or is even thinking about how to kill it."

"Kill it?" Tulore raised an eyebrow, "You can't be serious."

"Why not? If you just lure it away like you're doing now, it will be a threat forever. Didn't you attack the Reki when it chased me here?"

"We can't kill tremors. You can't even attack them."

Cato paused for a moment. If he had guessed wrong, it might kill a few people. But everyone was just going about their business, taking the monster's attacks in stride. They were... broken, was the best word he could find. There was a look in their eyes, even in cheerful Danine's, that told him that they had given up on trying.

The pause gave him away.

"You have an idea?" Tulore said skeptically, "No one here can use magic like the Inaths. Mine is too subtle for bolts and fireballs."

And you probably don't use magic. Cato left that unsaid. "Sort of. The bones you burnt were digested and crunched as if they were chewed. I think the tremor eats people."

"I see, how does that help?"

"If the tremor eats people, it follows that the tremor is flesh and blood like you or me are. It's not a magical stone creature or an even stranger thing. If that's the case, it will be simple to poison it through it's food."

Tulore paused and put down the piece of flatbread slowly. "How sure are you of this?"

"Quite. Flatbread and piyo meat would serve no point if you were made of rock. The reverse is true as well. If it eats us, the tremor is made of the same stuff as we are. Since you are familiar with anti-curses, I was hoping you have some anti-rat powders. Where I came from, rat poison is extremely toxic."

"If you're referring to pests, I do have some. But this is highly irregular. Our stories say nothing about tremors being poisoned."

"How do the Inaths deal with tremors?" Cato asked.

"They shoot it with magic bolts. They shoot everything with magic bolts."

"Shooting magic must be easy for them, if they can shoot it at everything."

Tulore shook her head, "it's not that easy, it takes years of training to be able to use magic like that."

"So for the Inaths, they do have people who can use magic liberally. That might be why you never heard of anyone poisoning a tremor. It's just so much easier to get a wizard to zap it."

"Zap it," Tulore muttered, turning the word over in her mouth, "an interesting and fitting choice of words. Even so, there's nothing that says how we're going to poison it. Using the Elkas probably will not work easily, they fly too fast."
Cato grinned, "no worries. I have an idea which I'm quite sure will work."

After all, there was quite a similarity between the tremor and a certain fictional sand monster...
To Kill a Tremor

Almost like magic, everyone in the village had heard about the strange device Cato had asked Toal to build less than a day after Toal began work. For once, the lazy blacksmith didn't seem to be slacking off. He had built the wooden frame and rotating wheels in just a few days.

Cato wound the rope around the pulley to much spectacle and heaved. The contraption lifted up the heavy drum of water and Cato let it fall back down with a low thump that made the ground jump. That should do.

Inside the carefully marked circle roughly three meters across was the bait. Dozens of slaughtered piyos lay inside the markings, bright red and yellow ribbons marking them. The things were toxic enough that Tulore had refused to let anyone else touch them and had handled them with heavy cloth gloves which were later burnt.

Cato had asked for as much poison Tulore could come up with. No one knew how big the tremor was and therefore how much poison to use. Better safe than sorry.

The trap was laid out on a large rock just outside the gate, surrounded with dirt at Cato's request. No one had seen a tremor before but since it was about three meters across or less, then he was fairly sure it would be able to navigate a small artificial mound. Cato was determined to find out what it looked like when the tremor sucked up the soil around the rock.

During the building, the tremor had attacked once more. It was starting to be a bit wary of the bait now, the Elkas reported that it tended to wander off and they had to circle around for hours before it was finally safe to walk again. Cato might not get more than one or two shots at this.

"Bring this rope over to the wall and we'll wait for it. Toal, can you help me pull it?"

The man nodded, "Sure thing. I wouldn't miss the chance of being the first person to kill a tremor without magic."

Danine was already waiting there, with two other friends who nodded shyly at Cato. Toal winked at them and pulled on the rope, making sure his ample musculature was visible. Danine just rolled her eyes.

Thump. Thump. The barrel went up and down for an hour. Even Toal was getting tired of pulling the heavy rope. The only thing to alleviate the boredom was when the rope snapped on the barrel's end.

Finally, the third Elka on watch flew back over the village, "Tremor! It's coming!"

What seemed like half the village was on the walls by now, chatting and discussing the pulley. On hearing the cry, they quieted down to a deathly silence, all eyes on the water barrel.

Thump. The line in the soil headed straight towards the trap.

It circled the device warily, as if wondering at the strange vibration. The pattern certainly wasn't human like, Cato noted. Then it shot up the mound to attack.

The soil vanished, along with the piyos, in a ball of strange shadow. As if part of the light itself was
being sucked out of the world. The giant rock remained in the unnatural shade, standing solid against the aura of darkness.

Then they felt it. A sense of something coming from the darkness, like feeling the warmth of the sun but on a metaphysical level.

As quickly as that, the feeling and the darkness vanished, to leave only a clean white rock, free of soil and dirt, and a water drum sitting on top of it. Disappointingly, there was no sign of the tremor at all. He couldn't see it, but that didn't really matter, the tremor had taken the bait.

Cato held his breath. This was the moment of truth, when he found out whether his deductions had been correct. Everyone stood very still, leaving only the wooden buildings to creak in the wind. Many minutes passed with nothing happening. The Elkas circling above started to unfurl their bait but the elder held up a fist to hold them.

Then the tremor moved off the rock despite not having a target. But unlike before, it moved erratically, darting in one direction then another, almost at random. After another few moments, it started to go in circles, even its holes came faster and more shallowly. If he had to guess, Cato would have thought it was breathing faster.

Then with a small fountain of dirt, all movement stopped.

Cato let down another bait line over the wall and dragged it along for a few meters. No movement. Toal worked the pulley another few times, the somehow lighter barrel clanging on the rock.

Still nothing.

The more daring, or confident of Cato, Fukas made a few cautious steps towards the tremor, ready to bolt at the first sign of movement. But there was still nothing.

Was it really dead? The question murmured around and neither Tulore nor Cato could say for sure.

There was only one way to find out.

"We'll dig it up," Cato said, "only then will we know."

"Are you insane?" Danine asked, "your foot might be fine now, but not even we can outrun a tremor."

"Then I'll die and you guys can think of something else. But this was my idea, I'll take the risk," Cato clambered down the ladder with Toal's shovel.

He approached the disturbed ground with not as much bravado as he pretended to. What if the monster was still alive? What if it had decided to be cunning and wait for an ambush?

No, that didn't fit its past behaviour. The tremor was not an ambush predator.

A crunch next to him made him look up.

Toal was next to him, another spade biting into the loose soil.

"You won't be impressive to girls if you go all weak-kneed after that sort of talk, boy," the man said. His tail swished from left to right, clearly amused.

Did this muscle head think of anything other than impressing girls? Cato shook his head and joined the dig.
A few feet down and they hit the tremor. The hard spiky shell was buried inside densely packed soil, just like in its trail. An exoskeleton.

By that time, quite a number of Fukas, including Danine, had been convinced the tremor was dead and had all joined in the effort. They dug around it to reveal that it was a short tube just over two meters across. The roughly egg shaped shell did not appear to have any openings in the front, top or back. That was the first strange thing.

Cato used a shovel to pry open a gap in the shell and found the inside of the tremor was also packed with soil. Not just in the layers of the shell, but even within what looked like muscle fiber and tendons. There was soil everywhere.

He brushed aside some of the soil with the gloves Tulore handed out. In fact, the muscles were arranged strangely too. He would have expected it to connect to the shell, which at certain points it did, but there was far more muscle than Cato could account for. In fact, as they dismantled the tremor by the shovelful, it appeared as though the tremor was one solid block of flesh.

Without any mouth. And its digestive systems appeared to run haphazardly through the body, interspersed with organs and muscles dissolving from the digestive juices and splattered with misshapen piyos. An array of very large teeth was also embedded seemingly at random throughout the body.

There was nothing that looked like it could suck up soil and people. As well as generate that volume of unnatural shadow.

Cato sighed. There was no way he could answer this.

And did it really matter? The tremor was dead and the threat was over.

"What do we do with it now?" Cato asked, shedding the blood splattered pieces of clothing. He was careful not to let any part of it touch bare skin.

Toal tossed his set into the large hole where the wreckage of the tremor rested. Then followed it with the tainted spade and then finally his soiled gloves. "I say we burn the lot. Those in favour?"

Tulore held up her hand, followed by most of the Fukas. "We will mark this spot. Nothing is to be grown closer than ten paces to the dying ground. The poison remains and even the plants will be twisted and unhealthy. Eat not from this place, unless you wish death. I will give out some ash, wash yourselves thoroughly with it today before you eat."

Cato nodded. That was sound. Who knew how long the poisons of this world lasted. He was fairly sure now that the black ash powder Tulore had given him before was actually just a simple lye soap.

So many questions, and no one to answer them. Perhaps he should start writing them down.

Then another thought occurred to him. Did these people even know how to write?
Cato's Notes

Origin
How did I get here? Was that magic?

I don't think I'm speaking English. It doesn't sound like what I remember. Am I going crazy?

World
How big is this planet? Are we even on a planet?
Where is Inath in the local geography? They sound like the most powerful polity around here, or maybe these Fukas never heard of anyone else. I should look into getting to Inath, more information should be available there.

I never heard a name for the village from these Fukas. They just call it home. Is there a name? Maybe the Inaths name it, if the Fukas don't.
Economic trade between Inaths and Fukas?

What is that big red moon up there? Why is there a total eclipse every day? It's bigger in the sky than the sun!
The moon doesn't move and the eclipse happens at the same time every day. There must be some strange astronomy that explains this.

How can I understand these people? It makes no sense that everyone here seems to speak English.

Magic
Inath magic? How does it work? What can it do?
Mentioned effects: Magic bolts, fireball

Does Tulore have magic? Probably not. I think it's just chemistry.

Monsters
Where do they come from, how do they survive, what do they eat, how do they reproduce?
How many types of monsters are there and how does one survive / kill them?

Reki
What does Danine mean by wild breeds of Rekis? Are there domesticated breeds?
It looks like a giant dog thing. Maybe they originated from dogs?

Tremor
How does it move?
What is that black area when it eats? What is that feeling it generates and how? Rein said she felt malice and I did feel *something* but I wouldn't call it malice.
How does it suck up soil?
Why does it have such a weird body plan? No mouth? Why all the teeth inside it? Surely Tulore's poisons can't turn a monster inside out.
Why did that barrel have less water in it afterwards? Did the Tremor drink some?

Night Cryer
Irlid mentioned them. A 'flight' would imply that these things fly and come in groups. They also
sound dangerous, judging from how they can "wipe out a platoon of Inath warriors". The name suggests they hunt / attack at night?
What do they do? Why are they so scary?

**Plants & Animals**
A piyo is the primary domestic animal, so far the only I have seen. How did it evolve? What are its wild cousins?
I don't understand how the natives here can simultaneously love something for being so cute and still eat it.

I saw a rabbit the other day, I think. So some creatures are sufficiently earth-like that I can't tell the difference. So why all these extra ones?

Wind Eyes looks like some cross between corn and wheat. Similarly, how did it get domesticated and what was it before?
Same for Illon, which is alot like a leafy celery that tolerates drier soil.
I suppose the domestic plants will be different under different circumstances. Perhaps they just took a different path?

Grass and trees in general look the same as on Earth but I'm not a plant expert. I didn't see any ferns or vines, but perhaps I just haven't met any.

That glow around me when I woke up. What is that glow? Why did it disappear after a while or was it only that spot that has glowing species?

Fungi? I was given some button mushroom look-alikes to eat the other day too.

**People**

*Demihumans*
What is the origin of demihumans and how did they come to be?
Almost certainly not caused by human-animal interbreeding. Danine treated it as unthinkable. No such evidence for it? Or perhaps magic?

Fukas have fox-like ears and tail.
Do they have better hearing? Possibly.
What is the tail for? Balance?
They have stronger arms and legs than humans by their own claim. But also more fragile bones.
I've seen Danine's eyes glitter at times. Perhaps they are more like cat's eyes in that way?

Elkas have wings and look like children.
No baby Elkas in this village, but are they born with the wings? Looks difficult.
Wings looks extremely cumbersome and have more muscle than the rest of the body. Do the Elkas eat alot for their size?
How do the wings fold up when they land? They seem to be able to fold to nearly a tenth of the in-flight size. Seems like it's many-jointed and folds in some complicated way. I think the wings interleave but they can still unfold independently.
Even with five meter wingspans, I doubt that's enough to fly with that weight of the wing. Ri said they make themselves lighter when they fly, some sort of natural ability?
Are these demihumans a deliberate creation? If so, how were they created?
Or are they just an accident / quirk of nature here? Possibly due to exposure to magic?

**Technology**

Does Tulore actually know chemistry and biology? Enough to make poisons and antibiotics?
How does biology or even physics work when magic is apparently available?
She does have a crude metal still. From what I saw, it was overengineered for alcohol distillation.
Maybe she was taught some?
Why does Tulore speak so differently from Danine? She sounds a bit silly at times, but I can't ask about that.

The Fukas didn't seem to know what the pulleys were. All construction appears to be supported directly from pillars and made of light material like wood. Only Toal's smithy is stone.
The most complicated mechanism is the well. There's a basic pulley-like mechanism there.

Danine showed me some letters Tulore taught her when she was younger. Apparently literacy isn't something regarded as useful but it does exist at some level.
I wonder if they have mathematics? Basic sums and bookkeeping?

I assume Inath will be more sophisticated.
Morey walked down the stone hall towards the headquarters.

The hallway was not like the other parts of the castle, not festooned with images of historical figures or legends. It's sparse utilitarian stone and tiny arrow-slit windows made it shadowy but that did not prevent the soldiers watching him alertly. He could see the magic dancing around their swords and armour, as well as the stack of crystal shields piled behind a desk.

It looked all Serious Business. He couldn't imagine this man being Queen Amarante's husband. Vorril Ard-Estuk was her exact opposite.

"The General will see you now," the soldier said after checking the medallion around his neck.

Morey nodded and entered the office.

The large office's floor was taken up by a giant map from wall to wall of the entire lands of Inath. Or what used to be Inath, judging from the colours of the territories displayed. More than half of them were grey and most of the borders around the grey portions were red. The General was sitting near one of the borders on a light wooden chair muttering to himself.

"Ah, you are here." 

Vorril stood up and looked at Morey with flat grey eyes. The battle scars on the man's hard face, the tension even when he was relaxed here, even the wiry hard sinews on the man's arm. His appearance reached into the monkey hindbrain and pressed a button that said 'this man is more dangerous than you'.

"Etani, come in," Vorril said.

The battlemage that had been Morey's teacher entered through the door and bowed deeply. "I await your command," she recited, as if from a script.

"She's coming with me?" Morey said incredulously, "I was told that you would send companions but Etani's your second in command!"

Vorril grunted, "I agree. This whole Hero business is, frankly, bullshit. I wouldn't waste ten soldiers on a fool's quest to find the Sword of Legend. Much less you, who has the magical potential to be stronger than even Etani. I could use you, even just the status of a Hero, at the frontlines. But no, the Queen wanted it this way."

"For that matter, whatever my potential, the fact remains that any one of your soldiers can kick my arse," Morey added, "why don't you send them?"

"If I was going to stage such an expedition to find the Sword, if I believed that it would win the war, I would send an entire platoon with you, with the rest of the army ready to go to your aid," the General said, "but no, the Queen says it will lead our Enemy to the Sword. And so you will go with only a few trusted companions. Despite your misgivings, you're still going to go, aren't you?"

Morey just shrugged.

Vorril bared his teeth in a grin, "After all, what the Queen wants, the Queen gets."
"And I thank you for not making this a suicide mission," Morey bowed, just like Etani.

Vorril nodded, "Go with him, Etani. Pick three others you think will help. Make him a true warrior and return with the Sword. This I command you."

The woman bowed again, "I understand."

"And make sure you both come back alive. There'll still be a war to win afterwards."

None of them said anything about how hard it would be to find the Sword. For all they knew, it could harder than winning the war in the first place.

Oh, he was back!

Irl'd rushed to the door to take her husband's shears and soiled clothing. "I've drawn some water, let me help you."

Arbor rubbed her ears appreciatively. A sigh leaked out almost involuntarily, he knew all her favourite spots after all these years.

They sat together in the shower, the water he ladled onto his scarred body washing away the grime and sweat of a day's work on the fields.

"Danine showed Cato around today. They were talking to Toal about the well and using that pulley for buckets. Cato was talking about this thing called pumps too," Irl'd's mouth moved as she scrubbed the dirt out of the heavy fabrics.

"Eek!" Irl'd almost fell off the stool. A wet soggy tail wrapped around hers, gently tugging.

It was a wonder the water didn't steam off her face, that level of intimacy was rare from him. At least after that Reki attack had taken his voice and very nearly his life.

She sat there, savouring the feeling of her husband's tail and the sounds of water from the bucket.

What else was there to say? This was all that was left between them, just gestures and the gentle touches she had so loved. Still loved. He couldn't even sleep with her any more.

Irl'd could only enjoy what she had left. And if the monsters came back for more, then that was that.

She sighed and leaned against him, not caring if her clothes got wet. Dinner and washing could wait.

Tulore added a carefully measured weight of the white powder. Purifying the poisonous liquid emitting from the indigo mixed with caustic potash was a delicate operation performed in the precious condenser she had inherited from her mother.

One mistake here, even an error in timing, would ruin the resulting liquid, a precursor to the Elder's famous curse-breaker potion.

She ignored the knocking on her door. This required practice and concentration.

A few minutes later, the liquid was collected and she folded up the apron to answer the door.
"You again," she said.

The boy was back to ask his questions. Tulore understood that he wanted to help but what could he do? He knew nothing about farming or hunting, and Toal was far too lazy to take on an apprentice. Besides, the boy might not survive the rigors of blacksmithing. And Tulore had long since given up on trying to teach anyone.

Far better for him to stay under the excellent care of Irlid.

"Am I interrupting something?" he asked.

Yes, you are. "What are you trying to do? I have heard of your ideas for a pump, but we do not need that much water. If it even works," Tulore left her annoyance unsaid.

"Toal told me that your fields are dry and the wind eyes struggle to grow. It does sound like you need more water."

"And what's the point? We cannot travel far from home, our land is limited in this valley within the circle of cleared trees. Besides, there aren't enough of us to farm more land."

She considered Cato, sitting across the table from her. Wide-eyed and eager to help. Just like she was in her youth.

Cato sighed, "why would you not improve what you have?"

"Why would we have to?" Tulore shot back, "we have enough to eat, to let us live our lives."

"Surely more food will be a good thing to have?"

"How so?" Tulore said, "one can only eat so many meals a day. Besides, if we grow fat and lazy, we will become food ourselves for the monsters!"

Then, when she imagined that he had run out of excuses to find for his schemes, Cato sighed. "If you have more food, you can afford to have more people hunting the monsters instead of farming."

What. Was that what he was aiming at? A fresh welling of fury seemed to rise from her gut, "why? Are you going to ask others to sacrifice their lives? Who are you to tell us we should feed ourselves to the monsters!"

Cato blinked in surprise. Genuine surprise. It just made her angrier. "I don't understand. You do have a monster problem, yes? Just three nights ago, you repelled a pack of Rekis from the walls. Why do you not kill them? Send out men with spears and arrows to hunt them down."

The flashes from her memory, of the teams of men venturing out. Of her own father leading the last desperate attempt to kill the single Night Cryer that had been tormenting them. Of the village that had been crowded in her childhood.

Tulore closed her eyes, both outside and in her mind. She pointed at the door and said slowly, "Go. Speak no further of this- this travesty. We cannot fight the monsters."

He opened his mouth to speak but stopped when Tulore held out her hand. Wordlessly, he got up and left the room.

Tulore looked around at the empty house around her. So much lost. So much burden on herself as the next Elder. She could barely prepare the curse-breaker as well as her mother and the human boy
dared to speak of impossibilities as killing all the monsters nearby.

She took another flatbread, tough and tasteless when made by her own lesser skill. She would prepare no more today, not in this mood that was as likely to create a curse as break them.

Ka shivered on the ridgeline, wrapping himself tighter with the furcoat. The mist around him clung wetly and coldly.

He thought of Ri and her strange fascination with the human boy. She had not known the glory of Clan One, in the days when the Elka were still a tribe and not the single family remaining. Of the other tribes, of their enemies, the two-names, Ka knew not their fate.

Ri, his only and most precious daughter. He had told her nothing of their people. Of the fear their flights had struck into the Inaths when the metal-skinned had intruded into their rightful mountains. Of the loss of their ridge-side villages and the statues they had carved into the cliff sides to claim them for the god of wind.

She knew nothing and so was content with her flying, his own pale shadow of the lessons the greatest of their masters had passed on for the last time. For Ka was not like a Scout or a Winghunter who had mastered the dive and the turn. Ka was not the great flyer like his daughter innocently believed, for he had failed in the tribe's Test.

Even then, Ka was the best of their seven. Mi had broken wings, his wife's left side would forever be furled. Kee, his brother, had never even tried to Test, his body strength was a hindrance in the skies, with the weight of the muscles. His wife was too slow and his two sons had been born only five years ago and not yet grown into their wings. So it was Ka who sat here or flew around the valley, playing at being a Scout.

All that was lost. A time that was already gone. And now dependent on the landbound as they were, Ri would have to find her way among them without the hindrance of their past. The adults had all agreed that they would bury their past with them.

The mist began to clear as a strong wind curled around the ridge. Ka leaned over the edge, watching the land out of general principles. The Fukas had taken them in and fed them, Ka had to uphold his honour and perform as best as he could.

His eyes caught sight of something moving. This far up, he would only see large scale movement, especially under the forest towards the Farside where he had spotted that... there it was again. There was something large, or many smaller ones Ka supposed, moving under the trees. If it wasn't so regular, he might not have been able to spot it.

He narrowed his eyes, bringing the image larger and closer. Yes, there definitely was something there. He should go take a look, even if it was outside the valley.

Ka paused, for whatever unknown reason, before launching himself off the ridge. The hesitation saved his life.

The patterns concealed under the leaves made themselves clear when some of them moved through a gap in the forest. The human figures shuffling slowly, packed into a dense crowd, were not behaving like humans.

Zombies. The Enemy was here.
"Zombies!" "The Enemy has come." "We're all going to die."

Cato seemed to have heard something like that before. Only now the commotion and whispers that ran around the village were more muted. More people seemed to walk around with dead eyes, going about their business with a mechanical routine, not seeing him and pointing like they normally did.

And most worryingly, no preparation at all seemed to be forthcoming.

Unlike the tremor, the zombies moved slowly and Ka's daily tracking of them showed them almost a week away. And even during that time, apart from some patches to the gate, there was little added to the defences.

If he was more daring of comment, Cato would have said the villagers had simply given up.

"So tell me more about these zombies," Cato said, sitting on the cold anvil at Toal's forge.

Toal rammed in a nail and sighted down the wooden block. "Well, they're pretty tough and hard to kill, since they're dead already. We know that they used to be humans and some unknown curse animates their bodies. They attack in packs and even in entire armies at once, overrunning everything with a wave of dead bodies. Some say that if you are killed by a zombie, you inherit the curse and become one of them. 'Killed' zombies also come back, again and again, until you destroy the body completely. You'll see that most of them are in a pretty bad stage of rotting and damage."

Hm. That sounded pretty bad. Still, nothing like a zombie should actually be able to exist. How would it move without muscles? They would be rotting even as they walked.

Cato remembered a number of objections he had had to zombie movies, they were, by all physical accounts, impossible. And Cato hadn't spotted any physics violations yet, apples still fell to the ground, water and oil did not mix, et cetera.

So they were going to be attacked by a physically impossible army.

Still, the zombies clearly did exist here, never mind how impossible they were on Earth. Finding out how they worked might help.

Toal fixed the metal limbs to the crossbow and wound the string around it expertly, as if it was his tenth time instead of the first crossbow to exist. These people hadn't heard of winches and Toal had not been able to make one from Cato's descriptions. Which meant the only person who could load a crossbow was Toal himself with his brute strength. "Well, you'll get your answers pretty soon, much good that will do us. Of all the monsters, the zombies are the worst. Individually, they're weak but they come in massive swarms. Even you, armed with nothing more than a club, can off one yourself, they're slow and weak. But even the best armoured knight of Inath will be dragged down if they pile him from all sides. There's perhaps only a hundred in this bunch, we won't die to that. But if you see one zombie, you can be sure there's more on the way."

The problem was surviving the experience. All accounts he had sought were the same. Zombie attacks started weak but then rapidly grew to overwhelming numbers that made them feared more than even Night Cryers. Tulore's story of how an army of zombies scaled an Inath city wall by climbing each other's bodies was quite chilling to any enthusiastic ideas Cato might have had about
facing them in battle.

"So how do you kill them? You say I can 'off one' with nothing more than a club, how can that be when they don't eat, they don't bleed and likely not even breath?"

"You hit them hard enough, often enough and they drop down. Doesn't matter how, arrows, swords, a rock, anything will do. I've killed a few myself. The Inaths say though that they've killed the same zombies more than once, but no one can be sure."

Huh. They reanimated even when they were killed? That could be bad, but probably didn't matter right now.

The first zombies appeared right as expected. Ka had been tracking them daily and now they were here.

The dead shuffled up the old road and started running towards the village once they got close enough to make out. A group of running dead, with tattered clothing flapping over half rotted flesh. Some of them were still wearing bits of armour or had bits of arrows sticking out of them in odd places. Most were almost falling to pieces, missing an arm or head and sporting huge dried out wounds that bled not at all.

There was no battlecry from the enemy, no shouts or noise of war. Just the sound of a hundred decayed feet running over the ground and the flapping of clothing.

The Fukas on the walls began firing their bows, those hunters who had them. It took many arrows to down a zombie but the Fukas fired steadily and patiently.

And then the zombies were at the gate, pounding on it futilely against the freshly hewn stout trunks.

Cato heaved a heavy rock over the side, trying to hold his breath against the stench of rotting flesh. Not seeing if he hit anything, he bent down to grab the next rock piled up on the groaning platform.

Beside him, Toal and Danine's father, Arbor, were grunting at the exertion, pitching rocks like Cato.

It had less effect than Cato hoped. The zombies fell over when hit but most got up again. Even splitting a head didn't seem to stop them.

The zombies began to push the gates inwards, despite the heavy tree trunks barring the way. Amazing what concerted effort could do, but now was not the time to admire group work. Despite the shouts and desperate yells of the Fukas filling the air, Cato had the sense that they were going to win. There were simply not enough zombies.

They continued to throw rocks until there was none left to throw and then they exchanged turns with other Fukas who had been gathering rocks from the ground and roads.

More than half the zombies lay broken on the ground when the gate gave way suddenly, sending running zombies surging into the village... to impale themselves on stakes hammered into the ground facing the gate entrance. The front zombies struggled and continued to wriggle even as the fellow dead pushed them deeper onto the stakes to clamber over them in a mad rush to attack the Fukas.

The battle was very nearly over by then. The Fukas charged back with improvised spears and sharpened poles, as well as one slightly bent sword that Danine later explained used to belong to an Inath soldier. Cato and the people on the walls pitched pebbles and the smaller rocks, trying to avoid
hitting the living.

Without even caring that they were outnumbered and outclassed by the stronger Fukas, the zombies simply charged forwards en masse and were... stilled.

To the very end, not a single zombie had made any sound or given any recognition of anything. They had just madly charged and madly died. For what purpose, who could say?

Cato rubbed his arm muscles, feeling the raw fire in them.

Toal heaved the heavy crossbow onto his shoulder, freshly chipped where it had smashed bone. For once the ever-posing skirt chaser had nothing untoward to say.

"Not even a scratch," Toal commented, "no one died."

Cato looked around at the Fukas peeling the bodies off the stakes. They were carting the zombies out of the walls, where they would go into a mass grave. Cato had misgivings about the grave, but he couldn't very well bring up Earth stories of undead hands shooting out of graves to dig the owners free. Tulore had wanted at least a minimally respectful burial and the villagers listened to her, not him.

"It didn't seem as hard as I thought," Cato remarked, "as long as we're prepared." Cato already had some ideas.

"The zombies will be back, mark my words."

The very next day, Ka reported that he had spotted a group three times larger coming from the same direction.

"Where's Tulore?"

"She's not coming yet, my son nearly got his head bitten off when I sent him to get her," Tharoden explained.

"We don't need her here," Banage said, "we are on the Council and we can decide things without her."

"That would be disrespectful. The zombies are a week away, we have time," Tharoden fended him off patiently. It was an open secret that the fat man did not like the Elder but few would take it up with him and his large family.

"She may not even be coming," Banage rolled his eyes.

Tharoden could only sigh because it was true. Tulore did not take well to the Elder's responsibilities but her dedication to curse-breaking made her very influential in the village.

Tatit and Sulrod merely watched the familiar exchange, Questoress was picking at her nails, not even listening. Tharoden often opposed Banage and this sort of conversation must be familiar to them. The Elder had to appear not to take sides or risk splitting the village so it was up to Tharoden to suppress Banage's follies. No doubt of course, Banage thought the Elder was being foolish.

"We need to work together, now more than ever. And without the Elder, we have no one to lead us," Tharoden tried to explain, more for the benefit of the other four members of the village council and
the small crowd of onlookers. Banage wouldn't be moved of course.

"We are not children," Banage shot back, "we can at least discuss ideas, surely we don't need the Elder to hold our hands all the time."

"And you would leave out her wisdom? The legends have much to teach us."

Banage shrugged annoyingly, "The legends say nothing about the zombies. Besides, I seriously doubt the legends would say anything about how to defend ourselves."

Tharoden saw a young girl and that outsider human squeeze to the front of the watching crowd. Darn, why did that boy have to stick his nose into everything?

Banage's eyes did not miss the opportunity. Without waiting for Tharoden to reply, he waved to the boy, "here, we have someone who figured out the tremor and killed it! Surely you have some ideas to contribute."

"Eh? I only came because..." the girl whispered something in his ear and pushed him out of the crowd, "Eh?!"

Tharoden frowned, "don't presume to tell us what to do, human."

"No, no, I insist," Banage said, "I want to hear what he has to say."

There was a murmur of curiosity rippling through the crowd. The girl who picked him up was looking very proud of herself. Tharoden suppressed a snarl. The boy had killed a tremor, true, but even that should not give a human a place among the Fukas.

But they wanted to hear his ideas. And if ideas were mentioned, discussing and weighing them would be inevitable, whether the Elder was present or not.

"Come on, we were about to discuss ideas for defending the village," Banage tried to lead the boy, "You must have some ideas about how to improve our defenses. We could focus on arming ourselves better or improve the gate, maybe?"

The boy frowned at Banage's pushing but eventually asked, "How many people are willing to defend this village?"

"Everyone?" Banage replied, confused. For that matter, Tharoden was confused as well, of course everyone would defend the village. They would fight or the zombies would kill them all.

"Are your arrows limited? Why do more people not have bows?"

"Only our hunters have bows. But we have more than enough arrows," Banage replied more confidently. The conversation was definitely swinging his way.

"Then I would say we are going about this the wrong way," the boy looked around the crowd, "You do not kill the enemy by merely defending. The zombies don't care how difficult it is, or how many of them are killed. You cannot make the defence too costly, the enemy is fearless and far too many. The only way to win is to attack them. Take everyone with bows and everyone else who can use a ranged weapon, even if it's just a sling, and attack the zombies."

The murmurs grew loud as the entire council was stunned at his words. Tharoden clenched a fist, what a terrible plan. The boy simply had no idea what sacrifice his idea would demand. And he dared to make it sound so seductively simple.
"The zombies are slow. Any of you will run faster than they do and I doubt the zombies can climb trees. If the Elkas help spot and the zombies continue to be stupid like we saw, it will be perfectly safe," the boy explained further.

Banage was getting a glint in his eye when an authoritative voice cut through the crowd. "What travesty is this?!" the Elder stomped through, the crowd parting like water. "You again!" she shook a finger practically in the boy's face, "I told you that-

"Excuse me," Banage interrupted the Elder, sending a shock through the crowd, "I don't think he was finished. "

The boy shook his head instead, clearly knowing how futile it was. Tharoden clenched a fist behind his back, now that the Elder was here, they could go back to sensible ideas. Like deciding how much extra wall to build.

"Banage, shut up," the Elder said, "there will be no more talk of attacking the zombies. They are bad enough in wandering groups. If you provoke them, we will have an entire army in this valley to kill us all. "

"The human speaks true, Elder," Banage protested, "we can do it. "

"Enough Banage, I already decided. "

The boy spoke up, changing his tone in an effort to appear reasonable. Ha, like the Elder was going to fall for that. "Elder, I was told of what happened in your past. Of the Night Cryer. Are you not letting your past hinder your judgment? Please, consider my words. The zombies concern all of us. "

The little speech was met with complete silence at his impunity. Did he just criticize the Elder for being too hung up on her father?!

"Tharoden, please get him away from this place. I don't want to see him here," the Elder pointed a finger back towards the Arbor house.

That... might not be wise, for the Elder to appear to just silence opposition by force. But it was what she commanded and Tharoden nodded at his cousins, who grabbed the offending human and dragged him away over his pleas.

"Why do you fault him so?" Banage asked warily, "he is unaware of our customs and history. Surely you can forgive even-"

"Banage, you are coming close to offending me too," the Elder said, her voice drawn dangerously flat, "You are the head of one of the larger families here and if you feel that I am not required here, then perhaps my business lies elsewhere. "

"But-"

"This 'discussion' tires me. Tharoden, I will take my leave to prepare, please make sure something reasonable is decided. I have faith in your judgment," the Elder nodded curtly at him and left.

Tharoden stared open-mouthed at the Elder's retreating back. The Elder's faith in him was less gratifying than it would have been. The boy had cut her more deeply than Tharoden had realized and now they would have to go on without the Elder to guide them.

"We're just going fight over this. I don't see the point. " Banage said almost immediately and turned to go as well.
With a swish of his tail, Banage swept out of the meeting, leaving the remaining four standing around the central fire awkwardly.

With a heavy air and a voice that sounded too light even for his own ears, Tharoden spoke, "We should divide the work for improving the gate and making new spears to replace our losses-"

"I'm sorry, Tharoden," Questoress, who had been listening in silence finally spoke up, "with the Elder and Banage leaving, I don't think there's any point to this meeting."

She stayed for a moment, as if giving him pause, but Tharoden couldn't think of anything to say to her. With a nod, she turned around to go.

Meek little Tatit and the ever sullen Sulrod stayed for a few more minutes until Tharoden let them go with a round of vague platitudes. With the Elder and the two most influential after himself missing, it couldn't really be called a meeting any more.

"What do you mean leave?" Danine said angrily, "we can't just run away!"

"I don't see anyone doing anything to prepare for zombies! Do you want to die here? The bigger pack Ka spotted is only three days away and he thinks there's a truly massive wave behind that," Cato shot back, but it was probably futile. He turned to her mother sitting across the table, "Irl, please, will you not go? If you came, I'm sure Danine will come as well. It's the only way we're going to survive this."

"What sort of preparations are you thinking of?" Irl said gently. She had an air about her that Cato hadn't seen before, calm and passive.

"The zombies are vulnerable to anything that can kill us. You can dig pits around the walls. You can use dried grass and firewood as fire traps. Fortify the walls and gates with more logs. Anything! Sure, everyone's got a weapon now but we're just sitting and waiting for them!" Cato could almost pull out his hair in frustration. It was their lives the zombies were going to take away and they were just ignoring the threat. Much less attacking it as they should be. Cato had given up on that strategy.

Sure, the collapse of the meeting was probably catalyzed by Cato's mistake. But now the villagers were looking at him with both incredulity and contempt, as paradoxical a combination as it looked on their expression, they wouldn't listen to anything he might say. And with how badly that meeting had gone, they hadn't convened another despite the increasingly close zombie attack.

There was a knock on the door and Arbor got up to take it.

"Ah, you are here, I was afraid you would be out doing something," a familiar voice spoke up as the speaker entered the small kitchen.

"Banage!" Danine shot out of her seat.

The man's reddish tinged touched even his ears and tail, giving them a rusty brown look. Together with his middle aged look and slow words, it made the Fuka look quite proper for his position as leader of one of the bigger families.

"What are you doing here," Irl said stiffly.

Banage nodded, "now now, I was merely trying to have a talk with your guest. If you wish, we can take a walk."
The two of them looked at each other for a while and an understanding seemed to pass between them. Irld sighed, "fine, you can stay."

The exchange and Irld's animosity did not go unnoticed to Cato, but when he shot Danine a querying look, she just shrugged. No idea huh. Her father Arbor just stood at the entrance and watched them.

"I thank you," Banage bowed politely, "at my age, I much prefer to sit. Now, I'm sorry, Cato, but I couldn't help overhearing from outside. Are you really going to leave?"
"Leave? I was considering it," Cato replied warily. Who knew what this man wanted?

"Might you care to explain why?" Banage asked.

Danine's ears twitched but she said nothing.

"We may survive the next zombie attack but I doubt it will be as bloodless as the first. And it will not be the last, not with an army of zombies large enough that Ka can see them from the air," Cato said. Danine looked sadder, Cato had just proclaimed that he thought they were all going to die, but Irlde and Arbor stayed just as calm as ever.

Banage sighed, "It's good to find another person who thinks the same. I agree."

Cato closed his open mouth and thought quickly, "Uh, does that mean you're going to come with me when I go?"

"I would like to make a different proposal. Both of us wish to defend this village, I presume?" Cato nodded slowly, but what was Banage getting at?

Banage continued, "Tulore is too traditional to countenance new ideas like yours. But I'm not required to obey her. Let us discuss your ideas then, my clan is large enough to make them work even if no one else helps."

You could have heard a pin drop. Banage's grey eyebrows regarded Cato steadily despite the bombshell he had just dropped.

"Will they even listen to me?" Cato asked finally, "And how many people are we talking about?"

"I have three siblings who each have their own family, most of whom are by now grown. Perhaps as many as thirty will answer a call to arms if I give it. And do not underestimate yourself, the feat you pulled with the tremor was very inspiring. Outside of the close-minded circle of Tulore's, it is more highly regarded than you think."

Cato was glad that he was sitting down. That was far too sudden a change of circumstances. With thirty people, defences might be constructed and the zombies might be harried. If they all had bows, they might even be able to skirmish the zombies effectively!

"Don't believe him," Irlde said, "Banage, don't go against the Elder. No matter what you say, the Elder isn't someone you want to cross."

"But mama, he's going to help us! I also believe in Cato," Danine said. Cato raised an eyebrow and she nodded firmly back at him.

Banage smiled at her gently, "thank you. But your mother would not like that. Cato is free to make his own decisions without familial ties."

"Cato," Irlde addressed him seriously, "please listen to me. The Elder has lead our village for three generations. Everyone knows how hard Tulore has worked to master curse breaking. She knows more lore than any of us and we have never gone wrong listening to her."

And none of those were good reasons to continue listening. Cato refrained from pointing out. For
that matter, they hadn't done that well following Tulore.

"Without her, we would have fallen apart. Her mother kept us together when the Inaths ruled us and Tulore did the same when they left. This place, our traditions, are all that we have left. " Irld paused, "Banage's family is large, as he says, and there are not a few other families who have close ties to them. I fear that if Banage does this, it will split the village apart. And we will disappear like leaves in the wind."

The zombies will kill all of us, unless you think dying together is better than living separately. Cato also didn't say that. Tulore and now Irld seemed to be so misguided, surely no one could seriously believe those reasons?

But no, Danine was clearly wavering. Well of course, it was her mother making the arguments.

Banage sighed, "Come with me, meet my clan, Char. With your help, we can defend this village."

Cato thought about it for a moment longer then made his decision.

The torches on the walls filled the air with a choking smell of smoke, mixed with the breaths of nearly fifty people. The rustling of clothing and tails blurred together with the voices of men and women, talking quietly. Danine was standing off to one side, looking a bit nervous at all the people.

"Remember, while I support your ideas, not all of my clan are as forward as I would like it. They are eager to act but too many new things at once might scare them," Banage said to Cato, "Let me start and you add to it."

He nodded. That made sense.

Banage raised his voice to cover the entire courtyard where the clan was gathered, "No doubt all of you have already heard of the failure of the village meeting four days ago and its reasons. We know that the Elder refuses to act, that Tharoden blocks our suggestions from being heard, that there is no plan in place for the zombies. That ends today. Cato, the human who help us kill the tremor, is willing to help us with his ideas that Tulore and Tharoden wish us not to hear!"

Banage nodded at Cato. The clan were talking softly to each other. It sounded at least more hopeful than Cato had heard over the last week.

"The zombies are slower than you or I," Cato addressed the Fukas looking at him, "While they are still a day's walk away, near the valley's entrance, we should attack them to reduce their numbers. If the full force hits here, I doubt we will get by as lightly as we did before. If you are careful, you can do this with hopefully no casualties."

"Are you seriously proposing attacking the zombies?" a man near the front asked incredulously.

"Yes," Cato said simply.

The murmurs got louder.

The same man asked again, "how? Without the walls, the zombies will be free to kill us!"

"You don't have to stand and fight," Cato explained, "Only those with bows, with slings, or other ranged weapon can participate. You fire once, then retreat back towards the village."
"But we won't be able to shoot all that much. The zombies aren't that slow. What happens if they decide to charge us?"

"It's all right. The idea is not to kill them all but merely reduce their numbers," Cato said.

There were other reasons, of course. He knew precious little about the zombies and seeing them in the field would show their behaviour better. Why did they mindlessly attack? Were they guided by some intelligence or did they have behavioural patterns, like the tremor, that could be exploited?

He didn't say any of that however.

"For one thing, I agree," Banage stepped forwards into the center of the courtyard, "Tulore has avoided taking any action, so it is up to us to defend the village. All of you who have bows, I want you to help. The others should make arrows and reinforce the gate for when the zombies get here."

"What about Tharoden? Won't he disapprove?"

"That's perfectly acceptable," Banage smiled, "Not to worry, just leave those matters to me. Char will be greatly strengthened if we can do this."

Ryulo crept slowly through the underbrush. Where were the zombies? Ka had said that the movements had been around the mouth of the valley, almost a full day's walk away. They were getting close now and then Ka had said he lost track of the movements.

He whistled a clear high tune, like a song bird. An answering whistle came back. Still all clear.

He recalled the epic shouting match between Banage and Tharoden that had started when the ten hunters in the Char clan attempted to leave from the gate. Ryulo hadn't stuck around to hear what came of it. The last he knew was that Tulore was getting involved too.

He crept forward for another few minutes then the wind shifted and Ryulo froze. That smell was familiar.

Ryulo gave a warbling cry of the night sparrows and hoped that the zombies didn't know that it was the wrong time of the day.

More warbles sounded as the other hunters echoed his warning and Ryulo began to back away from the stench. Somewhere up above, Ka was circling, ready to pass messages if they could get to the top of the trees and use those flags that human had so cleverly thought of.

Where the boy had gotten those ideas from, Ryulo couldn't figure out. But with three hundred of the dead on their way, he would take any help he could get.

They would meet up to scout forwards more carefully.

"What are they doing?" Ryulo asked the woman on the other side of the tree, a distant cousin.

The woman who hadn't even introduced herself just shrugged, instead settling down into the nook of the trees expertly to watch the zombies.

Not that there was much to watch. Across the tiny clearing and not a few trees away, the zombies were mostly lying down on the ground. Completely motionless.
Not a single movement. Not a sound. Not even the twitching of limbs or the general fidgeting that living things did, humans or otherwise.

Ryulo tried to suppress the chilly feeling crawling over his skin. It was death, that was what it was.

It would be quite unmanly to simply run away screaming but that was what he felt like doing and Ryulo would not lie to himself. The zombies lying in neat little rows under the trees on the other side of the clearing were terrifying, as if the fear was digging under his skin no matter how he tried to push it away.

The woman on the other side seemed to be treating this as if it was a stroll through the woods.

Hm, now that he thought of it, her hair and tail were rather good looking. The damp fur was enticing... no no, now was not the time to get distracted.

"Watch them for a while, won't you?" she said and Ryulo ripped his eyes away guiltily.

Whatever for though? The zombies had not been doing anything for the last hour. Even the birdsong was starting again, although it was now two hours after the end of Little Night and thus beginning to get dark- The creak of a bow whipped his head around.

"What are you doing?!" he whispered urgently to the mad woman.

She ignored him and strung the bow deftly. Oh Selna, was she really going to shoot them? She definitely was!

He grabbed her arm as she drew an arrow, "um, I think that would be a really really BAD idea."

"We were told to harass them," the woman said, still keeping an eye on the zombies, "let me go and get ready to run. " Her voice left no misunderstandings that she was going to shoot them the moment he let go.

Ryulo glanced back to the zombies reflexively, in case they had been heard, but no, no movement. He couldn't be sitting here with one arm around the tree trunk holding onto her arrow arm for the rest of the day.

"All right, at least let me warn the others. " She nodded, the insane woman was actually serious about this. Ryulo glanced around to the two neighbouring groups, just about visible in the dense trees, and gave a pair of staccato cries of a Kak.

The cry of the hunter bird meant they were attacking.

With one trembling hand, Ryulo strung his bow and nocked an arrow as the returning single cries of acknowledgement to either side came back.

Kee, who had substituted Ka up in the sky, waited for the agreed on three minutes before giving the same sharp cries.

Then the arrows began to fly and all hell broke loose.

Ryulo practically flew through the forest, bounding from rock to tree back to soil.

There was no time to tell if their arrows had done anything. No time to do more than fire off two more hastily aimed shots before the zombies figured out where the attacks were coming from.
And then they had had to run. The zombie pack scrambled over the rocks and under gaps of fallen trees, like a surging mass of frenzied humans except for the complete silence in which they were doing it. The slapping of feet and crashing through bushes still made an unholy amount of noise but they did it without a single voice coming from them.

Triggered by some sign he wasn't even aware of, Ryulo spun around, drew and fired almost without thinking. The zombie, just about to jump off the fallen tree onto the woman, stumbled backwards and lost its footing. She jumped up from the ground where she had fallen.

"Don't fall behind!!" he gasped out as they resumed running.

"Do... I... look suicidal?" she said, hair whipping around her face as they raced through the forest.

She stumbled a short while later and Ryulo had to stop. The zombies were still thrashing around somewhere behind them but they had managed to break away. "What happened to you?" he asked.

She shook her head but Ryulo could tell she was just being stubborn. That wince of pain every time she put down her left foot was too obvious.

"Did you sprain your ankle?" he bent down and prodded it.

She jumped slightly and hissed at him but quickly looked away.

He sighed, "Can you keep up?"

The woman didn't answer, just looking at the ground. Her tail wound slowly her pained leg.

Darn. What could he do? Call the others? If they grouped up, they might stand a chance of driving off whatever zombies managed to get far enough ahead of the pack. Who knew where all the other pairs were though?

Ryulo breathed in and out a few times then took the deepest breath he ever had.

The traditional hunting call came out louder than he anticipated. The woman next to him would have jumped in shock if not for her leg. Even so, he had to catch her from falling over.

"Get moving, the zombies must have heard us," he said, holding her up by the arm.

"Right," she grimaced and started walking.

Ryulo ignored the grinding sound of her ankle bones. As much as it hurt her, he was determined to get both of them to safety and that meant they had to run.

"What happened? We agreed not to use the hunting call!" the last stragglers finally managed to join up.

Ryulo pointed at the woman back under the trees. The half-run they had taken away from the zombie pack had inflamed her ankle to a red swelling. They had to get her back to the Elder or she would be in serious trouble. Verrad had done all he could but the binding was clearly insufficient. She might even need a curse-breaker.

"Still, we are quite far away from the village," Ryulo said under his breath.

The rock he was standing on stood out from the rising slopes. The trees were getting sparser before
Ryulo had realized they were going in the wrong direction and by then the zombies had gotten between them and the village.

He had volunteered to expose himself to guide the others to their spot. Both of them had expected to attract the zombies as well, the woman had wanted to do it claiming that she was injured and therefore more dispensable. Ryulo overruled her by pointing out that she couldn't even stand up anymore without help.

It turned out to be moot, the zombies never followed them up. They still hadn't figured out why.

Coo, on third shift, circled above Ryulo's position, watching the zombies and signalling their direction. How useful that was going to remain was a mystery though. The sun was setting soon and if they didn't want to have to camp out, they were going to need to find some way to get around the zombies.

She waved the flags and Ryulo read them out slowly in his head. "Z move lost not see"

Hm. The movement had stopped again?
The walls of the village were manned and lit, Coo having given their last update before the sky had grown completely dark.

Ryulo couldn't even muster the cheer that was rising in his chest. Not when the torches wavered and danced in his blurry vision and his feet seemed to weigh as much as a house.

And he was in a good condition compared to the rest. How his partner had managed to keep going was beyond him. Her fortitude must be amazing, to withstand that much pain and still walk on her injured leg.

Somewhere inside the tired jumble of thoughts that was his brain, he thought he saw her looking at him more than once but Ryulo was far too tired to think about anything other than getting home.

The Fukas on the wall spotted them as they drew close and the Char clan came out to bring them back to safety and a much needed rest.

"And then, that was when I realized that the zombies had all gone back to sleep! So I lead the others in a wide circle around the zombies and hurried back as quickly as I could," Ryulo pointed out his route. It turned out that he was doing better by far than any of the others, and so he was going to be grilled for yesterday's events while everyone else slept in.

Cato nodded at the crude map drawn on the tabletop with that strange device he had. No one had seen any workmanship so finely done before, not even from Inath. And Cato hadn't explained what it was made of either. But there were more pressing concerns to be worrying about.

Ka and Ryulo had refined the map based on their experiences and moved the little markers for the zombie pack and the hunting party as Ryulo narrated the tale. Cato had demanded every little detail from him. Down to how the zombies slept like the dead and didn't speak at all. After talking for an hour and getting very little breakfast in, the tale was finally winding down. It was one of the most daring hunts ever, even if no one could know how much good they had done.

"One last question, how large a circle around the zombies did you go? I understand you kept some distance."

"About the length of the village. I didn't want to take chances."

Cato nodded and frowned to himself. Ryulo took the chance to gulp down his soup and bread in case 'last' meant something else in Cato speak.

"And did the zombies act any differently after you used the hunting call?"

Yup, no such thing as last questions. "No. Not that I recall. They still thrashed around like madmen."

"Yeah, that's good evidence that they're deaf. But just because they decided to go sleep when you stood exposed isn't good enough to say they're blind either," Cato tapped the device against the map.

Not that it hadn't happened a few times just now, but Cato's questions about the zombies seemed to
jump straight towards conclusions that on hindsight were supremely obvious. Ryulo didn't know what to think of that. Impressed maybe, but for all that, he still didn't have a clever plan like with the tremor.

"Ka, you have been tracking the zombies for some time now. How often did you see the zombies move and how often did they stop to 'sleep'?

"When they were under the trees, I can't be sure if they were stopping or if I had just lost track. When the zombies entered our fields, they stopped only once, for a few hours. I didn't think that was important."

Cato shook his head, "Perhaps. It appears they need to stop every few hours or even less if they were interrupted. But it doesn't make sense, I don't understand why undead zombies would need to have a rest!"

They stayed quiet for a while, trying to think of something. The zombies had been led off the path leading to the village and seemed to not have moved since yesterday night, so they still had two days.

A knock on the door interrupted their thinking.

"Excuse me," a young boy's voice called out, "she's awake now, Ryulo. You told me to come get you if that happened."

Ryulo apologized silently and left. The woman had been taken to Tulore, who frowned and said threatening words about their stupidity but still fixed her ankle and gave her a sleeping potion.

He didn't feel too guilty about leaving the Char clan meeting. His job was done and there was a woman he needed to see.

"I can't think of anything from what they found out, I don't know enough about the zombies," Cato said, "So tell me more. Do you know why they mindlessly attack? And how they decide to do that? We need to know our enemy before we can defeat them. Just like the tremor."

"We know they attack us on sight, but like you said, I'm not too sure whether they can see at all. As for what the zombies think, if they even think? Who knows?"

Hmm, no answers there huh? Well, it was too much to hope that these Fukas might know of an exploitable behaviour of the zombies that they somehow hadn't thought to exploit. "Do the zombies eat? What about drinking?"

Banage shook his head, "unfortunately, the poison trick isn't going to work again. They don't eat or drink."

Or at least not that you know of, Cato completed his thought. Hm, that was a thought. "Are the zombies like humans?" Cato asked, "their flesh I mean. How much like a human's flesh do they have?"

"You saw them yourself. They're dried and rotting. What do you have in mind?"

Well, there was no harm in ideas alone. "Fire. If they're dry, they might burn easily."

Banage looked at his siblings sitting at the map table and they shared an incomprehensible look. Cato sighed, "it probably won't work though. Getting the zombies to pack in close enough would be hard
to arrange. Perhaps there's something we can use in their mobbing behaviour."

Easier said than done though. Even if the zombies were blind and couldn't sense heat, they responded to attacks and seemed to cooperate with each other. That was almost halfway to intelligence, even though they still mobbed victims mindlessly. Cato couldn't put good confidence in the zombies throwing themselves into a fire to get at a bunch of Fukas on the other side.

"There is a way," Banage said finally, a grim smile on his face, "thank you Cato, I believe we know how to survive the next wave now."

Huh. Cato looked at the old slightly plump man skeptically, but he really did seem to believe that.

"How are you doing?" Ryulo asked.

"Fine. My leg hurts less now, but I don't think I should move it too much," the woman said, "I never got the chance to thank you."

"Heh, once we got back to the tender care of Tharoden, I don't think that you would have been able to shout an apology loud enough for me to hear it."

She giggled at the memory, "Yeah, they started right up when we got back. But still, thank you."

"Why though?" Ryulo shook his head, "I only did what was obvious."

"You could have left me when I fell. And..." she looked down at the sheets covering her still swollen leg, "you supported me when we had to run. You saved my life."

That was pretty embarrassing, to be honestly thanked for something Ryulo didn't think was all that special. "I thought you were the one with the courage. You were the only one brave enough to do what we went there to do, shoot the zombies. Here was I, practically wetting myself at the thought of the zombies, and you managed to keep running with a twisted ankle."

It was her turn to look at him incredulously, "What? I thought your firm look was..." she blushed, brushing her tail with one hand, "well... I actually just wanted to stop being a quivering mess and wanted to do something brave to show up the certain unflappable senior next to me. And look what it got me into. And afterwards, well, the thought of getting eaten by zombies makes pain seem rather less. I don't remember it being so much painful as terrifying."

They looked at each other for a moment. Ryulo decided right then that he liked this girl.

"I think, perhaps, that we might have thought the other was more brave than we really were," Ryulo said slowly, wondering if he was about to kill a potential friendship. But her tail was really too attractive to pass up, and the memory of her grim face bearing the pain of walking made his decision for him. "We could clear it up over a little breakfast," he asked, also wondering if she would understand.

Her eyes seemed to sparkle a little, "that sounds like a nice idea."

Ryulo nodded and went to go pack a flatbread basket. He stopped at the doorway, "you know, I never did get your name? Perhaps we ought to start with introductions." And to think he was going to try to romance a girl he didn't even know the name of.

"I'm Aleas."
He almost fell over in shock. And to think he was going to try to romance the granddaughter of the Char clan leader...

Tharoden stood in front of the gate, blocking the way, looking like a one man dam against the assembled Char clan.

There was much commotion then Banage floated to the top and immediately winced at the sight. The tales of yesterday's shouting matches had gone around and around the village and grew with the telling. Some of the younger kids now thought Tharoden could literally breathe fire and Banage's words could be used to chop trees.

"Your foolishness has gone on long enough, Banage. Put an end to this, now."

"At least we are acting, unlike you who wants us all to die here."

They stared daggers at each other for a moment then Tharoden, amazingly, looked away with a sigh. His gaze fell upon Cato, standing off to one side with Danine tagging along curiously.

"Was this your idea, boy?" he asked Cato flatly.

Banage watched the human shake his head. Not one for pretenses, hm? This was looking better and better at every step. Char clan would be remembered as the saviours of this village.

"I have no idea what Banage is trying to do," Cato said.

"Then," Tharoden turned back, "what are you doing, Banage?"

"This concerns Char clan," he snapped back, "remember that Char does not answer to you. Or to Tulore either. Get out of our way, we're saving this village."

He waved his clan forwards and the three carts laden with wooden spears and axes rumbled towards the gate. That stubborn man was still standing there, glaring at him and blocking the road. Fine, be that way. Banage growled, "out of my way, Tharoden, or we'll run you over."

His nephews pushing the lead cart glanced at him but Banage just nodded. Surely that man would not let himself get hit.

Tharoden dived to the side almost comically just before the cart hit him. Ha. If only he had stepped aside first, he wouldn't need to get his clothes dirty.

Just you wait, Tharoden, just you wait. We'll come back victorious and then the Fukas will be following me.

"What is he doing, boy," Tharoden dusted himself off, "you must tell me."

Cato shrugged. He truly didn't know, and to be honest, after that disastrous meeting of the village's Council, Cato wasn't well disposed towards the gruff older Fuka.

If Cato had to guess, it would be something to do with fire. The problem with torches was obvious, having to go face to face with a zombie horde. Fire arrows wouldn't necessarily work well. And besides Cato already knew and said that the zombies running through a forest wouldn't be a good target for burning anyway.
What, was Banage going to make his clan put torches on the ends of spears? That was probably as ridiculous as it sounded.

"Darn him," Tharoden cursed, looking upwards. Ka was rising into the sky, gaining height to follow Banage's progress. "He must have talked to the Elkas. I did not believe that he would talk to them without going through the Elder first. But it seems I have underestimated his lunacy."

They watched the Char clan move out towards the zombies in the forest and Cato wondered if he would ever see them again.
The sun rose higher into the sky, shining heat down into the valley. Even as Cato sweated and waited in the shade of houses for the zombies to strike or news of Banage, nothing happened.

It was paradoxical, how much waiting there was to be done. The zombies had only moved slowly in the forest since morning, and Banage had disappeared under the leafy canopy in a somewhat wrong direction. Cato still didn't know what the Fuka was doing, no matter how much Tharoden demanded answers of Cato.

And so, Cato was sitting on the porch of the main house of Char clan, sweating uncomfortably in the heat and somehow still nodding off anyway. After it was clear that Tharoden and Tulore weren't going to listen to him, and that Cato didn't know what they wanted to know, there wasn't much to talk about.

"And then after that immensely stupid act of courage, I found myself running from a frothing mass of zombies!" Ryulo was telling the tale of the chase again. Was he puffing his chest out? Cato smiled a little, perhaps it was Danine listening raptly with her tail shooting up in alarm or coiling in mirth as the story progressed.

Aleas poked him in the ribs, causing him to squirm in a most unmanly way. "Hey, don't you go forgetting your own immensely stupid act of courage showing yourself on the hillside."

"I haven't gotten to that part yet," Ryulo complained, rubbing his side. Danine snorted and grinned. "No matter, soon you will see the truth of my heroic actions."

"You know, are you sure you're not turning into Toal?" Cato asked, suppressing a yawn.

"What? No! Of course not!" Ryulo took Aleas's hand and kissed it gently, "With a cute maiden like her by my side, what man worth his tail could resist showing off?"

Oh gods, that was so corny... and Cato almost gaped as Aleas flushed cherry red and looked down bashfully. Seriously.

"I think-"

Danine cut off whatever she was going to say when a young Fuka kid ran up to the house.

"Ka just came back. The zombies are coming!"

Cato sat up straight, his sleepiness disappearing like mist under the hot sun. "What about Banage?"

The kid shook his head, "Ka said that Banage hasn't left the forest yet. He thinks they missed each other. Ka never saw anyone from Banage's group asking for directions."

Cato frowned, whatever was that man thinking? "Thank you," he said to the boy. There was nothing to do but hope that Banage realized it and could come back to the village on time. And that the defence effort of Tharoden would be enough.

The zombies crossing the open fields would take another day, he had better go see what he could do. Sharpen a few stakes maybe.
Toal and Cato watched the large group of zombies slowly walk towards them from the last hill. Banage was not visible from the walls, even though Ka had said he had spotted them leaving the forest a few hours ago, heading back towards the village.

Where the hell was Banage and what was he thinking? Cato scowled at the zombies.

Almost as if on cue, the zombies broke into a run, a tidal wave of black decaying bodies running through the grass. The slapping of hundreds of feet on soil and stones built into a thunder. Arrows flew out to meet the zombies. Like before, it wasn't enough.

Cato watched as only a few zombies fell down. Strange that they should topple over after only a few arrows, even if it took a handful per zombie. A human would be in serious trouble after just one but he expected the zombies to just ignore pain. And many of the zombies weren't even hit in the legs. For what reason would the zombies fall down and stop moving then?

Things got a bit too hectic for thinking once the zombies reached the gate. Almost immediately, the gate began to buckle, despite the Fukas' efforts to chuck stones at the zombies from above.

Cato looked up from picking up yet another rock and saw a few figures running down from the hill. Then a cart appeared and he made the connection. That was Banage! He was back! Perhaps they could distract the zombies from outside or even attack them...

His train of thought was interrupted with a giant crash. Like before, the gate crumpled inwards under the weight of the zombies, only now there was many more of them. They surged forwards, spilling through the gate onto the prepared spikes and defenses.

The Fukas wavered under the onslaught, there were simply too many zombies and they were getting overwhelmed by sheer weight of numbers as the zombies clambered over the stakes without heed for danger.

Tharoden was there, at the front and center. For all of his obstinacy, the man lacked no bravery. He calmly leveled a heavy spear and threw back zombie after zombie, an arm speared on the knife blade like a garish flag of war. The Fukas rallied around him, shouting their defiance at the zombies.

But for all his strength, he couldn't hold back the tide. Even as the zombies were cut down by the dozens, the Fukas were still being pushed back. The second ring of stakes made out of houses that used to be near the gate was being assaulted already.

A roar of voices from outside the gate drew Cato's attention. There was a whiff of smoke, of wood ash, and he saw the glint of red flames licking upwards from the carts. Banage's group had loaded up their carts with firewood and were charging towards the gate with the carts aflame!

"No! Stop! STOP!" Cato shouted, waving his arms and trying to get their attention, but it was no use. Banage was there, his white beard whipping around as he shouted at his clan members.

The carts were fully ablaze when they crashed into the zombies. The zombies whose dried dead flesh was quite flammable. The zombies who had been packed like sardines, trying to squeeze through the gate and the ring of defenses.

Cato spun around on the ground, trying to figure out where he was. The choking black smoke of burning zombies and the screams of Fukas did not help.

The zombies had caught fire and it hadn't even slowed them down. While Cato certainly couldn't
have predicted that, it didn't change the fact that the Fukas were now facing a horde of zombies charging at them while on fire.

The gate hadn't lasted long after that and the line of Fukas simply broke in panic. And then the zombies were spilling through the gaps into the village.

A strong grip grabbed Cato's arm. Oh, it was just Toal. He gulped at the grim faced blacksmith, trying to settle down after that shock.

"This way, my forge is nearby and I have a few things there. We'll go to Danine and Irld to get them out of here," Toal said.

Cato nodded mutely.

He caught sight of Tharoden, still standing in the center of the main road, shouting at the knot of Fukas near him. They were still holding back most of the zombies, despite the flames and choking fumes.

Cato adjusted his estimation of the older Fuka upwards dramatically. They were buying the rest of them time... to do what? Some of the buildings were already catching fire and Cato could foresee the disaster coming with all the wooden buildings packed close in the village.

Toal dived into his forge and came out carrying a small bag of metal tools, a large cloth sling, and a large crossbow over his shoulder. Then he lead the way to Danine's house.

"What are we going to do?" Cato asked.

"Leaving," Toal replied simply.

Orange flames seemed to flicker around every corner, Cato could see the embers drifting upwards from the conflagration burning down the village, landing on fresh houses to spark new fires. Leaving sounded like an eminently wise idea now. Why hadn't Cato left when the Fukas appeared to not know what they were doing? Which turned out to be true.

They found Arbor already packing some food from their small storage.

"Where's Danine?" Cato asked.

Arbor pointed further down the road. There was a small crowd of women and children trying to move out of the back gate. Good, they were going to be safe, hopefully.

"You have more grain than you can carry, let us help save more of it," Toal said, indicating the small pile of sacks on the floor.

Arbor nodded and they grabbed a sack each before the three of them joined the fleeing Fukas.

Ka stood at steps in front of the entrance of his house, trying not to cough and cry at the same time. The stone platform was high enough to see the entire village and most of it was on fire.

The wind had shifted and the smoke was now blowing away from him. It didn't stop the tears flowing down his face. The zombies were still running around down there, even if most of them had crumbled to ashes.

Amazingly, a small group of Fukas remained, despite their dead lying strewn around them amongst
the zombies. Grouped around the bottom of his tower, they were defending the lower steps as they retreated up the tower. The forest of waving spears pushed the zombies off the tower and back down the steps.

If they fell to the zombies, then Kee would fly away, carrying his children, and Ri would follow them.

Ka would stay here with Mii. Ri would understand one day, when she found a pairbond. If she even found a non-relative.

There was a clatter of wood on stone as the Fukas retreated up to the platform. There were so few left, only nine. Ka nodded grimly at Tharoden, the man's left arm dripping blood from a deep gouge and half his tail singed black. The Fuka nodded back, eyes still flaming with anger.

"We hold here," the man said to those who still remained with him, "There is no where left."

"Let me help," a high voice said shakily.

Ka gulped. "Mii, it's dangerous. The zombies will be here any time now."

"If the zombies get you, they'll get me too. I may as well help."

She looked at him steadily. Ka was about to open his mouth when Tharoden reached down and corrected her grip on her short spear.

"Hold it like this, or you'll break your thumb," the man grunted.

Mii gazed upwards and nodded.

A zombie running ahead of the pack ran into the line of Fukas. It was smouldering and charred but at least not on fire. Tharoden gave it a shove with his leg and it went flying off the edge of the platform.

And then there was another and another and it seemed like the world consisted of dodging burning claw-like hands and trying to find an opening to jab his spear through. Ka cut the hamstrings of a zombie to no effect, then a Fuka fell backwards onto him and they went down in a tangled mess.

They were getting pushed back again. Even if the zombies that had followed them up were not many, most of the zombies were on fire. And everyone was tired.

Except Mii.

Tharoden struggled against four zombies scrabbling at him, trying to fend off their grasping hands. He was still holding his position, accumulating scratches and wounds but not budging an inch.

Then Mii screamed as a zombie dragged Ka out from under the Fuka. He struggled and yelled, the fire was burning his clothing and it was trying to tear out his eyes-

Like a massive white blanket, a large wing batted it over the head. The zombie staggered back and Mii drove her wing down again.

Ka rolled clear and stabbed his spear down at the zombie's foot, feeling the wood crunch on the bone. Then her wing came down a third time, slamming it downwards into the ground. Ka shoved on the spear, hard, and the zombie toppled over.

He looked up to see Mii holding tightly onto the stone floor, her wings unfurled high over them. Her left wing was bent at a painful angle, Ka winced as he saw her screaming in pain.
It didn’t stop her from whacking zombie after zombie over the edge. Her wings trapped bits of burning zombies, charring and smoking, but still she tried and the zombies got pushed back with every stroke.

Tharoden roared, crouching to dodge Mii's wings. Another Fuka ran over and charged at the four zombies facing him. Then Tharoden surged to his feet and drove his spear clean through the front zombie, before slashing it open with the blade at the tip. It collapsed messily. Tharoden and the Fuka charged the remaining three and drove them off the platform.

And then suddenly, there were no more zombies. Only four Fukas were left standing, not including Tharoden. Mii lay on the ground, sobbing in pain, her wings broken in more ways than Ka could count and bleeding from a dozen wounds.

Tharoden knelt next to a wounded Fuka, trying to stem the bleeding from tears and gouges wherever the zombies could reach.

Ka stumbled over to his wife, tears running down his face. There was nothing he could say, nothing he could do. Using his wings as a weapon was not something he could have thought of, not with the price it meant.

Behind Ka, the wounded Fuka under Tharoden’s hands drew his last breath, blood bubbling out of his mouth.
Better Part of Valour

Tulore tightened the bandage and ignored the whimpering. She nodded and the man's friends let him go.

"He may live the night. If he does, his chances are good," she said woodenly.

The cries and despairing nods turned her away. She did not give the man good chances, not with the strength he had lost already.

She moved on to the next person lying on the ground.

The small Fuka boy, not even ten years old, coughed wetly and a red-black blob of dried blood and mucus dribbled out of his mouth. Tulore pushed aside the parents, she should have gotten to him earlier, but there was no way to look over all the injured and tell who needed help most.

"Save my-" Tulore tuned out the sounds coming from the boy's parents and kneeled down next to him.

He had had too much bad air, Tulore could tell from the way his body was trying to cough it up. She thumped him once in the back, hard, and listened to his rasping breath. It gurgled wetly in his body.

A miracle it would take, one she didn't have for him. The little packet of white powder nearly tumbled out of her fingers but Tulore managed to catch it before it spilled. Lucky boy, she had only three more in her bag.

She shook her head at the sounds and wordlessly handed the parents the bright red packet. It would be up to them to use it if they wanted to.

Tulore got up and someone caught her arm as she almost fell over.

That human boy was there beside her, concern evident on his face. She shrugged him off and walked to the next Fuka lying in the grass nearby, not feeling the clutching fingers of the parents she was leaving behind.

This one was almost as bad but, Tulore looked up at the rows of injured and dying people, she thought it might be possible. The burns across the arms and legs would be impossible to treat if the zombies' curse spread to them, but she could try. She had at least managed to save most of her stock of curse-breakers and the recipe book. Much good that would do her without her tools.

The silence of indifference wrapping around her was like a comforting blanket that the human boy just would not stop poking holes in. What part of 'I don't want to hear anything' did he not understand?

She shook him off again and finally, after the sixth time, he got the message and wandered off somewhere else.

Tulore bent over the next woman, most of her tail missing.

"What do we do?"

The Fukas hanging around Banage were looking a bit lost without their leader, Cato thought.
Banage just sat on the edge of his cart, staring at the dying fires of the village.

Perhaps he would have better luck with this guy.

"Banage," Cato said. The old man glanced at him but went back to staring at the village.

"Banage," he repeated, "we have to leave. You must lead the Fukas out of this valley before the zombies arrive again, there is no wall and if you stay, you will all die. Tulore is too busy and she..." Cato trailed off, he felt it was wrong to say it but he did feel that something had broken inside the Elder.

The sight of her dead uncaring eyes as she worked feverishly on those she could save, and condemned those she couldn't, was unsettling.

But based on what he remembered of the map and how fast the zombies moved, the huge group Ka had spotted earlier would be at the mouth of the valley in two days and if they didn't all get moving now, they would have to scale the mountains to the sides or risk being trapped inside the valley. Based on what happened after the zombies caught fire, Cato knew very well what would happen if the Fukas had to fight the zombies outside of a prepared killing ground.

It would not be an exaggeration to say that they had to leave the valley or die.

And so, even if the Fukas had lost their home and belongings, he had to get them moving. If the Elder wouldn't do it, Banage was the next option. Tharoden hadn't come out of the burning village.

"Tell me," Banage said suddenly, "Was that my fault?"

If you had thought about the consequences of setting the zombies on fire inside the village, you wouldn't have done that. "No. It was a good try, the zombies wouldn't have been concentrated enough in any other place. No one could predict that the zombies don't care if they're on fire."

It was a terribly high cost for a lesson in testing pet theories before putting them to use. One that Cato would have to remember.

"Thank you, but I can tell that's not what you think," Banage smiled grimly. He raised a hand to reassure his clan members, who were looking worried. "We have to leave, you say? When?"

"As soon as possible," Cato replied instantly.

"So be it. Perhaps I should have sought your advice more instead of seeking glory," Banage paused, "but even now my blood boils with anger and I find I still wish to lead."

The Fuka unfolded from the edge of the cart painfully and slowly, like a wounded beast struggling to stay alive. "All who are strong enough will return to the village to salvage what we can before we leave. Go in groups of ten, go with any others who are strong enough, and destroy any zombies still moving. If anyone is still alive, save them. We leave when the Little Night starts."

The smoke haze hung in the sky, a pallor on the world that shaded everything into a grey dim land.

Tharoden picked his way gingerly down the Elka tower, feeling a little lightheaded from his wounds. He'd live though, unlike two others who might not for much longer.

He was examining the bodies looking for survivors when another Fuka popped out of the burnt out
alley far down the road.

The Char clan person pointed at him and shouted something, then the rest of the group crept out cautiously.

Tharoden looked at the group of Char clan hunters, wondering what mischief they were up to now. But he was too tired to get his anger up, even if this entire disaster was their fault.

What did it matter after all? Even if he bit their heads off literally, it wouldn't bring the village back.

The group of ten approached him slowly, pausing to check bodies and burned houses along the way. They even went into one burned out husk to take a pile of grain that had survived, the thieving bastards-

Sigh, no point in getting angry. After burning down the village, Banage apparently was stooping to looting. And Tharoden was sure he was going to get away with it.

He sat down at the base of the Elka towers and waited for them to arrive. Perhaps he was about to suffer an 'accident' now.

"Tharoden?!!" The leader of the group exclaimed as they entered the village cooking area right across from the Elka towers.

"Oh, it's you," Tharoden muttered. It was that scout who had reported in... what was his name again? Ryulo?

Ryulo put away the arrow he had kept nocked to his bow. "Oh wow, you're still alive?" he asked redundantly, looking around at the crowd of bodies around the tower base. The place of Tharoden's not-so-doomed last stand, the place where so many of his cousins and the loyal supporters of the Elder had fallen. So very many of them.

"I'm not the only one," Tharoden sighed. He still had people to protect and Ryulo could probably be trusted to do the right thing, whatever Banage had told him to do. "Eight others and the Elkas are at the top of the tower. Mii broke her wings even more and can't be moved. Seven injured total, three very seriously. Is Tulore with you?"

Ryulo shook his head, "She's... busy."

Well, of course.

Ryulo helped Tharoden to get up, and eyed him as Tharoden swayed a little. Oof, perhaps he had done a bit too much bleeding. "I'll make that eight injured."

Without waiting for his reply, the young hunter took a deep breath then pulled down the cloth wrapped around his mouth to yell out a hunter's call. It was echoed twice from different places of the village.

"We have a way to get Mii down. It was my idea too," Ryulo said while the other groups started to converge.

Tharoden did his best to look curious and the younger man started to explain the pulley system that the human boy had wanted to introduce at the well. They had originally meant to use it to move fallen walls in case anyone had been trapped but Cato had explained the principles to Ryulo just in case they needed to use it for something else.
In this case, the something else was to lower Mii down the tower with a makeshift cloth stretcher. They might have only just enough rope and might need twenty men to hold up both ends of the pulley structure, but it would be possible. Probably.

Cato had also took Ryulo aside and specially told him to make sure the Elkas were safe. For what, the boy hadn't explained.

Tharoden sighed again. That meddlesome little brat. Him and his ideas had already caused all this destruction and... oh, what was the point. They had nothing left to destroy.

"And where would we go?" Tharoden crossed his arms defensively, his eyes glittering in the torchlight.

There was no question in the meeting that all the Fukas would remain together, stay or go.

"I have heard of Inath many times, I think Inath was said to be three days to the south?" Cato asked.

"We haven't had contact for over two years. Who knows where they are now?"

"People don't migrate that fast," Cato shook his head.

Banage pointed down at the ground, "if we go south and follow the old roads, we will find Inath. That way lies our hope."

Cato had scratched out a much larger scale map in the dirt, following Ka's and Banage's inputs. Light from the torches once the Little Night started, it was just large enough to make out the approximate route.

The information they had outside of the valley was very limited but Ka thought that the roads might follow the edge of the sea further down towards the southern mountain range. It was a rough trail to have to drag children and injured Fukas through, the more seriously injured might not survive the trip. But Cato was certain that they would not survive if they stayed and the cold calculus demanded that they take the chance on the journey instead.

"There's another problem," Tharoden said, "the humans themselves."

There was an awkward silence as Banage closed his eyes.

"Er, I'm not aware that humans would be a problem, why would they?" Cato asked.

"The Inaths came many years ago and forced us to fight for them," Tharoden explained, still in that weary tone of his, "when they left, we were glad to be free again."

And left unsaid was that Cato was proposing to deliver the Fukas back into the Inath's hands. "What did the Inaths do?" Cato asked, "did they force everyone to fight?"

"They took some hunters every year, to serve as scouts in their armies. They took our food, to feed the armies. We died for them and they did nothing for us."

They protected you from the monsters, but Cato did not mention that. It was obvious that the Fukas thought they were exploited. And perhaps it was even true, such a small village would be hard pressed to provide much provisions and fighters. On the other hand, the İnaths didn't destroy the village, by pillage or taxation, which meant that the Fukas would at least stay alive in İnath lands.
"It won't be as bad as here, at least they have an army to fight with," Cato pointed out.

Further discussion was rendered moot as there was a crunch and a patter of feet as Ka landed roughly on the ground, flapping his wings forwards to slow down. The torches wavered in the draft and reflected the fear in Ka's shining eyes. The Elka man packed away his wings deftly and joined the standing meeting.

"The zombies!" he said urgently, "There is movement at the grave! They're digging themselves out!"

Cato blinked for a long moment before he remembered the mass grave Tulore had made them throw the first wave in. Apparently these zombies didn't stay dead.

"How soon will they be free?" Banage asked quickly.

"Some were already moving, but they're still digging. How could this happen even after you killed them?!

"No one has any answers here," Banage said, "we can't pack quickly enough because you," he pointed at Tharoden, "didn't want us to leave! We would be on our way by now if you hadn't overruled me!"

"We have no time for arguments," Tharoden sighed, "I suppose you win then."

Practically everyone at the meeting stared at him in surprise. Tharoden agreeing to leave?! Just like that! Only Tulore continued to look at the map, muttering inaudibly to herself.

"Even if we start now, the zombies could find us before we can move. If that happens..." Banage paused, the thought of the zombies among the children and injured was too horrible to contemplate.

Cato interrupted the gloom settling on them, "you need a distraction."

"Like what?" Banage asked.

"You did it once already," he pointed out.

Almost as one, the council glanced over to the hunters of Char clan, sitting a distance away out of respect.

"We have lost too many hunters already, but experience counts for much and we need every advantage possible," Banage sounded like he was convincing himself. He beckoned to the man sitting in front, the one who had garnered much attention for his bravery in the only attempt to poke the zombies.

The council let Banage explain it to the young hunter.

"Ryulo, we need another miracle."

Once the order to pack up was given and the council was dissolving to coordinate the effort, Ka pulled Cato aside.

"I cannot imagine what you had to tell Tulore," the Elka said, "she saved a double potion of curse-breaker for Mii. Two Fukas might be dying because they lack it."

"It's a ploy, Ka," Cato admitted, no point trying to deceive the very people whose help they needed,
"we need you here. With your help, we can avoid getting lost, we can track the movements of the zombies and we can scout our way. You can save far more than two lives, and since Mii can't fly, you can't abandon us if she stays alive."

Ka gazed at Cato, as if weighing him up. Was he going to declare Cato an honourless manipulator? Cato wasn't quite sure he didn't deserve that.

"Clan One owes much to the Fukas," Ka said finally, "we would not abandon them in this time of need." Then he sighed and continued in a less formal tone, "Despite the demands on my honour, Mii is my wife and pairbond. I cannot find it in me to return the potions and so I find myself in blood debt to you."

Cato shook his head, "not me. It's the Fukas who are giving up their curse-breaker."

"You were responsible for making Tulore save Mii, so my debt is to you," Ka explained, lapsing into formal language again, "We would say you have a blood debt to the Fukas, but we do not count honour among the wingless."

"I don't think I deserve this," Cato said. How could it be when he was the one manipulating Ka?

"Then just remember that I have loyalty to you now as well."

Cato came back to find Arbor and Toal arguing, one-sidedly, about who would pull the cart that was being shared by the blacksmith and Danine's family.

"So, what were you talking about with village council?" Danine asked. The rest of the Fukas had been subtly discouraged from listening in.

"We were deciding where to go. And whether we should even go at all," Cato said wearily. Still, he wasn't tired enough to miss that Danine was merely distracting herself. "Tharoden didn't want to leave at all and Tulore simply kept silent."

"Ah, and I suppose Banage won the argument?" Danine asked, gesturing at all the Fukas packing up.

"Yes. We're still leaving. But it wasn't Banage, Tharoden simply gave up," Cato said, "I think, watching the village burn... might have been a bit of a shock for him. The zombies from the first wave coming back made it so we can't stay anyway."

Danine didn't reply and they lapsed into silence. The insistent rejection of Irlid was met by the equal insistence of Toal, still arguing over who should take the cart first.

"Are you all right?" Cato asked finally.

She just looked gloomily at the ruins, her tail and ears lying flat.

There was nothing to say, and any words he might offer would just be flat and meaningless. Cato hadn't grown up in that village, and he had found it uncomfortable, like a fish out of water.

He could only hope that these Fukas would be able to find a safer home in Inath, and that Cato would find more answers as to why he was here.

If only reaching Inath could be easy.
Cato's Notes

Monsters
Zombie
How do zombies move? Magic?
Do they eat?
Why do they need to "take breaks"? What happens if you disrupt those breaks? Do they stop faster?
They are likely deaf, and may be blind. How do they find people and how far can they do it? Can we hide from zombies?
Why do they reanimate? Why do they stop moving? Why does fire not work on them?
How are zombies created from (dead?) people?

I wonder if it's possible to catch a zombie.

Fukas and Elkas
Ka can see during the Little Night, well enough that he could see the reanimating zombies
Fukas and Elkas' eyes are shiny in the dark
I suspect they might have a cat-like eye with a reflective coat.
The sun was high and the flags flying proudly.

With the wind at his back, the General stood at the head of the crowd of new soldiers. Known simply as the General, without any titles or accolades, the stony figure stood on the platform alone.

"It is a sad day, today," the General spoke.

Whispers started up and cut off. He was speaking again. "Today, the Third Lion army marches from the gates of our fair city of Tirien. A fine sight, to see so many young men and women. A cheer that will inspire many more to take your now vacant places in the Guard and in the Academy."

The General paused again. There were no whispers this time. "You will go East where the enemy lies. There you will find the true meaning of our fight. The Enemy is great. Your weapons will shatter in your hands, your magic will fail you, your bodies and life go to their final rest."

The utter silence that gripped the parade ground let his next words carry to the ends even when whispered. "That is why this is a sad day. Inath owes much to you, who are giving your life and magic to the great war. Not one day passes when I wonder, 'how can this war be ended?' 'how can we win?' 'how do I save your lives?'... 'who next shall I send to be destroyed?'. May you wonder long and hard too, there is much you can do to help."

His cloak flapping in the wind outlined the harsh lines of his armour. Practical and definitely not parade material. "So you see why this is not a happy occasion. The nobles of Inath will throw a party and stage a parade, filled with cheers and laughter. They know the true cost but do not wish to face it. Enjoy yourselves, for soon there will little blessings to count and much to curse."

The General nodded at the handlers holding the ropes at the far wall. They pulled down the tarp covering the newly engraved section. "Go, then, and rest assured that your names live on in memory of stone. I have nothing more to say."

"You see it?"

"Where are they? There's nothing down here!" Morey shouted back. The Night Cryer nest was empty. He was given to understand that it was unusual at this time of the day.

There was an unearthly, monstrous cry from outside the shallow cave and Morey rushed back out, hacking away the vines.

The Night Cryers had been waiting for them, watching from further up the mountainside. Since when these beasts so cunning?

"Defensive line!" Etani shouted, "Nal, back! Temat, into the cave!"

Nal, a short and short-tempered Spellstorm scurried backwards without argument. For once.

"Look out! They're taking off!" Etani shouted again as the flight of Night Cryers soared into the skies with their dreaded cry. Temat brushed past Morey and disappeared into the 'safety' of the Night Cryer's own nest.
There was a flare of powerful magic behind him, like a light unseen. Nal muttered under her breath and began to construct her signature magic. Headless of the danger, the Night Cryers turned over and dived at them in a spaced formation of threes. Morey gulped, he counted nine of them, a full flight.

As Etani and Morey began to build walls of magic to shield themselves, the Night Cryers opened their mouths and seemed to suck in the magic from the air. Then with another cry, the diving Night Cryers swerved upwards, hurling the globs of magic from their mouths into the short line.

The aim was poor but that did not stop the blasts from ringing Morey's ears. The air seemed to explode around them, pressure waves buffeting them from the front and sides. The thin mountain soil was ripped away and cracking rock sent deadly shards sleeting in all directions.

Etani's shield absorbed the worst of the blows. Her forged steel armour from head to toe clinked and clattered as stones added another layer of scratches to the well-worn surface. Morey's own shield, much weaker, deflected still more and Nal's armour caught the rest.

And then, in a split second of chaos, it was over. They weren't even injured! He could tell the shield took a lot out of Etani though, she was struggling to even stand straight. Come to think of it, Morey didn't trust his own legs to move if he had to, they felt like he was standing on two sticks of jelly.

The Night Cryers climbed out of their steep dive. Having survived the first go, Morey wasn't sure they could get away unscathed again, it was now their turn. Nal had split her magic into eighteen identical spells, arrayed around her in circles, and with only a thought sent a stream of bolts leaping skyward.

Nal's fingers twitched as she concentrated hard, her eyes unblinking as she tried to watch all the bolts at once. This was why she was one of the best out of the Academy, it was an unusual Spellstorm to be able to channel even ten spells at once, for her to also maintain contact and control them was what gave her the dubious nickname Tiny Hurricane.

With a surprised squawk, the big matriarch folded up as six bolts slammed into it, destroying its lifeforce. Then the flurry of bolts ripped through the formation, killing another four. Etani joined in with a large fire spell that filled the air with a heat haze and roasted another.

The surviving three Night Cryers swerved away and began to run before the bodies even hit the ground. Morey let the spell he was building go, feeling a bit useless. He still couldn't control magic well enough to attack that far away.

"Is it over?" Temat asked as the magical signatures faded away.

"Yeah, they didn't even stay and fight, not like the records said," Nal said. Did she just complain that the Night Cryers had run away, or was that just Morey's imagination?

"Without a rider, they won't," Temat explained, "my grandparents said they had to fight to keep Night Cryers on the attack when the pack had taken losses, much less if you shot out the matriarch."

Etani plucked at her scratched armour, scraping out a piece of rock from the joint. "These repulsion spells never quite work properly," she complained, rubbing at a bruise where the shard had been scraping her.

Oh, yes, that. Morey checked himself once over, but there was nothing on his armour. His armour was better quality than even Etani's, although it lacked the customized web of spells and defenses that any true warrior built up over time. That probably wasn't the reason however, the fact that he was behind two shields instead of one was probably it.
Temat brought their attention back to the cave, "I found something interesting inside though."

He lead them back into the cave. To Morey, it was just filled with junk and rotting scraps of hunts. Then Temat dug into the pile of straw and pulled out a single egg larger than his own head. It was still warm.

"Notice the pattern on it?" he pointed at the black lines criss-crossing the surface, "Night Cryer eggs don't normally look like that."

"Does that have anything to do with the Night Cryers rejecting human handlers?" Etani asked.

"I don't know. I've never seen this before. But it might just have something to do with that incident, we haven't exactly bred Night Cryers since twenty years ago," Temat said, "Let's bring it back and I can study it a bit more when it hatches."

Danine trudged wearily through the mud, her improvised sandals of dried grass were most definitely not going protect her feet.

She pouted for what must have been the hundredth time today. Danine thought she was going to be miserable after watching her house burn down but the elements conspired against her. The merciless sun and humid air was unforgiving. Her legs ached from the constant slow walk. Even the mud sucked at her feet and got in between her toes for a wonderfully horrible squishy slimy... she cut off the train of thought. Only the lack of bugs kept her from going positively insane.

Other people didn't seem to have any problem crying and sobbing about the dead. What was wrong with her? In the fairy tales Father used to tell her over his knee, there was love and grief. Danine had expected to be bawling her eyes out, but there was simply nothing. The most disturbing thing she remembered seeing fleeing the village was a troop of piyos burning to death, futilely trying to escape their locked and abandoned pens, but the abstract horror and pity simply didn't have the emotional depth of her brother's funeral a year ago.

No one in the stories seemed to be bothered by stepping, painfully, on a bumpy rock. Or the hot humid air near the sea. Or the fact that walking for hours every day really hurt your body.

Another drop of sweat dripped down her back and onto her soggy tail. She didn't even have any energy to wring it out, but there was no point when it would get sodden in another hour anyway.

Her mother handed her a flagon of water. Almost instantly, it was gone, leaving poor Danine to sweat it all out of her pores. Soon, it would be her turn to pull the cart and she was not looking forward to it, even if her shift was the shortest and Father kept trying to help her.

There was a whoop somewhere behind her. Danine looked up to see Ka making an awkward running landing back on the hilltop where Cato and the other village leaders were discussing about where to go. And no doubt keeping an eye on the zombies moving behind them.

She wished she could be there, talking with the big men and women making the decisions of their fate. The boy had somehow become trusted by Banage and Ka in such a short time. Danine wished she knew how he did that.

A few short moments later, with much loud talking and waving of arms, Kee started his run to take off. Two Char clan hunters were there to help push him along to get enough speed.

If she had come from Earth, she would have known how much that looked like ancient airplanes
taking off. But she wasn't and all she thought of it was how nice and windy it must be to fly in the sky.
"Yet again, I drew my bow and fired three arrows at the zombie!"

Ryulo gestured with his hand, knocking the small stone off the side of the cart.

Danine giggled at the exaggerated gesture. "And? After you sent the zombie flying, what happened?"

"And then the entire pack came down on your heads," a hand rapped him on the head, "you nearly died there!"

"Aleas!" Ryulo exclaimed, hopping off the cart, "I was just telling them about our latest exploits! These children admire your dashing beauty."

Danine giggled again, along with the rest of the audience, as Aleas sniffed dismissively. Her cheeks were tinged slightly red though, it spoiled the disapproving face she was trying to put on.

"Oh, did I just hear the lady being concerned for me?" Ryulo put on an astonished face, "I'm honoured!"

That drew a round of outright laughter. Aleas flushed even redder and scowled at him.

"You make a girl worry too much," Aleas said, "if you're not careful, she might take some drastic measures. Like tying you to her family's cart."

"You can't even pull a cart, much less tie me down and carry me," Ryulo observed, indicating her foot.

"No seriously," Aleas took his hand, "every time you go out, it could be the last time."

"But-"

"Can't you be more careful?" she asked, "I know you're in charge of keeping the zombies away from us, but each time you tell your stories, you just make me more worried."

"But surely you deserve a hero," Ryulo grinned, "And what boy doesn't dream of being a hero? Especially for one as special as you."

Almost without thinking, Aleas shot back the classic rejoinder. "What wife would want a dead hero over a live hus-" Aleas's mouth clicked shut and she flushed cherry red once she realized what she just said.

Danine watched them wide-eyed with anticipation. How long before these two idiot lovers finally kissed was a hot topic of discussion among the Char clan. Could it be today?! They were getting awfully close. A small squeal, no really, a very tiny squeal, almost escaped her when she saw Ryulo's tail brushing up against Aleas's.

They also had a tendency to go off into their own little world and forget that there were over twenty boys and girls watching them with starry eyes. It was getting close to impossible to get any work done around them. Their blatant flirting would accrue a small constellation of onlookers, most of them young maidens and lads of a certain age... as well as sidelong glances of amusement or even envy from older Fukas.
This was better than any stuffy story told by their grandparents. A real life heart pounding love comedy in front of their eyes. Will they or will they later? There was no question in any of their minds that 'won't' could ever occur.

One of the boys nearby hooted at them. Aleas jumped backwards like a little kid caught stealing yama jam, causing the audience to sigh in disappointment. Danine shot the offender a dirty look, they were so close!

"Aah!"

The familiar shout brought Danine up to her feet and ready to run in a flash but her mother was still faster. "So that's where you've been," her mother strode into the gathering like a bear trampling over the tattered remains of the romantic mood. Trampling over it then jumping up and down on the pieces for good measure. "How many times do I have to tell you not to bother them?"

"Aw, but he tells really nice stories!" Danine complained.

"Please," her mother pulled her away and lowered her voice to something less public, "I don't want you talking to the people from Char clan."

"Why not?" Danine asked.

"Banage doesn't respect the elder. I don't want you picking up their ways," her mother slowed down as they got further away, "Besides, Ryulo is a very bad influence on you children. Just because he's a good hunter doesn't mean you can be as well, and if you try to copy him, you'll get hurt."

"I know," Danine said, "I know that I won't make a good hunter. But Aleas and Ryulo are all the talk ever since we started this trek, I've got to keep up."

"They are indeed," her mother smiled a little, "but I don't want you to fall into the wrong sorts of people. Come, help me prepare dinner for your father."

Danine just sighed. Her mother had somehow gotten it into her head that Char clan was full of 'bad people', whatever that meant. Aleas was often watching over the children and teens, Ryulo joined in when he wasn't on patrol. And they could be so much fun! They could run around and shout and do, almost, whatever they wanted. Aleas and Ryulo merely laughed along with them.

She looked back at the crowd of kids sitting down for another story and sighed again. So much for getting some time to play.

Then her annoyance disappeared when Cato joined them for dinner. This was almost as good as watching Aleas and Ryulo.

"Oh, what happened today?" Danine asked, "can we cross the river yet?"

Cato nodded, "the bridge is finished. A little rickety, but it should hold up the carts. Did you get enough rest?"

"Yes," Danine grinned, "you should have seen Ryulo and Aleas, they were getting all steamy again."

Cato grinned back but it didn't last long. A few bites later and the worried frown was back on his face. Geez, couldn't he just have some fun?

"What happened?" her mother asked Cato.
"Ryulo nearly got caught by the zombies today. He was diverting them away from us again, but he returned to save a hunter who was going to get caught," Cato sighed, "I mean, I can't disapprove because it worked and they got away."

"But that's so heroic!" Danine exclaimed. So that was where Ryulo's story today came from!

"It was too much risk," Cato said, and her mother nodded along.

"Was it another woman? He wouldn't leave someone to the zombies like that," Danine said, wondering if the comedy was about to get more complicated.

Cato snorted, "it's not like he woos women by saving them from zombies. That was an extraordinary coincidence. No, he saved a fellow hunter this time. Male, I should make it clear."

Danine pouted. It would have been so dramatic, to add another wrinkle into the already- why not? She blinked at the random thought and flushed. That idea was disturbingly exciting.

She didn't hear much more of the discussion after that, finding a new sort of thought to occupy her. It was all just boring stuff about food stocks and using wood for fuel.

The scout looked over the small hills. This was the smallest part of Ode's Corridor, the strip of land between the western flank of the Yn mountain ranges and the western ocean. Known as Holmes Gap, the foothills where she was sitting now commanded a view all the way down to the water.

With the forest clear cut for miles, this was the best vantage point to observe any incoming monsters. The flat hills here were also indefensible however, which was why there was only a scout tower. If she saw anything, she would ride her Reki back through the Gap to warn Wendy's Fort.

Under no circumstances was she to assume her little tower would be secure. Not even to a pack of wild Rekis. Any monster, any sign of anything coming, she was to warn Wendy's. That was her instructions.

Indeed, she had been watching a flying thing circling around for the past few days. It was getting closer but whatever it was didn't match any movement patterns of flying monsters she knew of.

More unfortunately, the instructions didn't include a scenario where an entire village's worth of Fukas came trotting out of the forest, complete with carts and children. It was simply assumed that nothing lived further north of Wendy's Fort. That was monster territory.

Only of course, it would appear that her orders were wrong.

The scout dithered for a few minutes, wondering if she should try contacting them. Still, orders were orders and Wendy's Fort would want to know about these Fukas, especially since they would be heading to Wendy's as well.

She hopped on her riding Reki, which was unhappy at losing the cushy job of chasing little furry creatures away from the tower.

Her departure thus opened up a gap in the scouting schedule, her replacement wasn't rotating in until a few days later. Normally, that wouldn't have posed a problem, monster attacks were devastating but infrequent, overlaps were nearly unheard of. So the scout not having contacted the Fukas, she couldn't know there was a force of zombies following them.
"Rider!"

The shout from the walls brought the attention of the night watch leader. It had come from the north side and nothing good ever came from the north.

He rushed to the walls and squinted. Yeah, that was a signal torch. One of the frontline scouts coming from the Gap.

"Get the commander," he snapped. The soldier rushed off without saluting.

He bent to watch the rider approach but it seemed like no time passed at all before the commander was there beside him.

"Hm, yes, that does look like a rider," the man said, "good work."

The commander rubbed the stubble on his chin and nodded, "open the gates when she gets here and send her to me. Holmes Gap is too close for us to waste any time."

He yawned and walked back towards the warm light of the keep's kitchens.

The night watch leader shared a look with the runner who had come up with them. "How did he know she was coming from Holmes Gap? Surely, not even he could tell she's a woman."

The night watch leader replied with a tinge of wonder, "he must have memorized the entire scouting schedule. S3 and H1 are the only two scouting stations to report from the seaside direction. S3 must not be occupied at this time."

The messenger's mouth was hanging open. "Seriously? How many scouts are there? He can't possibly know them all..."

"Who knows, unless you feel like digging through the schedules?" the night watch leader shrugged, "just get the gate open for her."

The report of the scout did not shed much light on the situation. A group of Fukas weren't exactly threatening, even if it did raise all sorts of questions.

The Elka that landed on the roof the next day however...

"Did you hear??" her door banged open.

Landar glared at the intruder, "watch it! I almost lost the spell there!"

Her friend, Tori, sighed and shook her head, "come on, surely even you can take a little distraction. I know you had problems with battle magic but."

"Problems!" Landar sniffed, "if you call getting beaten by the test dummy 'problems', I don't want to hear what you call a fail."

"Yes, yes, you consider battle magic crude and inelegant, you crazy girl," Tori waved her hands, "anyway, those Fukas from yesterday? Yeah, they apparently had Elkas with them and one of them arrived not two hours ago. Word is, there's zombies following them. Michi will be giving out orders soon."
"Ah, zombies," Landar looked back at the contraption of light spells on her desk. That little project to make a sparkling window that never repeated its pattern was probably not going to be too useful. Requests from the noble heartland tended not to be.

"Did you want me to adjust your armour?" Landar asked. Well, considering that Tori was wearing her full plate, that was almost certainly yes.

Tori grinned, "that would be nice. I don't want to spend my own magic doing that."

"Well, good thing you came early," Landar put aside the project, "I'm going to be flooded with requests soon if there's really a zombie army on the way."

"Take it as a point of pride, Alchemist," Tori stuck out her tongue.

Landar sighed and shook her head. Alchemist. Of course it was a point of pride. People who didn't know how to work a spell properly, to observe and test how it might work with other spells, got called things like battlemage and wizard. Only people like her got the lowly title of alchemist. Well, only her really, most other people did manage to survive battle magic after all.

She concentrated on seeing the magic and examined the enchantments on Tori's armour. Standard issue deflection spells diverting objects away from the joints. Resistance on the armour to absorb impacts, although it would make the armour really hard to move. Resistance made it slow all movement, not just attacks. Hm.

"You know, I think it might be possible to make your armour resist impacts better," Landar indicated the pane of glass, "I was working on the lights you see and I think it might be possible to detect an object getting close before you-"

Tori shook her head, "nah, I don't want any of your 'specials'. Don't remind me of what happened to that guy who grew Crystal spikes all over his armour. They had to disenchant him to get him out of it."

"Not all of them blow up quite as spectacularly as that. " Of course not. There were hardly any fatal ones too, compared to the all too common accidents of misfiring enchantment spells. Battlemages weren't all they were cracked up to be.

"And no matter what, it's never your responsibility," Tori shot back.

"What?!!" Landar did a good mockery of a handwringing noble, "A lowly alchemist taking responsibility for a hole in a knight's armour? How could that be? Our battlemages are the best in the world!"

They shared a short laugh at the stupidity of the world. Then Landar sighed, "I'll just do some basic redistribution. You tend to use your forearms, so I think emphasizing defence there might be better. Unless you do want a 'special'; I've got a proven method for increasing your swing strength."

"It's all right, I'd rather not lose my arm," Tori grinned, "thanks a lot, I'll send you the requisition later. And find some other sucker to test your 'special'."

Landar nodded and set about preparing her workshop. If the zombies were real, there was going to be a queue... the rap on her door came less than a minute after Tori left. They were here already.

"You've seen the zombies? How many are there?" Michi bit into his sandwich.
The scout saluted, "I couldn't count them, commander. Could be ten thousand."

"Condition? How often did they stop?"

"They're old, but still intact. They didn't stop during the six hours I was there."

"Probably not that old then. This could get to be a problem. And the Fukas?"

"They're still about a day out," she looked a little sad, "are you sure we can't take them? There's women and children. An entire village of them in fact."

Michi dusted off the crumbs, "from what you describe, they won't fit in the fort. And we can't feed them all if the zombies siege us. It's death one way or another and I'd rather them not join us."

Fine words, the scout thought to herself. Wendy's Fort had never fallen to monsters, even Night Cryers. They could take a few tails in without any real problems.
Cato had been consistently underwhelmed by this world since the weeks he had arrived. The Fukas weren't sophisticated in any way and their village was honestly quite small. At least compared to the bustle of modern Earth.

So it came as a surprise when the Inath fort turned out to be quite impressive.

At first, the fort appeared as a strangely coloured blob on top of a tall hill but over the hours as they approached, the walls grew taller and taller. Although the height was nowhere close to modern tall buildings, the solidity of the wall left an impression of immovable strength. It looked like a man-made mountain peak, grafted to the top of the natural hill. And then the towers went nearly another storey above the wall itself. The grey round stone overlooked the wall in six places, covering all sides of the fort. Tiny archer loops dotted the sides of the towers and Cato could sometimes catch glimpses of lighting from inside the towers through them.

The central keep jutted up from inside the walls, as tall as the towers themselves. The massive stone structure seemed to be more like a natural formation than an artificial construction, especially with all the moss and ivy growing down the sides. Hm, it looked like the outer stone walls were newer than the keep. They even had slightly different styles, being more austere ramparts compared to the keep's flourish and carved decorations that hung out the sides and above windows. Perhaps they had been built later?

The Fukas seemed to think the fort was immense. For the first time throughout the trip, the air of despondency lifted. Even the children obliviously running around had quieted down.

Perhaps they could find some security living near a place like this. The question was whether the Inaths would let them.

When they got close enough, a lone rider on a lean armoured Reki came out of the gates to approach them. These people actually dared to ride these monsters?! The cape flying out behind her was a blue cross on red. Come to think of it, he hadn't seen any sort of unity on the flags atop those battlements. Cato wondered what sort of political structure might have generated something like that. Or if flags even had the same meaning.

The woman rode up to them. Cato stood near the council, they had anticipated something like this and he wanted to hear whatever message the Inaths had prepared firsthand. Ka's visit had told them of the fort's commander but he hadn't gained any impression of what the Inaths might be thinking.

Instead she went past Tharoden and Banage standing out at the front and stopped in front of Cato.

"Uh, you want to talk to the village council," Cato pointed at them as she hopped off the Reki.

"No, you're the only human here. Your Elka explained that," she said, brushing off her plate armour, "aren't you leading them south away from the zombies?"

Behind her the council were talking quickly amongst themselves. They looked a bit lost. Well, Cato felt much the same way. "Wait, wait," he raised a hand, "let's start again. I'm Cato Lois. You are?"

"What?" she blinked at him, her short yellow hair peeked out from under her helmet, "I'm Nais. I have a message from the commander Wendy's Fort."

"Yes, we were told to expect that," Cato nodded, "you should give it to them," he indicated the
council, who were all watching them now. Most of the Fukas nearby had slowed to a crawl to keep them in sight for just another moment longer.

"Why? You are the leader, aren't you?"

Cato sighed. Just what had Ka told these people? "No, I'm not their leader," Cato shook his head, "I'm just following them."

Nais looked confused and glanced back at the Fukas. She turned back to him, looking lost. "Er... hm..."

"Is your message meant for me specifically or for the person responsible for these Fukas?" Cato asked.

"It's for the leader," she said, "I just assumed it was you."

Huh. Strange that should be. "Well, you can give it to them."

"But the message assumes you are leading them."

"Ah," Cato nodded. Yeah, that might be a problem.

Nais thought for a moment and seemed to decide something. "I will show you to the commander, he'll know what to do. The commander has also considered your request for shelter and says that you are allowed to camp half a day's walk south of the fort, please do so. If that is acceptable, I have to go tell them to expect you."

Cato looked up at the sky. Yup, still enough time. Then he looked back towards the council and casually asked, "do you want to meet the commander of the fort?"

Tharoden stepped forward, "I believe we will take you up on your offer. There are many things we need to talk about."

As Cato approached the fort with the five members of the council and Tulore, the first thing he noticed was the strange feeling the walls gave off.

It was strangely familiar but at the same time indescribable. There was... something on the wall, that was the best he could make out. Something unseen but very much there, in the same way that he could the sun existed by the heat on his skin and the air from the brushing wind.

And it wasn't just over the gate. It was all over the walls, and it only got stronger as he approached. Furthermore, the strongest sources became clearer and more defined and weaker sources seemed to fade in as they came close. There were many types, from stripes and bands on the walls to sheets around, or inside, the armour of the guards to single points at the tips of their spears. It was almost like he was seeing something invisible, and there were a lot of invisible things. Cato gulped, wondering what it was. Those things also seemed to carry a sense of power, like a rubber band stretched tight and was about to snap at any time.

The Fukas also seemed to notice, glancing around nervously. None of them said anything however.

"Welcome to Wendy's Fort," Nais was there to meet them, "Commander Michi will meet you now."

Cato refrained from pointing out that the names didn't exactly inspire confidence.
She led them through the central path leading up to the keep. For such a large fort, there were surprisingly few soldiers around. While there were two large groups staging some sort of mock fight, a chaotic melee of wooden swords and spears clashing on metal armour, Cato saw only a few others moving around the fort's various buildings. Perhaps they were resting for the upcoming fight against the zombies.

They passed stables full of the big riding Rekis were lined up against the side of the keep, and the stink was... quite impossible to describe. The few handlers running in and out carrying huge piles of solid waste and feed seemed to be quite shorthanded.

The only normal affair Cato saw was the kitchen, which was large and well-staffed with multiple cooks directing the efforts of many more assistants. Well, it was getting close to dinner hour, so that was understandable.

"Through here please, the commander will see you informally at the table," Naiz showed them through a side door.

The dining hall inside held various groups of soldiers eating casually in their own circles. Instead of the straight long tables Cato had expected, the dining hall contained individual wooden tables, including a counter at one side for serving food. It looked far more like a pub than a military mess. A stocky man wearing stiff-looking armour with two guards standing behind him raised a mug at them to call them over.

Tharoden whispered to Cato, "we'll do the talking. You keep an eye out for what they are actually saying." 

Cato nodded his agreement. He hadn't planned on doing any negotiating after all. He noticed that the commander's armour also seemed to be wrapped in those layers of invisible things. They were quiet and dormant.

"Take a seat," the commander gestured at the empty chairs. Once they had gotten seated, the commander looked straight at Cato, "Nais here told me that you're not leading the Fukas. Who is?"

Cato frowned. Twice in one day, by two different people. There was certainly something going on here. He looked at Tharoden and said, "they are."

The commander raised his eyebrows and looked over the council again with curious eyes. "Hmm, I think I understand what is going on. Why don't you tell me what you are doing here? Where did you come from and why are there zombies following you?"

Tharoden bowed his head, "We lived in a village three days north. Since we have not had contact with Inath for two years, we have been fending for ourselves against monster attacks. When the zombies came, our village burned and we had to flee south. It has taken us six days travel to cover this distance, with our children and injured. " Then he looked up at the commander and asked, "We hoped to find safety here. Will we?"

The commander glanced at Cato then back at the Fukas, "these zombies that you brought with you. There are almost ten thousand of them. I don't expect Wendy's Fort to fall, but if you want safety, you will go further south."

"Will we be allowed to?"

He looked hesitant and eventually shook his head, "I don't have the authority to allow or deny something like this. But I don't think..." the commander looked at their ears drooping in
disappointment and stopped. But it was clear that he didn't think that the Fukas would be allowed to settle on Inath land.

The discussion ground to a halt almost instantly. Wasn't this a bit too fast? Cato was sure there could be some way...

"Who makes these decisions? Is there someone we may be able to convince?" Cato asked. He silently apologized to Tharoden for speaking up but he couldn't just let this continue.

"Well, for that you have to ask the local lord," the commander nodded, "I doubt any will be willing to share their land."

"And who do those lords answer to?" Cato asked further, just local authority would not be able to cooperate sufficiently to defend a large nation. And Inath had to be a large nation if they built a fort like this.

"Most of them will answer to their liege-king, but they retain the power to run their own estates," the commander continued, "you can't get any land if you can't convince the lord to give you. The kings cannot do that. Well, directly anyway."

And of course, convincing the king that taking in the Fukas would be useful would be hard. Especially if the Fukas were against being asked to fight. That didn't sound hopeful. Hm, if their entire system was mostly feudal, then who did this fort belong to?

"What about Wendy's Fort here? Would you be the lord?"

The commander smiled, "actually, that is the case. The commander of Wendy's Fort inherits its land. Much good it does me though. The province is tiny and no one lives here so it doesn't produce anything. I only lead the soldiers here on the money granted to me by Inath."

Hm hm, there was an opportunity here. The Fukas could farm and the produce could be worth something. And if the dearth of Fukas in Inath was as widespread as here, then the opportunities for trade would be high. Cato whispered, clearly but inaudibly to the humans at the table, "you can produce things. You may be able to convince him to let you stay here if you are willing to pay a tax. People are greedy after all."

Almost as one, the council looked at Tulore. Oh, right, the curse-breaker. Cato almost slapped his forehead for forgetting that. There was a very valuable skill here.

Tulore looked back at them, no doubt feeling a little trapped. After a moment she gave up and sighed, "I am the Elder. Passed down from my mother's mother down to me is the secret of curse-breaking. I make potions that break the curse of heat and can sometimes even save those dying."

The commander blinked in surprise and poorly concealed curiosity. "Would that be the sickness that kills people through their wounds?"

Tulore nodded, "that is one of the ways to get a curse."

"That... is interesting." Cato was willing to bet that he was more than just interested though. The commander leaned forward, "are you trying to convince me to let you stay here? There are problems with that, you know?"

"Has your fort ever fallen to the Enemy?" Tharoden asked.

"No. We have been trapped here a few times, but the walls are strong and Wendy's Fort can hold for
months. Certainly, with only six hundred soldiers, our food will easily last that long. Inath also knows that we are the primary defense of Ode's Corridor and have always come to our relief. Even so, if we ever are subject to a siege, Wendy's Fort can't defend you."

"But you have never lost this fort?" Tharoden asked again. Clearly he didn't think the risk was all that great. Probably because the Fukas had managed to survive two years on their own.

The commander sighed, "If you want to build a village here, Fukas or no, I will want a few other things. They will have to provide a tenth of their food to Wendy's Fort, as well as a tenth of any currency earned through trade. They will have to obey my commands and answer any call to arms I give. I also want those Elkas to serve directly under me."

Everything huh. Cato wondered how much of that was just customary demands that any Inath ruler had, and how much was actually what this man wanted from them.

"That's a bit unreasonable, commander," Tharoden said, "We have suffered a lot on our journey and many of us have died to the monsters in the past few years. We cannot be willing soldiers for you." He looked around at the council, eliciting a round of sad nods, "Also, you are busy being the commander of this fort. Do you really have time to manage our village's affairs? Since no one is settled here in the province of Wendy's Fort, it costs you nothing to let us stay. You don't have to promise us anything. If you pay one of us to manage the village out of the taxes, you will earn taxes without any effort required."

Well, that sounded like the deal could work, Cato thought. Commander Michi seemed to think of their safety and the Fukas were satisfied with the risk of attack.

Come to think of it, why would Inath need a fort this large here if the Fukas could survive with nothing more than a simple wooden wall? Were the monsters here stronger or more numerous somehow? Hmm.

The zombies had attacked again and again, each time in increasingly larger numbers. But then again, Ka did say that originally, the zombies seemed to be heading south. The zombies might have been heading towards Wendy's Fort before, but then what made them divert to the Fuka village? Could it be that by destroying the first group, the Fukas had attracted the attention of larger groups?

That would imply the zombie groups worked together in some fashion. What a disturbing thought.

Around him, the negotiation continued but Cato wasn't listening anymore.

"Do you really think this is a good idea?" Danine whispered.

"Come on, it'll be fine! Don't you want to see this fort too?" Toal whispered back, "now stand straight and look like you belong here."

He carried a large basket of flatbreads, piyo meat and other foodstuffs, and was walking straight up the hill to the fort's gate. The same gate that the council and Cato had went into.

Danine tugged on Toal's sleeve again, "we're so going to get into trouble."

"Nonsense!" Toal sniffed, "look like you have business inside and no one will question you. Besides, if anyone asks, we are bringing food for the council's dinner." Even if it was true, the excuse did not make her any less nervous. Those metal bladed spears looked
very deadly to Danine, and the guards were looking at them humourlessly.

"Halt!"

The challenge stiffened her spine until it felt like it might snap. "Hey, we really shouldn't do this," she complained.

"Watch me," Toal said and strode forward confidently. "I'm Toal, bringing dinner for the council meeting with your commander. Let me through to them."

The guard frowned at glanced at the other woman guard. All he got was a shrug back.

"They can have one meal at our kitchen," he said, "no visitors allowed."

With not a single break, Toal swiftly countered, "we can't eat human food. That's why we have to bring our own."

Since when... oh, he was just going to blatantly lie. Wait, what was he doing?!

The guard stared at him for a moment and then indicated the basket with his head, "show me what's inside then."

"Uhoh," Toal said, sending cold shivers from her ears all the way down to Danine's feet.

The guard lifted the flap of the basket and raised an eyebrow. "Looks pretty edible to me," he said.

"Er... we'll just-"

"Hold it," the guard clapped a hand onto Toal's shoulder with a sunny bright smile that somehow made Danine even more nervous, "I think perhaps you do get to see the commander after all!" He shifted his spear meaningfully, "Move!"
"Cato, I would like to talk with you," the commander said after the meeting concluded.

"Yes?" What was this going to be about now? Once the council had left to make use of their invitation to the kitchen's dinner serving, Michi waved away the guards and relaxed. "Your Fukas drive a hard bargain."

"They're not my Fukas," Cato clarified, "I really have nothing to do with them."

"Oh? So how did you come to follow them south? I thought there were no more humans north of Ode's Corridor," Michi thanked the soldier who brought him two plates of sandwiches. Actual honest sandwiches with crunchy lettuce-like vegetables and strips of meat. Cato could almost cry to see just bread again.

"Actually I woke up in the forest near their village. I don't even know how I got there and what happened to me," Cato took a bite and immediately choked. The bread was so spicy! The powdered spice inside the crispy crust puffed into his throat the moment he bit down on it and Cato could almost feel it coming out of his nose. He could barely pay attention to the salty meaty taste it had, not with tears leaking out of his nose.

Michi laughed at Cato's reaction, "never had pepper powder before? They make plain old bread so much more interesting."

"It's... quite energetic," Cato pretended to think of a word, glad for any excuse to leave the downright dangerous sandwich on his plate without seeming rude.

"Get him one without pepper," Michi said to the soldier. He nodded and took away the sandwich.

"You should look into using that powder against the monsters. I'm sure they'll leave you alone after a taste or two," Cato coughed out enough powder that his mouth and nose didn't feel like they were on fire anymore.

"I wish it was that easy," Michi sighed and put down his sandwich, "the monsters are a huge problem. Your Elka told me you had some interesting ideas, perhaps you could give us one or two?"

Cato sighed again. This misunderstanding was getting quite out of hand. "No one belongs to me!" he snapped, "you really have to work on that!"

"Seriously?" Michi said, "Well, that complicates matters. I was hoping to get you as their leader."

"What?! There's no way they would accept me," Cato shook his head, "half of them hate me enough already."

"Then how do the Fukas make decisions? Don't they need a leader?"

"You just talked to the leaders," Cato sighed. Did this commander just negotiate with the Fuka council thinking they were just Cato's pawns?! The very thought was preposterous.

"Hm," Michi leaned forward suddenly, putting on a serious face, "I made that deal on the assumption that you were their leader. Since that was not the case, I think I want something more. And frankly speaking," his tone became low and dangerous, "it's clear who holds all the cards at this table."
"What do you want?" Cato asked. That might or might not be a bluff, Michi might or might not be the sort of person who could casually threaten the lives of an entire village. Cato thought that Michi wasn't although he wasn't going to take too many liberties with that assumption.

"You see, I was quite impressed when the Elka mentioned how you killed the tremor without magic," Michi said. "I want what's in there. " He pointed at Cato's head. "Specifically, your ideas. Hopefully you'll do better. "


A guard walked up to the commander and whispered in his ear. The commander sighed and got up. "Looks like you don't get food after all, Cato," he said, silently apologizing to the soldier who had just returned with a freshly prepared sandwich. "The Fukas seem to have visitors and they're definitely yours this time. "

"Danine?!" Cato exclaimed, "what are you doing here?"

Danine and Toal were herded into the small side room with two soldiers standing guard outside and Michi watching with a look of amusement.

"I was following this blacksmith on his fool's errand! Ah... I'm sorry I couldn't keep him out of trouble," she bowed in apology.

"Says the little girl who almost cried when the soldiers brought us in," Toal said.

Danine scrubbed her face hurriedly and scowled, "I was not crying!"

Cato massaged his forehead. What in the world was going on here? "Toal? What are you doing here?"

"Well, I wanted to see what was inside the fort. Ka couldn't describe anything and we're all curious. "

Ah right, he just wanted a story to boast about. Right. Just like Toal to get seized by the Inath soldiers while he was at it.

"So what's this about you bringing some Fuka-only food?" he asked.

"An excuse," Toal said.

"A poor excuse, you mean," Danine said.

"Which you ruined by saying it was meant for Cato. "

"That's enough," Cato cut in, "whatever the reason, I don't think Michi here will be very happy if you just come barging in. " He turned to Michi, "will the Fukas be able to visit? They could try to trade with your soldiers. "

"I will allow limited visits," Michi nodded, "well then, Nais will show you out. Remember that I still want those ideas. Maybe you can think of something that will make fighting ten thousand zombies with six hundred soldiers a bit easier. If not, you have three weeks. "

Cato sighed. It wasn't like ideas grew on trees.
Or perhaps they did.

Cato was walking behind Nais, eyeing the crossbow that Toal had hooked to his belt. The blacksmith kept it near him in case he ever saw a potential hunting target.

It was right at that time when the idea came flying out of the sky. A wooden training spear came flying down from the wall, no doubt knocked loose from the training battle the soldiers were still having. Instead of stepping aside, Nais simply raised a hand and there was a sense of the same invisible object that Cato could 'see' all along the walls.

The spear slowed to a halt. In empty air. No, not empty air, it was embedded in a cube of something that was suspended in the air.

"Was that magic? Inath magic?" Danine whispered.

Nais plucked the spear out of the air, "just a simple shield. What's the point if you can't show off a little right?" she winked at Danine.

Oh. So that was what all those invisible things were. They were magic. Somehow Cato had expected them to be a little more flashy than just invisible bits hanging in the air and on objects.

"Your magic can move things?" Cato asked, "I thought it was all just generic magic bolts."

Certainly what he had heard of it from Tulore seemed to be like that. Cato had expected to see coloured magic bolts and fireballs.

"Well, those exist too," Nais said, "but that's just basic stuff. Won't keep you alive in a fight."

"I suppose all those things on your walls and armour are also magic?"

"Mhm," Nais nodded, "without alchemy enchantments, there's no way we could have survived these monster attacks."

Alchemy hm. She was probably referring to the way the magic seemed to be stuck on to the objects. Cato was pretty sure the ones on the armour and weapons moved with the objects.

Huh. That was an idea.

"Say, Toal, show her the crossbow I had you make," Cato said.

Toal looked at him curiously but did as he asked.

"A crossbow you call this? What does it do?" Nais asked, turning over the weapon curiously. She tugged at the string and raised an eyebrow, "actually, let me guess. It shoots arrows."

"Yes, something like that," Cato said, "Since the tension is stored in the metal arms and the wooden block behind the arrow is locked into position, the crossbow can have a much higher draw weight and can maintain the draw without straining the archer. So you can aim better with this crossbow than with any normal bow. The problem with crossbows is that they are far too hard to draw. Only Toal is strong enough to draw a crossbow powerful enough to be of any use without a winch. I was thinking that it might be possible for your blacksmiths to build the winches, or at least a magical equivalent."

"Hmm," Nais said dismissively, "if you think this weapon is good enough to impress the
commander... I'm afraid not. While I could load the weapon by magic," she held the crossbow stock tightly with both hands, then the wooden block in the stock drew backwards under the magical force and locked into the firing position, "I might as well use the same magic to attack with. Archers trained with a bow can also fire much faster, and with magical arrows, can hit just as hard."

Magical arrows huh. "What are these magical arrows? Do they fly faster?"

"Yes," Nais nodded.

"How does that work?" Cato asked, "I mean, does your magic push the arrow?"

Nais shrugged, "I can't explain well. While I know it uses the same sort of technique I used to draw the crossbow just now, magical arrows have some more complicated magic. There were problems with earlier attempts, I don't know the details."

"How do you make the magic on your weapons if you don't understand them?!"

"Well, we all had to learn alchemy but I was never very good. We have an alchemist staying here though, we go to her for adjustments and new enchantments. She was responsible for making the archers' arrows work. I could introduce you but uh, she can be a bit... strange," Nais trailed off. "Oh, and whatever you do, do not let her test her ideas on you."

"Power-wise, deflection will always beat deceleration," Tori said, "rather than absorb the force of an attack, you turn it aside. Why would you want to do the reverse?"

"Deflection has holes," Landar replied, "The standard accepted enchantment deflects the attacks in a fixed direction. While it's very good at protecting against objects approaching from half of the angles, it starts to fail more often if attacks approach from the other half. An object approaching fast enough from the wrong direction will go through a deflection enchantment without any loss of speed."

"Who expects an attack from inside the body?" Tori said, "we always make the bad side face the body."

Landar indicated her friend's elbow, "take this joint. The traditional deflection field here has a hole in the medial direction, towards the body. So while you are standing here, the hole is covered by your body, true." She tapped the area on the part elbow facing her friend's hip.

Then she raised the arm into a traditional overhead guard position for swords. "Now you find that the weak point is exposed. What's more, when there's many projectiles flying around, you can find that some will bounce off your armour in just the wrong way. It's how Nightcryers still kill so many soldiers despite each battlemage being as magically strong as them. The leg joints are even worse, you know."

"That's just good tactics," Tori shrugged, "you try to exploit these gaps while maintaining your shields. It's far easier said than done."

"So that's why I want to use deceleration instead. It may cost more magic, but it's flawless. Or let me at least try to build a reactive defense. I should be able to vary the deflection by the angle of the attack better now."

"I've let you try reactive defense the last two times," Tori rolled her eyes, "each time, I managed to go straight through the holes in less than two blows. I think simplest is best. And an attack on a deceleration shield can deplete the magic in the armour in just one hit and no one has the stamina to
Landar was going to reply but there was a knock on her door. She put down the piece of armour she was working on and made her way to the door.

"Alchemist?" Nais asked after knocking and the door opened to reveal a short woman wearing a heavy dress stained brown with burns and unknown substances. Her long black hair was tied up in a ponytail and stuffed down the back of her dress.

Something in her grey eyes was different, the way she looked at each of them quickly and sharply, resting for a moment on the ears and tail of the two Fukas. It reminded Cato of the scary secondary school teacher he had had, the eyes saw past your skin and seemed to look straight at you. He instinctively gulped and stood straighter.

"These are the Fukas?" the alchemist asked in a clear high voice and waved, "come in. Tori can make some tea."

"Hey, don't just push the duty of hospitality onto me!" another woman said from further inside, "I've got to get this armour off, you do it yourself!"

Cato followed Nais through the door and stopped at the sheer mess that was obviously the alchemist's workshop.

There were more than just one or two tables. Almost every wall had a table, shelves nailed into the walls above. Every surface had something on it, from simple blocks of metal and wood to half-finished projects and bits of disassembled plate armour like the knights wore. Larger items were even kept on the floor under the table. A huge glass window frame was propped up against the corner, the insets half-empty and the stained glass panes stacked around it. One corner of the workshop wall contained a doorway into a tiny forge opened to the back of the building.

Practically everything was lit with magic. Some fuzzy clouds gathered around the glass window and pieces of armour, some more defined invisible objects set into or around the other items. The most obvious display was the other woman, or perhaps knight was a better word, standing in the center of the room disassembling her plate armour piece by piece. Every piece glowed with magic, down to the mail and leather below it.

Danine nudged Cato and he stepped forward gingerly, trying not to touch anything. Who knew if pressing the wrong place on the table might set off some magical disaster that would result in everyone turning into chickens? While the enchantments on her table didn't glow with the same sun-like intensity of the ones on the fort's walls, the sheer density of everything made Cato jittery.

A better way to describe it would be like walking into an ammunition depot and finding it stuffed from floor to ceiling with high explosives.

Danine and Toal seemed to take his cue and followed studiously in his footsteps. Nais however, just stood in the center of the room and watched them with an amused look.

"It's not dangerous, come on," Nais said. She bent down and helped the knight with the back portion of the armour. The woman nodded her thanks and they neatly packed it away with an efficiency of well-worn practice.

The sound of utensils from the side room revealed the alchemist carrying a tray of clay mugs. She walked over to the largest table and looked for a clear space. Cato almost winced when she casually
pushed aside a stack of unfinished magic.

"So?" the alchemist said, once they all had a mug of clear colourless tea. The smell was minty but it was still too hot for Cato to drink.

"He's Cato, these two Fukas are Danine and Toal," Nais introduced them, "Cato, the alchemist is Landar. This is her friend, Tori. She's a battlemage."

"All right, do they need something? I'm sorry but I have my hands full with just these," Landar gestured at the room.

"Michi told him to think of an idea to help with the zombies," Nais explained, "I caught a training spear just now and he seemed to have an idea. I think maybe you two should talk. I'll show the Fukas around."

"Sure, but-"

"Don't touch anything. Yes, we all know that," Tori nodded.

With that, Tori took Toal through to the back where he had expressed some interest in the forge. Cato made sure to snag the crossbow before they left. Landar pointed Danine towards the large glass window and fired up the lights for her. Nais showed the Fuka girl how the glow followed her finger as it touched the glass. The look of wonder in Danine's eyes was well worth the magic that would be spent by playing with it.

"I presume it has something to do with this?" Landar asked, indicating the crossbow with her mug.

"Yes. Our problem with the crossbow is that it is too hard to load. I know of a mechanism that could winch the string back but Toal can't make it. Maybe you can. I was also wondering if you could make a spell that would load the crossbow for us," Cato demonstrated how the string was to be pulled and handed the crossbow to Landar.

"Interesting idea. Nais would say that it's too slow and that magical arrows carry most of the attacking power instead of the bow. It'll never catch on. Yes?" Landar prodded and examined the bow's arm and string, sighting down the groove on the stock.

Cato nodded, "even so, bows take training to use correctly. I was thinking of somehow letting the Fukas use these."

"Yeah, without magical training, this could be hard to draw," Landar closed her eyes and concentrated. The crossbow drew back in exactly the same manner as when Nais did it. "Takes quite a chunk of magic too."

"So I had a different idea, but it depends on how your magical arrows work. Do you just make the spell push the arrow?"

"Of course not, a simple pushing spell will make your arrow fly. It won't make your arrow sit in your quiver until you shoot it, you need to make the spell stay there without using any magic," Landar sniffed, "That's why no one managed to make magical arrows before. How would a spell know when you wanted the arrow to fly?"

Cato considered the question and thought aloud, watching her reaction, "that depends on what a spell can detect. If you wanted an arrow to fly ten seconds after you took it out of the covers, then you need the pushing spell to detect light and be able to count ten seconds... although that would have problems at night."
Landar stared at him, "where did you study magic?"

"I did not? I didn't even know what magic looked like until I saw the gate just now!"

"That thing you just did," Landar frowned at him, "that's from Rilanzar's fifth lecture on magical triggers for alchemy. Light triggers and their limitations. It's so obscure that I'm sure I'm the only person in this fort to know that. "

"Um?" That was weird. Wasn't it just common sense that if a spell detected light, it wouldn't work at night? At least without a torch. He said as much.

Landar looked at him for a long moment. Then a huge smile lit up her face. "You think so too? Selna above, I was so excited about that lecture and when I finally got to hear Rilanzar, I nearly fell asleep!"

Her eyes had lost their stern all-seeing quality and were practically shining. Well, not in the same way that Danine's sometimes actually did, but they might as well contain miniature stars by the sparkle in them. She put her mug down on the tray and dove under the table to look through the wooden crates containing old dusty things.

"I have an old project about these arrows that I want you to take a look at," she said when he asked, "maybe you have a fresh perspective... hm, I swear they were somewhere around here. "

Cato watched her root around for a while longer and decided to put away his misgivings about the magic. She really was casual with the magic and her workshop hadn't exploded yet, it should be safe enough.

"Can I help?" he asked.

"We never used any magical arrows until recently, for the simple reason that magical triggers are hard to get right," Landar chattered as she placed the arrow carefully onto a stone pedestal, taking care to line it up against the target at the other end of the courtyard.

They were in the small courtyard behind the workshop. The open air grassy area held a set of archery targets at the far end away from the forge area, which was covered by a roof. All three sides were walled off with a stone wall about a storey tall. Tori had picked up on Landar's excitement and collected everyone to watch. She stood far back though, all the way back at the wall of the workshop. The reason for that became abundantly clear later.

"The first attempts at magical arrows were the simplest and most dangerous," Landar passed a hand over the arrow, "simply fire the arrow out of a bow and the arrow will fly. It detects force applied."

She took a rock from the round and knocked it against the end of the arrow. With a zip and crunch, the arrow was abruptly embedded into the target, all the way up to its feathers. Then Cato noticed the splinters of the shattered arrow falling out behind the target board. It had pierced through and hit the stone wall behind it, leaving only a shower of wood chips and the feathered stub hanging from the hole in the target.

Wait, wasn't that ridiculously dangerous?! Cato was quite sure that if that arrow had hit anyone, that person would be quite dead.

As if without any sense of danger, Landar had took up a whole bunch of arrows and built a small pile of them on the pedestal.
The hairs hardly had time to rise on his arm, much less for him to say anything, when she promptly struck the top arrow with the rock. There was a nasty whirring and the sound of a handful of arrows turning into wood chips. The entire pile of arrows had flown off, even scoring the stone pedestal as they had flown. Bits of wood shavings floated slowly to the ground.

"Um," Cato said gingerly, eyeing the box of arrows next to Landar, "let's not do that again. What just happened?"

"Simple, each arrow that flies would pull on the ones next to it, leading to all of them firing," Landar put down another arrow slowly, "it gets worse than this too. They had a tendency to fire when you dropped them too hard, or flicked them with a finger, or in one very fatal case, a bumpy wagon ride. You can imagine the accidents that come about when you have a quiver full of arrows on your back or at your waist. We used to store arrows pointing downwards in case they ever misfired."

Uhuh. That sounded extremely unsafe. How had this madwoman not killed herself yet?

"You're looking at me like you're wondering how I'm still alive," Landar grinned, "I disable the enchantments before I store anything. They can't go off no matter what you do to them. In fact, that's exactly how my magical arrows work. They have no trigger. The battlemage using them simply enables the enchantment together with releasing the arrow in the bow and the magic goes off instantly. It takes only a little practice to get used to it."

Huh. "Can you make a spell that disables and enables other spells?" Cato asked.

"Yeah, it could be a bit tricky but I could do it. But how does that spell know when to enable or disable the enchantment on the arrow?" Landar raised her hands, "it's the same problem all over again."

Hmm. True that. Cato looked at the one arrow on the pedestal. How would he make sure an arrow only flew when it was fired out of a crossbow? He would have to describe what 'firing out a crossbow' meant.

Actually, you had to have a crossbow in order to fire one. What about the crossbow itself?

"Does the spell that enables and disables the magical arrows have to be on the arrows themselves?" Cato asked. It was starting to sound like he should just go learn magic then he wouldn't have to ask these questions.

"Oh... hmm..." Landar thought for a moment, then a smile crept onto her face. Cato could see she already saw the answer. "No, they don't have to be. They just have to touch."

"Then put an enabling spell on the crossbow and ship disabled arrows. No more misfires."

"And this also solves your crossbow problem!" Landar added, "you don't need a powerful draw, just one strong enough to trigger the arrows, which can be set to fly at quite low force!"

"Or why even have a crossbow?" Cato fired back. There was a weird synergy between them but Cato was too caught up in the ideas bubbling up to notice.

"Yes, why indeed! Take the current magical arrows, have your 'crossbow' detect force applied to one spot on the handle to enable any enchantment placed in the groove. If there's an arrow in there, it flies. If there's not, nothing happens. Perfectly safe!" Landar spun around to the four others.

"I understood none of that," Tori said, "and I didn't fail alchemy like Nais did. Are you sure this is
"It doesn't matter, I'm going to make one whether you want one or not," Landar declared and marched over to the forge as if she was going to start right then. "This could be a major advancement in arrows! Who needs a bow?!"

"What's a 'special'?' Cato asked. He had a bad feeling about that.

"It's what we knights call it when Landar does something weird," Nais shrugged, "we don't really understand her sometimes. You do know she's known as the Mad Alchemist back in the Inath heartland?"

Actually no, Cato didn't. And looking at her glittering eyes and slightly crazy grin, he was starting to get a feeling that he might just have made a mistake. And that sheer energy was infectious, he could feel the crazy grin creeping onto his own face. A magic gun, that was what essentially the idea boiled down to. A magic gun! He had been in this world barely three weeks and he already helped invent a gun. With magic!

"Feh, you guys are such killjoys," Landar complained while hunting around for a hammer and charcoal. Apparently she really was going to fire up the forge and get to work immediately.

"Wait, before you start building these things," Cato interrupted, "I want to test the idea. Make one and we'll show this to Michi. If it works then it works. If not, then we had better find out what problems it has before giving it to the knights." Or worse, the Fukas.

"Point," Landar pouted. Then her grin reappeared and she got right back to setting up the forge. "It doesn't mean I can't make it now! Anyone want to help?"

Tori and Nais shook their heads vigorously. Landar looked a little crestfallen when Toal stepped forward. "I would," he said with a perfectly straight face, "it will be a good chance for us to share our blacksmithing skills."

Landar wordlessly handed him the bellows.

"Well then, I'm not going to let you sleep tonight," Toal winked.

"Of course! Who needs sleep when you have ideas!!"

Cato could almost see the joke bounce off Landar's shield of excitement. Well then, he still had some talking left to do. A little matter with the Fuka village council. This magic gun was going to change everything. If it worked without killing anyone, that is.
"Hurry up! They're going to start soon!"

Tori jogged along the path from the barracks to the archery range. Even across the spacious central courtyard of Wendy's Fort, she could see the building crowd of knights. Not there for training of course.

"Hey, you live!" Tori found her friend standing near the back of the crowd.

"It was hard staying awake," Landar smiled serenely and held up a rough metal cylinder, "but I made it."

The metal with a deep groove down the middle caught the eye first but Tori could see that all the magic was in the small wooden block sticking out the bottom. The design was crude and simple, with a long metal strip the length of a common arrow stuck to the front of a wooden handle. The smaller magical piece of wood hung downwards from the side, fastened in place by a nail in the handle placed parallel to the metal strip.

At Landar's waist was a quiver full of arrows. Large and fat with magic.

"So, you ran off to Michi to show him and he suggested a test here?! What if you kill someone?"

"Haha, very funny," Landar shook her head, "that won't happen. Cato gave me this design, said he saw it from where he came from."

Huh. Come to think of it where did Cato come from? And where was that guy when this entire thing was his idea!

There was a commotion from the side of the shooting range and the knights began to part. Michi was here.

Landar stood up from her seat. All the eyes at the field quickly went to her and the noise died down. Michi had come to the front now and without any fanfare nodded at her to continue.

Slowly and sleepily, Landar drew an arrow from the quiver and pushed it into the groove. The groove held the arrow loosely and the feathers sank into a clever little depression in the back of the metal strip.

Then she raised the weapon, pointed it at the target and gave a quick flick of her wrist. Tori didn't catch what movement that was but she did see the arrow snap downrange.

It missed the target by almost two widths. That didn't mean much for an unpracticed crude weapon wielded by an alchemist with nary a shooting practice. The fact that she managed to hit the wall at twenty widths was more surprising. On the first shot too.

More quickly this time, Landar loaded another arrow. Tori paid attention this time and saw her flick the magical wooden block, swinging it around the nail to hit the nock of the arrow. With another crack, another arrow was sent towards the target.

Tori gulped. Twice now it had worked without an issue. Despite the fact that she was getting ready a shield in case the thing exploded, Tori was starting to think that perhaps there was something in this
idea after all. Landar the alchemist was firing at almost half the rate of a trained archer!

She hit the target on the sixth shot and beckoned to Tori.

"You want to give it a try?" Landar asked her.

"Er," Tori looked around at all the knights looking at them, then sighed. She didn't really have a choice, did she? "All right."

After accepting the quiver and the weapon, Tori practiced swinging the block on the nail twice before nodding and signalling Landar to stand back.

With not a small amount of trepidation, Tori placed an arrow inside and fired it in just the way Landar had. Huh. It really was very simple.

She observed her second shot going wild as well. Hm, the arrows seemed to fly to the upper right. Tori wondered if the usual tricks with a bow would work on this weapon. She adjusted her aim and fired a third time.

It hit the target. And her fourth and fifth try as well. Her sixth hit the bullseye and drew gasps from the crowd but Tori was quite sure that was just luck. If this was a bow, she would say that at her current skill the weapon had a spread the size of the target.

The chattering of the knights watching them was getting quite loud now.

"You know," Tori said as she lowered the weapon, "I take it back about your 'special'. It actually works."

"Of course it does," Landar rolled her eyes.

"Need I remind you of the times when it didn't?"

"Oh you don't have to worry, this one is so simple it couldn't possibly fail," Landar yawned and waved her hand dismissively, "I'm tired, you guys have fun with the gun. Don't kill anyone with it though."

Right after that, someone pushed through the knights behind them and Cato stumbled out of the crowd. "Hey, I thought you would take more than one night! Did it work?"

The two friends shared a grin. Perhaps he had gotten the news late. "Want to give it a try?" Tori asked.

"An interesting idea, I have to admit," Michi said as he turned the weapon over in his hands, "and even more surprising that you thought of it almost immediately after seeing magic once. I had you pegged for a lucky peasant but it seems your reputation is well-deserved."

"You praise me too much," Cato shook his head, "Landar helped greatly. In fact, the design is almost completely hers. I still know nothing of magic after all."

"Still," Michi said while putting it down on the table with a sharp clack, "it's not very useful. What can it do that my battlemage archers cannot? Much less a spellstorm. It's slower and less accurate than a bow."

Cato wondered what a spellstorm was, but didn't ask. He replied instead, "it takes little training to
learn. Point it and shoot it."

"Still not useful," Michi said, "our archers train for years but we know they are the best they can be. Even if they can learn to shoot one of these in a week, they won't ever use one. And I won't have any use for this for the zombies."

Cato sighed and nodded. "Alright."

"So you still have three weeks to get a useful idea. I'm sure you can do that.

"It was a good idea," Tori said as she escorted Cato to Landar's workshop, "if it helps, some people will find it useful since not everyone is trained with bows. It could be a popular backup among mages and spellstorms who don't have time for martial weapons."

"It's fine," Cato said. Now was as good a time as any, so Cato dropped his bombshell, "I intend to train the Fukas. Never intended it for Inath soldiers. Even if one of them shoots at half the rate of your archers, every one of them can fire one."

There was another reason for that, but it depended on some overall properties of magic Cato wasn't sure of yet. The magical arrows implied it, but he needed to know more before he could speculate.

He waved a hand vaguely, "Anyway, I need to talk to Landar about refining the design and making more of them. You tried shooting with it, do you have any suggestions?"

"The arrow drifts to the top right. I think it's how the trigger block hits the arrow and how the arrows don't really fit inside the groove. They rattle around."

Cato nodded. Well, that was only to be expected.

"The groove can be shrunk to fit the arrows and we need a proper trigger, not a block on a nail," Cato mused, "I wonder if a rifled barrel would help."

Tori laughed, "where do you get your ideas from? I don't even know half of what you're talking about."

Cato shook his head, he wasn't sure if telling them he was not from this world was a good idea. At least to people who he didn't fully trust yet.

"What about the arrows?" Cato asked, "if every arrow is magical, how will you make enough arrows? If I am feeling this right, the arrows are actually more magical than the gun!"

Tori raised an eyebrow, "we enchant our own arrows in our downtime. We even make our own arrows and repair our own equipment. Landar taught us how to copy her enchantment."

"Hm, and how many arrows can you make? Do you fall back on unenchanted arrows if you run out?"

Tori laughed, "you must be joking. Unenchanted arrows are so weak. Besides, the problem is that we don't make arrows fast enough. A good battlemage can enchant six to seven arrows a day but it takes us much longer to make good arrows."

Cato raised an eyebrow, "the Fukas have quite a number of crafters who make arrows all the time for their hunters. Sure, they're all wood, but if you have arrowheads, you can let them make those
oversized arrows you use for your bows."

Tori looked thoughtful and nodded, "I think instead of new ideas, Cato, you might do better as a merchant."

Cato smiled. She had no idea how much of his ideas were just simply stolen from Earth's history. Specialization was quite unheard of in a medieval world.

They entered the workshop to find Landar sleeping draped over one of her tables. Her black hair coiled possessively around another half-finished gun.

"She must have been tired, staying up all night," Tori said while rooting around for a blanket. She pulled out a slightly dusty one from a box and dusted it off.

She made too much noise though. "Mm?" Landar stirred, "oh. You're here."

She blinked at them for a few moments, still foggy with sleep. Then she shot out of the chair, brushing down her clothing, "ah, sorry, I was just so tired. Let me get something for you."

Tori patted her on the shoulder, "it's all right. Let me use your kitchen and I'll get the tea. Cato is here to talk to you about the weapon."

Landar clearly considered protesting but gave up, "all right."

Once Tori left to the living areas, Landar sat down again and picked up the half finished gun. "Did Michi like it?" she asked.

Cato shook his head, "no, he said the knights are much better with bows. Tori thinks that it's just a backup weapon for wizards who don't train with bows."

"Aw, it was such a nice idea too," Landar pouted, "those knights are never any fun."

Cato raised an eyebrow, "yeah? I thought you were one of them?"

"Me?" Landar shook her head, "Michi doesn't like me. He thinks my ideas aren't new enough and that I keep trying to do the impossible."

"Interesting," Cato mused for a while. "What about steel? I have other ideas but some need a stronger metal than iron. I heard that some knights have steel armour, which might be good enough. Toal doesn't know how to make it."

"No way I can make steel. I know some smiths who are good enough to sometimes make steel but you really need alot of luck or be willing to spoil alot of iron. Or be blessed by the spirits, depending on who you believe," she rolled her eyes.

So much for that hope. "Then I have one last question. Who pays for this fort? Michi said Inath does but who is he?"

"Inath isn't a person, it's the leading country," Landar explained, "with increasing monster attacks, the kings decided to pool their resources for common defense under Inath's leadership."

"In that case, I have a letter I would like to write," Cato said, "could I ask you to help me deliver it?"

"That depends on who. I'm not well-known enough to write a letter to the Queen, of course."
Cato nodded, of course he had expected that. Still, the magical glass window was quite the ornamental piece, it was almost certainly a request from someone with some amount of political power since they didn't seem to be rich enough to afford something like this if it took so much of a magical expert's valuable time.

"It's fine, I just need to tell people who have money about trade opportunities with the Fukas," Cato explained, "if you have paper, I can copy out a few letters for you to send to whoever you think would be interested. Plus the magic gun too, I'm not convinced no one will find it useful."

Landar smiled and went to get him a few sheets of paper, even if she didn't look like she believed it would help.

Cato had also experimented with writing and Tulore had confirmed his letters were Inath language, which held up the guess that something seriously strange happened to him. Unless everyone here happened to speak and write English...

Over the next few days, the Fukas and the soldiers in Wendy's Fort were doing a brisk trade in food. Most of the Fukas came to the fort to visit at least once and gawk at the architecture and talk to the humans. Apart from the occasional disagreements, things went smoothly. The Fukas were starting to clear some of the light forest a day's walk away from the fort and the families were already squabbling over who would get which pieces of land to farm.

Eventually the name of the new weapon was settled. The knights thought it belonged to bows since it fired arrows but Cato wanted to call it a gun. They settled on bowgun for the name.

The overall smoothness of settling the Fukas kept too many questions from being asked, the Fukas went from being a curiosity to foreigners in a scarilly short time and even Michi lost interest in what they were primarily trading in, which was only food exchanges and wood for now.

If one could follow the visiting Fukas though, one would have noticed that certain groups carried more food than usual and were discreetly making trades with individual soldiers. An arrow here or a quiver there, it was never anything large enough to be noticed. But the Fukas traded arrows to the knights and they got fewer arrows back, with magic on them. The knights were quite happy that they didn't have to waste effort in making their own arrows and three or four more enchantments in a day was a small price to pay for that.

No one thought to ask why the Fukas wanted magical arrows. Magical arrows were superior. Of course the Fukas wanted them.

Landar herself also ran a brisk trade in bowguns, partially out of curiosity of what Cato was planning and seeing the Fukas use them. She often visited the practice grounds where the Fukas tried to develop hunting and skirmish tactics for the bowguns. The first few bowguns changed rapidly but the design eventually settled on a trigger that swung up through a hole in the stock.

The only other innovation since then was that the magical trigger would eventually run out on magic even if the trigger used extremely tiny amounts. Landar worked with Toal to make the triggers changeable by unhooking them, built a small stock of triggers herself and that was that.

It was almost two days before the zombies would reach Wendy's Fort and Ryulo was out here at the edge of the forest waiting for them and trying to ignore the softly glowing magic strapped into the
quiver on his back. Somehow he could see it through the back of his head.

His village had stopped moving and were settling down to build houses and plough land again. This was a good thing. Having the prospect of a warm bed of piyo fur, even if he had to share, was much better than trying to sleep on hard ground.

The bad side was that they now had to stop the zombies instead of just delaying them by poking them until they went to sleep. He was getting very practiced now at leading zombies on merry wild goose chases but that wouldn't defend a village. They had to attack the zombies this time, the human commander of the fort wanted them to play their part in the coming battle and commanded them to attack the zombies in the exact same way Cato had told them to before.

How Cato had managed to convince the village council, and even Tulore, to agree was beyond Ryulo. Ryulo had the distinct feeling that Cato was doing something big he wasn't telling them.

He did get more than ten hunters this time though. Every man and woman who knew how to shoot was here. They had even spent the last three days practicing with this new weapon Cato had the fort's alchemist make, and practicing how to run away from zombies quickly and without panicking. That last part was quite a bit harder than learning Cato's weird bowguns.

So now armed with Inath magical arrows and those arms length bowguns, Ryulo was somehow put in charge of leading the Fukas. True, he had done the best out of every zombie diversion patrol group, but surely he was too young to lead over seventy Fukas!

Ka circling above them gave a hunting cry and Ryulo put away idle thoughts. They were here.

The zombies left the forest in large blocks of a hundred each, arranged in ragged ten by ten squares. That was more organized that Ryulo had seen before but the commander had warned him that the zombies got more dangerous the closer they got to the fort.

There was a black cloud hanging around them too. Was it just his eyes or was that actually there? Ryulo looked again. No, it wasn't. ... Magic?

Magic. The zombies had magic like the Inaths.

He glanced around and picked the block directly in front of him. They were going to hit that one first. Ryulo pulled out his special arrows and fired it at the zombies.

It was supposed to light up with magic once it hit. A clear red flash that should be unmistakable and serve to tell everyone what Ryulo was targeting so they could concentrate their fire.

It didn't light up at all. The arrow crunched into a zombie, which simply staggered a little and kept its position in the block. In fact, the zombies weren't even charging at them unlike those headlong dashes Ryulo was gaining fame for successfully running away from. They simply walked forwards slowly and steadily. Well, that made Ryulo's job ridiculously easy, even a human could outrun them with a brisk walk backwards.

He pointed at the block and shouted, "that one! Kill it first!"

There was some confusion and looking around but eventually everyone was aiming in the right direction.

"Fire!" Ryulo called. There was a clatter of wooden triggers and the zipping noises of a hail of magical arrows slamming into the zombies.
Strange that. His lighted arrow didn't work but the zombies were starting to fall. Whatever that stopped the light clearly couldn't stop the arrows. The magical arrows hit with many times the force than what any hunter could put out and the difference was visible. The zombies fell in two or three hits, sometimes arms and even legs would simply smash apart under the tremendous speed of the arrows. Ryulo made sure to remember that, Cato would want to know even if Ryulo hadn't seen it do any good.

The much-reduced leading block of zombies stalled its slow advance and milled around for a while. Then Ryulo's jaw dropped.

That was totally unfair.

Right before his eyes, the unseen black mist around the zombies were entering the fallen zombies and they simply got up again! Detached limbs that were still somewhat whole would sometimes simply be picked up to be reattached. A few fallen zombies were torn apart by the other zombies and their limbs used as replacements for those still missing.

The horrific sight stunned the Fukas into inaction. Even Ryulo could only watch as the block picked itself up and looked none the worse for the wear except for a few bits of shattered wood sticking out of the bodies.

"Again."

The zombies fell apart and put themselves back together in another cycle of cannibalization. The black mist was doing something, Ryulo was sure of it. And he thought the mist was getting thinner now. Maybe. This ridiculousness had to have a limit.

He snarled and drew another arrow, "again!"
"Hitting the zombies wasn't that hard, even if the bowgun has bad aim."

*The Fukas scrambled back in panic as the nearest zombie pack charged them.*

"The problem is making them stay down. Shooting them doesn't work. Shooting their legs off doesn't work either."

*A side of a hill gave them an advantage, sending flight after flight of arrows downslope. The 'killed' zombies rolled back down, only to be reanimated by the zombies milling at the base.*

"Eventually I decided to try focusing on one block to see if we could destroy it. We... almost did before we ran out of arrows."

*Again the black mist reached down into the fallen zombies and again they rose. Another swing of his arm shot out the last ragged volley. Amazingly, the zombies didn't get up, or not all of them. The black mist had finally run out. Then it was time to leave, the other packs were circling around to trap them already.*

"The only real way to stop them is to shoot them to pieces. I think swords or axes would work better," Ryulo shrugged.

It went without saying that engaging a reanimating foe in close combat was not going to go well. Cato knew that, but it didn't seem as if the Inath knights knew it. The crowd sitting at the other tables were all too obviously listening in, with weapons and armour held close by. Most of them were melee weapons, and most of those were swords or bladed spears.

For Ryulo to achieve this much with only seventy hunters and not have a single casualty spoke to his skill, even with the Fukas' natural speed advantage Cato had expected not a few accidents. Ryulo had forestalled the zombies' crude flanks with scouts though he had cut it close a few times. The way he maintained a level head even while facing down an entire army of zombies with new abilities and calmly observed and then reported what he saw was very useful.

Eight times he had gone up against the zombies and each time he had returned with all hands. Soon, they were going to have to call him hunter of zombies.

For another, Cato was not quite so sure that the Fukas had achieved nothing. This black mist seemed to have its limits and Ryulo's skirmishing attacks had to have thinned it out a bit. From where this mist came from, Cato had no idea. Was it some sort of new monster, or was it just something that happened when the zombie packs accumulated into a large army?

"We've fought the zombies before," Michi said, looking at the map drawn on the table. Marks and arrows showed Ryulo's winding path up and down the Gap. "This black mist you speak of is new, it cannot be the cause of their reanimation. They started reanimating on the field some time last year, and there was no mist then."

"So what does it do?" Ryulo asked.

"I have no idea, does anyone?" Michi looked around, even at the knights on the other tables.

Only silence greeted him. Tulore really should have been here, Cato thought, she had been through many monster attacks before and even had bad memories of an attempt at hunting the monsters. She
might know something. But Michi never asked the Fukas to come talk and tended to forget about them even if they turned up.

Landar, seated a few tables away, fidgeted and Cato asked without thinking, "You thought of something?"

They looked at her. Michi was scowling at nothing in particular, Cato wondered if he had stepped on some landmine. "The mist does something else," Landar said hesitantly after Tori nudged her, "Ryulo said that his arrows failed to glow, but we've used marker arrows before and they're very reliable. I think the mist is the zombies' adaptation to our Resist arrows."

Resist based arrows? From what Cato had heard from Landar and Tori, Resist was a defensive magic that damped blows to armour.

"Nonsense, the zombies don't think. They can't think," a nameless knight said from another table.

"Yeah, that's too ridiculous."

"Our fellow citizens would never betray us!"

What? Where did that come from? Cato tried to remember the knight who said the last line to ask him later but Michi answered Cato's unspoken question. "You ever wondered where the zombies come from?" Michi asked, under the noise of the argument building around them, "Every time a zombie army this large comes around, it means somewhere a town or city fell to the monsters. They're dead people after all."

Cato got the implication immediately. If the zombies could think, that would imply that the people who died to become them were helping the enemy.

"I can't believe he's not even going to do anything," Cato said.

Landar and Tori were walking Ryulo and him to the fort gates. The meeting broke up shortly afterwards without much conclusion. The only thing they knew was that the zombies had a new trick. Apparently these zombies developed new abilities every few months. Reanimating zombies that cooperated, reanimated themselves and seemed to do strange new things? Cato was starting to realize why the zombies were such a serious threat. What he had seen at the Fuka village was nothing at all.

Wendy's Fort wasn't looking so safe anymore.

"Perhaps he doesn't have time?" Ryulo pointed out, "it is only two days until the zombies arrive and these knights are gearing up for that battle. Only we Fukas are free to try because Michi's not relying on us for the defense."

"The enemy has something new and we're not even trying to find out what it does," Cato shook his head.

"It's still impossible," Tori said, "to find the knights willing to try something like what Ryulo did would take more than two days. Perhaps if Michi went personally. In fact, I'm starting to think you're lying about Ryulo, he can't possibly be new to lead seventy Fukas."

Cato raised an eyebrow. Something was not adding up here. "How hard can it be to organize a scouting party?" Cato asked, "Michi can just order them to go."
Tori and Landar shared a Look. "He can't," Tori explained, "order the knights I mean. Unless it's an emergency, and it never works out well."

Cato stared back openmouthed. What kind of military was this? He opened his mouth and stopped, actually he didn't know how this world worked after all. "So how would he organize a scouting expedition if Michi needed one?"

"There are a few ways," Landar said, "he can put up a request with a reward and pick among the applicants. He can also pick a group he likes and try to persuade them to do it. Or open up a bounty on what information he wants, for the first person who delivers it."

That explained certain troubling things. The melee scrum that was what they called battle practice which was voluntary, the ridiculous individual customization of armour, even the personal combat styles. Cato had thought they didn't make sense for an army formation but of course the answer was that there was no formation.

It was an army of mercenaries and adventurers. Not a professional army like Cato had first assumed. Even the sale of magical arrows was less smuggling and more good business. Well, they could at least move that into the open now.

"Am I right in saying that Michi here is appointed by Inath to hold this fort and receives a sum of money to do that? With no specific objectives?" Cato asked.

"Not quite no objectives," Landar explained, "his performance is reviewed and the king does expect not to have to ride to his rescue at every attack. Wendy's Fort is also quite a good retainer for anyone who can stand the boredom of guard duty."

Right. No objectives. Cato avoided rubbing his temples too obviously. This was utter insanity. Also guard duty and boredom did not seem to be related, at least in this world full of monsters.

"I see what you mean by being surprised at Ryulo," Cato nodded, "but he really is new. Seventy Fukas aren't that many."

Even Ryulo raised an eyebrow at that. "Ryulo could shout orders to the entire group, it's still manageable," Cato elaborated, "any small group like them, who move faster than the enemy, can do what he did. Maybe not without loss, but the basic idea is easy enough."

Landar raised an eyebrow, "easy enough for a small team that know each other, but what can a mere handful of knights do?"

"Seventy Fukas managed to almost destroy a hundred zombies, delay the entire army by half a day and find out the presence of a new ability," Cato said, "that's not nothing."

"And I'm saying that organizing even thirty knights to do this is impossible. It's simply impossible to get everyone working together."

"The Fukas managed it."

Cato wondered what was the problem with organizing knights. If every knight just did whatever they wanted, how could Inath ever get anything done? Did every battle turn into a mass of knights charging haphazardly at the enemy?

Tori laughed at the two of them staring daggers at each other, "Landar's never worked in an adventuring group before, she doesn't know what it's like."
"What?" she continued when they turned to her, "I'm serious. You have no idea what sort of squabbles over money or payment happens after a job. And Cato does have a point, we get along like a house on fire."

Landar transferred her glare to Tori, "you're the defenders of Inath! Practically heroes! You should be ashamed of."

So Landar the alchemist had her own starry eyed moments too. Cato sighed. Hmm, perhaps he might be able to use the disunity of the knights.

"Say, Landar. Who enforces the law around here?" he interrupted their bickering.

She frowned, "the knights do. Why?"

"Who do the knights go to if two groups are fighting each other?"

"There's an arbitration committee," Tori explained, "if you have a grievance against another group of knights, you can go there. Non-knights can also appeal to them if they have a problem."

"Hm, then I suppose knights have an advantage," Cato mused, "so... how does one become a knight?"

"I'm not sure about your motives," Landar said suspiciously.

"I'm not planning anything devious."

"Yes you are. I've had my eyes on you since you thought up the bowgun," Landar said, "you're doing something but I'm not sure what. Now why do you need the arbitration committee?"

"It's something of a secret," Cato smiled, "I might tell you after it's over. If you help me become a knight."

Tori was frowning at him, but Landar developed a small grin, which grew into conspiratorial laugh.
"All right, I'm curious now," Landar said, "I'll write a letter of recommendation. That bowgun you thought up might interest the alchemy division."

Cato nodded his thanks as they reached the fort's gates. "You have my thanks then," Cato said.

He was greeted not without some concern and wonder when he came in to the canteen that day.

In Cato's hand was a spear-like metal object but only slightly longer than a palm's width, with four tiny prongs on the end. The story of the bowgun had spread quite far now and the knights in the canteen watched the strange boy with curiosity.

"Is that a new weapon?" Tori asked as he took a sandwich, careful to choose an unspiced bread.

Cato frowned at her, "no?"

"But you asked Landar to make it for you," Tori continued to push him as they sat down at a table.

"No, it's not a weapon," Cato said. He took out a metal spoon from a pocket and placed it next to the new object, "surely even you know what a fork is?"

He speared the sandwich with the fork and cut out a piece with the spoon. Then he looked up to find
Tori staring at him openmouthed.

"Oh come on, it's not like I can think of a new weapon every few days!" Cato said, "besides, I'm sick of eating with my hands."

He sighed and ate the piece of sandwich. He was also starting to get sick of the food. Fukas only had piyo meat, flatbread and illon soup. Wendy's fort only ever ate sandwiches, with a tough dry meat he still hadn't learnt the animal's name and some pieces of a leafy vegetable in two pieces of bread. Spiced or unspiced.

The concept of sauces seemed to not exist.

Cato ate another piece and looked up from his musing to find Tori still looking suspiciously at the fork in his hand. As if expecting it to jump out and poke someone in the eyes.

"Here, you can have a piece," Cato said kindly.
With A Chance of Zombies

The day began with a light mist extending out to the horizon. Rolling white fog obscured the sunlight shining on the grassy slopes and one couldn't even see the forest in the distance.

It was an idyllic scene like out of a picture book, spoiled by the black churning mass of zombies slowly making their way across the land towards Wendy's Fort.

Cato stood on the battlements watching the blocks of zombies approaching the thin line of knights standing only a short distance away from the walls of the fort. The two fast rising stars of Aleas and Ryulo were standing off to one side, watching. The Fukas would want some warning if the battle went badly.

Cato saw no black mist around the zombies but then they were still far enough away that he could barely make out any individual zombie. They were just one large mass.

"What do you think?" Landar said, standing beside him.

"About what?"

"The knights," she pointed at the colourful banners of the companies arrayed along the line. Some of them even had uniforms. Sort of.

Cato just shook his head, there was nothing he could say that Landar would agree to. If she heard the thoughts he had on the knights, she might have enough words to talk his ears off.

As the zombies approached, Cato began to sense something coming from them. It started faintly, like a candle just far enough away that you couldn't be sure it was there. But the sensation of magic grew stronger as they approached over the next minutes.

A black mist, huh? Well, there was indeed some magic hanging over the zombies, almost as strong as on the fort's walls too. It was... glowing. Actually, how did Cato know it was glowing? It just felt that way. Perhaps the Fukas saw a black mist? Hm, their way might actually be better than a vague feeling of magic.

The knights began to attack once the zombies approached within about fifty meters of their line. Flares of magic rose up along the line and an array of magic bolts flew out towards the zombies. So that was why Tulore said they used magic bolts for everything. It certainly felt that way.

Only except the knights' magic hit the aura around the zombies and simply disappeared. There was no fireballs, no explosions, not even a pebble disturbed except under the churning of dead feet.

"What... what was that?" Cato asked. He was sure that wasn't what the knights intended.

Landar squinted at the zombies' aura as it absorbed yet another salvo of magic, much more ragged now. There were a few knights on the line glowing like invisible suns, hosing a constant stream of magic towards the zombies but there was still no effect.

"It's a shield," Landar said finally, "the zombies have somehow gained magic and they're putting up a magic disruption shield. That's what the black mist is and that's why the marker arrows didn't work."

It looked like the knights were finally getting it too, the flurry of invisible magic stopped and the
arrows began to rain in earnest. Many of the knights were without bows but that didn't stop them from picking up rocks and throwing them with magic.

The zombies changed tactics too, the moment the first blows landed, the zombies broke into their charge, running directly at the knights.

For a moment it looked like some of the knights were going to charge back but Michi sounded a retreat horn. With only minor delay, the knights began to run back towards the fort.

Cato looked at the zombies. The fallen were already getting up. Ryulo was right, this could take some time.

After the retreat sounded, Wendy's Fort turned into a mess of activity. Cato barely dodged being run over by a cart full of grain when he careened to a halt at the gate. The faster knights were already streaming in.

"Go!" Landar said over the din of clanking armour and shouting soldiers, "your Fukas are already here to get you!"

"Why?" Cato asked.

"Just in case," she said ominously.

"Well, those knights sure didn't seem to do any good," Cato remarked, recalling how useless magic seemed to be against zombies. He was still sure Wendy's Fort would hold, if only because the walls were high and the zombies didn't seem to have brought siege engines.

"You insult us," Landar snorted, "just you wait until we get to grips with the zombies and you'll see what we can do. Besides, I also have a trump card."

She grinned, "we'll be fine, but the Fukas need you."

True. "Ah, some of the zombies might go after the Fukas," Cato said. He hadn't thought of that.

"Well, it's not going to happen in any case. Not on my watch. Now go!"

"So what do you think?" Ryulo asked him as they sat on the rock.

Cato shrugged. Ahead of them at the fort, the zombies attempting to climb the wall hit another wall enchantment that blew them off again. "It's hard to say. The zombies are lasting even longer than I thought. You said you managed to down a pack of them but they seem to reinforce each other when they're packed this close."

"Still, the knights sure seem to be taking it easy," Ryulo said, as they watched the knights smash a group that had managed to dodge all the defenses on the way up the wall. The knights simply charged into a chaotic melee, bladed weapons swinging wildly to send zombie limbs flying in all directions.

On the other hand, at times it seemed like they were letting the zombies climb the wall. Magical bolts blasted zombies that got too far ahead of the main mass to no longer be protected, but they had long since run out of arrows and there were still enough zombies that they were crowding at the base of the wall trying to get on it. They even seemed to be running low on stones, unless they were going to rip out the wall.
How that wall was at all climbable was beyond Cato, but the zombies might be stronger than the average person or have yet another magic trick.

"The knights look like they could last a long time too," Cato said. Right on cue, the latest zombie challengers were blasted off the wall surface by the enchantments. Hm, were the enchantments actually decreasing in power? They seemed to be dimmer now.

"That just increases the chances the zombies go after us as well," Ryulo noted.

"That's part of the reason why I wanted you to try out the bowgun against the zombies."

"Says the slowest person here," Aleas quipped as she appeared out of the tall grass, "you're the one who needs to be worried if the zombies take that fort."

"Well, I'll leave my security in your capable hands," Cato said with a nod to Ryulo.

"His hands are capable in other ways as well."

Ryulo was about to nod back but suddenly flushed red. Aleas's tail curling up Ryulo's legs gave no doubts as to what she was referring to.

Hm? Did he just hear a bombshell that the gossip aunties of the Fuka village would literally kill to know? Meh, Banage was probably already playing it for maximum effect. Besides, since when was Aleas the one doing the chasing and Ryulo the one running away?

Ryulo tried to get some space but Aleas clung on and didn't let him escape. Despite the playfulness that seemed to infect the two every few minutes they were together, their alert ears still pointed unerringly at the battle in the distance.

"Ah, so what of the battle?" Cato cleared his throat.

"They're doing fine," Aleas extracted herself from the tangle. She looked towards the zombies attempting to rush the walls again. Some of them made it to the top this time. Not for long. "There might not be enough zombies to take the fort, I didn't even see any casualties among the knights for the few minutes I was watching."

Cato had no doubt that her sharp eyes were able to pick out individual soldiers on the walls. Fuka eyes could see surprisingly far.

"And what of the black mist?"

"Still there," she shrugged, "the knights have to chop the zombies to bits and keep those bits on the walls. Any bodies falling to the ground just get up again. I think Ryulo's right though, the mist does get weaker if they reanimate too much. I didn't see as much of it compared to before the battle."

They watched the zombies struggle up the wall again.

"Say, at first, the knights tried shooting magic bolts at the zombies," Cato asked, "what did that look like to you?"

They looked at each other. Ryulo replied, "there were many colours and patterns. A chaotic mess impossible to describe."

Aleas nodded in agreement.

Interesting. But probably not very useful in this battle.
The walls were a chaos of magic, yelling knights and finely chopped zombies. Landar rushed from place to place, patching up armour, recharging weapons and occasionally even contributing a little magic to amplify a spell or two.

Another wave of zombies got to the top of the wall right in front of her and an armour clad knight shoved her back roughly as they converged from all directions. He yelled something that was lost in the chaos of noise and then he was gone into the melee of flailing limbs.

She put a hand away from the stone in her pocket.

Hmph. So what if she had no armour and therefore would like some big fat oaf in front of her? They were clearly just rushing for the bounty.

Well, she would show them!

Landar closed her eyes and poured her magic into a tiny ball between her hands. She couldn't listen to the battlefield and concentrate on magic at the same time.

The spell unfolded in time with her thoughts, magic placed just so here and with a touch there. It was efficient, and elegant she thought, compared to the simple brute force methods the knights used. With a final spurt into the center to power the magical spell, Landar opened her eyes. It was ready.

Hm. There were no more zombies on the wall.

Landar sighed and fired the spell roughly in the direction of the zombies below. The fire it was supposed to create disappeared into the swirling mass of zombie disruption magic like every other spell from the knights. There was only one group, full of spellstorms and snipers, still trying to salvo their spells and they weren't having much progress.

There were more yells and pointing as the groups rushed back to the walls to pick off zombies from the next wave climbing the walls. Michi's group overseeing the battle triggered the wall enchantments again.

Landar frowned, the wall enchantments were getting quite thin and there still seemed to be no end to the zombies despite the veritable mountain of limbs piling up in the courtyard.

The spellstorm group turned their fire towards the zombies climbing the wall and the maelstrom of spellbolts sent them crashing down in a firey rain. The zombies parted for the flaming bits and then set about stamping it out before scaling the wall again.

There was an air of disappointment from the knights but Landar ignored it. That behaviour was new, previous swarms of zombies would always space out to avoid devastating fire attacks but she thought this bunch might not be doing that because they had a defence against magic.

But they were coordinating at a level she wouldn't have expected them to do. Was that the new magic trick at work too? She couldn't imagine what sort of spell construct would be required to do something like that.

Cato looked up from the game of pick up sticks that Ryulo and Aleas were playing next to him. To think one of the games they played all the time was similar to a children's game on Earth! Then again, games with sticks weren't exactly hard to think of.
After many minutes without change in the battle, it looked like they were in for the long haul. Ri had flown out to find out what was going on but with so many stray spells flying around, they had sent her back with nothing to report.

The knights were tiring already, the zombies were grinding them down with endless rushes up the wall that seemed to lack no strength even if the army was more than half gone. Every rush towards a breach became slower and less enthusiastic than the last. Every zombie that made it up to the wall lasted for longer and more fell back down to be reanimated.

It was turning out that destroying ten thousand zombies was a problem of stamina and not difficulty. At least not behind those stone walls.

He looked up from the game to find that the zombies were still scaling the wall.

What was more interesting was the group of zombies heading their way...

Landar panted as she jogged up the tower. The zombies! They were moving!

She pointed wordlessly at the departing group, still trying to catch her breath.

Oin, the leader of the unimaginatively named Magical Flurry, nodded, "I know, but what good can we do?"

"There's... a group... of Fukas. You heard of... them?"

"Mhm," a few of his group members nodded back. They were sitting around the tower, recharging their magic as fast as their bodies could take it.

"They're that way. Stop the zombies! Please!" Landar pointed again, hoping they would move. The zombie pack was getting quite far away already, even hitting the pack might start getting hard soon.

Oin gestured around the tower. The rest of the knights here had vacated the tower top by now, having only a trickle of zombies up here. "But what good will our magic do? They have defences. Attacking them directly is useless, as you probably know."

"The defences can be overwhelmed, the Fukas proved it with their arrows."

"Which we don't have the magic to do," Oin pointed out, "their disruption effect is annoyingly efficient. You could drain all the knights of magic and wouldn't have enough to force your way through that shield."

That was bad. Really bad. While the pack heading out would have a much weaker shield, she couldn't ask the knights to focus on them. And Oin wouldn't throw away his magic if he wasn't sure it would work. She looked out at the pack again. Maybe five hundred?

Did the Fukas even have enough magical arrows to defeat them? That scout must have used most of them in that first attack.

And... and...

She really had no other option, did she?

Landar sighed and looked up at the sky. So much for living out here in obscurity.
"I have a way," Landar said, digging the stone out of her pocket.

Unset from its usual necklace, the green gem sparkled in the daylight, revealing its hideously complex internal structure. Minute lines in the crystal guided magic along the paths somehow carved inside the fist-sized emerald.

Oin's frown turned into blank astonishment, "What is... Selna above, is that a Summoning Crystal?!"

"Ye- yeah," Landar admitted.

"How do you have one of those?!" Oin said, inspecting the crystal in her hands more carefully. Some of the mages were in better condition now and they wandered over to look.

Summoning crystals were not exactly common and this one was a bit special even among them.

"I've seen Tami's crystal," Oin continued, "it's just a shard, and her Minor Phantom is already famous." He pointed at the small whirling blade of force hanging in the air outside the walls, cutting down climbing zombies one by one. "What class is this? And why isn't it in its casing?" he asked.

One of the spellstorms peered more closely, "it's got to be Major at least. All the Minors are just shards."

"I've a second cousin who's a summoner. All she got was Dancing Lights. This is insane!"

"Where did you get that?"

Landar backed away from the building torrent of questions and curious mages. "Er, actually-" she gulped, no point hiding it. They would know once she used it, they would all know. "It's a Ritual class."

The blank looks on their faces was chilling. This was the sort of look she had wanted to avoid.

"WHAT?!"

The serpentine creature wafted into existence slowly, gathering power from the mages feeding it. At first, it was just a gentle touch on the senses, a mere sensation of magic barely felt, spread over too much volume.

But as the magic was fed into it, it grew and built into a shining beacon that could be felt clearly even from where Cato was sitting. There was no mistaking the green transparent figure of a Phantom and most knights deduced correctly that it was a Ritual class. Nothing else was quite as elaborate.

That was something that only appeared on the frontline battles or the most desperate defences. Ritual Phantoms were jealously hoarded weapons that knights, never mind normal people, often never got to see. Most of the knights assumed that Michi had been holding it in reserve, enough did that they contributed raw magic to fuel it. That at least was simple for a Ritual Phantom, aptly.

The figure of light grew upwards, making Wendy's Fort look puny in comparison. Then when it reached its full height and power, the serpent turned to the group of zombies making for the Fukas. The woman standing at the edge of the tower directed the targeting, she was out of practice but that didn't matter with its blast radius. The searing beam of light shot out from the serpent's mouth to vapourize an unfortunate zombie at the far side of the formation.
The beam flared, bright enough to cast shadows in full sunlight, then with a massive crackle, a lightning bolt leapt down the beam of light to smash itself against the zombie pack.

Unlike lightning, this one didn't stop.

The crack and snarl of the electricity drowned out every other noise in the region. The lightning hopped and jerked, leaving afterimages in eyes and holes in the earth. In less than a second, the entire five hundred zombies had been pounded into smoking craters.

If one was looking closely, one might be able to make out the way the serpents mouth seemed to be ringed with blue static charge, the way each of the rapid strokes was preceded by a flare of ionizing air. But against the sharp glare of continuous lightning, it was hard to make out even the zombies.

Having wreaked its destruction, the serpent turned its attention to the main body. It opened its mouth again and pouring the rest of its energy into the gaping hole, a series of sparks ringed its mouth. The fading serpent was crowned with sparks and little crawling bolts, as if gathering lightning from the air itself. Knights on the wall felt their hair begin to stand on end and the sharper edges of armour flaring with blue sparks.

Then with a single stroke, the pilot beam lit up again and the entire charge emptied itself into the center of the zombie army in one massive bolt. The shockwave and radiance from the superheated air threw back the knights with a wall of heat and sound. Even the ground rocked under the hammerstroke of sheer violence.

Above the charred ground and dancing sparks, a small woman put away her emerald and fled the tower top and the questions that would inevitably come.
Calm After the Storm

The battle afterwards resembled more a mop up operation than what went before. Landar had assured Cato later that this was how battles with the zombies normally went. Michi had been sensibly cautious when meeting the black mist for the first time.

The massive blast was not magical and it had torn through the magic surrounding the zombies without care and blown apart, or vapourized, a large number. For once, the closeness of the zombies had been a disadvantage and it had let the extremely powerful but highly concentrated blast catch more zombies than it should have.

While the zombies did cope with the shock wave easily, the fires started was far less easy. The electrical charge was so strong that even the ground couldn't dissipate it fast enough, large sparks of static continued to ignite zombies as they crossed charged ground or touched metallic objects.

Even as they fought the fires and their magic tried to suppress the flames, the knights had recovered from the shock.

The ensuing rain of pure magic bolts ripped away the last of the magic and finally, the zombies began to fall. Permanently. Once they were in retreat, the knights had descended from the walls to hack them apart in melee.

It was only after all the zombies had fallen that Cato sent Ryulo and Aleas back with the news of victory and approached the battlefield himself.

There were some questions that needed answering.

Cato shifted a zombie body aside to take a look at the ground.

No, nothing different about the epicenter. Just a thin layer of fused sand beneath the ashes of burnt grass. It was still slightly warm, but nothing was out of the ordinary, for ground zero of an outrageously large lightning bolt.

He looked up from the shallow crater and noted the knights sifting through the bodies, smashing apart any body parts that had more than a joint whole. Seemed like they had taken the Fukas' testimony of the zombies coming back to life seriously.

Cato had talked to Michi about that before and they had agreed to burn the lot. After convincing the knights of that necessity, it had been impossible to get them to agree to save any zombie bits for study. The concept of studying the enemy seemed to also be foreign.

So here he was trying to steal anything significant he could find. But looking at the bodies, they looked just like chopped dead people.

Alright, time to see if this magic sense thing worked at all.

Cato closed his eyes and tried to sense the magic nearby. It was quite eerie during his practices, to 'see' magic with his eyes closed but he got used to it surprisingly quickly. The walls themselves glowed with fluffy clouds, fainter than what he remembered, and there were denser clumps walking around nearby. Those would be the wall enchantments and the knights.
There was no trace of the 'black mist' the Fukas talked about nor the massive serpent.

No, wait, there was something nearby. Diffuse and... spongy? Softer than the 'harder' magic on the knights and walls.

Cato walked blindly towards it, trying not to lose his way. He wasn't confident he could see it if he didn't concentrate...

There was a crunch in front of him and he opened his eyes to find two legless zombies crawling towards him. The closer one grabbed his ankle before he could jump back.

Crunch! A burst of magic, a flash of metal and a blade zipping faster than he could see. Suddenly, there were two halves of the zombie flying away, the sword smashing clear through the arms. Cato kicked away the half of a hand still on his ankle with unseemly haste.

Almost too late, the knight in shining armour had landed in front of him. A familiar woman at that.

"Hey, it's dangerous here, you know?" Tori said, casually stepping on the other zombie, "the battle may be won but-

Cato held out a hand as she raised her blade, "wait! I want to see the zombie!"

Tori paused and stared at him, "you do realize that there are twenty knights in the ground because of the zombies? That one mistake here could put you into that grave with them?"

Cato nodded, "I know! The zombies are dangerous, but look at it," he pointed at the thing trying to squirm out from under her foot, "how dangerous can it be? I just want to watch what it does!"

She just glared at him.

"You can dispose of it when I'm done?" Cato ventured.

Tori sighed, "this inquisitiveness is going to kill you one day. I've already heard of how you went around digging up that tremor. Mark of insanity I say."

"I really would have liked to keep it," he muttered under his breath as he bent to watch it.

"What?"

"Nothing!"

"It's not doing anything interesting," Tori said.

Cato shushed her and poked the zombie in the side with a bit of broken arrow. The flailing arms had slowed down after a while but it still swiped at the offending object.

"Hmm, I don't think it's stronger or faster than the average human," Cato said, "and it does seem to be able to feel. It responds to pokes but if I just touch it lightly, I can't tell if it's just ignoring unthreatening objects or if it really can't feel it."

He shifted around to its back, after making sure there were no more zombies lurking in the shattered and burnt bodies behind.

The zombie began to squirm and tried to turn around. Cato blinked. Interesting. He picked out a few
steps and moved around to the sides, trying to be very quiet.

It still seemed to notice him. At least the arm tried to grab his leg again but Tori batted it back. The two arms went back to futilely scraping at her leg armour.


"I think they're deaf. Maybe," Cato said.

Tori shrugged, "hard to say. They never seem to respond to our signal horns."

"So how does it know where I am?"

"They always find you, we know that it's impossible to hide from zombies," Tori said, "they can find you wherever you hide. In a ditch, up a tree. Even through a wall."

Cato frowned. A wall? "What about that wall?" he pointed at the main wall of Wendy's Fort.

"Probably. We suspect that zombies can actually sense groups of humans at very long distances. Their armies never seem to get lost but it's very rare that single scouts get surprised by zombies attacking them. Usually, we notice them approaching first."

But if they could do that, then how could Ryulo have escaped the notice of the zombies once he left their immediate area? It did explain how deaf zombies might chase him through a forest though.

Hmm. More mysteries.

Tori sighed and raised her sword, "had enough?"

"Wait, wait, I want to see how it reanimates another zombie," Cato said.

"No," Tori said flatly.

"Aw, can I keep it then? Please?" Cato asked again. There were so many other things he could try! Perhaps starting from how to raise a pet zombie.

"No!"

"So, no new ideas?" Michi asked, "You still have two weeks."

Cato raised an eyebrow, "I have been meaning to talk about that. Back when we first arrived, you mentioned that you wanted my ideas to help you in exchange for not requiring the Fukas' military service." He paused meaningfully, "with the implied threat that you might use force if we didn't comply."

"I might," Michi shrugged. There was no one around to hear this conversation anyway.

"I would like to ask you to reconsider," Cato said, "I did have one idea after all."


"It does, in a way," Cato smiled, "how many arrows did you think the Fukas have?"

"Not many, they shot almost everything I gave them with Ryulo's attack," Michi paused, "and I don't
think any of them can enchant arrows. No one reported the Fukas leaving with any.

"All true," Cato nodded, "except the bit of them having no arrows. Why would any of the guards talk about arrows? Magical arrows look just the same as normal arrows."

Another pause.

Michi narrowed his eyes, "and?"

"I would suggest that you don't try to press the matter," Cato said simply.

"And who would you be to tell me what to do?" Michi leaned forward, "I still command the knights."

"Do you think the knights will attack the Fukas if you say so? When we first arrived, certainly. But the Fukas have been quite active in trading-"

"Snacks and trifles!" Michi laughed, "You can't hope to bribe us with that."

"It's not a bribe," Cato shook his head, "it was a trade for magical arrows. For magic. You may not have gotten reports, but many knights were willing to make a few extra arrows for the Fukas. What harm could one or two arrows do right? You might want to remember how well the Fukas did against the zombies, the bowgun is not just a toy, whatever you might think of it."

He paused. Michi's dismissive attitude was starting to crack. Cato could almost see the calculations flying across the commander's face. Those arrows might not be the most powerful weapon but used en masse, Cato was willing to believe that even the knights would start to take casualties.

"There is more of course. You never thought of the Fukas as humans. I have told you that they are not MY Fukas. They don't belong to anyone. They have thoughts and plans as much as any commander of knights. Did you think they were just going to sit down and accept whatever deal you gave them?" Cato shook his head again, "How many knights would be willing to kill the people who have been talking to them just days ago? Food alone won't stay the knights' hands, but if you see them as people, it gets much harder to kill them in cold blood."

Michi didn't glare or try to flip the table. He just looked at Cato levelly. "And what if you guessed wrong. If I gave the order anyway?"

"It's not just Wendy's Fort. I already sent letters to the three nearest counties. Just a friendly message about the Fukas and trade. Their existence can't be swept under the rug and if you really do try anyway," Cato pulled out the letter of recommendation stamped with Landar's seal. It named him an apprentice alchemist under Landar, to be accorded the rights of a member of the Knights of Inath. Along with the... unspoken legal privileges towards arbitration.

"I will push for arbitration if you continue to press the point. I don't expect to win but the scrutiny will not be comfortable for you."

They stared at each other for a long moment. Cato desperately hoped that Landar and Tori were correct that Michi couldn't just ignore the order of Knights.

"That meddlesome alchemist," Michi muttered finally, "I knew she was trouble. And it's starting to look like you and the Fukas are even more trouble after all."

"I don't know how many knights are sympathetic but I don't think either of us wants to find out," Cato said.
He declined to continue their staring match however, being clever was good but being overly confrontational was not. Not when he was still at a disadvantage even after this much cleverness.

"Why not consider another way?" Cato asked, "don't try to own them. They aren't your slaves and if you try, they will always resent you for that. Think of them as partners, as allies who need some help but can be strong once again. Given time. Consider them equals and who knows, maybe some of them will become knights too."

"Soft tailed people like them who don't want to fight?" Michi shook his head, "if no one forces them to-
"

"Humans are not all the same. Neither are your knights for that matter, just look at Landar. Not everyone is a brave knight, defender of Inath. Not all Fukas are cowards, even if most would like to just be peaceful farmers," Cato shrugged, "who knows, perhaps Ryulo might want to become a Knight. He's already halfway to becoming a local hero. And if the Fukas can consider this place their home, then, there may be others willing to help at Wendy's Fort. " Like a certain soon-to-be-wife of said hero.

They looked at each other. A commander of a fort full of knights, who might or might not listen to him. An alien commoner boy with only a piece of paper to his name, and a village of Fukas who might defend themselves if pushed too far.

Some days ago

Cato showed the basic design of the bowgun to the Fuka village council. They would need to act fast if they were to use this opportunity.

"What good is this weapon?" Tharoden said, indicating the sketch of the bowgun lying on the crudely cut wooden table, "And why would you ask us to participate in the battle? Let the Inath knights deal with their zombies."

"It's easy to use," Cato replied, "hunters take a long time to get good, but anyone can pick up a bowgun and use it half decently. In a week, you can learn to shoot quite well. As for the battle, I know it's a lot to ask but I need you to demonstrate this weapon to the knights. It's complicated."

"But it's still too slow and awkward for hunting," Tharoden said.

"For animals in a forest, maybe," Cato admitted, "not so much a pack of zombies. Or even the knights."

The silence that greeted him was profound.

"You know," Banage spoke up, "when I asked you to look into the humans' commander, I didn't mean this."

"I know you didn't," Cato said, "but the fact remains that they have magic and you don't."

"We can learn," Banage said. Tharoden frowned at him but didn't say anything.

Hm? Cato had expected more resistance to the idea, even if Banage was clearly for it. "Maybe," he said. If the knights would teach and if Fukas could even learn magic, "but in the short term, Michi does command the military. If he decides he will use force, you have to leave or give in to his demands."
"I see."

They looked at the drawing lying on the table.

"We can try bribing his soldiers for magical arrows," Banage said, "my clan has some extra food that we won't hurt to trade away. Discreetly of course," he added at Cato's look.

"Why are you so keen to do this?" Tharoden asked suddenly, "I thought you would go to your kind. The humans."

"Er..." Cato frowned. Why indeed? "After you left, Michi told me that he thought I was leading you people. He wanted me to create ideas to help him defend this fort, and implied that he might want you to fight for him if I didn't give him any. While I wouldn't mind helping, that... didn't feel like the right thing to do. Not with you as a threat."

That answer might mollify them, but he couldn't lie to himself. Why help the Fukas?

No answer came to mind immediately.

Present

It was every bit as bad as she expected. They had laid siege to her workshop and soon they would tear her brains out. Even though it might be quiet now... they were just biding their time.

There was a thump on her door and one from her head when she jumped at it.

"Ow," Landar moaned and crawled out from under the table.

"Hey, you've got guts, running away after all that," the person she least wanted to see said, "I sure didn't think you had it in you. Now come on, spit it out!"

"Tori!" Landar yelped and tried to dive back but her friend caught her deftly around the waist.

Tori laughed with evil glee and hauled Landar over her shoulder. Gah!

"No! Nooo!" she squirmed but it was no use. Then she spotted a saviour! "Cato! Save me!"

Cato looked down at the tray of tea mugs he was filling and sighed apologetically, "I'm a bit busy."

"Traitor!" she cried as Tori manhandled her into a chair and stuffed a mug into her hands.

"Now then," Tori loomed threateningly, "will you talk or will I have to... resort to things better left unsaid?"

"For the record," Cato said, "I was against this. On the other hand, I can't actually stop her. And I am interested too."

"I don't want to talk about it," Landar pouted.

"Oh but you will," Tori said in a singsong voice, "a lot of people are very interested in that gem of yours."
The dim light from the prism wand barely lit up the corridor but Morey was loathe to waste magic. Lighting up a room required little magic compared to flashy moves like a fireball or spellstorm, but a tiny drain over a long time could still suck one dry.

"Are you sure there's something down here?" He asked Etani behind him.

"Positive," she said, "the prospector said the architecture matches that of the First."

"What could the First be wanting out here bad enough to build an entire underground base?" Morey muttered to himself. An ancient underground facility at the outskirts of Inath territory, built into the base of a mountain. Was that a mine here? But that prospector also said he didn't see any evidence of any resources.

And the walls of cut stone were nothing like a mine would be. It was proper architecture, people expected to stay in this place.

"And obviously wherever the important things are, they will be at the end of this corridor in the deepest part of the facility?" Morey asked again.

"Of course! The First would want to keep their treasures safe!" Etani said.

Morey sighed. Even normally level headed Etani could go off the hinge when encountering a legend. The old empires of First and Tsar must have had a large impact on these people. Not like Morey would know, not having grown up in Inath.

"Is there something out there?" Nal pointed under Morey's arm.

They stopped and Morey put a bit more magic into the prism containing the liquid Light. Yes, there was a door at the end there. It was dull but metallic and bore no sign of age unlike the walls around them.

He felt no magic from the door but that meant nothing in a First ruin. They supposedly could accomplish wonders with magic.

Etani sucked in a deep breath, "I'll go take a closer look. Stay here but be ready to help me."

They nodded and Etani began to activate her armour.

Morey had never seen her use every little function she had on it before. The deflection fields, impact resistance, those he knew about. There were far far more than that, as he watched her activate and test each one in turn. He couldn't know what they did unless she told him, but it appeared she was now taking this very seriously.

Faintly glowing with magic, Etani stepped forward gingerly.

Nothing happened all the way until she reached the door itself. Then she gave a choked yelp.

"Wha- This door. It's Crysteel!" she said, touching it lightly with a mailed hand. The spell around her gauntlet vanished entirely. No, not quite, Morey had the distinct feeling it had been sucked into the door.

Nal was gaping next to him, "are you sure?! Who would make an entire freaking door out of that!"
Morey looked between them, "um, what's Crysteel?"

Etani waved them over, "come, it's probably safe. I still don't feel any magic around here and if there's a trap, it would have gone off by now."

Nal explained as they walked over, "Crysteel is a fusion of Crystal and steel. I've told you about the magic absorbing properties of crystalline mana before but the problem of our shields made of crystal is that it can chip and shatter from powerful strikes. Of course, since it absorbs magic and is immune to physical force until you destroy it, Crystal is impossible to work into any shape except when you're making it."

Etani gestured at the door and took out a fist sized hammer from her belt. She hefted it then, with only a flare of magic for warning, suddenly smashed it down in a magic empowered strike. With a clang, the metal hammer bounced off the surface hard enough for Morey to feel the shock below his feet. Etani silenced the ringing hammer with another burst of magic.

The door bore only a minute scratch for that effort. Morey peered closely. It barely scraped the surface.

"Crysteel, is probably a mix of crystal and steel, we don't really know," Etani continued the explanation, "somehow, the First have managed to fuse Crystal and steel together. Personally, I think it's a bit more complicated than that. Crysteel is harder than steel and doesn't evaporate when absorbing magic. It's the most wanted material from the era of First and Tsar. My strike just now would have shattered the best armour in the world without magical protection. But it looks like we won't be going through this door so easily."

Both of them looked even more excited at Etani failing. Morey had no doubts they were imagining the riches hidden behind this door. He did not look forward the inevitable sulk when they found it was just a stupidly secure broom closet or a hidden diary of embarrassing secrets.

"Hey, what's this?" Morey pointed at a metal box set into the wall beside the door. Come to think of it, that box looked a little familiar somehow.

"Hm. I have no idea," Etani said, "but since it's here, I think it might have something to do with the door."

Nal examined the steel box, set around head height for her. It looked like a rectangular box before, with a slanting section cut out of the front face leaving a strip of metal around the top and sides. In the inset, a series of little squares had been embossed on the surface, set in a six by six square missing the last two on the lower right. The whole box was coated in a thin layer of dust, but there was little rust despite the age. That was probably due to the dry stale air though.

It also really looked familiar. "The First, does anyone know their language?" Morey asked.

"Our language is similar to the First, I hear. But no one speaks their language anymore. It's been three hundred years, you know?" Etani said.

"They read from the left?"

Etani nodded, "yes, that's the archaic way of writing. Some of the oldest surviving books are written in reverse order like the First did."

"And there are thirty four symbols?"

"Mhm."
Morey grinned, "right then. This is a password entry box. The people going through the door must have entered a password using these metal squares to open it. Each square would be one character. It's probably magic but I don't know how to activate it."

The two of them looked at him blankly. Morey just grinned back, no point explaining how much like an ATM pin keypad this thing looked like. They didn't even have moveable type, much less the concept of typewriters and keys for characters.

"I'll work on the magic," Nal said to Etani, "you know more about the First than I do, so you examine the pad for any clues for what characters are for which square."

"Anything?" Nal said as Etani came back.

Etani shook her head, "nothing in the other rooms. It's been so long, I don't think any records anyone made would have survived this long."

"Nothing from here too," Nal sighed, "I gave up and tried to probe the box but my magic just went through. I think it's dead. No magic in it at all."

They shared a mutual sigh of disappointment.

"I don't suppose we'd have any luck forcing the door?" Etani asked despairingly.

Nal sniffed, "you could bring an army in here and this door would outlast our lifetimes."

"You exaggerate."

"Not by much."

They looked glumly at Morey standing in front of the door.

"Do we need to go through this door?" Morey asked.

"Of course we do!" Etani cried, "there could be important artifacts behind this door! Maybe even summoning stones!"

"Those are from Tzar," Nal corrected her, "but yes, who would build such an expensive door just to keep nothing inside?"

Morey shook his head, "no, you don't get what I mean. What we want to do is to get into the room. Not open the door. We don't have to go through the door to get into the room."

He wasn't actually looking at the door. Only off to one side.

At the stone walls slowly crumbling with age.

"Paper, paper and more paper!" Etani flung her arms up in exasperation, "what's so important about bits of dead trees that the First thought that it should be kept in an underground vault with a crysteel door!"

Nal tutted as she carefully opened another box full of documents, "and if it contains information on the nature of the Enemy? What if it speaks of how to reach the Sword? Certainly, they thought this
information was important enough to hire an army of scribes and then keep safe. I think we should read it all."

Morey shook his head quietly. This looked like the file binders he had seen in his father's offices before, on Earth. They weren't ringed files, just boxes of paper held in place by springs that had long since solidified. He had had to pry open the lid by removing the hinges. He gently blew off the thin layer of dust and examined the letters.

The structure of the table was clear at first glance, even if he had no idea what the characters meant. The left side was the labels, the right column was an aligned column of a very limited set of symbols. In fact, there were only nine types on the right. If he had to guess, this was an accounting document. And the paper inside would be detailed records of each individual line.

They had stumbled upon the document repository of some organization. Probably a large and important one, judging from the shelves full of boxy files. It hadn't stopped the organization from fading into obscurity together with the civilization.

After all, only the stupidity of organization processes would be enough to justify such an expensive door without also reinforcing the walls. Or of course that crysteel wasn't a priceless artifact during their era.

"I don't think these are going to be useful to us," Morey said, "But the Academy historians will want to see this archive."

They looked at him strangely. He pointed out his observations with the records, much to the disappointment of Nal.

"It's all right, Etani," he calmed the woman who looked like she was about to explode, "maybe they will find something useful after all. Somewhere in all this, they might touch on the location of other sites and ancient cities. Let the scholars examine this, carefully, and we'll follow up on any clues it gives us."

"For what did we burn through the walls then?" she screeched, "how could the First do something this... this crazy!"

Nal tried to soothe the battlemage but Morey could only look at the carefully bored hole in the wall. He had no words to describe the vastness of the civilization of the First that this room implied. An organization that required this much paperwork meant a scale of operations, and the attendant governance that required them to keep these records, that was literally inconceivable to the current denizens of this world. Just the writing required for this was beyond the abilities of all of Inath to muster. Not even their own court records would be this complicated.

"On the other hand, we do have something immediately useful," Morey smiled. He wondered why he hadn't seen that before.

They looked at him strangely, yet again. He grinned and pointed at the door.

"That is made of a precious material. An entire door's worth, in fact."

Morey fanned the flames a little higher and was rewarded by a welcome sizzle on the cooking pan.

To be honest, he was probably not cut out for being a knight like the Inaths thought he should be. A knight really shouldn't be more happy about getting a new frying pan, even if it was just a thin flat
square of armour-grade steel with a handle, than he did getting a new piece of armour.

But neither Nal nor Etani knew how to cook anything other than roast meat. And he was missing the food of Earth already.

"That smells really good," Nal said as she walked up behind him.

"Thanks," Morey said, "it's a recipe from my world. Although it won't taste the same with your ingredients."

He took the slices of bread from the board and put them down onto the pan. Mmm, bread fried in the fat from Reki meat. A quick flip from the metal scraper turned them over to fry the other side as well.

The smell of the frying seeds stuck in the bread added to the flavours hanging in the air. Too bad the only eggs were from birds that were far too expensive for them to bring on their little quest and Paka milk didn't have the requisite creamy texture of cow milk. He would have liked to do better than imitation french toast.

"How come you know how to cook too?" Nal asked as she examined the stone firepit with cut bricks holding up the pan, "and build something like this. I've only ever eaten at campfires or portable kitchens."

Morey shrugged, "I was a Scout. For a few months."

"You joined the army? What do the Scouts do in your world?" Nal asked.

Morey smiled sadly, "the Scouts is an organization in my world. They teach outdoor activities, how to camp, how to prepare food and how to navigate. They started from a military origin but they're not military. I joined because my father pushed me to."

"Scouts are not soldiers?" Nal raised an eyebrow, "your army must have been very strange."

Morey laughed. The misconception was far too vast for him to bridge. "My world has not fought a large war in some time," he explained as he replaced the finished pieces of bread with slices of meat, "very few people are in the army."

"Then you had no war? That's nice," Nal sighed wistfully.

"No war? Of course not. We don't have monsters sure, but we fight each other," he looked at the shocked look on her face, "it wasn't that long ago before the countries making up the Inath federation were fighting each other."

He sighed at her shock dissolving into disbelief, "it's worse to be fighting humans than monsters. When my father first let me read about the two world wars and the Battle of Verdun, I would not be ashamed to admit I cried from the horror of it. The number dead from each of those wars were... well, put it this way, if you took the bodies of the dead and packed them like sardines... sorry, that's a phrase from my world... the field of the dead would stretch further than the eye can see. Far be it for me to say this, but those armies would laugh at this Enemy of yours and crush it within a month, magic or no."

Perhaps it was his face but Nal looked uncomfortable and changed the topic quickly. "How do you know all this?" she whispered, "I mean, you can fight, you can cook, you even know enough history of your world to be worthy of a scholar. Even Etani looked to you when we were exploring these ruins. You are a Hero so I suppose it's not strange that you know everything but you said that you aren't special in your world."
"You can blame my father," Morey spoke as he continued to cook dinner, "he was an important businessman, director of an international company. I followed him around the world as he traveled through many countries and got to try many things. I dipped my toes in many fields, but I could never dedicate myself seriously."

He slid the last of the bread off the pan and scraped the meat onto the single bowl they had. "Well, you could say that I'm a jack of all trades," Morey smiled ruefully as she just looked confused, "it means that I learnt a bit of everything but I'm not good at any of it."

"Is magic just another thing you're learning?" Nal muttered to herself. She gulped when she realized Morey had heard it and apologized, "I'm sorry. I meant-"

Morey shook his head, "it's all right. I don't know the answer myself anyway."

They stood around feeling awkward for a moment. Then the tension was lost when Etani came out of the tent.

"That smells nice!" Etani said, "maintaining armour really gets me hungry. You should do your share too you know, Morey."

He snorted as she swiped a piece of fried bread, "I'd have less time to cook. You sure about that?"

She bit into the fried bread and looked at it in surprised pleasure. "Your threats are surprisingly effective," Etani admitted.

They shared a round of laughter as they sat around the cooking fire to eat.
"Concentrate!"

The tiny bit of magic between her hands snapped and broke, the pieces fading away. Danine thumped her tail on the floor in annoyance, "I can't do that if you shout at me."

They were in one of the spare houses in the new village. The wood of the forest near to Wendy's Fort made for good building material, but not good arrows, so there had been talk of building one house for every couple like they used to have before everyone packed into the walls. Eventually though, it turned out that some families wanted to remain together and the few extra houses were being used for council business.

How teaching Danine magic counted as council business was beyond her, but she had no objections of course. It was slightly frustrating that Cato's influence was what had gotten her this lesson but the thought that she might be able to throw magic bolts like the Inaths was too good to quibble over minor problems like that.

"It was not forming correctly," the knight said, "you need to give it structure. Feel it!"

The knight held out her hand and showed Danine the six primary magics again. But there was no structure to see, just like all the other times. There were just four green blobs, and one red and one blue.

"But there's nothing to feel!" Danine complained, "it just looks like magic."

"You were the one who begged Cato to teach you magic," the knight said.

"Now now," Cato said as he got up from his own, even more futile, practice. "Tori, perhaps it might be better to listen to what she's saying," he said, "it might be good for me too, since I seem to be making no progress."

For once, Danine was doing significantly better than the human boy. Despite all his concentration and effort, not a speck of magic had appeared. The knight shrugged, "we'll take a short break then."

Cato turned to Danine, "Can you describe the magic she uses?"

Danine sighed, "I do feel it, it glows. Slightly. But I don't feel any structure like she says."

"You said it 'just looks like magic'. What did you mean?"

She frowned at the human boy, "it looks like magic. What else? There was four green blobs, one blue and one red."

Cato raised an eyebrow, "that's not what I see. In fact I don't see anything."

Danine could only frown. What could that mean? She was sure those blobs were there when Tori was using magic.

Cato rubbed his chin thoughtfully, "let me try something."

He bent over and picked up one of those arrow shooters. What were they called again? Ah, yes, bowguns. He put it on the table and asked Danine, pointing at the block of wood near the back of the weapon, "And what do you see here?"
She looked closely. "It's green," she said finally, "maybe." Whatever magic was on the bowgun, it was faint.

"Hm," Cato said cryptically.

"All right, let's try that again," Tori said as she came back in with a mug of tea. The fragrant minty leaf was quite a hit among the Fukas, Danine loved the smell but hated the way the adults seemed to drink their tea boiling hot and insisted that she do the same.

"I want to try it another way," Cato interrupted the knight, "Danine says she sees the bowgun's magic as green and sees three colours when you demonstrated it for us just now, but we don't see anything. Maybe she senses magic differently?"

Tori raised an eyebrow, "possible. She's a Fuka after all. Danine," the knight turned to her, "pick a colour and try to make it."

Danine frowned, despite being told to do that, she was still unclear about what to do. Well, might as well give it a go.

The magic spun between her hands chaotically again but she now paid attention to the muddy mess of colours, trying to make it appear differently. The swirling increased but... was the blue getting stronger? She concentrated harder, trying to push at it. Yes, definitely stronger. A wave of chilly air emanated from the space between her hands.

"Oh, that's close," Tori said, "try to copy this," she said and held out a hand with a fuzzy blue ball radiating magic above it.

Danine tried to copy the blue hue but the other colours kept muddying her tiny spark. Still, it was magic. Real magic now. Just one more push...

A bead of sweat dripping onto her hand from her chin broke her concentration. The dirty blue glow between her hands faded slowly but she couldn't connect to it anymore.

"That's good," Tori nodded, "very good indeed. I think the conclusion is obvious Cato, the Fukas can learn to use magic just like humans and they do learn just as fast. I think they just aren't trained."

Cato nodded in agreement, "yes, but I haven't managed anything at all."

Danine clasped her cold hands to her body, the bloom of delight washing away her tiredness. It worked! Tori said she could learn magic!

She got up from the crudely cut stool and poured a clay cup of water for herself. Magic! She held the cup tightly and made the blue glow appear inside the water. Yes! It was slightly colder! It really worked!

Barely able to contain her glee, Danine felt the cup grow colder and colder. Mmm! Cold water was so refreshing! She poured some more magic into the cup, watching the glow get brighter...

Cato nudged Danine lightly but she didn't stir. Tori had let her practice by herself, focusing on Cato but they had been interrupted by Danine's cup cracking on the floor. The Fuka girl blinked at them sleepily and then abruptly curled up on the floor and simply went to sleep!

"What happened?" he asked the knight.
Tori bent over the girl and jumped slightly when Danine's tail sleepily coiled around her ankle. She suppressed an amused snort and held a hand over the Fuka's arm. "I think she's just drained. She has been channelling quite a lot of magic for a beginner," Tori said, "strange that she should go to sleep though. Humans just get tired instead, I suppose that's another difference between Fukas and us."

Cato nodded, picking up her cup curiously. The ice inside sparkled back up at him. He sighed heavily.

"Do you think that perhaps there's something wrong with me?" Cato said, "no matter how I try, even you must admit that no magic happened for me."

Tori snorted, "nonsense, even the most untalented peasant can learn some magic. Even the birds and bees use magic, of a limited sort. There's no way you can't. We just haven't figured how."

Wait, even the birds used magic? "What about the trees?" Cato asked.

Tori shrugged, "of course. Most plants only have passive lifeforce magic, though there is a tree that 'sweats' Water. It's quite famous for being a species of tree that eats birds by dissolving their feet."

Cato blinked. What. A tree that dissolved the feet of birds? That was rather unexpected. No, don't get distracted. Lifeforce magic huh? True, if magic did exist, it stood to reason that evolution would make use of it. But what of Cato who came from Earth where there was most assuredly no magic? Would he have a lifeforce?

"How do you sense magic?" Cato asked.

Tori shrugged, "how do you see? You use your eyes. You sense magic with your lifeforce. Strong magic like the ones on the walls you can feel. They radiate power. With practice, you can even almost tell what sort of spell it is. At least if you've seen an example work a few times."

That was indeed a good description. So Cato could sense magic which would point to him having a lifeforce. Made of magic presumably. But how? Or did magic sense not operate through the lifeforce unlike what she said?

"Do I have a lifeforce?" Cato asked again.

Tori stared. "You are alive, yes?" she pinched his wrist, "yep, not a zombie. Of course you do. Even the grass has lifeforce."

"How do you know that?"

Tori frowned, "well, if you destroy someone's lifeforce, they die. Same with grass or birds or anything alive. It's lifeforce. Without it, you're just a squishy rock."

"And how do you destroy lifeforce?"

"Any basic bolt of raw magic can do it. If it's strong enough," Tori explained, "it's an inefficient method to kill large creatures like humans, but during a battle, even stray bolts will kill the grass. And in some battles, simple brute power works best."

Ah, so that explained the streaks of decomposing grass around the section of wall that the fighting took place at. Hm. "So are you sure I have a lifeforce?" he asked again, "can you try it just a little?"

Tori shrugged and took his hand. A tiny stream of magic passed from hers to his. "It should feel a little tingly or numb."
Cato shook his head.

Tori frowned and the stream got a little bigger.

Nope, still nothing. He was going to tell her to stop but she took her hand away. "Strange, anyone should be able to feel that," she said, "normally disruptive magic will eat away at the surface of your lifeforce, but I have not seen anyone's lifeforce behave like yours. The magic almost went through your hand."

Stranger and stranger. "Do you know why?" Cato asked.

"No idea. I don't know anything like this could even be possible," Tori said, "Maybe that's why you can't use magic. The Order of Pastora might know more, if you can find them. They're traveling healers."

The reason why his lifeforce was weird might be connected to how he arrived in this world. And the fact that Earth didn't have any such thing as magic. Cato might be the only living thing on this planet for whom magic was optional. Cato didn't say anything about that of course. He wasn't quite sure how they would react if they knew he wasn't from this world.

He wondered if bacteria needed magic to grow...

The next few days came and went without apparent incident. The Fukas continued to build their village and after a solemn funeral, the knights had gone back to their usual practice schedules. The most exciting thing was the accounting of the zombie bounty. Cato could only shake his head sadly at the idea of an army where every soldier got paid on kill count. Amid the arguments and inevitable disputes, Cato had been called to Michi's office.

Cato looked back at the fort at the top of the hill and sighed.

That... meeting had not gone well.

"Bad news?" Banage said as Cato entered the room. The village council had shrunk of late. Only Tharoden, Banage and Tulore attended, despite three others being on the list. Cato suspected some sort of political upheaval had happened but he didn't want to pry.

Cato nodded, "I have to leave. Michi said, clearly, that he would only agree to our terms if I left Wendy's Fort."

"But he has agreed to the terms?" Banage leaned forward.

Cato nodded again, "There are some modifications but essentially yes."

Cato unrolled the paper scroll on the wooden table at the center of the room and read it to them, "He will permit traders, with a tax of a twentieth of the trade. Michi will soon disallow the knights from trading arrows, but Wendy's Fort will sell them directly in exchange for grain. He will tax a tenth of the grain you grow and expects a minimum trade of piyo fur and meat for paka meat and milk. Knights will be permitted to teach anyone how to use magic, but only if you can convince them to, Wendy's Fort will not encourage or discourage it. If Tulore will permit," Cato nodded at the woman, "one dose of curse-breaker can substitute for ten sacks of grain or six piyos. I think he's expecting some of that too, but it's not stated in the agreement."

Cato let the scroll roll back up and regarded the council with a smile, "It's better than the terms of the
initial discussion before the zombies arrived. The trade tax is lower and you are explicitly allowed to learn magic. I suspect he's taken a liking for your flatbread too, I saw some crumbs in his office. " He let the smile fade, "on the other hand, the Elkas have agreed to stay at Wendy's Fort rather than ask you build another tower for them. He has agreed to ask for no more than one scouting per day so they can still aid your hunts. "

He saw the fierce look of triumph on Banage's face. "Most favourable indeed," the Fuka said, his twitching tail giving away his excitement, "I don't like the tax on our grain but we can manage with a tenth. The Wind Eyes will grow fast in this soil. The Elkas are also no great loss, especially since Wendy's Fort will feed them, not us. "

Tharoden looked at him levelly, "But Cato will have to leave us. Without a human to talk to them, will future terms be as good? How long can we trust them to keep their side of the bargain?"

Cato looked at Tulore, "It can last for some time. Michi's not as angry any more. And once the first of the tax is collected, I suspect he will be too busy counting the profit. With easily three hundred Fukas here, a tenth of the grain will add up to a lot of food. I also think he's hoping to gain some curse-breaker potions to study, he may hope to have one of the fort's knights learn how to make them."

Tulore snorted, "he has no idea how difficult it is to make. I am still trying to replace the tools we couldn't save and the a type of rock dye I need is missing from this region. You did request for it in the letters you sent, yes?"

Cato nodded, "a town in the furthest of the three counties replied that they can obtain supplies of such. It will be expensive but I suspect curse-breaker will be far more valuable. Michi's rate of ten sacks of grain is far too low."

Banage added, "I've continued to send Char clan to trade and talk with the knights. The wives might be wishing for a second romance to gossip about but I'm not sure how possible that is. No disrespect, but you tailless humans aren't exactly attractive."

Cato smiled, "That's good to hear. Romances aside, the more the knights who like you, the less Michi can do to threaten this village."

"I still don't like our chances," Tharoden said.

Cato looked at the big Fuka. While he knew the man had looked on Cato more favourably the last few days, hearing him worry about Cato leaving was still surprising.

"Whether I liked it or not," Tharoden explained as they regarded him, "you demonstrated that you only intended to help us. We would have no chance of surviving the army of zombies that attacked the fort. I admit that leaving was the right choice."

Tharoden admitting he had been wrong? Was the sky falling down now? Cato could only nod cautiously.

"It would be foolish of me to turn away an ally like you. Please accept my apologies, I was only being cautious."

Cato gulped and nodded. The relief on the big Fuka's face was gratifying but it only made leaving harder. "I accept of course," Cato said, "I wish we could have understood each other before I had to leave."

"When?" Banage asked.
"I leave with the next supply cart coming to Wendy's Fort," Cato said, "in two days."

"Are you really leaving?"

Cato's jaw dropped. "I walked straight here from the council meeting! How did you..."

Toal grinned and winked at Danine. She grinned at Cato instead, "news travels fast."

That was not an explanation. "But I walked here as fast as I could!"

"Fukas run faster than you walk," Danine said, "it's all over the village already."

Cato sighed, well so much for his worry over how to explain that. At least the hard bit was over. "So, I suppose you two wanted to talk to me about that."

"Do you have to go?" Danine began to plead but Cato cut her off.

"Yes, I do. Michi was very clear about that."

"But your magic lessons-"

"I haven't been able to learn it," Cato said, "you've almost mastered the cooling magic already but Tori hasn't been able to teach me to conjure even the slightest bit."

Danine looked downcast.

"I'm not going to leave forever," he said, "I'll come back to visit. Someday."

"And when will that be?!" Danine asked loudly, "After the war is over? How many years? Or Wendy's Fort could be overrun and we'd be dead."

"I can't promise anything," Cato tried to explain, "but your village needs me to leave, so I have to. One day, I'll be free to come back. And if he had any say in that, it might not be all that long either. Not that he could tell her and get her hopes up.

Danine's lips trembled and she looked like she was about to cry. Then she frowned and looked at him sharply, "you can take me with you."

Er. What.

"Where do you think you're going, young lady?"

The voice sent Danine hopping almost a foot into the air. They looked at her mother standing at the door to the kitchen.

"Mama, but Cato's going to leave!" Danine said.

"And what makes you think you can go with him?" her mother snapped.

"I can take care of myself! It's not like you need me here."

Cato put a hand to his forehead. Well, that was an unexpected headache he didn't want to deal with.

Toal sighed as the mother and daughter began to argue. "Will you be fine?" the blacksmith asked, looking Cato over.
Cato nodded, "yes. I'm heading to Corbin, it's only five days on the cart from here. If you need to find me, you can start looking there."

"Will you need any help?" Toal asked, "I could follow. I might even learn something from the Inaths. Landar isn't a very good smith."

Cato shook his head. He appreciated it, but... "It's not a good idea. Your village needs you more than ever, a new village will need all sorts of tools."

"True, my hands are full" Toal smiled, "All the more reason to-" he caught Irl'd's glare, "all right, all right, you take care of yourself then."

"You too."

Danine dashed out of the kitchen, tears on her face. Cato and Toal looked at her mother.

"I'm really sorry," Irl'd sighed, "she won't take no for an answer once she's gotten an idea into her head."

Cato bowed, "Thank you for taking me in. It has been a pleasure to stay with you."

"Same to you," Irl'd nodded back, "your stories of your world were fascinating. Let me pack you some food to take with you."

Cato refused it, "Keep it, the knights are arranging that. Besides, I can take care of myself. You don't need to worry too much."

Sheesh, all of them trying to give him things. Cato was starting to feel like a child to be coddled.

Irl'd nodded and put down the pot of flatbread, "You helped... no, saved our village. If you ever need one, there will always be a place for you here."

The supply cart arrived on schedule two days later, trundling through the gate. The two large Rekis pulling it were fed and watered while the cart was unloaded of foodstuffs and items the knights had ordered. The driver had even yawned and went off to find a meal at the dining hall. Just a normal mail run.

Cato put down his small bag of belongings beside the pile of firewood left on the cart. The clothing from Earth and a set of notes he had taken. There wasn't much else that was his.

Seeing him off was the Fuka village council and Michi with some knights. Michi still looked angry but at least it was only directed at Cato, not the Fukas. The Elkas were perched on the gate and walls too. Cato glanced around, nodding to Toal and Ka. Hmm, Danine wasn't here.

He hoped she wasn't hiding somewhere crying. Her mother wouldn't like that.

The cart rocked under him as a knight place a large wooden crate on it. Tori patted the heavy crate full of bread and winked at him. Then she stepped out of the way of another knight who placed another crate on the cart.

Cato put away idle thoughts and looked at the procession.

What was happening here? The knights were loading the cart with crates of... hey, those were Landar's items! He could feel the magic from them right through the crates and... and...
Landar was there right behind them.

"What are you doing here?" he asked.

"I'm coming along," Landar smirked.

"Surely you're joking!" Cato exclaimed, "Can you just leave Wendy's Fort like that?"

Landar sighed and took out a letter, "I've been recalled by my father. Well, the order of knights has, but my father's probably the one putting on the pressure. I knew revealing Tempest Bolt wasn't going to be a good idea."

Cato blinked for a moment then realized it was the name of that Ritual class summoning stone. Landar had adamantly refused to explain how she got it, despite Tori's questioning.

"I... sort of... stole it," Landar smiled wryly, "so they want it back."

"Are they going to punish you?" Cato asked.

"You think I'd be going back if they were going to?" Landar shook her head sadly, "They wouldn't dare."

Who was the 'they' Landar spoke of? And what was the relation between her father and the stone? Aware that he knew virtually nothing about Landar, Cato sighed and looked at the laden cart. There would be time enough to talk during the journey he supposed.

"And someone has to take care of you after all," Landar quipped, a smile creeping back onto her face.

Cato could only roll his eyes. So much for getting people not to baby him.
Now that I have paper and not bits of wood, and a ink and quill set (real bird feather!), I can record my observations in longer form. One hopes that it helps me organize my thoughts so I don't forget to follow up on the questions.

**Humans and Fukas**

Michi seemed to just ignore the Fukas. He doesn't seem to consider them important, even when shown they are. Even Tori and Landar sometimes refer to them by 'the Fuka', as if the Fukas are not human.

True, biologically, they're not, but they're people just the same. Banage and Tharoden should be careful to note signs of racial tension.

Why should the Fukas and humans have different domesticated plant and animals? Did they once live in a different location? They know about the different Reki breeds though.

**Zombies**

You would think zombies spread zombie disease but apparently that's not the case. I've seen some of the knights get injured and they don't seem to be worried about it other than infection. They do know that zombies carry disease but not a special sort of disease that turns you into zombies. The Fukas almost laughed me out of town when I mentioned that.

I told them to boil some water. Aseptic technique is not known. I wonder if boiling water even works, in magical Inath. Tulore thinks it might help. The Order of Pastora appears to be a healer's guild of some sort, and Landar said they don't use magic, they might know.

Zombies also appear to be deaf. Maybe. My experiment wasn't conclusive.

They can notice where you are through obstacles and over long distances. But a small group of hunters can evade them by running away. That seems contradictory and like no known ability. Can the zombies even see? I suspect the zombies might have an unknown sense that detects humans. What it is and how it works I have little idea.

The black mist appears to be related to the reanimation but I suspect it only makes it faster.

In any case, I succeeded in convincing the knights to burn the bodies. These zombies won't be getting up any more.

We really need to capture some of them to see how they work. I'm not sure why the Inaths won't do it, but observing your enemy is basic.

**Technology / Infrastructure**

Inath is going to be disappointing I can tell. Wendy's Fort uses open pit toilets just like the Fukas and they don't have the benefit of the... scent removing leaves. I can foresee the Fukas doing a brisk trade once they figure it out.

Inath can't make steel reliably, which is something they need to fix. Some questioning also indicates
that Inath knows little chemistry.

But before I rejoice and take over the world with 21st century knowledge, I need to confirm whether the physical laws I'm used to still applies in this world. I need to set up some experiments and confirm them before trying to do anything too expensive.

After that though... I wonder how much of modern knowledge I can re-create, and how magic might open new applications.

Assuming I can even find a sponsor.

**Magic**

Magic is one of those things that I can't expect anything about. Even if it does parallel stories on Earth, there are so many types of magic we tell that I don't know what type of magic is the closest to Inath magic. Likely I can't rely on Earth stories to inform me.

I have not been given a lecture on magic yet nor any comprehensive explanations. The way Tori taught Danine and I was just by showing us and telling us to do the same thing. From Danine's descriptions, I think using magic is a mental task not unlike moving an extra arm.

How or why should I not be able to use magic, when Tori said that everyone could use even a little bit, I don't know. Tests showed that I'm not somehow immune to magic nor do I have any special magic cancel ability, unless I simply haven't managed to use it yet. I can sense magic, so at some level I'm sure I have a lifeforce. It's 'unusual' according to Tori, but that could be caused by me coming from Earth. We don't have magic or lifeforce and I suspect I could survive without one, although I probably won't be able to sense magic in that case. I suspect this is related to how I got here.

In sensing magic, it's obvious but still good to note that the more powerful the effect, the further away you can sense it. The further away an effect is, the weaker it appears. How 'hard' or solid an effect appears seems to be related to how much magic is packed into a volume.

The Fukas sense magic differently to humans, they see colours instead of feeling magic. Danine says she can 'see' them from all sides, so it's not from her eyes. How or why this should be so, I have no answers.

Aside from that, I have noticed a few points about magic:

- Magical effects left unattended slowly fade away, unless tied to an item
- When doing things, magical effects decrease in strength
- People get tired when they use magic, Fukas get sleepy

From this I can conclude important observations:

- Magic can be counted. What we sense as magical strength relates to the quantity of magic in a particular effect.
- Magic in lifeforce is limited. Without magic, people suffer side-effects or even die.
- Magic is local. It exists in a specific location and if you want to do something somewhere with magic, you have to send the magic there.

The knights like to use magic bolts, which is magic moving from the caster to the target; Tori also explained that you can send your magic directly to the target to make an effect appear, like how Danine did in the magic lessons, but this costs more magic to sustain the connection. Or send the magic, or something. She wasn't very clear other than that it is inefficient.

The Inaths don't count magic, they just work by feel and approximation. While for something like
magical arrows, this isn't a problem, if I am to obtain better results with magic, quantifying magic should be the first order of business. The same problem applies to forging the bowguns, every bowgun is different from another.
I suspect this is the reason for the bowgun's lack of accuracy.

I should start by learning what the Inaths know about their magic (or what they think they know). If I can recruit Landar to help, that would be good.
The cart trundled down the path, with Wendy's Fort getting smaller behind them. The driver was an old retired knight who might be in his sixties who clearly had some stories to tell.

Cato could care less. All he could do was lie atop Landar's crates and groan as it went over yet another stone.

The road condition was gradually getting worse as they moved out of grassland into what looked like a rocky swamp. Shallow puddles and potholes dotted the road and while the driver avoided the worst, the cart still jumped up and down like a demented monkey as the pair of Rekis pulled it along.

Cato had never thought too much about wheel suspensions but never was he more wishing that Inath had better metalworking. Why, they probably didn't have any such thing as a spring.

"A spring?" Landar just looked confused when he asked.

Cato fished out the pen that came with him from his bag. He tried to sit up and got another bump on his behind for the trouble. Meh, better to stay down. "Here," he clicked the pen nib in and out. Cato supposed it was lucky that the pen case was transparent. "See that metal thing near the front? That's a spring."

Landar's eyes grew wide as she clicked the pen a few times. "The workmanship is incredible," she said, "whoever made this spring must be a master. And what's this material? Stained glass? It's not hard or cold like glass. And that mechanism to catch the shaft. This must have been made by the First! Where did you get this artifact from?!"

What. Cato frowned and rolled onto his stomach. Landar's eyes were glittering again as she examined the nib of the pen, writing a letter gingerly on her arm.

"The point. It's metal and... there's a tiny ball inside? Oh, I see, that's really clever. When you write, the ball rolls to pick up ink from the shaft. Only the First who could make something this fine," Landar said. She shared a glance with the driver, "what do you think Rusel?"

"Well, I've certainly seen nothing like it," he said, still keeping half an eye on the Rekis, "what can you do with something like this artifact though? A noble's toy at best. A shiny object for an unruly bandit to kill you for at worst. I'll take a paper and quill."

"Cato, I would like to study-" she turned back to him and frowned, "what are you laughing at?"

Cato bit back his chuckles and shook his head, "that's what I call a pen. It's nothing special where I came from."

"Nothing special?!!" Landar exclaimed, "I would love to meet the master craftsman who makes these, why half the nobles of Inath would order his work and wait for years!"

Cato raised an eyebrow and couldn't resist another jab, "that pen cost me less than a loaf of bread. I lost pens by the dozens every year."

The look on her face was more than worth it. "I recall the Fukas saying you come from a different land. A First city maybe?" Landar whispered.

Cato shook his head and stopped. Could he tell her that he came from a different world? But the pen
was probably of a different style to the First, whoever they were. Probably a lost ancient civilization. The advanced ones always were, weren't they?

"I'm not from anywhere near," Cato said finally, "Earth is a very different place."

"If you can make something this detailed, of course it is," Landar asked, tapping the pen curiously, "What is Earth like? If workmanship this fine is so cheap, your cities must look like works of art."

"You would think so," Cato smiled wryly, "but I grew up in a planned town. It's just one big grid. I heard they leveled a hill and diverted a river just so the north side of town could be a right angle."

"A planned town? Wait, leveled a hill?!"

Cato raised an eyebrow at Landar's surprise, "that's just what I heard. The university and the town were planned together and it really shows. There's no.. what did you call it? Art? Every street just cuts so straight you can see clear from one end of town to the other. And every street is the same as all the others. It's a running joke in the college that all the university buildings can be named with two numbers to count how many streets east and north it is."

Landar mused for a while, "but what about the buildings themselves?"

"We built a lot of concrete and brick houses," Cato imagined the business district down near the port area, "the ones you'd be interested in are the skyscrapers. A cage of steel and glass. They're not what you would call artistic, our buildings don't have decorations or adornments like yours. But I think they do have a sort of elegance to them."

"Skyscrapers, huh," Landar turned the word over in her mouth, "how tall are they?"

"That depends, I think most modern ones reach to fifty storeys while the tallest might just go over a hundred," Cato looked up into the sky, trying to remember how tall skyscrapers were. He didn't have to look to know they were astonished, and not a little skeptical. "I said they looked like cages because the outer walls aren't made of stone. The usual material is glass in a steel frame. I know you want to ask how they are built, but other than the use of steel as a frame for the building, I don't actually know how."

He caught Landar looking disappointed, and the cart driver was still disbelieving. "Well, given how difficult steel is to make for you, I don't think anyone's going to build skyscrapers any time soon," Cato said, "Most things where I lived depend on cheap steel, because they're made of it or because the machines that make them are made of steel. Even the nib of that pen is steel."

"Cheap steel," Landar's eyes were shining again, "machines... that make things. You must tell me more!"

The cart driver on the other hand just shrugged, "you tell a convincing story, boy. I almost believed it. Have you considered being a bard?"

Cato laughed, "a bard? Nah. I have no sense for music. I can tell you more, but first," he turned to the crate containing the travelling supplies, "let's have some lunch."

Landar's eyes lost a bit of their sparkle. Cato could almost feel sorry, but they would have more than enough time to talk about...

"Hey, all the bread is spiced?!!"
Cato nibbled on the heel of the loaf, trying not to wince at the spiciness. Landar just smiled at him in amusement, as clearcut a case of sadism as Cato had ever seen. That alchemist knew that he didn't like spicy food but must have deliberately asked for that just to watch Cato squirm. His grumbling stomach didn't give him any rest either. After just one afternoon of attempted fasting, Cato didn't think he could avoid eating for the four days to Corbin.

He took another bite and looked around at the land to distract himself from the burning in his mouth.

The land they had been travelling over had gradually gotten worse and worse. If it was a swamp before, now it seemed like endless fields of mud and rocks. The number of potholes had increased and the silt-laden puddles covering them painted the land a dirty brown. Worse still, unlike swamps, there was no life at all. Not a single tree or blade of grass was visible, nor those irritating flying insects that was this world's version of flies.

"Did something happen to this place?" Cato asked, looking at a passing rock. It had a thin film of algae, the only green thing he had seen in hours. "Why is everything so dead?"

"It's called the Dead Marshes," the cart driver said.

"I hope we don't run into the reason," Landar said ominously.

Hmm? That was quite the foreshadowing, Cato frowned out at the bleak field of mud. What sort of monster could do something like this? Or was this something else? The sun was already beginning to set after the Little Night and the brown pools were tinged a dirty yellow. Cato sighed. Well, the deliveries were rarely seemed to be late, so the trip must not be so dangerous.

Well, except the bread of course. Those things could almost qualify as chemical weapons if his mouth had any say in the matter.

He dug a bit deeper into the pile of hard bread, trying to find one that had less spice on it.

He brushed against the fur hidden just under the top layers of bread. Oh, there was piyo in here? Well, Cato did think the crate was a bit big for just five days of food, the cart driver must have been wanting to trade some of the Fuka produce.

The pile shifted under his hand.

Cato froze and glanced at Landar suspiciously. Live piyos? She was talking to the driver about the mud on the cart's wheels. Nope, she probably didn't know about this. Gingerly, he lifted up a few of the larger loaves. Underneath... revealed that the fur was actually a large bushy tail. A rather familiar tail at that.

"Nha!" the shout made Landar and the driver turn around.

"My, what a surprise to meet you here!" Cato put a bite of sarcasm in his voice as he held up the tail of the sleeping Fuka girl.

He let go of the tail as Danine uncurled from underneath the bread. She even had the temerity to yawn sleepily.

"What are you doing?" Cato asked again. And how did she get into that crate? It wasn't small but even so... he recalled Tori's look when she loaded the cart and had a sinking feeling about who the accomplice was.

"I'm following you!" Danine said cheerily once Cato lifted her out and sat her on the cart.
Bonk. He rapped her head sharply. "There's no way your parents agreed to this," he said, "do they know?"

Danine shook her head.

"And how did you even sneak into that crate?!” Landar asked.

"Your friend helped," Danine explained.

"Ha... how did you even find the time to wheedle her into doing that. I can't imagine stuffy Tori being easy to convince." 

"I just asked her, normally," Danine tilted her head curiously, her tail mirroring the motion.

Could Tori actually be weak towards little girls? Not that Danine was really 'little'.

No no, can't get distracted. There was still the main problem to deal with.

"Why did you do this?" Cato asked.

"It's not fair! You get to go off on adventures!" Danine tried to explain further when she caught Cato's frown, "And there's Ryulo too. He's dashing and cool. All I can do is just sit at home, papa's still not letting me out of the village."

"This is not an adventure," Cato said sternly. This girl had some very strange delusions. "I'm getting kicked out of the Fort, you know?"

Danine pleaded, "I know that! But even so, you're still going to go to other places. And people will listen to you. And you will do amazing things like that bowgun!"

"It's still not something you should just leave your parents over. Won't your mother be worried if you're gone?" Cato pointed out.

A look of concern flashed across her face and Danine pouted, "it's not fair to bring up mama like that.

Cato sighed, this wasn't a game like she seemed to think. Even if Corbin was less dangerous than a frontier fort regularly attacked by monsters, it still wasn't a place for a young girl without parents.

He considered the path back. Was it too far to turn back now? Would Rusel even agree to do that? It was probably a bad idea to send her back by herself. Danine caught his direction and tears began to well up in her eyes, she obviously thought he was going to do that.

"Tell me," Landar asked gently, "what is it you are trying do?"

Danine frowned, clearly having trouble putting it into words. "I- I want to be like you!" she said finally, pointing at Cato, "I want to have people listen to me."

"People listen to Michi," Cato said, "I don't think you want to be someone so close-minded like him.

Danine shook her head, "it's not... like that. I don't want people to listen just because they have to. They want to ask you to do things. And you can do it. That's why the village council listens to you. Why you can be someone important. I don't want to be just a Fuka girl who can't do anything."

Cato blinked at the girl who was almost crying in frustration. He had an idea of what she was asking
even if she hadn't been completely clear. Despite the fact that she was the first Fuka in the village to learn how to use magic, that wasn't what she was looking for, Cato understood that much at least.

What she wanted was more than just a name or position. She wanted to... matter. To prove her worth. Danine probably didn't quite understand what her dissatisfaction was but clearly she thought she could achieve it by following Cato around the entire country.

But this was really a different world and he only had these ideas because he grew up with science and logic on Earth. Could Danine even learn it? What if his unique position from a more advanced society made her dream impossible to achieve? Cato didn't know what would happen if she found that out but it wouldn't be anything good.

No. Wait. She had thought of that luring method using the Elkas, didn't she? Even if Cato had figured out the tremor sensed ground vibrations, Danine was the one who put Cato's attempt at a makeshift bait together with the Elkas. Danine had already solved a problem once and in a way Cato didn't think of because he wasn't used to the idea of human flight other than airplanes. And Landar was brilliant at alchemy and Ryulo had his own special talents on the battlefield and... other areas.

Thinking that only he could have bright ideas was sheer arrogance. Cato nodded to himself. Yes, there was no reason to think that Danine couldn't do it. Though he had no idea if he could teach it. Whatever 'it' was. Still..."I think I understand," Cato said finally. "I still don't agree that leaving your mother was the right thing to do. It was very selfish of you not to ask her first," he looked at Danine's teary eyes and softened his tone, "but it's also too dangerous to turn you back on your own. When we get to Corbin, the first thing we will do is send a letter to your parents."

Her eyes widened for a moment but he held up a hand, "I don't know if it's a good idea for you to follow me. I may not be able to take care of you like your parents would. I have half a mind to ask the next supply cart to take you back to the Fort. " Her tail descended again in disappointment but he wasn't done.

He could see himself in the future already, he would be looking back to this moment and thinking 'this is where it all went wrong'. But he didn't know if it would go badly and... and it felt wrong to try to restrict her decisions, even if she was a kid. Who was he to crush her ambition, even if it was half-baked and nebulous? Or worse still, make her feel put upon enough to rebel and strike out on her own and- Enough. Cato took a breath.

"If you're sure, once you know what I'm going to try to do, then you can decide whether you really want this," Cato said, "So if you really want to follow me, you have four more days to Corbin to convince me."

The wide-eyed surprise on her face was all the warning he got before she hugged him, tail wagging in excitement. Her muffled words of thanks through his shirt were more felt than heard.

Cato looked at Landar who just smiled wryly back at him. "So you've got a new pet," she said with a grin.

Oh, be that way, would she? "Fukas are not pets," he snapped back in mock anger, "you're not turning into Michi now, are you?"

Landar laughed and shook her head, "yeah, I would have loved to see the look on Michi's face when you told him the Fukas were stockpiling ammunition."

The driver had stopped the cart for the day. Travelling across the broken land was hard enough on the Rekis by day but avoiding potholes would be impossible at night. Not to mention the chill air and light wind that promised a cold and uncomfortable night.

Danine had snuggled down into one corner of the cart with a spare coat and her tail wrapped around her neck, how she even managed to sleep despite sleeping in the crate for most of the day was beyond Cato. The driver, Rusel, was checking up on the Rekis and feeding them.

In contrast, Landar was looking out across the muddy land with a worried expression. Cato couldn't spot anything out there, a flat expanse full of difficult terrain and lit by the dim red moonlight of Selna. Nothing could approach without them noticing, and what monster would venture across such inhospitable terrain?

"Do you think we need to keep watch?" Cato asked her.

"Shh," Landar said, still fixated on the horizon.

Cato followed her gaze but still spotted nothing. Was she even seeing anything? He tried waving a hand in front of her to no response. Hmm, maybe she was concentrating on her magic sense?

Cato closed his eyes and tried to focus as well but still felt nothing. There wasn't even the nebulous wisps of magic like he had felt from the zombies.

"Build a fire," Landar snapped him out of his focus with a command. Danine blinked up at her sleepily.

Rusel looked at her and raised an eyebrow, "I don't feel anything."

Landar shook her head, "it's coming. I'm sure." She gestured around at the wasteland.

Cato peered into the dark night. A thin haze of mist hung in the air and chilly winds unbroken by foliage or hills sent tendrils sweeping over the ground.

"But-" the cart driver protested again when Landar sent up a flare of magic. The blindingly bright ball wavered in her rising alarm, casting sharp shadows across the cart. The circle of blue coloured brilliance pushed back the night.

Cato had the distinct impression of something disappearing into the edge of the darkness.

Danine crawled over and sat beside Cato worriedly. Even the cart driver was starting to look shaken.

"Another five minutes and we would all have been dead," Landar scolded, but her voice was full of anxiety, "I didn't think it would happen so early in the night but... you believe me now?"

She pointed out the layer thin mist out near the edge of the circle of light. The edge seemed to be far too sharp... no, the mist was swallowing it, absorbing it like a coat of night-coloured paint.

Now the reason for bringing so much firewood on the cart became clear. Cato and Rusel hurriedly stacked the wood blocks and the older man lit it with a spark of magic. Even Danine helped a bit, picking up smaller chips and tossing them into the growing fire.

When the wood had caught and the fire was stable despite the wind, Landar let her magic go. The harsh blue light faded into a gentler but weaker orange of fire.
Cato turned to the darkness and stared out at it. The dark mist had advanced once Landar's light was gone but it had again stopped at the edge of the fire's light. It was very obvious now, a green-tinged cloud that seemed to pile up and flow around them leaving only the white streams of water mist to approach them.

A tickle caught his attention. The clouds were faintly magical, but even less concentrated than the zombies' aura. Even so, the magic was building up around them, getting stronger and denser.

"What is that?" Danine asked fearfully.

"Miasma," Rusel spat into the fire, "it is called the Death Marsh for a reason."

"You see that green mist?" Landar asked, "that's Miasma. It likes the night, the wet and cold. It's not an enemy you can fight like the zombies or even run away from." She pointed upwards at the sky.

To his horror, Cato could see the stars getting fainter. The mist had been going over them without him noticing. Even the night on the other side of the fire was creeping inwards.

"We always bring enough firewood to last three nights when crossing the Death Marsh," Rusel explained, "light and heat repels it. You never see miasma in the day or times when Selna is too bright. Likewise, it avoids fires or bright light."

"What happens if you get caught?" Cato asked. Danine trembled behind him, clinging to his shirt.

"You die," Landar said simply, "We have found unwary travellers caught by the miasma before. Sometimes even groups of travellers who ran out of firewood. They die without a scratch, without a struggle. There's nothing to indicate how, no trace of poison or miasma in their bodies. They say the miasma curses you but that's just superstition."

"Say that again when you've seen a cursed victim," Rusel shook his head, "their bodies stay fresh for weeks, not even the rot will touch them. I hear the miasma drains your life so completely that not even the rot can grow. What else but a curse could do that?"

Cato could hear an audible gulp from behind his back. Despite Rusel's talk, Cato suspected Tulore's curse-breaker wasn't going to help against the miasma. He turned to stare out into the wall of green darkness.

What could create such a thing? Was the miasma even a thing? And how did it kill? There were so many questions Cato could ask, but he didn't feel like experimenting on it right now. There was no way Cato was going to risk touching that green mist.

Slowly, the miasma surrounded them, slowly, silently eating into the circle of safety. The magical power outside their tiny little fire continued to build and the night continued to get darker until it seemed like they were a single speck of warmth adrift in their own world. Landar fed in another wood block and the darkness receded a small step as the fire crackled higher. A tiny step that was lost all too quickly. They were going to have to take turns watching and feeding the fire as long as this lasted.

The Rekis snorted nervously and huddled down across the fire from him. It looked like not even they were going to get any sleep tonight.
Corbin's walls were shorter and less impressive than Wendy's Fort, only one and a half storeys high. The more reassuring sight, to Cato anyway, was the ramshackle streets and houses that had outgrown from the walls. This wasn't a city that suffered constant attacks.

They even tended farmland nearby, the dead swamp had slowly given way to green pastures and field after field of cereal crops. Despite his weariness, Cato still noted how the fields rotated through varying stages of growth. Only the lack of seasons meant that every stage of growth was visible as the farmers rotated through their fields. Cato also noted how one field they passed by was being harvested by a small army of farmers with scythes and sickles.

Still, as they progressed down the street, Cato could almost see a parallel to Earth's history. The wide main street for carts was lined with wooden and the occasional stone building. None of them were over two storeys. Varied shops peddled their wares to an early morning crowd. But besides the occasional cobbler or cloth, most of the others were selling grain, fruit and bread. It felt more like a farmer's market than a town's commercial district.

Of more interest was the occasional Fuka mixed among the people on the street. Danine's tail and ears twitched in curiosity every time she spotted one, but Cato refrained from pointing out that none of the shopkeepers were Fukas and what few there were looked not a little browbeaten, hurrying along with heads lowered and refusing to make eye contact with anyone. He suspected the slight prejudice towards the Fukas he had seen in Wendy's Fort might be more magnified here.

"Woah, what happened to you out there?"

Rusel waved a hand sleepily at the guard standing at the gate, handing him a few official looking sheets, "twice in five days. We barely got any sleep!"

"The miasma?" the guard shook his head, "You sure are unlucky."

"Finally, safe..." Danine mumbled wearily, slouched over the raised sides of the cart. She had been trying to learn how to create light, just in case they needed it. That was how desperate the situation would have got. Rusel, of course, knew how to, being a retired knight.

"One more time and we would have run out of firewood and might have to burn the cart," Landar sighed, "I've never heard of miasma happening so often."

"You've not left Wendy's Fort for a year," Rusel said, "the miasma has increased lately. But still twice in five days is just..."

"True true," the guard nodded as he began to check the loaded crates, "the official supply carts are well-stocked with wood but every month some fool idiot insists on leaving with only a night's worth. We can't stop them and to make things worse, most of them do get through. It only encourages others to take their chances."

"Anyone lost a farm yet?" Landar asked.

The guard nodded unhappily, "a few. The fields nearest the Death Marsh are starting to turn to mud again. There was another field abandoned just after you left, Rusel."

"Again?" Rusel shook his head and sighed, "well, at least Inath won't abandon Wendy's Fort and as long as that fort is still there, so will Corbin."
The guard nodded and waved them through, "everything seems to be in order. You have a lot of stuff for an alchemist, you know?"

Landar just smiled back at him.

As they entered the gate, the houses and shops became more wealthy, more or less as expected. They were still impoverished by Earth standards of course, facades of wood and stone couldn't hold a candle to the perfection of concrete, steel and good white paint. The stink of human waste was less than expected however, but when Cato tried to see if sewers existed in this place, he instead spotted trails in the side alleys where refuse had been removed from the town.

On the other hand, metal and wood craftshops, tailors and one case of a jeweler were now visible and the number of peddlers of food had reduced while quality had improved. In fact, a man pushing a small handcart of tiny baked delicacies tried to sell some to Landar in a strangely lilting language Cato didn't understand but she simply shook her head.

Cato noted how most of the workshops of a particular type seemed to hang some sort of coat of arms outside, all of them the same. Smiths had one sign and tailors had another, but all of the smiths used the same sign. It smacked of a monopoly.

"Right then, here we are," Landar said as she hopped off the cart, holding out a hand to Danine, "the Academy branch in Corbin, also representing the order of knights."

They pulled up alongside the side entrance of one of the largest buildings in the center of town. Decorated with many varied coat of arms and festooned with flags, the Academy certainly looked impressive to Danine. Cato could only see chaos.

"Academy?" Cato inquired as he donned the thick gloves offered by Rusel and helped unload the crates onto the cobbled ground. The side entrance was where Landar was to store her items until she found a place to setup her workshop again.

"The full name is the Royal Academy of Magical Studies, it used to be the most influential guild in Inath but since twenty years ago, the war pressure has risen so much the knights are now more important," Landar levitated one of her crates off the cart with a shell of magic, eliciting a jealous look from Danine.

Rusel, also helping in unloading Landar's crates, said, "the Academy's spellstorm training is famous. Even if the Academy doesn't outright teach war and fighting, spellstorms are so devastating that they're more than holding their own compared to the knights."

"Alchemy is undervalued," Landar sniffed, "it may not be as flashy as the rest but who else makes the armour the knights wear and the arrows the archers use? I say we're under appreciated."

More than under appreciated, Cato suspected alchemy was probably one of the most important magical disciplines. The Inaths just hadn't realized it yet. Well, he would have to fix that. After he learnt more of magic of course.

"So what are you going to do now?" Landar asked as they stacked the last of the crates on the ground in the storage area. Landar sent the heavy cloth cover over it with a wave of a hand and a burst of magic. She seemed to substitute magic for physical exertion whenever it looked like she was going to need to do anything. It seemed like an eminently useful way to train magical ability to Cato.

"If you could recommend a place to stay in the short term, Danine and I would appreciate it greatly," Cato asked, "Also, do you know any traders who happen to be in town? I have a few proposals to
Landar raised an eyebrow, "a business proposal, hm? Well, there's a nice inn to stay at two streets down, do you need some money?"

Cato smiled and nodded back at her, "the Fukas gave me half of their bounty for working on the bowgun for them. It was too generous but since this girl decided to come along, I'm thankful for it. " He ruffled Danine's furry ears. She nodded her thanks at Landar.

"I'll just settle my affairs with the Academy here, as well as register your temporary guild membership, I'll meet you for lunch at the inn to discuss your... proposals. "

The inn was wooden and low. Candles burned even in midday and gave the whole establishment a stuffy smoky smell. Instinctively bending down from the low ceiling, Cato felt like his height was somehow emphasized by the fact that everyone else didn't cringe every time they walked past a beam.

The clientele was sparse since it was about an hour until lunch but the few men and women eating early or just lounging around looked at them curiously. Cato caught a few unreadable glances towards Danine too. Still, he could tell from their dress compared with those outside the wall that this wasn't an inn that attracted the lower strata of society.

Even so, the wall at the back was lined with very familiar looking barrels and the air carried the smell of alcohol. Looked like some things never changed even between worlds. Give a man any sort of plant and he'd find a way to get drunk off it.

He nodded to the innkeeper standing in front of the counter and paused. A room for two? Or should he get separate rooms? Danine might be considered too young to be on her own though. Who knew what counted as age of majority here? Oh what the heck.

"A room for two?" Cato ventured.

The innkeeper looked down at Danine and frowned. She clung to Cato nervously. "I'm sorry, we're not that kind of establishment," the innkeeper said.

What in the world? Was it just the way he asked? "Uh, I need a room to stay in for at least three days. Do you think she needs her own?"

The innkeeper stared at Cato for a moment then considered Danine's twitching ears. He mumbled something inaudible and then said, "One room. One rime per day."

That would be one of these big coins, Cato mused. Come to think of it, he had no idea how expensive things were in this town and he had only twenty of them plus miscellaneous change. Danine tugged on his shirt and whispered into his ear, "he's overcharging you."

How did she know that? Cato raised an eyebrow and resolved to ask her later. "You can go lower than that," Cato said then made a snap judgment, "half a rime per day."

The innkeeper held his gaze for a long moment where Cato also resolved not to look away. "Fine," he said finally, "but you have to be quiet."

Despite the incomprehensible comment, Cato accepted the price. He wondered if he still wasn't being overcharged but Danine didn't seem to react. Alright, if he needed to stay for longer, Cato
would certainly get his money's worth the next time. They counted out the requisite coins and the innkeeper showed them the room.

Sadly, the wooden room held only a pair of beds on either side of the room and a washtub in one corner. The clay chamberpot would be emptied twice a day and Cato swore to himself that he would use it only right before it was due. They were limited to no more than a sixth of a candle per day or there would be an extra charge. Even the wooden flooring was creaky. All in all, a poor substitute for an equivalent room on Earth.

"How did you know he was overcharging me?" Cato asked once they were alone, "I don't think you know the prices here either."

"He was nervous," Danine frowned, "I think. I just got the feeling that he couldn't be trusted."

Hmm? Cato looked at her closely but she just looked back up. The large eyes and furry ears betrayed no special mind reading abilities however. Perhaps she was just good at reading people?

He shook his head and gestured at one of the hard beds for her to sit down. She fidgeted a little, it wasn't very comfortable, being a few sheets draped over a wooden board. Nothing like the soft fur of piyos. Cato added an entry for mattresses in his mental wish list. Pillows and blankets too.

"What exactly do you want to do by following me?" Cato asked, "you said that you didn't want to be just some girl who couldn't do anything. So what is it you want to do?"

Danine shook her head, "I don't know."

"So your first task will be to find out what that is," Cato said.

She frowned in confusion for a moment then she got the implication and her eyes widened.

Cato smiled and nodded, "I've decided. If your parents permit, you may follow me if you want."

Danine's tail shot up in surprise then drooped immediately afterwards, "but mama will never let me do that."

"You'll have to persuade them, and I will encourage them to let you stay as well," Cato held up a finger, "but. I expect you to practice magic seriously without me to watch you. You cannot expect me to tell you what to do all the time, nor will I do so. I am not your parents and this is not your village, keep that in mind."

Right. That should be enough for now. He had to make clear what he expected from the outset or she would never achieve her goals. She nodded enthusiastically.

He pulled out his quill and paper to help write the letter then paused. Danine's writing was still bad and her reading skills were marginal at best. "Also, I will try to teach you how to read and write. Properly. It's going to become a very important skill."

"Finally something more than sandwiches," Landar sighed as they finished their lunch. Looked like she was as sick of it as Cato was.

It was soup of a brown-coloured pea and bread, with chunks of paka meat. The soup was starched with a floury mix, probably from whatever they used to make bread, that gave it a creamy smooth texture that Cato didn't know he missed. Altogether a nice change from endless sandwiches on offer
in Wendy's Fort. Best part was that none of it was spiced although Landar then proceeded to add eye-watering amounts of the red flakes from the pepperpot to her own bowl.

The price was unbelievably low, all three of them cost less than a tenth of a rime. And Landar still complained of high prices. Looked like the innkeeper had still massively overcharged the newcomers but despite Danine's suspicious glare towards the innkeeper, Cato held his peace.

"So about your plan?" Landar asked.

"I want to make steel," Cato said, "reliably and in large quantity. But the processes I read about require a large scale operation and obviously, that requires financial resources that we don't have so I was hoping you knew a few merchants who might be interested in an investment."

Landar blinked at him for a moment then suddenly grabbed his arm and whispered, "are you crazy? The Ironworkers' guild is the supplier for the knights' equipment! If they heard you knew how to make steel-

Cato held up a hand, "I don't know how. Not exactly. I will have to perform some experiments first."

"Doesn't matter," Landar hissed, "you don't threaten the guild like that. I have no doubt there will be people willing to take the risk, maybe even wealthy merchants, and they don't care about the small shops but bad things happen if you cross them."

"Even more reason to break their monopoly," Cato said firmly.

"What?!" Landar glanced around the inn but no one seemed to have noticed anything yet.

"Where I came from, we went through this stage before," Cato explained, "guilds concentrate political power and knowledge, with special privileges for its members. For example, the arbitration may be fair on the surface but I'm sure you can think of a few cases where the knight was favoured over say, another peasant."

Landar could only stare at him incredulously. But she nodded reluctantly.

"In fact, judging by how much the bounty is, the order of knights has... made Inath increase the bounty paid out for monster kills," Cato ventured, "in a similar way, the Ironworkers' guild raises prices for steel. The knights can afford it after all. They have no incentive to improve the process and so steel remains a specialist art, expensive and slow."

Landar frowned, "I don't really understand. Why would the guild not want to make more steel? They would make more money."

"It's difficult work," Cato said, "trying to research new methods is high risk with little reward. Surely you know of a few people who could work a bit harder but don't because of guild monopoly power?"

Landar opened her mouth but stopped with a troubled look on her face.

"Never mind economic theory," Cato waved a hand, he couldn't expect her to understand it immediately. But he would have to keep an eye on fiat currency too. Why, this world was probably running on mercantilist principles! "I just want to find a merchant or two who might be interested in something like this. I'll solve the other problems when I meet them."
"The Academy," Landar waved a hand around the courtyard as she brought them through the main gate.

Contrary to the austere university-style atmosphere Cato was expecting, he saw a few groups of men and women milling around a row of counters. Most of the courtyard, paved with expensive stone slabs, was empty and the guild buildings around it only had a thin trickle of people. Seemed like most everyone was at the far end of the courtyard from the entrance.

Despite the lackluster appearance, Danine still looked around with starry eyes.

"What's going on there?" Cato asked.

"That would be where today's enchantment requests will be posted," Landar explained, "alchemists go there to know what is wanted and book requests. Once they have enchanted the given item, they also return it there to be checked and get paid."

"What about you?"

"Me? I don't take on normal requests," Landar said proudly, "I'm so good that people write to me asking me to make things. Far too many for me to accept them all in fact," she looked towards the direction of the guild stores where her crates were kept.

"So how did you get so good?" Cato asked. Perhaps the ease with which she created the bowgun could not be replicated by others. He was lucky to have met Landar.

"A whole lot of hard work," Landar said, "Well, my family's also a bit special. I have a lot of magical strength because of our childhood training. Some would say it's cruel to train a three year old child in magic but I turned out fine. I had to pay to learn alchemy by myself though."

"But it's not talent?" Cato asked. Tori hadn't said anything about that and once Danine had demonstrated her magic, had cheerfully expected Danine to pick up magic with the same practice as humans.

"The noble families might claim to have inherited some power," Landar said, "but everyone knows they just train their children in magic. Not everyone can learn magic simply because there aren't enough teachers. You need to be rich to afford one you know. " She looked at Danine, "or know someone crazy enough to ask the Knights to teach you."

Danine was eyeing the crowd of alchemists with glint in her eye. She didn't catch the reference.

"Interesting. " And good to know. So there really was something wrong with Cato.

And looking at crowd again, it seemed most of them were lining up to get assignments to make magical arrows. They came away clutching bundles of arrows and some even started working on them while walking away. Arrow-making sure seemed to be in high demand. The people giving out the assignments had already begun to turn people away and some of the disappointed alchemists wandered over to the other counters with angry faces.

"Why does everyone want to make magical arrows?" Cato asked.

Landar sniffed derisively, "ever since I invented them two years ago, it's been everywhere. Instead of using your own magic to make the arrow fly faster, magical arrows let you save power. Bows have always been popular, and now almost half the knights can shoot a bow. " She caught the look on his face. "Most knights aren't actually flame haired berserkers, you know?"
Cato grinned. "That still doesn't answer the question," he pointed out.

"Well, the real answer is that magical arrows are easy, you just make the same magic over and over again. No need to think even a bit. The orders even come with the arrows pre-made," she shook her head sadly, "alchemists are generally regarded as the worst job to have in the Academy. A dead end, no prospects for bounty or commendations from the knights. I think they're just not trying hard enough."

Or perhaps its reputation as the worst position made others expect less from alchemists and attracted the people least likely to want to work hard. Cato frowned. Finding out who was right would be a task worthy of a sociology department. At least Cato knew Landar must be exceptional, but as a rule, exceptions always happened. He'd worry about it later.

Looking back at the alchemists, Cato noticed something. "You know, everyone here, even the knights seem to have white or yellow hair," Cato asked, "only you and I have black. Is black hair really that rare?"

Landar raised an eyebrow, "you only notice this now? Well, the Tsar have black hair and not all of them, and there's not many left from the Tsar either. So yes, black hair is rare. My family's descended from the Tsars yes, I guess yours must be as well."

Cato merely gave a vague shrug. Who knew, maybe the Tsar came from Earth too. Nah, almost certainly not. "So where are we going?"

Landar shook her head, "too much to hope you'd change your mind, hm? Well, the Ironworkers is probably a bad idea. So I'm going to ask for the merchants who supply the food to Wendy's Fort. I would also dearly love to meet that guy."

The look in her eyes told Cato she wanted to talk to that merchant for a completely separate reason. Come to think of it, he only had the sandwiches for a week or two and Cato was already sick of it. The knights had been eating it for years. He was starting to understand why all the bread was so spicy. And how the Fukas had made so many friends so quickly, why they must have tasted like saviours to the knights!

On the other hand, some of the Fukas actually seemed to like the spice. Madness.

Landar returned from the guild office building and lead them away from the Academy to another building right across the road. Apparently the primary supplier put his branch building next to the guild. Obvious why really. Even more lucky, he was in this week. The stone building was also a good sign of the merchant's wealth.

"A business proposal for Mr Kalny?" the servant who let them into the front room frowned, "And your name is?" Without any sign of recognition of Landar's name, he nodded before leaving, "I will have to check if he is available."

"Somehow I feel bad for using your fame," Cato remarked as they waited.

"You can thank me by giving me a share in the venture," Landar said jokingly.

"I was intending to," Cato answered seriously, "while I know the outlines of how to make steel without magic, I suspect magic can help alot in the process. Once I re-invent it, I hope to have you available to help optimize it using magic."
Landar stared at him for a moment, "I think perhaps I ought to hear this out before deciding." She could say that but Cato had already seen the betraying glint of curiosity in her eyes. Landar was already all over it. "In due time," Cato nodded.

The door opened and the servant bowed stiffly in his uniform. Did it somehow get crisper? "Master Kalny will see you now," the servant said but looked at Danine sharply, "but the Fuka stays here." A look of dismay flashed across the girl's face before she looked at Cato. He was about to step forward when Landar marched over to the servant. "We mean no disrespect," she bit her words in anger, "but Danine is a friend and close companion. We go together."

They locked gazes for only a moment before the servant backed down, he grimaced and waved them through the door, with markedly less respect, "I'm sorry for the misunderstanding. You may proceed."

Landar's fuming mood lasted until they reached the indicated door. It was good to know that she didn't discriminate against the Fukas, unlike so many others Cato saw here, but that anger was something he hadn't anticipated.

The room was paneled with wood and festooned with shelves of paper and wooden binder clips. A pre-digital age office. In the center was a solid wooden desk that radiated wealth and power despite age tarnishing the glossy finish.

"Ah, the Mad Alchemist of Wendy's Fort," Kalny stood up and greeted them, "and who is this- oh, a Fuka as well. How unusual."

The man had a round face and equally round body. Too many sandwiches? Cato suppressed the thought. The merchant wasn't that fat. What was more surprising was the short crop of black hair on his head. There was something different about him though, his face looked more like the other people with yellow hair.

He pulled up a set of wooden chairs and seated them around his desk.

Landar smiled a little and nodded, "this is Cato, he's the one with the business proposal. This is our friend, Danine."

"I was told you were the one with the proposal," the merchant narrowed his eyes.

"That must have been a miscommunication," Landar smiled sweetly.

To Cato's surprise, he just laughed. Kalny nodded to Cato, "all right, if the Mad Alchemist would go so far as to recommend you, I'll hear you out."

"Before I start, can I ask if you're from Tsar?" Cato asked.

"It's the black hair, isn't it?" Kalny fiddled with his fringe wryly, "I'm a quarter. My mother's mother. I'm sorry for my servant's behaviour, you can't never really get it out of them and good servants are hard to find all the way out here. Will you forgive him?"

Danine nodded at his question. Kalny smiled back and offered her a boiled sweet from the bowl on his desk. She considered it for a moment before taking it with a grin. The attention returned to Cato.

"I want to make steel," Cato said, "I can figure out how to make it in large quantities and better quality than the Ironworkers."
Kalny was unimpressed, "and why should I fund you and get into trouble with Ironworkers? You haven't even shown me you can do it."

Cato weighed his options. Would the bowgun be enough of a demonstration to show his ability? But it had nothing to do with making steel. Just one instance of being clever and seeing a new improvement to an old system. Perhaps this was a good time to reveal his secret. The Tsars seemed to be less prejudiced, he trusted Landar a little more now and this merchant would need something to convince him.

He took out the pen again and watched the man's eyes light up with wonder. Even Landar stared at it hungrily as if she wanted to dissect it right there in the office. "I'm not from this world," Cato said, attracting Landar's sharp gaze. He recounted how he woke up in the forest and found the Fukas in their valley. To make things clearer, he took out the Earth clothing that had followed him from his bag and then disassembled the pen.

"I don't recognize the cloth," Kalny said, running a finger over the hem of the shirt, then after seeking Cato's permission, tugged hard on it. "Incredible tolerance, it didn't stretch at all. And the colour is so smooth. Rather than steel, I'd rather you make this, it'll be a rain of money direct from the Royal Court."

"It's polyester," Cato explained, "I only know the theory behind the material, not the exact steps needed to make it. But before you can make any of that, you need steel. A lot of steel. That's why I wanted to talk to you about that."

"Tell me then," Kalny asked, "convince me that steel is worth the risk you want me to take. I don't see how steel can be used for this."

He took a piece of blank paper from Kalny's desk after getting permission. Using his pen, Cato wrote 'steel' down in the center of the paper. "With good cheap steel, one can build pressure vessels that can withstand both high pressure and hard vacuum. You can build springs and gears, used in almost every mechanical device, and to such a precision that things like the nib of this pen will be trivial."

He drew a line out from the word and wrote another word for each item he mentioned.

"Steel mechanisms will carry enough torque to drive machines, and steam engines to power them. With steel, you can build the tools you need to go prospecting for other materials we know of, oil and coal deep in the ground. Drills, pneumatic tools. Pipes that last for years without replacement. Rotary printing presses. Buildings even, you can build higher and thinner than with stone."

Cato fetched another piece of paper.

"With good steel, good mechanisms, you can start to make glass in precise shapes. That's needed for laboratories, which I'm going to need to reinvent chemistry. Chemical processes and its products, when we figure that out, will improve the steel further, polymers from the oil make this cloth you want so much. Additives and proper chemical mixtures can make plastics, the casing of this pen, and combined with dyes will make the ink."

He looked up from the two pieces of paper full of scribbles and concepts. He was talking only in general terms, without any detail as to how he was going to achieve it. But Cato was sure he could figure it out with a little re-invention. After all, he vaguely knew the path to get there, it was only a matter of time. And who knew, with magic, it might go a whole lot faster.

"This is the world I came from," he said, pointing at the paper, "we had all of that and more. This is why this pen and this clothing look like First artifacts to you. Probably better than theirs even. And
steel is the basis of all that."

Cato sighed and looked at Kalny who looked like he was staring at something that had walked out of... well, the future. It was almost true even.

"It won't be easy, and it won't be instant. But in my world, I was studying to be a materials engineer," Cato said, "simply put, an engineer is someone who builds things. We study physics and chemistry, the science of how things move and how they react with each other. I know what's inside the steel and what makes it stronger than iron. That's how I know how to make steel."

There was a silence in the room for a moment. Did he overdo it? Come to think of it, going on about future plans might make him sound a bit... insane. He hoped he didn't sound insane, it generally wasn't good for convincing sponsors.

"Perhaps we should start calling you the Mad Alchemist of Corbin," Kalny rocked back in his chair, smiling. The wood creaked below his weight. "A very interesting plan- no, I suppose I should call it a vision. You have an interesting vision."

"I was expecting to have to do a few more things to convince you," Cato said.

"Oh of course," Kalny nodded, "for one thing, I'd like you to make a small amount of steel using the same technique you are thinking of. What do you need?"

Cato could feel his eyebrows trying to climb into his hair. Oh, wow. Kalny really was going for it.

"Don't look so surprised," Kalny said, "it's clear you think you know what you're talking about. Besides, if this doesn't work out, I'll be wanting you to pay back whatever I spent. So, what do you need?"

Cato nodded. He looked at Landar and pulled a few more sheets of paper. "I'm going to try to remake the Bessemer furnace," he said, sketching the parts as he thought of them, "for a test, a small one, perhaps the size of a barrel of drink, will do. It won't need anything fancy in terms of machinery, because we'll use magic to do everything heavy or dangerous."

"Completely impractical," Landar said, "having an Academy wizard do everything would be ridiculously expensive. And what is that you put into the furnace, molten iron? Are you crazy? That takes ridiculous amounts of charcoal or magic."

Cato stared at her. Charcoal? Wasn't this something like Earth's Middle Ages? He sighed mentally and asked, "you forge iron by smelting it with charcoal?"

Landar nodded, "of course. And the Ironworkers' guild make the best wrought iron in Inath. They don't compete with the likes of me but Toal might get in trouble if he tried to sell his iron. He made good iron. You don't need to ask how steel is made. Only the Ironworkers know that."

Right. Even Inath made iron using the same method as a small village blacksmith. No wonder everything was built out of stone and wood.

"I'm sorry, steel will have to wait," he apologized to Kalny, "I should start with a blast furnace instead."

"And what is that?" Kalny asked.

"A method to produce lots of pig iron. It'll be much harder than the iron that comes out of your smelter but pig iron can't be worked. It just shatters if you hit it too hard."
They were back to looking at him as if he was crazy.

"And what do you need this unworkable iron for?" Kalny asked.

Cato could almost roll his eyes. Here we go again.
"I can't believe that guy!" Landar slumped into her chair, not even giving a glance at the wooden framework in the center of the stone warehouse.

"Something wrong?" Cato asked.

"My father," Landar muttered, "he's actually threatening to send 'escorts'. More like kidnapping."

"I don't understand," Cato turned away from the schematics on the table, "is someone about to kidnap you?"

"My father insisted I come back. And said that he was going to send escorts to ensure this summoning stone returns safely," Landar snorted, "Sure, in my family, a guard 'escorting' you is also your jailer."

"Is the stone really that useful?" Cato asked.

"You saw what it did," Landar said, "summoning stones are ridiculously powerful when used correctly. Of course they're very important. A Ritual class like this one is a family treasure."

Family treasure? But from what Cato had seen of life in Inath, most families weren't very large. Perhaps the nobility were different. Funny, Cato hadn't thought of Landar as nobility. Maybe she was.

"If they're that powerful, no one can force you to do anything," Cato pointed out, "what good will 'escorting' you do if you just vapourize the escort?"

"Summoning stones use the magic of the user," Landar held up her hands to indicate the sizes as she spoke, "the smallest stones have the weakest effects and use the least magic. Ritual class requires so much magic that I could train for the rest of my life and would probably still not be powerful enough to use it alone. They're only really powerful in an army."

"I see. And how did you come across such a stone?"

"We-ell, it belongs to my family," Landar looked away guiltily.

Right. "And you stole it from your parents, I'm guessing?" Cato asked.

"My grandparents actually. I was, you know, curious what they were keeping all locked up in that building and I... borrowed it. It was only going to be for a while, honestly, but then they started looking all over for it and I just couldn't work up the courage to admit I took it."

"And how long ago was that?"

"About a year. That was when I came back from the Academy," Landar laughed nervously, "they kicked me out quite quickly during that uproar and I left with the stone still in my pocket. Well, they know about it now."

She sighed and tried to look pitiful. On the other hand, it did seem like the whole thing was her fault. Clearing it up could be simple.

"You know, perhaps its not so unreasonable from your parents' point of view?" Cato said. Landar looked up sharply. "You stole a powerful magical weapon after all. And then you've been hiding it
for the last year, anyone would be annoyed. 

Landar winced and twiddled nervously with her ponytail. "Yeah, I could see that," she admitted finally, "although I think my father might be more than just annoyed. 

"How about doing things the reasonable way?" Cato suggested, "you can't use the stone by yourself so it's no use to you. Why not just visit them, apologize and return it. Safely. 

"But my father-"

"Is being reasonable," Cato said, "the stone is very important and I don't think he wants to lose it again. Perhaps the escort is for the stone?"

Landar scowled, "not likely. My father hates me. 

What was she, a teenager? Actually, Cato didn't know her age, perhaps she was younger than he. 

"Unless you want to run away, I don't think you have any choice. 

"Yeah, I'm too famous. " She sighed and said as if it was a burden too heavy to bear. Cato could almost roll his eyes.

Regional Leader,

I have a concern of which you should be informed with all haste. As you are aware, I am the Corbin Leader of the Ironworkers' Guild and a troublesome matter has been brought to my attention regarding a merchant named Kalny. This merchant is known for his supplies to Wendy's Fort and our products have traveled on his carts upon occasion that ours are unavailable.

Thus it is with some familiarity of his actions that I write of this irregularity. Kalny has often come to us for nails and tools related to wagon and crate repair, as expected of a large overland trading company. Three nights past, he placed an order for four iron workpieces, of a specific design and shape that no ironsmith has ever built before, and asked for them to be built to the highest quality.

I write not of artistic pieces nor that disastrous experiment with iron wagon wheels, our craftsmasters are used to such odd orders, but none such as this. Each of the four pieces are to be made to strict specifications and are of different shapes and sizes with much special care paid to their edges.

The master craftsmen have never made anything to this level of precision and I took it upon myself to examine this order closely. Bolt from the moons, I realized that the four pieces are meant to fit together into an iron vessel with a tapered mouth! I called the good Kalny for a meeting and pointed out that no craftsman, no matter how expert, could make such a vessel hold water, and the iron would quickly rust away. He insisted that it be made anyway, leaks and all. When I proposed that he go to the barrelmakers instead, he said iron was acceptable. For what liquid he requires such a vessel I have no idea and is the subject of my concern.

I doubt he is building such a thing on a whim. Not only will it cost nearly a hundred rimes and take even a master like myself an eight-day to build, the shape is so horrid that no sane person would regard it of artistic value. Certainly, Kalny intends to gain some benefit from it.

I'm proceeding to investigate the matter. Discreetly of course. Even if it turns out to be just an obscure winery recipe from the Tsar, we may be able to leverage some advantage from the changes
he brings, provided we are forewarned.

Signed Yours With Faith,
Elma Karin
Corbin Branch Leader

Danine hummed to herself. The busy street was nothing at all like her village, there were so many new things to look at that even after a week in Corbin, she was still finding a new sight every day. And it was so noisy too! She could hear the creak of wooden carts or raised voices of merchants peddling wares. Her village was nothing like this.

Cato was boring though, now that she was staying with him. Back when he was the only human among Fukas, Cato was endlessly interesting, somehow talking to the village council and being treated seriously. Now though, he seemed to spend most of his time writing and drawing that blast furnace thing he told the merchant about.

It was seriously starting to make Danine reconsider wanting to be an important person like Cato. If having people listen to you meant that you needed to spend all day thinking and planning things like him, then Danine wasn't sure she was up to it. He could sit in that room the merchant gave them all day, just add a quill and paper and Cato was happy. It sounded like insanity to her.

Honestly, if it wasn't for her, the room would have looked exactly like it did when they got there. Cato went out to buy food and paper and ink. And that was it. So it fell to Danine to do their shopping and even wash their clothing! Cato stayed in that room or the warehouse more than ever.

She spun the toy in her hands again. The wooden stick with four curved pieces of paper stuck to one end was what Cato gave her when she complained of boredom. And then told her to figure out why it could fly. It was just like Cato to simply... forget to tell her how to make it fly in the first place. Danine had spent nearly the entire Little Night working that out.

When Danine spun it, the toy leapt out of her hands and soared into the sky for a few moments before slowly coming down onto the stone paved street. Of course, no stick should be able to fly like that, but Cato's actions always had a reason even if it didn't make sense at the beginning.

Wagging her tail curiously, Danine picked up the stick again. The paper had something to do with it, normal sticks did not fly even if you spun them. She had got that far but was now quite stuck.

"Hey, a monster!"

The nasty undertone in the voice cut through the usual noise of Corbin's streets and Danine whipped around to look- No, the voice wasn't talking to her.

Off the main street, there were three human boys standing around the side of a building. No, they were surrounding something. Danine put away Cato's stick.

"No, give it back!" a smaller voice cried from inside them.

Could it be? Someone in trouble?

Danine looked around but the other people on the street simply walked past, ignoring the four of them. It wasn't a good idea but Danine was curious. She edged closer.

One of the boys pushed the victim and he fell backwards onto the ground. Danine sucked in a
breath, he had furry ears and a tail. The boys were picking on a Fuka!

The bullies grabbed something out of his hand and the Fuka boy cried desperately. Her eyes met his and she almost stepped forward but the boy just looked down, ears lying flat against the evil laughter above him. Something boiled up from inside her, a wordless ugly fire that clouded across her vision.

Before she knew it, Danine had marched over to the three human boys and gave the biggest one as powerful a kick as she could.

He leapt straight up into the air, like Cato's toy stick. Before he could even turn around, Danine put her foot onto his behind and shoved him forward onto the ground. He slammed into the paving with a hard smack, the brown doll flying out of his hands.

"What under Selna-" the other two boys rounded on her but faster than they could react, she knuckled her fist and punched the closest one in the throat. He also went down with a gurgle.

The last remaining bully looked at two groaning on the ground and hesitated. Danine didn't wait, she marched over to the cowering Fuka boy and pulled him up on to his feet.

Wordlessly, they ran down the street, dodging carts and angry yells. Behind them the cries and shouts of the bullies faded away rapidly.

They came to a stop in another tiny side street, panting and massaging their burning legs.

"You run fast," Danine said to the Fuka boy, "what's your name?"

Now that she got a good look, he was perhaps a year or two younger than her.

"Uuu, they took Sparky," he pouted, "I just bought him after saving up for a year!"

"That's the doll?" Danine asked and got a nod, "so, your name?"

He eyed her for a moment, "Tam."

"Tam? Why do they pick on you?"

Tam stared at her incredulously, "they always pick on us. The human children never leave us Fukas alone. " He elaborated with some prompting, "they call us monsters because of our tail and ears. I mean, we do kind of look like one."

Danine frowned, "what are their names? Those three?"

Just asking about them gave Tam a shiver. "I don't remember their names, I don't want to."

"Not like they're worth it," Danine and the boy shared a grin. Then she thought something brilliant and smiled slyly, "I've got something better than a doll. Help me figure out how this works!"

From Danine and Cato,

Mama, I'm here in Corbin with Cato. I am very sorry for running away. Cato is helping me write this letter. Cato is taking care of me now, don't worry.

Corbin is very very big! There are buildings made of stone everywhere! And there is so much food and so many types! We found the merchant that sells the bread to Wendy's Fort. I think he
might be eating too much, he is very fat. But Cato says he is a nice person. But also greedy.

My learning is going well. Magic is very fun to learn. Cato is teaching me how to write! I can even write short letters now.

I want to stay here, but Cato says you should be the one who decides. If you say to come back, then I will go on the next supply wagon. But please let me stay.

To you with love,
Danine

Your daughter is perfectly healthy and very cheerful. She likes it here in Corbin.

This letter comes with the second supply wagon after the one we left on, they rotate between two wagons, one is at the Fort and one is in Corbin. Since it takes ten days to make a round trip, by the time your reply reaches us, the fastest Danine can get to Wendy's Fort is with the wagon leaving immediately after your reply arrives here, which is in fifteen days from when I write this and ten days after Wendy's Fort receives it. Considering the time it takes to prepare for such a trip, I doubt Danine will be able to move so fast.

Therefore, if you request that she return, the quickest she can arrive is fifteen days after Wendy's Fort receives this letter.

On the other hand, I humbly ask that you allow Danine to stay. Corbin is much better for learning magic. Even if the knights are stronger in Wendy's Fort, there is more to magic than destroying things. I do not believe you think Danine can be one of the knights nor is she inclined to such matters. I can also teach her how to read and write, skills that she will find extremely useful now that Inath is likely to begin trading with your village through Wendy's Fort.

Those are good reasons but the most important part is that she wants to stay. To find what she truly wants to do, so she says. Even if she is a child in some ways, I hope that you can respect her wishes. She may have the chance to grow here in ways that the village and Wendy's Fort aren't able to provide.

There are even other Fukas here. From what I have experienced here in Corbin, Inath is prejudiced against Fukas like you. Just the other day, she saw three human children tormenting a young Fuka boy. Far from cowering in fear, Danine stood up to the human children all by herself. It was quite courageous of her and she has made a friend.

In other news, I have contacted a merchant by the name of Kalny and am working with him. Like Danine mentioned, he is the person who supplies Wendy's Fort with bread. I shall see if I can persuade him to send extra caum spice powder to trade since some of you crazy people like it so much.

I would also like you to pass a message to the Elkas, Ka in particular. Kalny says that he knows another frontier province six borders away houses a full clan of Elkas. Apparently they're called Clan Two. Where Clan One is and if there are more, Kalny does not know. If they wish to ask anything more, please relay their messages and I will do my best to find out.

Related to my observation of prejudice, please inform the village council. They would be wise to watch any traders that arrive. I hear the first such caravan trip will be in twenty days. Likely the traders will try to force very unfavourable prices, thinking that Fukas are stupid or cannot defend themselves. Needless to say, I am sure you will prove any such idiots wrong. To aid you to that end, I have attached a price list of common items gathered from the various shops and stalls here in
The walls of the Iris family was shorter than a city wall but just as imposing. The decorative crenelations reminded her of unpleasant past memories.

"Mistress Landar, your father is expecting you," the maid at the front gate bowed to her. Figures that she would have been informed, Landar had been on the carriage for the past two weeks.

When Landar asked to just ride a Reki, the 'escorts' gently but firmly denied her. She, and the stone, was to stay safely inside a box.

She followed the maid down the paths through the grounds, marveling at how little changed the scenery was from her childhood. There, the pond where she used to fish the family's prized carp with bubbles of magic. Here, the stone lamp where she had hid her first pretend love letter.

Landar hid a light blush, just remembering that was embarrassing. But it felt like she was walking back in time, growing younger with every step.

Hey, her father's house was that way... the dueling grounds?! Landar stopped at the ugly walls of solid cut stone in shock. The maid showed her through a side door and bowed. She glanced at the maid, just standing there with a bowed head. She could walk away, her escorts had left already, Landar might even make it out of the compound. But the maid would probably pay for her impulsive actions.

Landar pushed open the door and walked in. She gulped as she saw her father standing a third of the field away. The field enclosed in Iris's walls was enormously large, almost as big as the central courtyard of Wendy's Fort. The lone man standing proudly in the traditional Tsarian robes, a light breeze trailing his greying beard, was tiny compared to the expanse of lightly browning grass.

It was not a place she remembered fondly. Not when her father seemed to loom higher with every moment.

"Have you progressed in the Art?" her father asked in a low voice.

Her anger that had been suppressed by nostalgia came flaring back up. The edge in Landar's voice surprised even herself, "I've left the Iris for years and that's all you ask when I come back?!"

"For us, the Art is everything-"

"Not for me," Landar shot back hotly, "I left for a reason. "

"You promised your mother that you would return more powerful than when you left. " The implied action left Landar with a cold feeling. She had not told anyone else of how she had persuaded her mother to let her go to the Academy.

"I am," Landar said, "but not in the way you imagine. "

"Then show me," he said stiffly, "take out that Stone you have and show me. "

Landar drew out the Ritual Stone and tossed it aside. His eyes nearly popped out of their sockets at
the casual disregard, but she had enough of this sort of nonsense the things filled people's heads with. "You know no one has enough power to use one of those by themselves."

"Hikkiri did. I hoped you might follow in her footsteps."

"A bedtime story told to overly ambitious little girls who don't know better."

They glared at each other over a gulf of values that had long since become impossible to breach.

Without warning, a wave of magic spilled out from her father, seemingly cloaking him in an aura of latent power so strong that it battered at her senses and blinding out all the smaller sources in the Iris compound. It grew larger and brighter as her father poured out his magic.

Just like an Iris, to rely on sheer brute force. Landar took her time to concentrate and build her spell, quick strikes were not the Iris way after all, it was almost relaxing compared to the frenetic energy and chaos of the knights' battle training. An Iris duel always resulted in a slugging match, power and stamina were everything. Finesse took a backseat, after all the tricks and traps could only do so much in the face of overwhelming power.

And what better way to demonstrate one's superiority by showing that one could spare the power to simply ride roughshod over all attempts at tactics, eat the inefficiencies and still come out on top? Or so the theory went. In truth, Iris's major weapons were the summoning stones that were descended from Tsar. Her familial duty was to train all day and all night so that she could gain enough magical power to use them properly.

Her father loosed a maelstrom of raw magic, unleashing a torrent of power that matched the enchantments on the walls of Wendy's Fort. Enchantments that had been charged painstakingly by the knights. From a single man.

Landar fired her trump card, a tiny speck compared to the sun-like intensity. It disappeared into the torrent and without fanfare the entire wall of magic reversed course. Her father stumbled in surprise and Landar grinned savagely, the ball was literally in his court now.

It wasn't a spell that would have worked on the knights. They kept fierce control over their magic, dodging and weaving between spells and shields in a practiced form that Landar would have found hard to get a hit in. And they preferred swarms of weak individual bolts, compared to the single monolithic behemoth of the Iris style.

Landar ground down a tuft of grass under her foot and readied another. Truth be told, she had barely grown at all in power since she left those years ago. In exchange, the Academy had taught her the techniques and combat style of an Inath battlemage or at least tried to. Her power was monstrous compared to the other students but her focus was beyond pitiful. Curse this Iris training.

Her father countered the ball of concentrated magic with an even bigger one, smashing aside the offending return and still having enough power left to be threatening. She loosed another spell and the scene repeated.

Again her father lashed out and again she turned it back. Then without waiting for it to hit, Landar fired out a swarm of smaller bolts that arced around to attack from the sides and above.

They splashed on a shield, a wall of solid magic that made her feel like she was throwing stones at a cliff. But still, he was on the defensive!

She took more time to fashion another trick spell to make the shield implode but he simply blew it away with a powerful pulse. She was bleeding his magic while hardly spending any! She could win
It was ironic that she who failed combat classes was giving her father a hard time. A depressing reminder of the fading glory of Iris. Except when that happened.

Irritation snarling his face, her father pulled out a small stone tinged with a familiar green. Bad form to use a stone in a duel of strength, but he was beyond caring. A blade of magical force sprang up in front of him. It had no handle, no central thickness, no support from the ground, it had no need for any of those niceties. An idealized concept, a vertical plane of magic sharpened into a cutting edge.

The Phantom flew towards her. It was small and silent, compared to the howling blasts of raw magic, but this one would kill her just as dead, rip her clean in half.

Landar summoned up her magic and emptied it out at the phantom, her reversal spell wasn't going to work on something as complicated as this. Even if it was small and simple compared to the Tempest Bolt she had used, any summoning stone generated an effect that was complicated beyond even the best wizards from the Academy. Even the simplest light phantoms were complex.

The blade absorbed her magic, growing thinner but still refusing to disappear. It surely wouldn't hit her, right? Her father wouldn't really kill her just because she didn't practice enough... Landar was about to dive out of the way when it finally crumbled into specks of magic too small to sustain the phantom.

She collapsed to the ground and coughed wetly, the drain of magical exhaustion rising like bile in her throat. She hadn't stretched her power to its limits lately and the old feeling brought back currents of fear. Fear of defeat and punishment that she had experienced so many times on this very ground.

"You haven't grown at all," her father said, dripping with disappointment, still leaking magic like a faulty sieve. No doubt he had enough stamina to launch the same again.

What arrogance. He just brushed aside all her effort, all the knowledge she had gained! Just like that! When she had even forced him to cheat to win! But there wasn't anything she could say when she was still hacking out her lungs on the ground.

Landar gritted her teeth. Gah, this was why she hated this place.
The human boy fell down into the floor of the alley. Two other boys landed painfully next to him.

"What do you want-"

The man towering over them silenced them without even moving. He exuded a palpable pressure that pinned them to the ground and commanded their attention. In the red light of sunset, the long shadow hid the man's face but not his obvious contempt.

"Tell me everything you know of this boy," the man gave a short description, "I know you know him. You're easy to find, unfortunately you've made it hard to find him."

"That Fuka?" the big boy tried to struggle up but was pushed down to the ground again by a short cane. "Unhand me!" the boy cried, "Or I'm not going to-"

The man shrugged and swung once. There was a crack and he turned to the next boy.

"You?" he indicated with the cane. Despite the blood oozing from the head of the unconscious body lying in front of him, the man's voice never wavered. He sounded almost bored.

The next boy wasn't nearly as uncooperative.

"I heard about the duel," the dreaded voice said, words falling on her stinging soul like a gentle rain of feathers.

"Hard to keep silent when anyone would notice the battle from all over the estate," Landar snapped and immediately felt sorry. It wasn't her mother's fault.

"Your father only means well you know," the older woman said as she settled down beside the bed.

The bed in Tsarian style was just a roll of feather stuffed cloth on the floor. Not like the style Inath preferred of fixed boards with cloths draped over them. Indeed, the entire room, with its sliding wood panels that blurred the lines between wall and door, and the candles glowing behind thin cloth shades, all of it spoke of ancient tradition. And wealth and power. Someone had to clean the things and Iris was not short on servants.

Right now, Landar was lying face down into the fluffy bed, her long hair lying loose among the swaddling robes. But the burning ache in her body from the drain of magic was not a discomfort she could run away from. She mumbled into the cloth, "stuffing his own daughter into a carriage under 'escort', forcing her to drain her magic in a duel, not even getting a rest first. And now shutting her up in a room and not allowed to leave. He's a demon."

When she was growing up, Landar didn't know any better. But coming back from the colourful mix of the Inath federation's cultural melting pot made her feel like she was shut into a stuffy closet.

"If you had worked on your magic, you'd be powerful enough by now to stand on your own," her mother said from above, "He might be more reasonable if you had improved."

She rolled over on the bed to look up at her mother. Her mother was wearing more traditional robes, much like her own, only worn properly. It gave her an air of elegance and mystery, wrapped around
her mother's body and concealing it with flowing lines of cloth. In contrast, Landar's messy looping of the cloth was almost indecent, with holes that revealed her skin in random places.

Not like it mattered, this was her room. The same tiny one she grew up in. Whatever he said, she would do whatever she wanted.

"He's just disappointed that our family can't rise in rank. He can't see there's more to this than just endless power," Landar rolled her eyes.

"Iris is the most powerful family among the Tsarian clans," her mother said, "losing one of our ritual relics made maintaining that difficult. When you used it at Wendy's Fort, your father was the one who reassured the Iris head that he would bring it back without fail. They had assumed you were a traitor but he shielded you."

Landar stared up at her mother. No, that was just too ridiculous. Her father would never help her. "Even so, he's just defending the family honour."

Her mother sighed, "why is it the two of you can never understand each other?"

Landar pointedly ignored her mother's comment, "since he's gotten the stone back, that means I'm not needed any more."

"Landar, my daughter, you are always welcome here."

"Ha!" she laughed harshly, 'welcomed' was not the same as 'needed'. And in Iris family politics, you were useful or you were nobody. Even Landar and her mother could easily use a minor phantom. "Welcome?! My father thinks I'm a disgrace. There's no 'well' if I come here," Landar spat bitterly, then brightened up at her own joke, "Oh, that was pretty good."

Her mother just sighed.

"In any case, as soon as he's satisfied that the stone is real, I'm out of here." Her mother only sighed more and stroked her hair. Landar grumbled a bit and settled deeper into the fluffy bed. Well, it was nice to be spoiled like this once in a while.

Regional Leader,

Following my previous letter, I have deployed some influence to investigate the merchant Kalny. Kalny has delayed leaving Corbin, unlike his supposed schedule to visit his suppliers. The Academy also confirms that the Mad Alchemist of Wendy's Fort has been in contact with him just before answering her clan's summons. Furthermore, he has recently begun to talk with an unknown young man, seen in discussion with this person often with papers and diagrams. A Fuka girl is often seen with the young man and the two are staying at an old warehouse rented out by Kalny. This much was not difficult to find out.

I surmise that this young man is the cause of the change in Kalny's patterns, perhaps the two have launched a joint venture of some kind. Possibly Kalny is providing the financial backing while the young man implements the idea. The Mad Alchemist may also know something of this matter but of course, Iris family is too powerful to anger so she is not a potential investigative route.

There is a pattern of odd purchases that Kalny has commissioned. We are not the only guild he had contacted over the last few days. The Potters and Carvers have fulfilled strangely overpriced orders recently, and various hirelings have told of work performed in the middle of the night to move large
clay objects and wooden framework into the warehouse. They are convinced Kalny is building something.

I cannot take overt action to insert a man into the operation, Kalny is apparently handling all the purchasing matters himself, with the younger man directing the building. Witnesses describe a tall wooden framework that occupies the main floor area of the warehouse, with a bracket that fits the dimensions given for us to build. Large blocks of fired clay are arranged in containers around it in a pattern that defies description.

I confess I have no idea what is going on here. I shall have to find another way to get an informant into the warehouse.

Signed Yours With Faith,
Elma Karin
Corbin Branch Leader

"I'm bored, bored!" Cato looked away from the plans on the desk he was standing next to to find Danine bouncing impatiently up and down on the creaking floorboards. She had found an especially springy one and was hopping almost a foot into the air each time. Her tail bounced up and down in time with her body, making her look completely ridiculous.

"Weren't you going to meet with that boy... uh... hm... Tam!" Cato waved at her glare reassuringly, "I remember him, I swear! Name just slipped my mind. You always go to find him when you're stuck on magic."

Cato didn't mention that she was getting stuck far more often now that Landar was gone. Paying for a teacher was impossible on their finances and the few beginner exercises Landar had taught Danine were mind-numbingly boring, even the growth of Danine's magical strength eventually stopped motivating her anymore. Privately, Cato agreed, Danine had been able to light and put the candle out so fast now that she could do it almost without thought. And making ice cubes still made Danine go to sleep after just a cupful of ice.

Cato said, "how about we take a look at your magic? Try to do something Landar didn't teach you before you left?"

Danine looked up at him, "I want to fly!"

"So why not start with moving things?" Cato asked.

"I can't, Landar didn't teach me," Danine pouted.

"But you remember the six primary magics Tori showed us?" Cato waited for her nod, "out of the six, you've practiced how to make red and blue, what about green? You learned to heat things up and cool them down. Clearly the green is for moving them and stopping them."

Danine shook her head, "I've practiced that too, without her telling me to," she held up her hand with a swirling blob of magic above it. It felt different from the ice-cube making magic. "It doesn't do anything."

"Clearly it does, if Tori thinks it's one of the six," Cato said, "you mentioned that there were four green ones and one blue and one red. What if the green doesn't work unless you make only one of the four?"
Danine frowned, "perhaps? But I've only done magic based on colour. How can I even make it have a pattern like she did?"

"Just try it, I have something I want to test on the magic," Cato said and turned back to the diagram. The molten cast iron would have to be collected there and...

It took her a few hours before Danine said she got one and no more than a few minutes each for the other three. Her control was still shaky, the types had a tendency to bleed into each other, but Cato could feel something like an echo of what Tori had shown them. Unfortunately, none of them seemed to have any immediately visible effect either.

"All right then, let's take a look," Cato said, picking up the long wooden block that doubled as a straight edge and paperweight, "make one of them at a time and we'll see what happens to this piece of wood when I touch it."

Danine nodded and Cato pushed the wood into the ball of magic. Nothing happened.

He pulled it out and examined the wood closely, no change in temperature either. "Next."

He felt something tug on the piece of wood as he put it in but the force disappeared almost immediately. Cato held it inside the ball for a while but got nothing again. "Hmm, can you make it stronger?" he asked.

Danine nodded and it increased in power a little. Cato scowled at the negative result. He was sure it moved just now- the block went flying out of his hands the moment he tried to pull it out.

"Interesting. And very strange," Cato said as they looked at the block lying on the floor. He picked it up and shrugged, "next."

This one was the jackpot. The block sank into the ball of magic like he was pushing it through a thick glue. Cato even had to push on it to get it to go in. He raised his eyebrows and released the block.

It fell through the ball, very slowly, even rotating a little as the part outside sank down unsupported.

"Wow," Cato and Danine shared an awed look, "look at that!"

"It's floating!" Danine grinned just before the block sank out of the magic and dropped into her hand.

"Hm, interesting. I would say this is the version that makes things stop moving," Cato nodded to himself, "all right, how about the last one?"

Danine nodded and they repeated the experiment again.

This time the block began to behave weirdly. Cato felt that pushing it was becoming harder, just like before, but at the same time, the block didn't stop moving. In fact, at times it felt like it was trying to jump out of his hands. When he pushed it in and let the block go, it slid down and across the magic and fell out the other side.

All in all, the whole thing was extremely weird. But it was quite conclusive that what Danine saw as green had something to do with movement. Only, it wasn't as simple as speeding up and slowing down.

Cato asked after writing down his observations, "Let's go back to the first one."
"It makes no sense at all!" Cato threw the block onto the table in disgust.

Danine flinched a little and Cato took the edge off his voice. But he couldn't help letting a bit of his exasperation leak in.

It was some time later and a whole lot of experimentation. Cato might admit he got a little carried away, judging by the small stack of notes.

"It pushes, but only in the direction of an already moving object. And why is deceleration a completely separate effect from acceleration? Everyone knows that acceleration and deceleration are actually the same thing in different rest frames," Cato muttered as he wrote down the observations.

Danine raised a hand timidly, "I don't know what you're talking about."

Cato looked at her, "things in motion, stay in motion. Things at rest stay at rest. Unless you push them. It's a simple rule that everyone from my world knows."

They stared at the block. The other two effects made just as little sense. The first effect Danine tried actually changed the direction of moving objects, Danine just hadn't given the magic a little push that specified which direction to turn in. The last effect increased the weight of objects, except they still fell slower. Which made the least sense out of the four.

"But things stop by themselves, they don't keep moving," Danine pointed at the block of wood that Cato had thrown onto the table.

"That's because of friction," Cato explained.

"Maybe the magic makes more friction?"

Hm. Cato stopped, thinking. "No, that still implies a privileged reference frame. After all, even air slows down faster. What is there to have friction against? Magic?"

Cato narrowed his eyes speculatively. He could think of a few more tests to try, but the deceleration magic looked like the opposite of acceleration, he doubted it would be that simple.

The door to the warehouse creaked and they looked up from the table to see Kalny waving in a few labourers.

"Cato, the bricks are here, as well as the third piece," Kalny said, "do you need anything else? How's the design for the mold coming along?"

After much discussion, Kalny and Cato had eventually agreed that if cast iron could be produced, then Cato would try to make a large iron bell for Kalny. Something about selling it to the Corbin town guard.

Well, a mold wouldn't cost that much... oh crap. Cato looked back at the papers with the design drawings. He was supposed to be checking them again, not playing around with Danine's magic. But who could resist the chance?

Oh well, it was probably fine. He had already checked it once anyway. Cato picked up the papers and handed it to Kalny, "here's the design for the mold. I haven't done something like this before, I hope it works."
"No one's done anything like this before," Kalny said, "pouring molten iron into a mold just like tin? We'll be very rich men."

That applied more to Kalny than Cato, according to their agreements, but there was probably no way Kalny would have taken such a risk otherwise.

"What about the other issue?" Cato asked, "has anyone managed to meet the challenge?"

Kalny shook his head, "no one even attempted to. You're asking too much, you can't expect work pieces made by different people to fit each other."

Cato rolled his eyes, "can no one work to measure in this town? I mean, how hard can it be to make something ten centimeters long?"

"Centimeters?"

"It's a unit of distance. Ten centimeters are about this long," Cato held his hands apart in demonstration.

"But it's not that simple," Kalny explained, "if I go to a smith in the Ironworkers and ask him to make a knife that long, it won't matter too much if it's slightly longer or shorter. But it matters a lot if you want the pieces to fit each other," Kalny looked at the wooden frame meant to hold the furnace core, "or if you want it to hold molten iron. The only way to make it all the same size is to have the same master smith make it. And yes, it has to be a master, no workman smith could build this thing you're asking."

"No such thing as a measuring standard, huh?" Cato said, idly twisting the pen from Earth in his hands, "I think that's another thing I'm going to have to work on. To think I can't even get a ruler here."

Kalny raised a questioning eyebrow. It was getting to be a very familiar expression.

"Quality control and interchangeable parts. A student like me, making a primary standard, well I never," Cato shook his head ruefully, "later! After we get iron!"

Kalny nodded happily, "yes, afterwards."

The boy looked up fearfully as he passed the shadow in the back alley. Even if the person hadn't moved, he still had an aura of danger that made his instincts stand on end. He felt as if it would be a very bad idea to run away.

"Interesting, I thought I would have to restrain you," the man said. The aura of danger only became sharper.

The boy was frozen with fear, he couldn't even look away from the twin glints of the man's eyes in the shadow.

"Help me a little and I will have a reward for you," a metallic tinkle of a coin hitting the street beside the boy still didn't elicit any response, "and it would be dangerous to refuse. Not just for you."

The boy had no illusions that anyone other than his mother would lose sleep if he just vanished. No wait, there was that strange girl who might... no no, she was special. And he definitely didn't want to die. He nodded vigorously.
"Tell me of that girl," the man said.

There was a short but one-sided talk.

The man nodded and thought, then tossed the boy another coin, "I have a task for you."

The man described his task for a while and made sure the boy understood it, "Perfect. We understand each other now."

For the first time in the encounter, the boy seemed to relax a little. It really was very simple. Trivial even. Then why was this man going to such lengths?

"Don't think too much of it," the man said, "we could have a very profitable working relationship in the future."

The sense of danger peaked suddenly.

The man smiled at the tip of the tail disappearing around the corner. And the coins had gone with it.

Danine focused harder but the coin still dropped through the ball of magic. It moved extremely slowly but no matter how she tried, Danine couldn't get it to float.

"Any ideas?" She asked Tam sitting beside her.

The boy looked up from his piece of bread and shook his head.

They were sitting up on the roof of a bakery. Below them spread the town of Corbin. Rows of roofs sporting clay shingles, street after street of cloth covered stalls filled with food, cloth, tools and whatever other riches she could name. Well, it looked like riches to Danine, even after Tam disagreed. While she admitted that money was very convenient, she didn't think anyone could eat metal.

They weren't even all that nice to look at, although Danine did have some fun trying to see how long she could set them spinning.

Danine sniffed unconsciously at the smell of fresh bread wafting up from the bakery below. Just like her, the stream of people on the streets deformed towards the building. Everyone walked a little slower as they went past, savouring the smell. The effect was subtle but obvious to Danine from her vantage point.

"I think I'm doing the wrong thing," Danine muttered to nothing in particular. The coin rolled off her palm and she watched it drift downwards like a feather. But for all her magic, the coin didn't stop, it just drifted slower. "Maybe one of the other three types will help."

Tam didn't say anything this time either, despite having already finished his bread. Come to think of it, she didn't see him eat anything other than plain bread, she had to remember to buy him something nice to eat. Perhaps those delicious boiled sweets.

"Any ideas?" she asked again, feeling as if she had repeated herself.

Danine frowned, Tam wasn't even paying attention to her, he was just looking off into the air. She grinned and crawled silently over the roof tiles.

Then with a sudden burst of speed, grabbed his ear and blew straight at the sensitive spot near the
"Hya!" A girly squeal and Tam jerked away from her, "what-?"

"You're not even listening to me," Danine complained as she sat down on his tail so he wouldn't run away.

"I, uh- Um. Sorry," Tam apologized, "it's such a nice day too. "

"Day's almost over," Danine rolled her eyes, gesturing at the sun. It was almost Little Night already. "What's troubling you?" she asked.

Tam paused for a moment then seemed to make up his mind. "Danine," he said, looking at her seriously, "I need your help. "

She gulped, was it the bullies again? Danine might have caught them by surprise once but she didn't think she could help him again. At least not until she had enough magic. She nodded cautiously.

"Can you teach me magic?" Tam asked timidly.

Danine blinked. Then a broad grin plastered itself across her face, "of course! I would love to!" To think! Danine, a teacher of magic! She giggled to herself in glee.

The smile was wiped off her face when Tam asked again, "I... There is another thing I want. "

Huh. So he started off with the easy question in order to ask the hard one? Her mother had said shady boys would always do this to try to seduce her. Danine didn't think Tam was trying to seduce her. Surely not?

"I want to see Cato," Tam asked, "I mean, you've talked about his work right? And it sounds very complicated. I- I want to see it. And the other things in your-"

Danine felt her eyebrows going up. This was the 'hard' request? "Oh, that's easy! But isn't he really boring? Cato's smart, but you won't believe how boring it is to see those endless pieces of paper he keeps fooling with," she put on a mock sigh, "can't we do something more fun? Like magic?"

Behind her, away from Danine's ramblings, Tam merely looked troubled again.
Root of All Bad Ideas

Dear Cato,

We’re very sorry for Danine's actions. She must have caused you a lot of trouble.

Don’t worry about us, if you can't handle Danine, please send her back, but otherwise we will entrust her to you. Please act as her guardian in our stead.

Irld & Arbor

Cato put down the short letter as Danine bounced out of their room in high spirits. To be honest, Cato had been worried that she was finding it boring in Corbin. He thought she might even ask to go back. But looking at her racing around the warehouse in happiness, he was clearly worried for nothing.

He picked up the tiny roll of paper. The other message.

Huh. "A hidden message" was all that was written on it. And it wasn't in the blocky writing style of the Inath knights. Tulore maybe? She was the only one in the village who Cato knew could write.

Hmm. Cato examined the tiny piece of paper more closely. Holding it up to the light. Roasting it over a candle.

No mysterious words revealed themselves.

Then he smacked his forehead. Gods, he was stupid! The letter!

Closely examining the letter revealed traces of crinkles, as if someone had run lines of water across the paper.

"Danine!" he called her back to the large work desk, "can you heat this paper up? Please don't burn it."

She looked up at him curiously but shrugged and focused her magic.

Almost like magic, the words revealed themselves on the back of the letter.

Arbor and I don’t like Danine staying with you but the council overruled us. Tharoden and Banage said that they don't want you to forget the Fukas. Tulore is helping me hide this message to you.

I feel that using Danine like this is a betrayal of everything you've done for us. So I'll just be honest. I worry for her safety, Inath is an unknown land and Danine is still too young. I don't care about any of their schemes, please send Danine back safely. I beg you.

Irld
Cato looked at Danine's face as a complex mix of emotions marched across it.

"This is quite the decision."

Danine looked up at him in surprise.

"Yes," Cato said, "Whether you stay here or return is up to you."

He held up a hand as she began to think.

"Consider both sides carefully," Cato held up fingers for each point, "the council wants you to stay with me, if you return, they will know your parents defied them somehow. Your mother wants you to come back, so if you don't go, you know she will worry about you. And if you stay, there is a chance you will learn useful magic or skills to teach the other Fukas. I'm sure the council considered that too."

Danine nodded and paced for a few moments, "Cato, what do you think? Should I stay?"

"That's up to you," Cato smiled.

"But how can I decide something like this?" Danine exclaimed, "council business? Teach magic to the village? How can I decide that?!"

Cato shook his head, "you said you wanted to be like me. To be someone important. Is this how someone important who others listen to would act?"

Her eyes widened and there was a look of dismay on her face. Clearly her running away hadn't been completely thought through.

"Relax, I'm not scolding you," Cato said gently, "But you were unsatisfied with just being a Fuka girl who couldn't do anything. You wanted to be someone more. This is how it is. You have to decide."

"But what if I pick wrong? What if I get lost in Inath or worse? Mama will be-"

"Then you live with the consequences. It's called responsibility," Cato watched her squirm for a few more moments before taking pity on her. He smiled, "of course, I'm still here and I'll still help you when you need it. I'm not going to abandon you, even if you go back, you can still change your mind in a year or two."

Danine looked down at the letter again, thinking.

"I... will not return," she said finally, "I... I want to do this. If I go back now, I feel like I will never get another chance."

Cato nodded, "all right, I'll help you write the reply."

Danine picked up the paper and quill. "I should write this myself," she said, trying to sound determined but failing, "I have to apologize to mama."

The woman pushed open the heavy wooden door with a loud creak and peered up into the dim morning light filtering in through the louvers near the roof. The stone floor had a few more scuffles and marks but the dust had been replaced with chips of wood and ashes.
In front of her, a strange structure loomed that hadn’t been there before. Wooden beams and struts were anchored securely to holes drilled in the floor, bracketing a much more sturdier bronze frame. A short staircase sprouted from one side, leading to a platform near the top of the framework. In the center was a dark unfamiliar shape. The darkness of wrought iron. The cylinder squatted there, with mysterious holes and sluices at varying heights for unknown purposes.

Surrounding the structure was also a series of fired clay troughs, with channels carved into the top of the surfaces. To one side, disconnected from the rest, was a large clay block of the sort used in bronze casting, but the woman was sure this block would never see bronze. After all, the piles of black charcoal, white limestone and the dirty red of good iron ore kind of gave it away.

"Is it done?" she whispered.

"Not yet," the voice behind her made her jump.

"Cato!" she ruffled the boy's hair roughly with a grin, "you nearly killed me from shock!"

"Then you shouldn't sneak into a highly classified area," the boy standing behind her said, "welcome back Landar, I didn't expect you so soon. You said it took two weeks one way and you're back in three!"

Landar grinned and pointed at the Reki tied to the fence surrounding the warehouse. "I borrowed that," Landar said, "rode by myself all the way back."

Cato raised an eyebrow, "you mean you stole it. No, no, don't need to make excuses, I know your kleptomaniac tendencies range from interesting ideas to highly dangerous summoning stones. Clearly a Reki is nothing if not expected."

"It'll cost them less than sending me back in a carriage," Landar grinned, "enough talk about home, I don't want to think about it anymore. So, did you even leave any work for me?"

"I could show you, but are you sure a noble and delicate Iris lady like you should get herself dirty in such a place?" That earned him another cuff on the head, "all right, fine, come in and I'll tell you what I need your magic for."

She raised her eyebrows questioningly.

Cato smiled, "even if my world never used magic in making iron, that doesn't mean we can't use magic. It'll make things much easier."

Landar frowned as he began to explain the process, walking her around the floor. Where the iron ore and charcoal would go and where the iron and slag would come out, were easily understandable.

"You want me to use magic to tap the molten iron?!" Landar said incredulously, "How do you know it won't just burn through my magic? There's enough wood in that structure to turn into a major disaster if I spill any."

Cato shook his head, "it doesn't work that way, I think. You know the exercises you left Danine to do? She can push the candle flame around with magic, by combining deflection and acceleration. I also saw similar things in the battle with the zombies. You can push fireballs but not the heat coming off it, which matches with what I know from my world. I think magic will ignore the heat, more like they don't interact at all."

Landar frowned, "but we do know a few other things. I haven't taught Danine how to yet, but there are a few magical materials you can create and they most definitely respond to heat. In fact, they
behave like normal things like rocks, water and air."

Cato raised an eyebrow, "really? That's interesting but those are not the same as the six basic functions?"

"No, they're not the same. It's a bit more complicated to create magical materials. Anyway, I expect you will run a test. Do you need magic for anything else?" Landar asked.

"I need a heat source, the charcoal over there isn't actually enough for the amount of iron ore. I've used a smaller brick furnace for testing and without magic, I need more than three times the weight of iron ore in charcoal. Most of it is needed for the heat. I expect magic can replace that, we're a bit short on charcoal for the main test," Cato said, tapping his forehead in thought, "right, we also need to pump air into the furnace, lots of air."

He led Landar over to the side where a familiar forge bellows lay. Except that this one was hugely oversized, it would need more than one person just to move it. "If you still have enough magic, you can try running that as well. I'm sure Mr Kalny will be glad to have less people watching this happen, he wasn't happy when I told him he needed to hire some people to pump the bellows."

Landar raised an eyebrow at the list of tasks. They were simple enough, the tools were doing most of the work. "Heating things is easy. It's just a question of power, for which you should count yourself lucky to have me. The problem is that I can't do that many things at the same time. Spellstorms could control a few spells at the same time but not different types of spell, heating the iron and pumping bellows are fundamentally different. And I don't have spellstorm training."

She frowned, "I don't think you want to hire another mage, that's pointless."

"Might as well go find some men looking for extra money?" Cato nodded, "I can tell Kalny that."

Landar held up a hand, "can you wait a day? I want to try something."

"Mm?"

"I could use alchemy on the furnace. Just like the arrows, except that it'll heat the contents. When you're ready, I'll set it off then use my magic on the bellows." Come to think of it, that was an interesting problem. Landar tried to plan how the magic would have to look. "We don't normally use alchemy for simple heating, but the principle's the same as the arrows. It's just the same physically bound magic after all."

"Actually, if you're going to make a magical item," Cato interrupted, "I'd rather you did the bellows."

"You don't trust a new item? It's not going to blow up like my other 'specials', this one is simple." She never really expected anyone to like her messing around with doing unknown things, but it still hurt a little coming from Cato.

"It's nothing to do with that," Cato said, seemingly not even noticing Landar's discomfort, "You can't control the magic after you set it off, right?"

Landar frowned at him but Cato was still looking at the furnace, "no. Or, actually, I could do it, it would only take a few seconds to re-establish control, but then I'd have to concentrate on the furnace and can't do the bellows."

"Then the bellows are less critical. The furnace temperature has to be controlled and this is still something of an experiment. I might need to change the temperature half way through and you can't"
control it if it's a magical item. But the bellows are fine, if you can just set them going, I can control the air supply by blocking the inlet if I need to," Cato got a distant look on his face, "also I'm curious about whether you can actually do the bellows. The central paddle has to rise and fall repeatedly against air pressure, and it has to move between the top and bottom points. It's not as simple as the magical arrows."

Oh. Landar hid her embarrassment in the dim light, it was just her own misunderstanding. "I'll have a think and tell you if it's possible tomorrow," she said, determined to not let him get the best of her. No sleep until she had a magic bellows!

She could even see how it might be useful for her own smithing projects.

"Red stone, are you sure of that?" the voice said.

The boy nodded.

"Interesting," the man nodded in return, digging out a coin from his pouch, "you may go."

The boy disappeared and the man turned to look across the street, "what exactly are you doing, Kalny? Iron ore? You have no idea how to smelt iron do you?"

The man shook his head at the foolishness of the food merchant. Challenging the Ironworkers was he? That oversized smelter of his would melt the iron and ruin it into unworkability.

Still, something had to be done about that. Even incompetent upstarts eventually learnt some skill if left alone. And if you left one alone, no matter how ineffectual, more would be encouraged.

He would need to do something, and soon.

"And that, basically, is how this will work," Cato said, putting the finishing touches on the large diagram he was illustrating on the sheet of cloth draped on one wall. Kalny, Landar and Danine were sitting in a row, looking over the diagram. Danine's friend, Tam, wasn't around, Kalny didn't like the idea of people outside their little circle getting to know the secret blast furnace.

How he expected to keep something this big a secret was beyond Cato. It also went against Cato's plans but Cato could deal with that later.

"I will have more details as we go through further cold trials. I think we can begin hot trials within the week. What about the bellows?" Cato asked Landar.

Amazingly, she shifted uncomfortably, "actually, they're proving to be harder than I thought. The handles keep breaking."

Kalny, sensing that the talk was shifting towards mechanics that he didn't understand, got up from the bench and dusted himself off, "well, you seem to have everything in order, even though I can't believe you can smelt more iron ore than will fit into the furnace."

Cato shrugged, "I've explained that. The furnace, when it's ready, will operate in continuous mode and-"

Danine piped up, "Mr Kalny, what Cato means is that more iron ore goes in as the iron from the old
They all looked at her and Cato silently reminded himself not to think of Danine as a young kid who understood nothing. She had a sharp mind, if only she would use it consistently. "That's exactly right, Danine," Cato smiled at her.

"I understood that," Kalny rumbled, nodding his head, "Cato, you need to speak in simpler terms so I can understand."

"I will try my best in the future," Cato said, "can I ask you to give Landar another day for the bellows? We might have to delay the hot trial if she can't get it to work, unless you want to hire some men."

Kalny shook his head, "take your time. The last shipment of charcoal was interfered with... by someone. I don't know who but it's definitely not the work of simple bandits."

They shared a moment of silence at the revelation. Someone out there knew about this and was trying to disrupt their supplies.

"What's done is done, you just have to make the iron. Let me worry about catching a thief," Kalny said and turned to the door, "come, Livnon."

The servant standing by the door bowed and shot a disdainful look at Danine before following Kalny out. Cato suppressed a sigh, this happened every time Kalny brought his servant over and Cato wondered why the man and his obvious prejudice was even there.

"I think I know what's wrong with the bellows," Landar said, "they don't go up and down in straight lines."

She moved her hands to demonstrate, "when you pump the bellows, the paddle that moves goes like this, which is almost straight up but not exactly straight. If I make my spell push straight up and down, this bends the paddle and after a few hundred blows, the wood breaks."

"Why don't you make the spell push in the direction you need to move it in?" Danine asked.

"It's too hard, the direction keeps changing as it moves," Landar sighed, "Danine, you've been practising magic for the last weeks, how far have you come? Can you make the ball float yet?"

Danine shook her head, "it keeps falling off, even if I push it up."

"It's the same reason why this is so hard," Landar explained, picking up a familiar stick from the table with the four vanes sticking out the top, "when you're pushing the ball, you need to control the spell to make it change, which is why trying to keep a ball afloat is a common practice exercise for control. By the way, no one manages to keep it afloat for very long, don't be too disappointed with your progress. When enchanting items, you need to build that control into the spell when you're casting it, not just altering it on the fly. And once you enchant, the spell doesn't change by itself."

She released the stick and it spun in her hand like a top. Not spinning fast enough to fly, but it still managed to stay upright. "I can very carefully craft a spell to follow the pumping motion of the bellows, like the much simpler one that spins this toy," Landar flicked the stick hard and it toppled over onto the floor. Still trying to spin, the stick began to rotate in circles. "The problem with the bellows is that the spell has to push it very hard and if you're off by just a bit, the bellows start to bend to the side and this breaks the paddle near the hinge. The spell can't correct for any bending or deforming. Trying to detect these things is more difficult than the magical arrows, for arrows you at least control the impulse you're trying to detect."
Cato walked around. The problem was in fact the same issue that modern manufacturing plants faced. When faced with an outside factor that couldn't be controlled, the number of situations the machine had to deal with ballooned uncontrollably. Without some sort of artificial intelligence, or image recognition, dealing with the messy real world was very hard to impossible. And this Inath didn't even have standardized measurements, thinking about digital computing and control theory was pure fantasy.

How did real factories solve these sorts of problems?

Cato stopped his pacing and snapped his fingers. That's it! "Simple," he grinned, "don't change the spell. We change the bellows into one that works when you move it up and down."

He sketched out a rough drawing of how it would look. "In fact, let's make it a double bellows since it's just stacking another one on top. The middle paddle goes straight up and down and if you make the holes on the side and metal rails to guide it, the paddle will constrained to this path. That should make it much more stable."

Landar picked up the drawing with a frown, "you move the middle? I never heard of a bellows with three paddles."

Cato drew a quick sketch of the inside. "When you move the middle paddle up, the top bellows exhales and the bottom inhales, and vice versa. Double bellows give much more consistent blowing and work better, we don't really need it but I was intending to build one for a bigger furnace anyway," Cato explained, "seriously, you never heard of this before?"

Landar shook her head. "I suppose this is another invention from your world?" she asked.

Cato laughed with a note of despair, "seems like everything is. Bellows are obsolete in my world. We have fan blowers instead."

Landar looked curious but Cato shook his head. "We need steel, good steel."

He could almost see her wilting.

"How come your world is so crazy?" Landar complained, "everything nice takes good steel. Or impossibly precise tools. Or substances that not even the First heard of."

"Inath is pretty good too," Danine joined in, "you have so much food."

"But our things are easy to understand," Landar explained, "your village understands trading food. Corbin is just a bigger town."

"Mm," Danine nodded, "the Char clan have always traded hunting meat for wind eyes."

"His things are not the same," Landar pointed at him accusingly, "how come they're so much better than ours?"

"What do you mean?" Cato raised an eyebrow.

"I mean how come you have so many miraculous things? Skyscrapers. Steel buildings. Huge panes of glass as tall as a person! The miracle you call electricity! If it wasn't for this," Landar waved at the furnace behind her, and the smaller demonstration furnace outside, "and the few things that came with you, there's no way I could believe you!"

"What can I say?" Cato held up his hands, "I mean, we have been inventing things for hundreds of
years. Something like this blast furnace is unsophisticated. To be honest, the only complex thing I've seen about your magic is that summoning stone."

Landar rolled her eyes, "I'd like to see what you call sophisticated."

Danine perked up at that as well, and Cato found both of them looking at him.

"Come to think of it," Landar said slowly, "we tell our stories of the First and the Tsar. They built great things and were wonders at magic. Surely Cato's world told stories like that too. Or did you learn so much, have so much power that nothing stood above you even in your imaginations?"

"Funny you should say that, but Inath and this entire world is a bit like the sorts of stories we tell too," Cato said, "Magic. Monsters. Knights in shining armour. Our stories have those too. Although," he pointed at the same blast furnace," we generally don't put things like that inside."

"Anyway," he continued hurriedly, Danine was beginning to stare daggers at him, "we do tell science fiction stories. I'm not a very good storyteller, you still want to hear one?"

They nodded simultaneously.

Hm. Oh why not. What harm could it do?

"And with his laser disabled from faulty heatsinks, that's when he fired his jumpjets and kicked the enemy in the back of the head! One lucky critical hit later and the opposing robot simply fell down and stopped moving," Cato waved a hand dramatically, "as it would turn out later, the kick had driven in the cockpit door and crushed his enemy to death!"

To be honest, he was making it up as he went along. It wasn't as if Cato had a eidetic memory, all he could do was fill in the blanks of half-remembered stories with more plot holes than one could count.

It didn't seem to matter to Danine though. She listened closely, alternating between rapt attention and utter confusion. As expected, robots was a bit too much for her to understand. Even if he thought humanoid robots and the individual heroics of the tale would be more relatable, she couldn't quite grasp the idea of a machine doing things, much less a giant bipedal robot that shot strange things like energy weapons and missiles. She did understand dramatic tension however and cheered at all the right parts.

Landar on the other hand... Landar had a maniacal grin that was already beginning to make Cato worry. That same grin she had when he mentioned the bowgun, only this time it had gotten wider and more crazed with each demand for details on lasers, composite armour and computers.

Audiences weren't supposed to interrupt stories to ask physics questions, but Cato had the feeling that she wasn't asking them to poke holes in the story unlike certain other fans on Earth internet.

When he had gotten to the point where the hero made his grand entrance with the giant robot, her eyes had transformed into miniature twin stars.

He wrapped up the story with a final kiss from the damsel in distress. Landar shot out of the warehouse with a dark and positively evil laugh.

Cato gulped as a sense of foreboding went down his spine. It was just a science fiction story, it wasn't as if any of the concepts had enough detail to work and she couldn't even make an animated pair of bellows. It would probably be all right.
Almost certainly. Right?
"Ignition!"
Cato shouted down as he dodged the shower of glowing cinders that shot out the top of the furnace stack. They bounced off the roof and began to land on and around him in a fine rain of ash. The roar of superheated air escaping out the top of the furnace was rattling Cato down to his eyeballs and drenching him in sweat.

To the side, the bellows pumped up and down without any apparent source of power. According to Landar, they would continue to do so for about an hour. That would be long enough. Landar herself had also demonstrated her ability to keep the furnace heated for over two hours, so that was fine as well.

He waved at Landar to increase the heat and was rewarded with a soft red glow on the underside of the soot cloud, the iron was beginning to melt. And then everything started to go wrong.

The cloud of soot rolling out the top of the furnace mouth began to descend once the roof of the warehouse began to heat up. Even worse, the burnt out air was impossible to breathe.

Cato coughed into a hastily bundled wad of cloth and held his breath. The air coming down from the roof was full of carbon monoxide and the choking smell was beyond tolerable. He stumbled away from the furnace, past Landar, who had also found some cloth but was still heroically trying to channel heat. Cato grabbed her shoulder and shook his head, then pointed at the bellows.

A second later, the pumping stopped and both of them ran out of the warehouse to fall down to the grass and the sweet cool air outside.

There was a long minute of choking and retching, where Cato could only hope they hadn't breathed too much of it. But after a while it began to look like they were getting off with only a mild headache.

"We were very very lucky," Cato said once he felt like he could talk again, "good thing we sent Danine to shopping. I completely forgot about ventilation."

"Indeed," Landar agreed.

"How far can your magic reach?" Cato asked, looking back through the door. The top of the furnace was still glowing red but it would burn through the meager charge for the test quickly.

"The furnace is close enough to use magic on, but I won't be able to sustain much more than a few minutes of heat," Landar said, "do you want to continue the test?"

The note of incredulousness in her voice made Cato grin, "of course... not. We need to save the furnace, can you pull out both the slag and iron plugs? I don't want any molten iron in the furnace to solidify inside, getting them out afterwards will be nigh impossible."

Landar nodded, "give me some time."

Cato pointed up at the roof, "I'll go up there on the ladder and open the louvers to let the air out. Leave the doors open and we should be able to go back in by tonight."

A few minutes of scrambling up to the roof and he was at the vents near the top of the sloped roof.
Meant to let the air out on a hot day, the clay slats were almost too hot to touch, and even the roof was noticeably warm under Cato's hands. He shook his head, this had been extremely dangerous.

After pulling open the slats and scrambling away with held breath, Cato climbed back down to find Landar still concentrating. And still glowing in the magic sense.

"Is it that hard to..." Cato's question died as he saw the scene through the open door.

A ball of brightly glowing yellow liquid the size of a head was slowly drifting through the air. Globs of semi-molten iron dripped out the bottom and sides, hissing as they hit the stone floor. Then as it reached the sand pit, Landar poured out the molten metal through a hole in the bottom, stopping just in time to separate the darker slag floating in the upper half. Then the slag moved to the side of the pit and was dumped unceremoniously into the quenching barrel, in a cloud of steam.

"Wow."

The sight of the glowing molten metal floating without support was not something Cato was going to forget any time soon. If anything, that ball looked more like a true ball of fire than any fireball the knights might throw, and was probably far more dangerous. Iron had a melting point upwards of a thousand and a half degrees after all.

"Haa," Landar collapsed onto the grass, panting in large gulps. It didn't help recover from magical exhaustion, according to Landar and Tori, but you felt tired and the need for air was a reflex that few people could ignore. "I haven't used so much magic since... two weeks ago, actually, but that's not the point. Working so far away really takes a toll on you. And trying to lift a ball of liquid," Landar shook her head ruefully, "that was harder than any control exercise I ever did. I don't think I could have got the ball that far if I was moving water, iron is very sticky."

"It was very impressive," Cato said, still replaying the scene in his head.

"Indeed."

They shared a moment of silence.

"So uh," Landar spoke first, "what now?"

Cato looked up at the wisps of grey smoke drifting away in the wind. He still had a slight headache, probably a mild case of carbon monoxide poisoning? "I think that's enough for today. The furnace clearly works so the trial is a success, but doing this indoors is not a great idea. I should have predicted it and got some ventilation."

He nodded and threw open the big double doors to let the air out faster. "I wouldn't enter this place for the rest of today either, the air inside will be poisonous."

Landar nodded, "if it's similar to the stuff that comes out of a smithy oven, then that would be a good idea."

"In the future though, we're going to have to think of a way to get rid of the exhaust," Cato pointed at the smoke, "just opening the ceiling vents aren't going to be enough. This was just the first time we fired it; to cast that iron bell of Kalny's, we'll have to move the air out of the warehouse."

Landar nodded, "we need a chimney."

"We could also exhaust the air forcefully," Cato mused, "a fan up there should work just as well since all the hot air rises to the roof anyway, we just need to force it out the vents. It might be faster
to build than a brick and mortar chimney."

There was a rapid patter of feet and they turned around to see Danine come rushing in with Tam right behind her.

"What happened!" Danine demanded, "I see smoke!"

"Is it burning?" Tam asked.

"The furnace is fine," Cato said, "we just needed a little air. But more importantly, we have iron!"

He pointed at the sand pit where the reddish iron blob was cooling slowly.

"Oh!" Danine was about to run into the warehouse when Cato grabbed her arm.

"Not so fast, the air inside is poisonous. See the smoke coming out?" Cato pointed at the roof.

"What happened here?" Tam asked, "I heard you were going to try to make iron but how does that make the air poisonous?"

Hmm, he couldn't very well explain about carbon monoxide poisoning. No one would understand it. "When you burn wood you get smoke like that. The difference here is that there isn't enough air to burn the charcoal in the furnace completely. If you breathe the air inside now, you'll be breathing in the half-burnt wood. Not good for you. We're waiting for the smoke to clear."

Landar eyed him suspiciously, "you're not telling us the fully story, we can avoid the smoke by breathing through cloth."

"It's technically true, but we can leave that for later," Cato suddenly threw in a question, "So Danine, did you figure out why the propeller toy I gave you flies?"

Landar looked at him weirdly but Danine just answered the question, "I think so. We worked it out together!"

She shared a grin with Tam, who returned it weakly. "When you spin the stick, the curved paper pushes the stick upwards!"

Cato nodded, "anything else?"

"It seems to push on the air to lift itself," Danine said, "but that doesn't make sense. I can't push on the air to fly."

"If you push hard enough, you can," Cato said, "in my world, we had machines that flew on the same theory. Even the Elkas do the same, although they push the air by flapping their wings, these fly by spinning."

"So why bring this up?" Landar asked, "does it have anything to do with our chimney?"

"Oh, I see!" Danine nodded, "it pushes the air to fly. What if you don't want to fly, but want to push the air? With a big one, you could push the bad air out of the vents!"

Landar stared at Danine and sighed ruefully, "well, I never thought I'd get shown up by Danine but alright, that is an idea. I don't think the stick will be enough though, it can't move enough air."

Cato shrugged, "we need a bigger one. Landar, do you mind making another item?"
"And I have to recharge the bellows too," Landar sighed heavily, "at this rate, my special project won't ever get done!"

Cato wisely did not ask what the special was. He sincerely hoped no one would have to find out.

"They poured molten iron? What was it like?"

The man frowned as the description continued. "She said it was hot short? Those two words? I see. I knew it would be unworkable."

That said, he hadn't expected Kalny to attempt to use iron for casting. Hot short iron wasn't nearly as bad if one never intended to work it. But how was he going to cast the iron? What mold could withstand that amount of heat?

"You said they poured the iron into a pit of sand. Tell me about the sand. Was there anything special about it?"

After some prodding about the green sand, the man had no more clue than the boy. It was clear the sand pit had not been overly damaged by the iron. But all the wisdom of the Ironworkers said that past attempts to make iron castings with sand molds resulted in the sand exploding. The man had done his research to see if what Kalny was attempting was even possible.

According to the Ironworkers' knowledge, what Kalny was doing was not possible. Not just the furnace itself that was supposed to somehow produce iron in unheard of quantities, but even to make enough to cast an entire iron bell the size of a person. He suspected the guard had given Kalny an impossible request to get rid of him but that didn't mean that if Kalny managed it, he wouldn't get more requests. And there was the matter of the strange sand used for the mold, the double bellows which was a closely guarded guild secret, now this last thing called a fan.

He thought all of it was just a scam Kalny was falling for but with this pouring, the furnace appeared to work. If that was the case, then what about the others?

There was only one explanation for this strangeness. The businessman Kalny was a familiar customer and there was no sign he could do any of this. No, the reason had to be that young stranger.

"Who are you, Mr Cato?" the man muttered, flicking a coin to the floor.

Rather than viewing him as a competitor, it would be more accurate to treat this man as a precious resource. Someone who could invent all of that was a genius not seen since the time of the First. The Ironworkers simply had to have him. They might even grow powerful enough to challenge the nobility!

The man began to laugh. A low malicious laugh that sent the Fuka boy scurrying away.

Danine hummed to herself as she looked over the now familiar landscape of Corbin. She was now getting quite good at climbing up and down buildings and running across rooftops. She had been here for more than a month now.

All in all, life was looking good. Her noticing how the propeller on a stick worked and thinking of using it as a fan was certainly the highlight, Cato had treated her far less like a kid after that. There were other things too. Like how she could remember and write all of the Inath letters now and
actually wrote another letter to her mother all by herself. And her magic was getting considerably powerful nowadays, the last time she went all out until she got sleepy, she actually managed to bring a cup of water to boil. That was powerful enough that Landar finally told her to restrict herself when throwing practice pebbles with magic.

She was well on her way to 'finding herself', Danine thought. Whatever Cato meant by that.

Even better, her mother hadn't objected too strongly to Danine staying with Cato. Her letter could be interpreted to mean that Danine could stay with Cato. If you stretched the wording a little. Which was a good thing because Danine had the feeling that things were about to get more exciting. She didn't know why but there was something in the air today that made her feel bubbly and excitable.

On the other hand, the little ball of gloominess sitting next to her was being silent and depressing. On a day like this when things were looking up? Why, Danine ought to be a good friend and cheer Tam up.

"What's the matter?" "Um, I want to-"

Danine blinked as both of them spoke at the same time. "You go first," she said.

"I need to tell you something," Tam said, looking down at the roof darkly but didn't elaborate.

Danine tilted her head in confusion, "did you do something bad? Something I wouldn't like?"

Tam nodded.

"And you're worried whether to tell me in case I don't want to be your friend afterwards?" Danine guessed.

Tam looked at her in shock.

Bingo! This was how it went in all those romance stories she heard from Ryulo! Danine grinned, "of course now that I've worked out that you like me, you'll just have to spit it out."

Tam seemed to go even more into shock. Danine took it to mean that she was on the right path. "Don't worry, even if it doesn't work out, we can still be friends. I can still teach you magic," she smiled at him, wagging her tail excitedly. She was about to get her own romance!

Tam sighed, shook his head and smiled all at the same time. "It's not like that," he said, "I really do have something to tell you that you need to listen to."

Danine frowned, "does that mean you don't like me?"

"Uh..." Tam looked a little panicked but there was no escape from the trap, "it's not like that. I do like you, but only as a friend."

Danine pouted. It was still too early she guessed.

"Can we please get back on topic?" Tam said, shadows creeping back onto his face. When Danine nodded, he continued, "Cato is in danger. I think. Someone very bad wants something from him. I don't know what."

Danine raised an eyebrow as Tam clammed up after that. She frowned and paced slowly around Tam, who just guiltily watched her. "Who is that person? Why is he so bad? And that's not everything is it?" she said after a while. Somehow she had the feeling...
"I think he's connected to the Ironworkers," Tam said, still watching Danine, "he knew what you were doing with the iron."

Danine thought quickly. Tam couldn't have gotten all that just from overhearing that person. Come to think of it, Tam had been getting more and more depressed over the last few days. It started two weeks ago? Right when he asked to learn magic and then asked to see Cato, as if he was working up to a harder request. Hm. "Did you talk to him?" Danine asked suddenly.

Tam jumped a little then nodded guiltily.

"And he learned about Cato- ah. I see," Danine nodded to herself, noting how he reacted to her guess, "well, now that I've figured it out, you may as well tell me everything."

And with that, Tam suddenly broke down into tears. Danine blinked in surprise, she had guessed he was about to break and give up the details but not like this. She had intended to grill him lightly in revenge for the earlier embarrassment. Oops?

She sat him down on the roof and stroked his ears and tail as he told about the nightly meetings with the strange and dangerous man. Tam even told her about the money the man had given him. Well, his tail could do with some grooming but it really was quite nice. Perhaps she could poke him a little to get another- ha!

No, bad thoughts!

"It's not so bad, you know," Danine said once he was done, she still cuddle close to him, it seemed to keep him calmer. "Sure, that man probably is from the Ironworker's Guild and he probably doesn't like Cato. And you did accept money from him. Oh, and you even told him where to find the warehouse."

Tam seemed to shrink a little at each accusation she leveled at him. "On the other hand, I never explicitly told you this was secret. I mean, we were pretty secretive and I guess you knew we wanted to keep it secret but we didn't actually say you had to," Danine made up an excuse for him on the spot.

"I..." Tam rummaged in his pockets and produced a few coins, "Please, these should belong to you."

Danine raised an eyebrow at the wealth in his hands. There was more than a few rimes there. "No. They're yours," she said firmly.

"How can I spend these, when I betrayed you to get them?" Tam cried sadly.

"It's all right," Danine closed his hands around the coins, "you take it. I don't know what sort of life you lead but I can tell you need this more than I do."

"How can you be like that?!" Tam exclaimed, "just being so carefree and... and... I don't even know how to say it!"

Danine blinked at him, bemused. What was she like? "Carefree? I might be acting a little weird because I'm bored all the time, but how am I carefree?"

"Just like that!" Tam said, "you don't even know what it's like to live in Corbin. The nights when you wonder if there will be food tomorrow or how you will fix your shoes for the tenth time or whether you will be beaten by any humans who think you're a monster! And you complain of boredom! Just... how can it be?!"

That was unexpected. Danine gulped, she knew that Tam was probably not eating well and never
had any money. She had taken care to never bring it up and always paid for food even if it made him guilty. But she didn't know it was this bad. "I'm sorry?" she said unconvincingly, "But why can't you go start a farm? Then you at least never worry about starving."

"My mother moved here after bandits burned down our farm and killed my father," Tam shuddered a little, "mother still wakes up screaming sometimes. And I'm not strong enough to farm by myself."

Oops again. Danine tried to think of another way but farming was really all she knew about how to live. Come to think of it, she had no idea what Tam and his mother did to live here in Corbin. They probably earned these coins to buy food... by doing what?

Oh, but then there was one place they could get a farm. "Tam," Danine shook his shoulder and looked at him seriously, "go north to Wendy's Fort. There is a village of Fukas there. It's where I come from and if we can convince Cato to write them, I'm sure you can join."

"A village?" Tam asked wonderingly, "of Fukas?"

Danine nodded, "I grew up there. We used to be further north but then we had to run from the zombies. Don't worry, I'm sure they will help."

"Wait, you said Wendy's Fort. The monsters come from there!" Tam's eyes widened just a fraction, "it's too dangerous!"

"It's Cato. He gave us the means to defend ourselves," Danine said proudly, "it's nothing like the Inath battlemages but the bowgun means that we can fight off monsters if we need to. And besides, we live near the fort. The Inaths help defend us."

"That... Does such a miraculous place exist?" Tam shook his head.

"It does. I told you I grew up in my village."

Tam looked at her, guilt warring with hope. "I think I know why you're special," he said finally, "most people would say living near Wendy's Fort is crazy. Perhaps you are crazy."

Danine raised an eyebrow, "feel free to join us in our craziness."

The realization hit her like a blow right to the ribs. Tam looked at her in the same way that she looked at Cato. It wasn't exactly the same of course but this was the same feeling she got when she watched Cato decide the fate of her village with the council.

Tam was actually looking up to her with hope. There was someone who she could help! Right here!

Danine grinned, the buoyant feeling in her chest made everything seem more wonderful, "Come, we have to tell Cato about your problem. Oh, and we have to warn him too."

"This is a problem."

Cato rubbed his chin while looking at the Fuka boy. He was starting to grow a bit of stubble but after seeing the wickedly sharp knife these people used to shave, Cato was resolved to do it as little as possible. The lower the chance of accidentally knifing himself the better.

The atmosphere in the warehouse turned smelter was faintly curling with tension. Kalny sat across the work table, Cato had sent for him immediately and got Tam to tell his story again. Landar had
disappeared to goodness knows where, something about a backup plan.

That left Danine and Tam to stand at one end of the room. Cato sighed, Danine knew something about how bad the problem was but seemed to think that Cato could dig his way out of it. Full confidence in Cato. He wished he knew where Danine got that confidence from, it wasn't like Cato had the answer to every situation and this one seemed to be just a bit more dire than the last.

Zombies didn't send assassins after your head. Even if Landar and Kalny agreed that assassins only happened one time and was the equivalent of declaring total war.

"The Ironworkers know about this," Kalny said with a heavy air, "so the disruption of the charcoal supply is their fault. I should have seen it, only they would even know that charcoal is an absolutely required fuel."

"Hindsight is twenty-twenty," Cato said dryly.

Kalny paused in confusion then shook his head, "What are we going to do?"

"What do you think the Ironworkers will do?" Cato asked.

"They'll try to disrupt how we work, maybe send some thugs to leave a calling card," Kalny narrowed his eyes, "in the worse case, they'll destroy this furnace."

"Can you even do that?" Cato asked incredulously. Surely such mafia-like tactics would get the law enforcement, what there was of it, coming after the perpetrators.

"Simple actually. The local militia aren't good at investigating things, you just hire someone to give the orders. There are people who can do it without being traced." Kalny shrugged, appearing all too familiar with the process, "in fact, I'm sure the Ironworkers will have their own underground people. Wouldn't be surprised if some of them belong in the militia too."

Cato closed his eyes. This was even worse than he thought. "You're no stranger to this either, are you?"

"Of course not, no one gets a contract like I did for Wendy's Fort without dealing a little. You have a problem with that?" Kalny eyed Cato.

"It's one of the things I'm trying to fix," Cato said, "it's inefficient. Like now, you're going to have to hire some people to protect this place. Aren't you?"

Kalny raised an eyebrow, clearly not what the businessman expected. "You're not what I expected, I had you pegged as a strict do-gooder but it seems there was a misunderstanding. Who are you, really?"


They shared a look.

"Well, what should we do with you?" Kalny regarded the two Fukas trembling beside the table.

"It really is a very dangerous situation," Cato joined in, "people are likely to be dead once this is over."

Even Danine was starting to look a little worried. Her ears flicked between Kalny and Cato rapidly and both their tails were coiled tightly against their legs, something that Cato was beginning to
"I've thought of a punishment suitable for something like this," Cato said, nodding to Kalny. At the mention of punishment, Tam looked up at Cato with watery eyes. Cato grinned, "since we clearly can't trust you, I'm sending you somewhere far away where you can't do any harm. There's space somewhere up north, I hear?"

The shocked look on Danine's face was too much and Cato burst out laughing. "But... that-" she sputtered blankly.

"Thank you!" Tam suddenly dropped to his knees as he finally processed what Cato said.

"It's not a problem," Cato said, "while I don't think you'll continue to do it, I doubt Kalny will ever trust you near this place again."

As the Tam began to cry profusely, Cato continued, "you need to talk with your mother first and I will have to write letters... no, let's have Danine write the letters, I'll just add my opinion to it. And you will need some time to move. For the moment, you'll have to stay away from here but I'm sure Danine can still find the time to meet with you."

Tam nodded his agreement furiously. Cato looked at Danine, "this is not your fault, but you did make Tam think I'm going to solve all his problems. So I'm going to leave writing the letters to you. You'll have to convince the village council," Danine's bright expression suddenly evaporated, "and I'm not going to help you write this one. You started this idea of moving to the village, so you take responsibility and finish the job."

Danine gulped and nodded.

Cato nodded back. Good.

That settled, he turned to Kalny, "so, have I restored my do-gooder credit?"

Kalny rubbed his head with an unreadable expression, "frankly, I have no idea what to think."

Cato was about to make another quip when there was a crash from outside the warehouse.

They ran outside to find Landar slowly moving a very large crate across the ground. She wasn't even trying to push the crate but instead moving it along with magical force, the wooden base was even scraping up the grass as she moved it across the little space between the warehouse and the low outer wall. The cart and Reki that had got it here looked suspiciously battered too.

The crate itself was a wooden box with strangely cut planks that started and stopped at seemingly random lines. What was far more alarming was the feeling of magical power inside the box. That level of power and density was not something Cato expected to see here.

They were more like the enchantments one would feel on the walls of Wendy's Fort. The preposterously strong magic can from inside the box, in a concentrated shell of dizzyingly complex geometric shapes. In fact, the enchantments here were even sharper and denser than the ones on the fort walls. Whatever they were enchanted with, there was something inside that could contain enough power to demolish the entire warehouse and probably a good portion of the nearby buildings.

"What is that?" Cato asked.

"Our backup plan," Landar said, unhelpfully. She patted the box with a satisfied smile as she parked
it next to the main door.

"How much power is that?" Cato couldn't help but ask again.

"This? I've been using every drop of my magic I could spare since I started building it. It was painful, but completely worth it. I even grew in power a little!" Landar began to chuckle under her breath which built into the same disturbing laugh. "I might never even get to use it, this thing is powerful enough you could feel it three streets away."

"Excuse me," Kalny interrupted her, "I would very much like to know what it does."

"It will make your security problems go away," Landar said.

Cato shivered, what had she done? Built some kind of sentry gun?

"Let's say we have a problem, what do you need to do?" Kalny asked.

"Simple, I get in and make the problem go away."

Get in? Cato looked at the lines in the crate's exterior wood again. Oh no, she didn't...

Kalny was also understandably nervous about the magical power, "will the problem go away together with a large section of the town? We could always let them have the furnace."

"It's not like that," Landar waved a hand, "I can control it. It probably won't destroy the warehouse."

Cato closed his eyes. He expected to meet one eventually, when magical knowledge had advanced a little, but Landar didn't get the memo.

"Landar, did I tell you that science fiction in my world is called fiction for a reason?" Cato said, "It's not supposed to be real."

Landar waved a hand dismissively, "it's too cool to not get built. Any alchemist worth their salt would get fired up after they heard that story."

"It doesn't mean you can go ahead and build a robot suit." He said it. He really said it. It was time to acknowledge that Landar was officially lacking in all common sense.

"Common sense is optional."
Kalny lead them back into the warehouse once Cato had finished being exasperated. He walked around the furnace, Cato and Landar watching him examine the setup, including the set of three fans near the roof that was the source of the latest delay. They returned to the room on the side used as an office.

Holding up the disc of metal from their first test, Kalny regarded Cato. "To be honest, I did not expect this to work," Kalny said, "despite your pen and strange clothing, I did not believe that you would be able to make iron. Now I do. And so I tell you to go straight to casting that bell. Skip the trials you told me about."

"But I'm still not sure the furnace can do that," Cato protested, "the furnace might be all right but we still don't know if the ventilation system works adequately or if there will be other problems during the cast. There may be other problems we haven't seen. We have to find them before attempting a full scale melt."

Kalny shook his head, "I'm afraid we can't do that."

"Why not?"

"You see the pile of charcoal over there?" Kalny indicated the black pile sitting next to the iron ore. It was only a bit bigger. "That's all we're going to have."

"What?!" Cato grimaced, "that's not nearly enough. Why can't you get more?"

"The Ironworkers are blocking us, I've tried my best but no one will sell me any charcoal. From some of their reactions, I think the Ironworkers are applying pressure on the suppliers."

Kalny looked at Cato steadily, "besides, isn't that enough to cast the bell already? I remember you telling me that before."

"I also told you that some more tests are required," Cato pointed out.

"But it is enough to cast the bell, yes?"

Cato held his gaze for a few moments then sighed, "all right, we'll skip the trials."

The group of men who frequented the bar were generally known as drunken layabouts. Even though they weren't drunk most of the time, they still had the reputation of being difficult, and loud, people. They occupied a good quarter of the bar and were given a wide berth by the other patrons.

And so when a tall lanky stranger walked into the bar without giving them the customary terrified glance, it was without much surprise when the three nearest the door decided to challenge the man. He even carried a long cane and a stiff cloth cap in faux-noble style.

They swaggered forwards and were about to voice some sort of demand when the man burst into a blur of action.

Before anyone could even blink, the three of them were lying on the ground, groaning and wondering why they hurt all over.
"Don't fight in here, or you don't get anything to drink," the owner said, taking out a baton from behind the counter. He nodded at the stranger, "that includes you."

"Sorry about that," the man apologized, "if you don't mind, I'll just have a word with them."

The owner watched him suspiciously as he walked back to the table. The baton stayed out where it was visible.

"My apologies for the mess but perhaps I can compensate you."

The man's formal speech made them pause, the only people who could pull off formal speech without sounding like idiots were all too powerful to mess with.

"I am in need of some help and you young men seem to be likely lads," he smiled, "how about a chance to earn some extra drinking money as my way of making amends?"

"It better be substantial if you want me to forget what happened here," one of the bruised men said, picking himself off the floor. He was promptly shoved down by the others still at the table.

"What sort of work and how much are you talking about?" one surly voice said.

"It's the sort of work I wouldn't want to sully my hands with, but I have no doubts that you all will be up to it. Half a rime per person before we start, half a rime after."

He threw down a small bag of coins onto the table. The round and solid half-rime coins were serious money around these parts.

"If you need us this badly, you can spare some more," the big burly leader stood up from his corner.

The man shrugged and dropped another bag, "I'll double that but I want things as 'unbroken' as possible."

The leader looked around at the greed painted on the faces around him and snorted, "then you've got yourself twenty pairs of hands. Lead on."

"Do we really need those people?" Cato said as he dropped the block of charcoal into the blast furnace.

He prayed to whichever gods might exist that the test would go smoothly. The duct for pouring the metal was untried, although Cato couldn't see how it might fail. The fans had only been testing in isolation, without the furnace spitting air at hundreds of degrees at them.

But what was more worrying was the group of people gathered outside the front gate. Thugs for hire really.

"If anything's going to happen, I don't want it to be today," Mr Kalny said, "they're there to make sure we don't get interrupted."

He was sitting safely far away from the furnace, in case anything went wrong. Not that Cato expected their sponsor to help.

Danine ran up to Cato with the last tray of iron ore. He took it with thanks and poured the lot over the top of the last charcoal layer. Then he nodded to Landar and hurried back down the ladder as the mouth of the furnace acquired a heat haze.
They had found that heating the smaller test furnace with magic before starting the bellows made things easier to ignite uniformly. Without much fanfare, the flames and sparks shot out the top of the furnace as ignition was achieved. Unlike before, the roof ventilation whirred to life to suck out the choking black smoke, leaving Cato with only the sweltering heat.

"Temperature is fine," Cato said as he withdrew the iron rod from the tiny hole in the side. There was no concept of a thermometer here, he had to improvise with a simple rod of iron and seeing the colour that it glowed with. He replaced the rod and looked at the flames near the mouth, "flame looks fine too."

As the bellows pumped fresh air into the furnace with a rhythmic sighing, the high quality charcoal in the furnace began to burn. Confined in the furnace, they couldn't completely combust and the carbon monoxide produced began to reduce the iron ore to get at the oxygen. That combined with the high temperatures created raw liquid iron, full of carbon and silicon that made cast iron hard and brittle.

It was nearly midday before Cato concluded that enough iron had been pooled at the bottom of the furnace to tap it and after draining the slag, the first pouring of the iron began. The glowing liquid metal running down the conduit made even Kalny sit up and take notice. The stuff radiated heat onto Cato's face but he didn't care.

The olivine sand mold was quite expensive but Cato had insisted on it. Ordinary silicon sand would have exploded on contact with the extreme heat, and olivine sand needed less water to hold its shape, improving the quality of the cast.

This was what they had worked so long for. The fruition of a month's effort.

And there were people out to stop it.

The first sign of trouble was the shouting. The thugs outside the warehouse were facing off with another group. While the insults hurled weren't something Cato knew from Earth, the hostility was obvious.

"The pouring is almost complete," Cato asked, "can your hirelings hold them off?"

Kalny darted back from the window where he had peeked out curiously. A whirling knife followed him in and clattered to the floor. "Don't think so, I only hired ten and there's perhaps two dozen enemies."

Enemies huh. Cato supposed they might be called that. But whatever surprise magical robot Landar had thought up was useless if Landar was stuck in here with the furnace.

"How much more iron do you need, Cato?" Landar asked him, having made the same observation.

"We have enough actually, the ore must be a higher purity than I thought," he said, watching the mold filling up with liquid iron, "the problem is that if we don't pour the extra iron, it will solidify inside the furnace. Cleaning that out would mean dismantling the entire refractory lining and scraping the iron and slag off it. Unless you're strong enough to break bricks cast in iron with magic."

"You could dissolve the iron," Landar suggested, still watching the furnace and the sound of fighting outside.

"With what? I don't think we can get industrial quantities of sulphuric acid or similar. And I don't want to handle something as dangerous as that."
Landar shook her head, "no no, you can use magic. Elemental Water dissolves nearly anything, metals especially. It's dangerous, true, but if you know what you're doing, you can use it."

"Are you sure it can be done?" Cato glanced at Kalny. He didn't want to have to explain a broken furnace to the merchant, even if he almost certainly would pay to repair it.

"Yes," Landar nodded.

"Then we'll take the risk, go to your robot," Cato said, trying to avoid laughing at the absurd statement.

The thugs hiding behind the warehouse gate had their own sort of pride. Money had been paid for their, temporary, loyalty and they would defend the gate as long as it was worthwhile. The opposing Redwater gang were not the gentle sort of people and the GreenNine who Kalny had contracted did have a bone to pick with them. And a defensive position to do it from.

As the Redwaters came charging up the street again from the short break, the GreenNine members hefted their clubs and chains. Twice the Redwaters attacked and twice they had been repelled. Even if the injuries accumulated on the seven remaining members were already substantial, their bloodlust wouldn't let them run away just yet. Not until they had a final hurrah.

They didn't get it. The flare of magic behind them was not something inside the warehouse but from the mysterious large crate. That attracted the attention of the youngest and most distractible boy.

"Where are you looking?" the leader growled, eyes glued outside the fence.

There was no reply. He glanced away to find everyone turning backwards. Even the Redwater gang outside were slowing down and gaping at something behind him.

He turned around. The crate itself was unfolding, the four walls separating into panels along hidden cracks and revealing the inside.

The wooden panels shifted amid the creaking of metal struts, forming into a rough humanoid shape. The exposed bronze struts and hinges gave off an alien impersonal feeling. Twice as tall as a man, the figure loomed above them, wood from the crate forming heavy panels around the outsides of arms and legs like armour.

The crazed triumphant laughter coming from inside did not help. The thing raised an arm as thick as a log at the gate.

That was enough, the GreenNine hadn't expected to deal with something like this. They ran for their lives.

"Whoops, wrong people," Landar was still cackling every time the machine took a step.

A real machine! Each of the spells on the limbs and hinges moved in time, the spells that moved them had been preset with the needed movements. The result of painful trial and error, all she needed to do was coordinate the spells. What did Cato call it, a robot suit? The robot suit took another small and slow step forward.

It was too bad that she hadn't figured out how to make it run or jump. Landar had hopes of
replicating the robots in Cato's story but that was still beyond her. Someday though...

Landar looked out of the view slit and recovered her grin. The attacking gang had rallied around the gate and were finally getting over their shock. Time to find out whether her other specials were any good.

She moved her arm up, triggering another preset series to avoid having to lift the entire weight. The robot arm whirred up and suddenly stopped moving.

Landar frowned and tried to sense if there was anything wrong with the magic. Nope, the spells were fine. She delved a little deeper and gulped.

The magic she had painstakingly stored for over multiple days was almost empty! How could that be? If Landar had a mind to, she had enough power to shake this robot to pieces like a toddler with a toy. And for it to have used this much magic already...

Landar glared at the enemies, she simply had to use it. Even one time was enough! Landar gathered her power and connected to the spell in front of her chest, the one that stored the power.

"Gah!" Landar ran winced at the fearsome drain on her magic. True, Landar was half empty from heating the furnace but the machine used magic by the bucketload. Drank it like water. Even if it wasn't moving, the robot still used magic. No wonder her stored magic ran out so fast, she didn't want to know how much those two steps cost.

She would have to find out why, but first, Landar had to at least make one attack.

She poured out her remaining power into the arm down to the box of arrows.

Cato glanced out at the window. Honestly, it was only supposed to be a glance, but the sight of the robot facing down the attacking gang was just too distracting. Even Kalny was watching.

Using the crate itself as armour plating was quite unexpected, when Cato thought of robot suits, he thought of a single piece of armour. But Landar had probably taken some inspiration from the story's transforming robot that could switch between a walker and a plane.

The robot seemed frozen with its arm still pointing at the gate and just when the gang was about to recover their nerve, the wood panel at the end of the arm popped off. Cato couldn't see what was on the end but the panic that built on the faces of the targets were only there for a moment.

There was a rather familiar buzzing noise. A noise that Cato wasn't about to forget any time soon.

A flurry of arrows left the rack on the end of the arm, pouring outwards and picking up speed as their magic accelerated them to deadly speed. And these arrows were made of iron, and they were driven by magic channeled directly down the arm instead of only inbuilt enchantments.

The arrows tore through the unarmoured gang with contemptuous ease. Points that hit soft tissue lanced straight through the body to hit those further behind the crowd. Even worse, the iron was weak reforged scrap and those that hit bone shattered on impact, smashing apart limbs and sending iron fragments sleetng through the hapless target. Then the few arrows that somehow made it through the bodies hit the cobblestones and also shattered, stone and iron adding to the carnage.

Blood and flesh were dashed across the ground as the gang outside the gate dissolved into a gory puddle of screaming bodies. Bits of flesh were sprayed out behind the group and blood was flowing
down the cobblestones, looking like the floor of a slaughterhouse. Cato backed away from the window, feeling bile rising in his throat. There were blood specks all the way to the sill.

Kalny was also looking sick but Danine was surprisingly undisturbed by the sight. Even though her tail was coiled again, her shadowed expression was merely dark.

Cato wondered if he should pull her away but a tapping of wood on stone from behind made him turn around.

There was an unknown man standing next to the furnace, he had been trying to creep up silently but his long wooden cane had hit one of the many sand buckets scattered around for emergencies.

With neither sign nor word, the man rushed forwards so fast that he was almost a blur. Cato fell backwards in his haste to retreat, still noticing how the man used magic differently from the knights. It even felt different, wrapping tightly around the man's feet and legs instead of arranged in defined blocks and shapes. The man's cane dropped on Cato's shoulders, from the magic he could feel, the cane could probably take his head off if the man felt like it.

The whole encounter took so little time that Danine and Kalny were still turning around to face them.

"Quite the fearsome guard you have," the man said with a oily smile. He doffed the cloth cap to reveal a head of yellow hair framing an elegantly featured face. That and the black formal coat over his thin wiry body was quite the mismatch with the weaponized cane and the two iron knuckled gloves on his hands. "It's a shame how it can only be in one place at the same time."

"What do you want?" Cato asked, hoping Landar had noticed the intrusion. He could see that no one outside was in the mood to continue any sort of fighting but the three meter tall magical robot was still holding an arm out. Not moving.

"It's the blast furnace, isn't it?" Kalny said.

"Why yes, I do like a smart person," the man nodded to Kalny, "you may call me Klaas. You already know who is interested but I shan't mention it."

"So what exactly do you want with the furnace? It's not like you can move it," Cato said, "and I don't think those people outside are going to move it for you."

It would be very surprising if many of them would still be willing to follow through, no matter how much he had paid them.

"Tell me where you learnt how to make this," Klaas said.

Cato blinked once and sighed, "Danine, go to the desk in the side room and get all the paper there."

Danine looked a little confused but Kalny nodded to her. They waited for a moment before she returned with the stack in her arms.

The man looked at the top drawings with a raised eyebrow. "Show him the big one," Cato said, "the one we found in the ruin."

Danine's eyes widened in shock once she understood what he was saying. She lifted up the top two to reveal the biggest drawing. It was the overall drawing Cato had made when he first presented the completed plan to Kalny, with little notes explaining all the parts and what they did. With such a drawing, anyone who worked at it should be able replicate the blast furnace here.
Klaas examined it and was apparently satisfied. He indicated the ground with his head, "put it there.
"

Danine bent down to put it at the man's feet when she suddenly shot up at him, a spell already building in her hand. Klaas barely managed to turn in surprise when she shot the coin concealed in her fist right at his face.

There was a flare of magic and the coin pinged off his nose without leaving a scratch. In fact, it had sounded like the coin had hit metal. Klaas jumped back from Cato to stand in front of the furnace and raised his cane at Danine. She was now standing in front of a rapidly retreating Cato, snarling.

Klaas narrowed his eyes, "you're just a scrub. Don't get in my way unless you want to die as well. "

Cato gulped. So the man was going to kill him? How did Danine know that? Danine merely snarled again, trying to conjure a magical bolt but the magic failed to coalesce into anything other than a brightly glowing ball suspended in front of her.

They faced off, the tension escalating unbearably- there was an enormous crack from the mold right behind the man.

The sand mold containing the cast iron was well constructed. A simple rectangular design that had little possibility for error. Error was not impossible however and if Cato had checked his work, he might have noticed the drawing of one of the walls was missing a number, making it marginally smaller. A small writing error, but the master clay worker who had been told to follow the drawing as best as he could, simply did so.

This would not ordinarily be a problem. Cato had given the pieces a sufficient safety margin to hold the weight of the olivine sand and the cast iron that would run through the mold. Even if one wall was thinner, the mold container was quite over engineered.

But when the mold began to overfill with excess iron, and no one was there to scoop it away, the molten iron above a thousand and a half degrees flowed over the top of the mold and onto the walls.

The clay had held out for a long minute, but no clay container could hold iron for long. The expansion from heat and cracks from minute explosions as the iron contacted bits of silicon sand assaulted the clay, and finally, the weaker wall gave way.

Molten iron oozed out of the cracking mold, threatening to engulf Klaas's feet. He had to jump out of the way awkwardly and Danine took the chance to charge him. The young Fuka girl swung her ball of magic at him in melee, holing the protection on his clothes. Not to mention giving him a nasty magical shock.

As Klaas staggered away, Danine darted back and by the time he had recovered, there was no one left in the building.

He picked up the stack of notes and looked up at the furnace that was still shedding heat. The glow had cooled to a dull red and the iron spill around the mold was already beginning to thicken as its temperature dropped.

Klaas sniffed as he considered his mistakes. Standing next to a contraption of unknown operation was probably the worst. Failing to figure out what the giant crate was for was second worst only
because he didn't really care about the Redwater gang.

He swung the cane and the blade of force surrounding it easily smashed aside the wooden support. A few more strokes and the furnace, slowly and majestically, toppled over in a massive crash that sent burning hot coals across the floor. Another swing ripped apart the bellows that was still futilely pumping away.

The magical fan things in the ceiling he couldn't do anything about, and the mold was more or less completely solid now. Destroying the bell would cost too much magic. No matter. Without the plans from the First, the boy would take too long to repair everything. One bell was worth very little in the grand scheme of things. At least once the Ironworkers had had a chance to build their own furnaces.

His work done, Klaas left through the back door to avoid the knights already beginning to gather around the remains of the Redwater gang.

They sat glumly around the table. Well, all three of them, Danine was curled up in a corner, sleeping off her magic exhaustion.

"Well, at least we don't have to worry about the mess," Landar said. The bodies had been cleared away and after much questioning from the knights, it had been ruled as mutual error and Landar was considered faultless. Apparently this sort of thing happened quite often, only the thugs weren't often the side getting killed. "But still, having them cut me out of that robot was an embarrassment! I don't think I'll ever live this down in my family."

Cato could only sigh at Landar's wails. To describe that as an embarrassment was an understatement. The knights had joked about the Mad Alchemist finally getting caught up in her own special, but Cato knew better. The only reason why the robot had frozen up was because both it and Landar had ran out of magic. Well, it was less a robot and more like powered armour. The motions had to be better and the frame could be miniaturized, and there was the problem of needing a better power source.

If all that was possible, Landar would have made full fledged powered armour.

It was still going to need a lot of work. Perhaps even years of refinement. The way Landar explained her hacks for making the robot take a step and not topple over was not going to be acceptable in a real combat situation.

No, now was not the time to get distracted by random thoughts. "It was an eye opening lesson," Cato admitted, "frankly, I think I was getting carried away."

"What do you mean?" Kalny asked.

"Magic really does exist," Cato said, "I mean, I knew that. But I didn't think about what that really meant."

"Elaborate?"

"I tried to bring my own knowledge from Earth here," Cato swung a hand to indicate the ruined furnace, "I took what I knew and simply replaced the parts I couldn't get with magic. Heat the furnace, pump the bellows, spin the fan. But there could be so much more."

"I don't know," Landar said, "heat and movement is something everyone uses magic for."
Cato ran a hand through his hair, trying to think of a better way to explain. "Take the fan. I needed to move the air out of the warehouse, so I took something I knew, a fan, and replaced its power source, electricity, with magic. Why didn't I just move the air itself? I've even see the Danine do it when she experimented with the movement magics."

Landar blinked and shared a look with Kalny.

"I think we both have a blindness," Cato said, "since my world had so many things you didn't have, we just assumed the technology must be superior and that we should just copy it. That's what's wrong. Magic is just as powerful a force."

Powerful enough to turn a group of people into chunks.

"What we should be doing is taking the successful ideas from my world and using it here," Cato said, walking over to a small cupboard. He took out a series of sealed glass bottles and put them on the table. "And that idea is the scientific method," Cato said, "that and mathematics, logic. Even a bit of technology where it is applicable. But magic should do... can do far more than just power technology from my world. You, Landar, experienced what happened when we simply try to copy." "What does that have to do with the bottles?" Kalny asked, poking one of them with a finger.

"I wanted another idea I could use in case the furnace didn't work out," Cato said, "I needed to run a test first. And that's why its relevant. The scientific method is simply the testing of ideas. That was how my world made so many inventions, created so many machines. What we need to do apply the same principle to magic. Study it, and we will learn how to use it to make our own technology."

Kalny picked up a bottle and examined the fungus growing over the surface of the milk inside. "So what does that have to do with your other idea? Something else I could do?"

Cato smiled, ever one to discuss money, that was Kalny. Well, it was fine, he was saying this more for his own benefit, though Landar seemed to nod along. "Living things come from other living things," Cato said, "and the reason why things rot is because very small living things grow on them. I got reminded of this when we met the Miasma in the Dead Marshes. Something about Miasma victims not rotting for weeks." "Turns out, the same applies to this world," Cato held up another set of bottles. All but one was completely clear of any spoilage. Cato explained. "You see, living things can be killed. Small living things in particular, can be killed simply by heating them up. If you boil water or milk, you sterilize it. I put the ones with the white markers in the test furnace one time and boiled them thoroughly. As you can see, no contamination."

Kalny frowned, "but we cook food. Cooked food still spoils."

"The key is sealing them before cooking the food," Cato said, "the spoilage is caused by very tiny living things. So tiny you can't even see them. And they're everywhere. The moment air touches the food, it's contaminated. But if you seal the food in an airtight container, and then cook the food, the air that got sealed in with the food gets cooked as well."

The food merchant sat up straight, thinking furiously. "Do you know how many problems you just solved?" Kalny said finally, "I was thinking about how to make you pay for this disaster but it seems you just did that."

Cato merely smiled. Food preservation could be argued to have a bigger impact than cheap steel, but he had gotten greedy. Steel was fundamental to almost everything else, or so Cato had thought. With
magic, who knew?

"Is that why you never deliver anything other than the cured meats and bread?" Landar asked.

Kalny sighed, "yes, that was one of the reasons. To get food from further away risks spoilage. Don't think I haven't received requests for more variety. In fact, I cheat with the vegetables too. " He grinned, "just like Cato here, I knew the Miasma somehow preserves bodies. So I told my delivery drivers to leave their carts out in the Miasma, in hopes it would preserve my food. It worked well enough for you people to have vegetables as long as I could find any on that morning's markets at Corbin."

"Cato, I think you've just made some knights very happy," Landar laughed.

"Don't thank me too soon," Cato said with a warning tone, "we sealed food into metal tins back in my world and they never taste quite the same as fresh food. True, some types could be kept for years but the heat treatment changes the taste and texture."

Kalny shook his head, "you let me worry about that problem. I know a few chef friends who would be interested this. Selna, the possibilities are incredible. I don't know of anyone who wouldn't be interested. " He got up from his seat at the desk, "well, I got to make a start on this. And this time, I'll be the one sending thugs after people."

The merchant nodded to them and left with an large grin on his face.

"At least one person's happy," Landar said glumly.

Cato nodded. He had another request to make but somehow saying it straight to her made him feel uncomfortable

"I- I know I haven't done anything for you," Cato began, wondering if there was another way to make it sound less embarrassing, "but I still need your help."

"What are you saying?" Landar smiled weakly at him, "it's no big deal. After all, I'm just doing what I want to do. Your interesting ideas are more than enough."

"No, I mean, if I am going to study magic, I will need your help more than ever," Cato said. There really was no way to avoid it. "Even if sometimes the work gets hard, or the ideas are not so interesting, I ask you to help me. Wherever I may end up or whatever I do, will you follow me?"

He looked away, feeling his face turn red.

"I mean, I know we will have the opportunity to make a lot of money but I'm not going to," he continued, stammering into empty air, "and I want you to know that we're not going to do this for money. If it goes well, we will end up rich anyway, but not as rich as we could be. We will also have enemies and it will probably get more dangerous. And there is a risk we will fail."

"I'll do it," Landar said, a fierce grin on her face despite the grime and dirt trapped in her long hair, "I think I like the idea of taking over the world."

What. Cato turned back to her in confusion. Did she not hear what he said?

"Think about it this way," Landar said, "if you are the one at the center of all this technology, in the end everyone has to answer to you. If that's not taking over the world, I don't know what is."

Cato rubbed his head and nodded at her. Perhaps something got lost in communication, but he would
have the chance to correct her along the way. For now, this was enough.

"Cato," said a tiny voice neither of them had expected to still be awake, "you're not supposed to propose that way."

Cato looked at Danine who was watching him with wide round eyes. Yeah, asking Landar to follow him wherever he went could be interpreted romantically but he was trying not to think of that or he was seriously going to die of embarrassment right now. Ah crap.
Morey brushed down his Reki and fed it slowly. Reki riding took some getting used to, and not even in his varied experience did Morey ever have to ride a horse. But he was learning to take care of them and Rekis were a little bit like horses if you squinted and ignored their bounciness. Ok, they were a bit more like really huge dogs but still.

"That got too much for you?" Etani said as she came into the stable.

Morey sighed, "Yeah, I didn't think children could be so terrifying."

"So Morey, do you mind taking care of my Reki too? I've got to go rescue Ereli before she accidentally kills someone by falling on them," Etani handed him the reins.

"I just hope we can finish preparing," Morey said.

"Come on, the Tsar research facility the documents pointed to is right under our feet. It's not going anywhere."

"Keep up that attitude and we'll be here for a month," Morey shook his head, "I say we go in two days."

"That should be enough time."

It didn't turn out be enough time. Morey was quite sorely wishing he did ask the party to spend a few more days preparing wands. But who would have guessed that such a creature would live inside the ruins?

He drew out another firebolt from his pack and with a mental tweak, shot the magic at the monster chasing them. The spear of flame flew through the trees and splashed futilely against the monster's shield. Bits and pieces of the spell careened into the sky, leaving the monster untouched. Morey had never seen any shield cause magic hitting it to simply break into pieces.

Morey tossed the empty stick of wood aside and concentrated on running. It was almost upon him!

A salvo of pure magical bolts rocketed in from the side, distracting the monster from turning Morey into a messy smear on the floor. That would be Nal of course, only she could guide so many magical bolts between the trees with such accuracy. Her bolts didn't fare any better, also breaking into streaks of uncontrolled magic.
There was a blur somewhere behind him and the crashing of trees as the monster ran into another one. Then a sound of steel shattering on the rocky skin of the monster, Etani had tried to strike again.

"Break for the open area! Lead it away from the town!" Morey shouted, "we must defend the civilians!"

Etani was too busy dodging legs crashing down from the trees above to reply and Morey trusted that she had heard. He turned to run.

When they broke out of the forest into the bare rocky slope, Morey took a chance to regroup with the other two. Nal could take care of herself but Ereli was already sporting cuts and bruises, no doubt from tripping in the forest. The Iris girl seemed to be able to trip on nothing at all, how she had managed to get through the forest in one piece was a mystery. Etani he wouldn't have to worry about, it was more likely she would be taking care of Morey instead.

"You guys all right?" Morey asked while looking them up and down.

Ereli winced at a particularly painful bruise on her cheek, but still put on a firm look and nodded gamely. Good.

"I have an idea," Nal said, "if I don't have to juggle powerful spells, I can control a lot more. We'll see if I can't overwhelm the shield."

Morey nodded, Nal was the most knowledgeable about magic among all of them.

"I- I'll help!" Ereli squeaked.

"Head upwards and keep your magic in reserve," Morey said, "we may have to use the trump card."

"Yes!" Ereli squeaked again. She hadn't been with them long enough for the glamour of talking to the Hero to wear off yet, and this was her first major crisis. Understandable really.

"It's coming!" Etani yelled as she ran out of the forest, their ridiculous and makeshift, but very effective, shield pointed back where the monster was.

The creature followed her out of the trees and they finally got a good look at it.

Twice the height of a man, and about the width of a house, the monster simply bulldozed its way through the trees. It had six legs on either side, each as thick as a man, and it scuttled forwards deceptively fast despite the size of its body. And the body! Covered all the way down to the tips of the legs with a dark brown carapace, its vaguely oval shape was festooned with odd spikes and strange discolourations. Twin eyes were set into armoured sockets with a tough white film protecting them.

It reminded Morey of an oversized crab. Well, crabs didn't usually have a glimmering magical shield surrounding its body and legs.

The shield was currently the subject of their frustrations. Unlike the hard smooth shields that Morey was taught to use by Etani, this shield was fluffy. As if composed of a thick blanket of weaker strands.

Morey watched again as Etani attacked one of the legs with a powerful magic assisted swing of her warhammer. Just when the hammer passed through the shield, the acceleration spell on the head simply fell apart, just like all the other spells they had tried. The swing lost some power but it still smashed into the leg shell with a loud crack.
There had to be some kind of trick to that, Morey decided. The shield seemed to wrap around the hammer? Maybe?

A huge and sharp leg slammed down at Etani but she stood her ground. The Crysteel door they had looted from the ruin was not forgeable into another shape but the best smiths in Inath had managed to attach a pair of steel handles and a large spike at the bottom. She slammed the door down into the ground to anchor it and simply endured the blow. The monster's leg slammed into the door, pushing Etani backwards despite the anchor. The spike dug up a small trench in the hard ground but the door simply shrugged off the attack. It didn't even look damaged.

Etani rode the blow backwards and swung her warhammer at the leg that just attacked her. Still to no significant effect.

Morey took out yet another firebolt. Channeling a spell storm, the three basic bolt spells showed the stark difference between Nal and his half-baked training. He fired them and triggered the wand immediately after, the bolts streaked forwards. The shield reacted again and they never reached. Now that he was watching for it, Morey noticed that one of the threads seemed to reach out and touch the spells just before they broke apart. Maybe. It all happened so quickly that Morey couldn't be sure he saw that.

"Firing!" Nal shouted and Etani darted away. The crab-monster took another few steps forward and met with a sudden avalanche of bolts. Simple, crude and weak, Morey could have made such a bolt even before he left the capital, but there were so many of them! True, Nal's spell storm had improved lately but not this much! The air almost glittered with the machinegun like stream of bolts... that were all caught and scattered.

No, not quite, the last few seemed to strike deeper into the shield. The threads were obvious now, flailing around trying to intercept all the bolts. And there weren't enough of them to keep up with Nal at full auto fire.

Then the torrent subsided. It wasn't enough to open a hole in the shield.

"Quantity! That's the key!" Morey shouted as Etani dashed back in to distract the monster. "Fire enough spells and shield can't deflect everything!"

Nal was already breathing hard but nodded. "Give me your wands!" she shouted back.

Morey swung his pack off his shoulders and tossed it up the slope with a grunt. A spurt of magic made sure it arrived.

Nal opened the pack and unceremoniously dumped the colour coded sticks onto the ground and then added those from her own pack. "I'll try to set these to all fire at the same time, so make the monster stay put!"

And just in case it didn't work, Morey glanced up at Ereli who was still climbing upwards. Slowly. "Ereli!" he got her attention, "use it! Hit that monster just after Nal fires!"

He lingered long enough to get Ereli's nod then focused on the green shard hanging from a pendant around his neck. The Iris gift glowed as he poured magic into it and the ghostly blade sprang into existence beside him. Followed by the minor phantom, Morey drew his sword and ran forwards to join Etani. It was time to see how his melee training had paid off.

This was going to painful.
"FIRING!"

The welcome shout finally allowed Morey to back off. Dancing around the monster, avoiding the stabbing legs, they had all dissolved into a blur that just went on and on and on. Dodge, strike, fire a bolt, dodge again. Repeat. His minor phantom had disappeared some time ago after futilely trying to smash through the shield. The shield didn't seem to be able to break phantoms, but the phantoms couldn't go through the shield either and was reduced to bashing the shield over and over.

The monster didn't seem to have any other attack than the legs and those were slow enough that they could be dodged given some warning. But it was clearly a defensive monster and all of Etani's and Morey's attacks might as well have been pinpricks to it. All they had to show for those tense minutes was two palm sized pieces of the carapace lying on the rocky ground. The monster had stopped attacking with the vulnerable legs and they didn't get a chance to exploit it.

Behind them, Nal was almost done. Her eyes were closed and she was doing that mnemonic chatter she always did when she was truly concentrating. If the monster hadn't been pinned down by Morey and Etani, she wouldn't have risked doing that. On the other hand, she was surrounded by a small army of wands floating in the air.

She opened her eyes and fired them all at nearly the same time. Sequential firing took more concentration and she was at her limit now, but what a scarily high number that was! That was their weeks of hard work at enchanting the wands and Morey thought she had fired almost all of them. The screaming mass of bolts of every type shot forwards, a barrage of magical disruption, heat and physical blows.

Even that rain of attacks was overshadowed by the cloud of magic hovering in the sky. Nal had copious magical power, Morey had thought, but Ereli's brute strength made hers look puny. More than five times their combined magical power. At the cost of not having trained anything else at all. Ereli didn't know how to do even the most basic things, magic or otherwise. Even putting on any clothing more complicated than a shirt and pants was too much, she had had servants to do it for her when she was growing up.

When Ereli joined, Morey had made her learn basic alchemy and constantly store her magical power each day. Despite her horrendous inefficiency at enchanting, the staff they had bought her was filled in two days. It was even made of iron to store more magic, no battlemage had ever needed an iron staff before but Ereli's magical power was just that ridiculous.

With three of them, Ereli could store enough power to channel a Ritual Summon all by herself, even if the weight of the iron was harsh on her weak body. The cross formation forming in the sky was not as powerful as when used in an army but the fact that she could even manage to make it appear at all was nothing short of miraculous.

The blue glowing cross slammed downwards savagely, like a giant hand descending on an ant. Nal's salvo reached first and the shield deflected a large number but the rest tore straight through to the carapace, blasting holes in the main body of the monster.

Above, the cross of solid magic hit the shield and ground against it, magical disruption fighting against the monster's shield. The carapace creaked under the physical force that leaked through and the monster's legs buckled then sank into the ground. But it stubbornly refused to die.

Then the cross shattered into countless smaller pieces.

They could only stare in shock. The shield was still up, and was even now reforming. Morey reacted first and managed to slip a trio of firebolts through Nal's gap in the shield but the attack only added
another scorch mark next to her heavy gouging.

But what sort of monster was this?! Weeks of stored magic and Ereli's ritual summon, the monster had simply endured it all. Not without severe damage, it's legs were cracked and trapped in the ground and there was a large burnt hole in the main body leaking pulped flesh and blue coloured blood. But it was definitely still alive and was already trying to dig itself out.

"What is this thing?" Morey asked incredulously.

"I have heard of such stories," Etani said beside him, recovering her stamina, "stories where a Hero fights a singular unique monster. I never thought the legends were real but it seems we have found ourselves a Titan."

"But why was it in the Tsar ruin?"

"Perhaps it was guarding it?" Etani ventured. But they had no answers.

"It's getting up, we should attack it again," Morey said.

Etani nodded and ran off with the door still in her arms. Man, Morey would have been dead tired just carrying that thing but Etani managed to carry it throughout the fight. He really needed to learn these Em things she was using.

Morey ran forwards towards the monster but nearly tripped when his leg hit a stray magical pulse. Shit, that stung! He hobbled to a halt and looked back. There were actually rather a lot of them. Malformed magic after being shattered by the shield was just hanging in the air or near the ground. After emptying their entire magical stock at the monster, the air was almost sparkling.

"What are these?" Morey wondered aloud.

Bits of spells, broken and non-functional. But they still contained power. Power that could be used.

He reached out to one, like the alchemist had told him to do to connect to a spell. Morey rebuilt the broken magical bolt and watched it fly at the monster. It got deflected, as expected, but the spell reverted to a fragment again.

Hm. Could that be exploited?

He had better do it fast. The crab already had one leg free, despite Etani chipping away at the carapace on the other side.

"Nal!" Morey shouted. She scrambled down into speaking range and Morey asked, "is it possible to make a spell to modify other spells?"

The spellstorm mage frowned at him, "yes. But on the fly modification takes at least a few seconds. Even if I put the same function in a spell, that wouldn't change. And the shield is controlled by the monster, you can't make the connection to the shield to modify that either."

"What I want to do is modify these bits of spells," Morey indicated the sparkling haze hovering in the air above the battle. "If you can modify them to attack the monster again, like I did just now, maybe we can overwhelm the shield. Of course, you're going to have to build a delay into that so it all happens at the same time."

Nal surveyed the sparkles and nodded to herself. "If I control the modification spells, I can change the restoration process to make a decreasing delay and correct for the angle... hm, yes it is possible."
Morey nodded, "how much time do you need?"

Magical power was already coalescing into partial spells around Nal, but the monster freed another leg behind them. "Not fast enough. Looks like you get to be bait again."

Unlike her signature spell storm, this one sprayed a series of more complex spells into the air. Each of the modification spells worked on one fragment of magic at a time, setting it to fly downwards on a timer. Nal's attention darted from one modification spell to another as they completed their tasks in turn. Controlling multiple spells at once was hard enough and Nal was using them in a complex dance of spell modification.

Safe to say that only Nal could possibly accomplish something like that, even so, it prevented her from using her full complement.

She had given herself two minutes. Compared to the darting attacks Morey and Etani were unleashing on the monster, keeping it from using its free legs to dig the others out, two minutes was a very long time. For her task? Nal shook her head and went back to work.

"Firing!" she said, finally, creating a familiar constellation of her favourite magical bolts.

She had somehow managed to make it in time. Almost as one, the entire cloud of shattered spells shot downwards. The pieces from the shattered ritual summon contained the most power and Nal had taken the liberty of making her modification spells follow behind. And, it had not escaped Nal's notice that the Grand Cross summon had still managed to deal severe damage through the shield. Rather than attempt to destroy the shield like Morey was thinking, she was going to try to cook it inside its own shield.

It worked far better than she imagined. Most of the magic from the ritual summon hadn't been expended after all, and the remaining magical power converted to heat the moment it touched the shield. Just like Nal had set it to. Added to the not insignificant cloud generated by Nal's own discharge of their wand stock, the very air itself turned white hot.

Morey and Etani had already gained some distance, but not quite enough. The superheated air exploded outwards and upwards, radiating enough heat to curl hairs even at Nal's distance. She put down her arms that she had thrown up instinctively against the heat.

Of the monster, there was no sign. No wait, there was the six gouges in the ground where its legs had been driven in. Bits of the creature's legs were still there but the corpse was just a black smear of ash in the shallow crater. And in a rising cloud drifting away in the wind.

"Oh, wow," Nal muttered, not believing her eyes.

"Hot! Hot!" There was a yelping from further in and one of the dirt mounds shifted to reveal Etani scrambling out of her armour. "How did you do that?" she asked. Nal had no answer for her question though.

There were more clanks as Morey surfaced as well. It looked like their armour managed to absorb most of the heat.

"Wow, totally annihilated huh?" Morey said, once he was free as well. He had been nearer the blast than Etani and sported light burns on his neck, hands and back of his legs.

"How could it have done that?" Nal asked wonderingly, "I could believe Ereli had that much power
but then why didn't she destroy the monster in the first attack?"

"I suspect we have been very stupid," Morey said, still sucking on his burnt fingers, "the monster had a magical shield that was very good at deflecting magical attacks. We can't grind it down either since the shield doesn't absorb any hits, it just turns them aside. Pure magic blasts were never going to work against it."

"The firebolts and forcestrikes didn't work either," Etani pointed out, "neither did accelerating my hammer."

"But you see, the shield deflects all magic that touches it," Morey said, "I wonder why I never thought of it, but the solution is obviously to use magic that can attack without touching the shield."

He hefted a rock and threw it at the smouldering stump of the legs. The pulse of magic sent the rock flying and the fist sized stone knocked out a piece of the burnt carapace.

Nal wanted to smack her head in exasperation. She had even seen some of the answer when she saw Grand Cross crushing the monster. Magical fire, being a gas literally made out of magic, wasn't going to work, but completely non-magical heat created by magic went through the shield. Even Grand Cross also crushed its targets with a downdraft of high pressure air, although its main effect was magical disruption.

"That said," Morey got a calculating look in his eyes, "despite the flaws, I would dearly love to find out how to make a shield like that. I suspect Etani and her door will become practically invincible."

Etani and Nal shared a laugh, recalling how the monster had tried to bash through the Crysteel door. Etani turned it over with a steel boot and winced. There was actually a few scratches on the surface. Shallow ones but this was the most damage the door had suffered thus far.

"I... finally... got... -Ah!" a high pitched yelp behind them heralded a breathless Ereli tumbling over the rock. She collided with Morey.

"Woah!" he staggered backwards under her weight and hit Etani. All three of them went down into a messy heap.

Nal could only sigh. She still wasn't sure that Ereli was not faking her clumsiness. Surely, no one could be that bad, right?

"You got fooled," the man behind the table made the one standing in front of it quiver a little. But the hand on the cane barely budged.

"How so, Karin Sir?" the man with the cane asked.

"He will not be able to rebuild quickly from memory?" the branch leader Elma Karin pounded the table, "nonsense! That man, Cato, wrote this!"

Karin held up the large sheet of paper containing the biggest drawing. "Look carefully Klaas," he said while pointing to the words in the annotations, "the handwriting for this schematic is the same as the others. Which are the personal notes and investigations. It is stiffer and more formal in the big one but it is the same script. Unless you mean to tell me this man writes in the same style as the First? Who, I might like to add, do not appear to have a writing style at all? Certainly not like this."

Klaas gulped and looked at the papers. "I am sorry, it is my error."
"Good that you realize it," Karin said.

"With your permission, I would fix my mistake. It won't cost you a telin."

"Kalny started doing something different," Karin mused, "he's backed off on our territory. Besides, after that fiasco, do you think anyone will fund this man's ideas for cast iron? Especially when we make it known that we have the secret and can do it best?"

"But he still knows the secret. We have killed for less than this."

"Indeed. But I still harbour the hope that he can be made to join us."

"Then let me try that."

Karin sighed and said, "don't let your pride cloud your thinking. The man is important but right now, we have no leads on his activity and what he is planning to do. Or if in fact, he only got the idea from a First ruin and this is just a copy."

There was a pause and Klaas shared the sigh, "Sorry."

"Apology accepted. And don't think you have to repay us for your mistake. It was an honest one made in the stress of the situation, I might have the same error myself," Karin said, "If you want to be useful, then watch that man. Make sure his work is known to us, and ours to him. Then perhaps one day, we will have the best inventor Inath has ever seen."

The mercenary nodded, "it is good to have an understanding employer like you."

"One cannot afford the whims of nobles in business," Karin smiled, "a useful asset like you will be appreciated."

It went unsaid that useless assets were just as mercilessly discarded.

"So what do you plan to do now, Cato?"

Cato looked around the empty office. Kalny had given them a few days to pack up and leave. Pasteurization wasn't as simple Cato had made it appear the first time and after the first few exploding bottles, the merchant had come back and wanted to work with Cato again. This time with Cato as an advisor only. There was no mention of the blast furnace.

It was a shame that they were just going to leave it but Kalny preferred a safer venture.

So it was now the day Cato was due to lock up and they were here to clean out the last few things before handing the keys back to Kalny. Keys that were hardly any good against a decent set of lockpicks, apparently jiggling the lock was considered an acceptable method of key use. Yet one more shock Cato should have foreseen given the lack of standardization.

"I haven't given up on breaking the guild monopoly," Cato said, picking up the last box under the table. It was locked, for whatever good that would do, but it was also the most important things he had. He opened the box and showed the contents to Landar.

She picked up one of the bound stacks of paper and her eyes gained the twin starry look faster than Cato had ever seen.

Well, that was only to be expected. After all, they had titles like 'Calculus' and 'Material Properties'. 
"What are these?!" Landar almost squealed, "did these come with you and you didn't tell me?!"

"Not so fast," Cato picked up the calculus stack and flipped it open. The pages were covered with notes and diagrams. "I wrote these in the last month, condensing everything I could remember. I thought it best I wrote down whatever I could before I forget it, and as you can see, there's a lot."

"It really is a lot," Landar said. Even Danine was curiously peering over her shoulder. "What does this Newtonian Mechanics even mean?" she muttered and flipped it open.

"Hey, don't start reading it now," Cato laughed and took the stack back. Landar shot him an annoyed look but relaxed once Cato explained, "you will get to read whatever you want from here, but I must warn you that I wrote them to remind myself of what I know, they're not easy to understand without explanation."

"And how does this relate to the guild monopoly?"

Cato took out one of the thinner stacks near the top. "This booklet is much more comprehensive. It explains the principle behind making steel. The amount of carbon, the types of impurities and their effects, and how to mitigate them. I included the construction diagrams for our blast furnace, including all the minor problems we solved along the way like how to create proper plugs for the iron and slag tap holes."

"It's better than the plans that man took," Landar noted.

"Indeed. And with the help of another thing I'm intending to find another partner for, I'll distribute this booklet all across Inath. The Ironworkers will have so many competitors they won't ever be able to control the market again," Cato nodded to himself.

"You can't write fast enough to make nearly enough booklets," Landar pointed out, "what other miracle thing are you planning to introduce?"

Cato grinned, "it's called a printing press. I believe the papermakers, who you said supply the government scribes, will be very interested."

"What about the other booklets?" Landar said, looking down at the others.

"Eventually. When the time is right, I will release them as well," Cato said.

"Why not keep one for yourself?" Landar asked, "just one of these will make you a very rich man."

"That's not what Inath needs. You need to develop faster, become more powerful. The monsters will not wait and if they develop abilities every few months, they may become powerful enough to kill us all faster than you think."

"Even if I grant you the notion that the monsters will become more powerful than a battlemage, there's no reason for you to do this. You're not from this world, so why are you taking responsibility for everything? Neither Kalny or I or even Michi would do that. Even the kings and queens of the federation don't seem to worry about the entire world!"

Cato sighed, "the same reason why I saved the Fuka village. I don't have a firm answer but because I can and it is a good thing to do, so I will help as much as I can. I don't want to be killed by monsters either."

Landar grumbled for a bit but seemed satisfied with the answer. Of course, Cato neglected to mention that an Inath with a higher understanding of magic, once it was better studied in a
technological society, would be much more likely to be able to find out what happened to bring Cato here from Earth. And how to send him back.

Morey brought his gaze back to ground to find Nal sitting next to him. The side of the hill opposite the battle was deceptively normal, no one would have thought anything was out of ordinary looking at the gentle carpet of green grass. That hid the scene of devastation behind his back.

"Watching the stars again, Morey?" Nal asked.

Morey nodded and looked up at the unfamiliar sky. The bright stars that moved quickly were the other lesser moons but he still hadn't figured out why some of them seemed to go backwards at times.

"What is so interesting up there?" Nal asked again, when it was clear he wasn't going to say anything, "nothing ever changes in the stars."

"It's not the same for me, the world I grew up in had different stars."

They sat in silence for a while longer, the soft glow of the campfire was only enough to make out Nal's rough position. Morey had no idea what her expression was. He wouldn't be able to tell whether she was still there if it wasn't for the magic on her bracelet shining bright and clear in magic sense.

"Do you think about it often?" Nal said softly, almost as if she was afraid of his answer.

Should he answer honestly? But to give her a gentle lie would only hurt her later, and Morey didn't think he could get away with it. "Yes, all the time. For one thing, I really miss air conditioning."

"You don't have to make things a little funny, I know you think of your parents a lot. " Nal said that but Morey could tell from her tone she certainly had a smile now.

"They weren't around very often but they are my father and mother. While I didn't have many friends, I miss talking with them too."

There was another short silence then Nal asked timidly, "was there anyone special to you? Perhaps some girl you wanted to marry?"

Morey smiled to himself, "it would have been awfully cruel of your summoning spell to take me if that was the case. But no, there was no one like that. I did have girls approach me a few times but I couldn't tell if they did that just because my parents had money and influence."

"Isn't that being cruel to them? Just assuming those girls were-"

"I tried three times. Each time it became clear later that... any prospective relationship wouldn't work out. " Morey sighed, wondering why he was telling all of this to the tiny girl next to him. It wasn't as if he was rich or powerful here in this world where Morey might as well be a fish out of water.

If anything, this Hero of theirs only sometimes had good ideas. He wasn't even that useful, his jack of all trades syndrome applied just as much to magic as to other skills. The team he seemed to be collecting worked well together in combat, each with their own defined roles. Not for Morey of course, all he could do was support one or the other with his own inferior ability. So much for being a fighting Hero.

And it looked like fighting was more or less all the Hero was going to do. At least if he wanted to
ever return home.

Provided the Sword even could return him at all. Now that was a horrible thought. The Queen hadn't been too clear about that, Morey didn't think she knew either. Queen Amarante had a tendency to think in terms of stories and legends, so since the Sword was a legendary artifact only a True Hero could wield, it stood to reason that the Sword would return said Hero to his world afterwards. Right? She was a true airhead that made Morey wonder how she stayed queen.

"Wasn't there anyone you found attractive?"

That was an unusually intrusive question. Morey looked at her for a moment but gave up, there was nothing to see but a vague black shape. "A few," he admitted, "I don't even remember the name of the last girl who asked me to date her. I only remember she was a little bit cute and liked hamsters."

"What are ham- never mind. So what about here? Did you find anyone you liked in Inath?"

Morey shook his head and stopped when he remembered she couldn't see anything either. Oh well, honesty couldn't hurt. "Sorry, right now, I'm too worried about the future and whether I can ever return. I can't start a relationship like this, nor do I want one. Well, if you're looking for one, I guess that answers your question."

"Ha. Very funny."

"It's funnier from my end," he chuckled, serve her right for poking him.

There was a rustle and the vague shape that was Nal got up. "I've got a letter to write," she said, "don't stay up too late, all right?"

Morey just nodded.

And she was gone, leaving him alone with the stars again.

"My Queen Amarante, there is a complaint from the Ironworkers Guild. They claim that a man is destroying their business in the Holmes Gap region with the knowledge of someone from another world."

"Another world?"

"Yes. Apparently the person claimed that himself."

"Huh, what is Morey thinking?"

"Um, Queen Amarante."

"Yes?"

"You sent Morey to the Passage of Kirita."

"Mm?"

"That's on the other side of Inath from Holmes Gap."

"Oh. Right. I knew that. So what about this person who claims to be from another world?"
"He must be an impostor of course. There are no other Summoning circles and the one in the ruins of First Landing are closely guarded."

"I see. But the Ironworkers Guild is treating him seriously. Such small matters are beneath our concern but keep an eye on it anyway in case this impostor becomes troublesome. We can't have someone pretending to be a Hero."

"Understood."

"Oh, speaking of watching people, has there been any progress on Morey? I take it Etani still hasn't mentioned anything?"

"I am sorry, but Etani can be a little clueless when it comes to romance. I am not sure she would notice even if Morey was interested in her. Unless he was very obvious."

"And Nal makes no progress too, huh? Why did we choose her again? She's powerful enough but she still looks like a kid."

"I recall you saying that some men like younger girls. Although I am inclined to agree that Nal does look a bit too young."

"I think I have been roundly disproved. So Iris sent that other girl... er... well, anyway, I didn't think it was a good choice but just in case?"

"Her name is Ereli. He does seem to be inclined to support her but both Etani and Nal are in agreement that he's only doing that because she's too clumsy. At everything that isn't a summoning stone. I would like to add that this includes romance."

"And he doesn't seem inclined to want all of them?"

"I very much doubt that, my queen."

"Haa. Oh! Do you think, perhaps, he likes men?"

"Probably not. Putting Etani aside, Nal would have noticed. Is it worth a try? No, I think we're still more likely to score a hit with women."

"Hm. I will have to think about this a bit more."
The air past the entrance hall of the ruin, where the monster had slept, was musty and stale. But still breathable.

They made sure to check the walls for any signs of traps but to Morey, the ruin didn't look as if it was particularly defensive. The builders might have relied on that giant monster, the corridors on the inside looked less like a defensive maze and more like a very familiar layout.

It resembled an office block. Only built downwards. Corridors branched off into large and small rooms, defunct toilets and even the occasional work area where long lines of benches that contained only traces of ancient equipment. There was no power, or whatever was used to provide light. The party walked forwards under a miniature sun projected by Ereli's seemingly limitless magic. She had even called it training.

Well, it was supposed to be a research and development branch of the primary Tsarian competitor to the First company whose documents they uncovered. These two had focused on magical studies and the historians and accountants had almost gone crazy trying to decipher the terms. Oh, they could read the words just fine, the First script wrote words in literal pronunciation, but words without concepts meant very little.

Lacking the underlying knowledge base made a proper translation nigh impossible.

It had been quite the shock when some parts of the financial records indicated the company had an annual profit the size of the entire Inath treasury. The court accountant had to go have a lie down after trying to calculate the net worth of the company on Morey's suggestion to use the price of basic goods. In this case, they used the cost of food. Morey suspected that that calculation had actually underestimated the company's size as the catering budget in that calculation seemed to be less per person than the subsistence level in the Inath capitol.

"What is all this stuff?" Etani asked.

"Laboratory equipment," Morey said, looking at the large and oddly shaped box that Etani was prodding. The box sat at the end of a long workbench, the only thing remaining on the benches apart from scrape marks and mysterious looking stains.

"What does that mean?"

Morey tried to think of a way to simplify things. "In my world, and I suppose in your past, people perform experiments to learn. This place is called a laboratory, that means a place where people do experiments."

"What things did they try to learn about here?"

Morey shrugged, "I wasn't a scientist so I couldn't say. Scientists are people who do these experiments. And your world has magic, who knows what sort of experiments they could have been trying to do? But the only thing I know is that it will not work after being left for so long. Nothing lasts that long. Except giant sleeping monsters apparently."

"Even so, it is a Tsarian artifact, we would like to have it," Ereli said, stroking the rough casing. She tried to move the box but it didn't budge.

They soon found out why the box was left there, the whole thing appeared to be welded to the
bench. Or built as part of it.

Morey examined the casing material but it yielded no clues either. The hard and rough material was quite mysterious, almost but not quite like plastic. Of course, none of the three girls knew what it was.

He suspected they would have been more impressed with another crysteel artifact, even if it was just a letter opened, than something unfathomable like this. Only Ereli wanted to keep it, more out of family pride than anything else.

But Morey knew better. This was a scientific artifact from Inath's distant past and perhaps something could be learnt from it.

"Let's move on," Etani said as they lost interest when the artifact didn't appear to do anything.

Morey nodded, perhaps the scholars who would follow in their footsteps once the place was secure would know how to investigate it better.

When they were back out in the corridor, Ereli made a rare suggestion. "I think we should split up," she said, "this place is too big to explore if we stay together."

Etani and Nal gave her skeptical looks and something seemed to pass between them, then Etani shrugged, "we can do that, but what happens if you get caught in a trap or there's another monster?"

"We can split by magical power," Nal said, "I and Etani will go together and Ereli and Morey go another way. If you run into trouble, just use a pulse of magic and we'll come find you. I know how to brighten my spells, Ereli I suspect can just exert herself a little."

It was true, but it still felt a little rude to point out that Ereli lacked the skill. Ereli reddened a little then looked down shyly. Oi, did she think Nal was praising her? Morey rolled his eyes.

Etani nodded, "Ereli and you aren't so good at close range, so this way, we'll maintain our front line. Good thinking."

Nal nodded back. No blushing for her.

"So what do you think of Etani?" Ereli chattered as they walked down the corridor. Morey opened another door, another room with empty shelves and stained benches.

"Etani?" Morey mused, "she's strong and fast. To be honest, I don't think I'd ever manage to win a bout against her. No matter how she trains me."

"But isn't she dashing in her armour?"

Dashing? Her armour wasn't the sort that you'd expect from a woman, if you looked at Earth computer games. None of that breastplate nonsense, when she was fully bottled up in her plate and had her helm down, she looked just like any other knight. It didn't even have decorations. Only unlike Earth knights, she managed to tap dance around monsters and do all sorts of impossible acrobatics in it. Courtesy of her Em magic.

"Eh, I wouldn't say she's dashing," Morey sighed, "I mean, the armour wasn't made to look nice. Me as well, I would say. If it wasn't for our height difference, we could swap armour sets and you wouldn't be able to tell who was inside."
"Oh, but when she brandishes that sword of hers, she could almost be like a fairy tale hero!"

"Ah, yes, the knight in shining armour. I guess you have that here too?" Morey raised an eyebrow. The next room was another office. How many offices did this place have anyway? "Thing is, the stories never quite tell you all the details of what the knight does."

"What do they leave out?" Ereli asked.

"That most of adventuring is spent riding from place to place and not defeating enemies in glorious battle. Not that battle is very glorious either," Morey remarked dryly.

"Why do you say that? The knights defend us from the monsters!" Ereli spread her arms and smiled at him, as if seeing a very different Morey from the one he saw in a mirror. "Of course it's glorious! That battle with the Titan was nothing but an epic tale that I'm sure we'll all be remembered for!"

"And for every Titan we fight, how many times did we have to crap in the woods?" Morey didn't bother to mince his words. It would all bounce off her anyway. "No one ever tells tales about that."

"And how many people have you saved from the monsters already?" Ereli shot back.

"Not all of them," Morey replied quietly.

Ereli finally pouted, "uu, why do you always have to paint it like that? What about all the others who you did save? That village the three of you defended by yourselves from a zombie attack?"

"I'm sure they're too busy rebuilding their homes to thank us. Besides, we never even stayed to receive it. I don't think we'll stay in Inverness for long either. It seriously takes far too long to travel anywhere."

"They'll remember! Of course they will! You must be their hero!" She stamped her foot and glared at him. She actually stamped, like an angry child.

Morey sighed, perhaps he shouldn't try to poke holes in her cartoon coloured world too fast. He did understand why of course, she had virtually no education, and had been fed stories of the hero she could become if only she surpass Hikkiri, the most powerful Iris that had ever lived.

He wondered why she had been asked to join. Well, she was powerful, so perhaps the Queen thought they were lacking in power?

"Oh, then what about Nal? She doesn't wear armour."

True indeed, although why that would be the case, Morey hadn't figured out. It wasn't like wearing armour hindered magic at all, Morey had went straight for the toughest armour after being told that.

"Nal is the most powerful member of our party. I know you exceed her power but she has the skill and experience to apply it properly." Morey nodded to himself, even if Etani had seen more battles, she had spent all of that time face to face with the enemy. Nal on the other hand was usually the one being protected, and her deadly spell storms cast at range were judiciously allocated according to the toughness of the enemy, which front line member had to be supported and which enemies were most dangerous.

Her perspective on battles and knowledge of magic, even if not quite matching that of a true Academy scholar, made her indispensable.

"And her looks?" Ereli asked pointedly.
Morey lowered the staff tipped with liquid Light and looked at Ereli. Was this girl only thinking of how people looked? He shook his head wordlessly.

"Yeah, I know she looks young but Nal is not a child, you know?" Ereli sighed, clearly misunderstanding his meaning.

"I'm not about to comment on that," Morey turned back to the corridor, "everyone looks different and I won't belittle her just because of her appearance."

"But is she attractive? I know it's not like the stories but she is a member of the knight order."

"Appearance and attractiveness are two different things," Morey said. They stopped when he reached a dead end. And to one side was a rather tough looking door. Crysteel? He rapped on it smartly. Not this time. Just normal steel.

"She could keep her hair long. I can't imagine wearing armour like Etani's and having to cut my hair," Ereli sighed and stroked her twin braids, looking like a star struck teenager pining for her boyfriend.

Morey shook his head, to think some people would actually give up the protection of armour just so they could have longer hair! The monsters were no game, he couldn't see how people could give up armour for such a trivial reason. When said hair was also frustratingly hard to keep clean on a long journey. He took aim and blasted the door off its hinges with three forcestrikes. With a groan, the steel door toppled into the room with a loud ringing crash.

"More paper... or maybe not. " There were file boxes scattered over the floor, of a similar design to the tax records they had found those weeks ago. But when Morey opened them, all he saw was white powder that used to be the papers inside. The contents were clearly unrecoverable.

Darn, he had been hoping for another preserved document room. "Here, help me open these boxes," Morey said, indicating them to Ereli, "we're looking for any paper that is still intact. They'll be very fragile so be careful."

That finally got her to stop talking, he told her to practice exerting force with magic by opening the boxes and she was too busy concentrating to do anything else. So for a few minutes, he got some peace and quiet.

"OOOH!" This was it! This was the thing he was looking for! Morey reverently lifted up the ancient document from its file, somehow this box on the upper shelf had survived the passage of time.

The exclamation drew Ereli from behind her much larger pile of shredded boxes and powdered paper. "What is it?"

Morey gently put down the document and withdrew the thin sheets of stiff and transparent oiled paper from his pack. They were obscenely expensive but the Academy historians had given them a few sheets to help preserve any further records they found.

"I can't read it though, this isn't First script," Morey said. That was disappointing. Not that First script would have helped, he could only read that one letter at a time. Even the short thirty or forty characters on the front page would take too long.

"It's ancestral Tsarian. " Ereli said as she examined the the first page after he laminated it, "we haven't changed our script as much as the Inaths, and we write the literal meaning in the words. I
should be able to read a bit of it. " She frowned and hummed to herself, "Hm. Record... of... no, it's 'Observation of'. Making? ... 'Lifeforce' I recognize. The next word means something like 'people made it', maybe. Then the front must be record, it's past tense. Record on the creation of lifeforce, people made it?"

Morey blinked and paused in his lamination of the second sheet. What?!

"There's a mark after that, so it should be reverse order. More like, 'Record on the creation of people-made-it lifeforce'. " Ereli continued, oblivious to Morey's rising curiosity, "that last word makes no sense."

"The word is artificial. If it means the same thing to me as to them," Morey had to remember to breathe. This was something of a dream back on Earth and the Tsarians actually managed it?!

"Creation of artificial life," Morey whispered.

"No, that part makes no sense," Ereli said, "you can't make life. Lifeforce is lifeforce, you can't make it, no matter how much magical power you have."

"Maybe the Tsar could. According to your legends, the First and the Tsar could do a lot of things that aren't possible today," Morey said. He looked down at the first page of content. Considering how dense the words were on that page, and how slow Ereli read the script, it was going to take forever. "Even if we want to know what's inside, I think we will have to wait. You check if there are any other documents surviving and I'll..."

He trailed off after lifting the third page. The bottom part of the stack was completely destroyed, the ink smearing across the page in a blurred mess. "Never mind then," Morey said.

They reluctantly left the three tantalizing pieces of history on the shelf and went back to opening boxes.

The foreman hurried up to the trio entering the workshop. The lead person was the boss, a familiar sight, but the other two were new. They didn't look like new workers however.

"With a big enough cylinder, the paper should dry out well enough, but it would be much easier to get multiple smaller cylinders," the black haired man in front said, waving his arms at an imaginary thing in the air.

"An interesting proposal," the boss said, "ah, there you are. This is Weir, the foreman in charge of this workshop. He's the most reliable person of all the workshops I own. Can you tell me if what he says is possible?"

Weir nodded at the black haired man, who nodded back. "I'm Cato," the man introduced himself, "I'm working with Mr Razzi on improving the paper production and would like to make use of your expertise."

Weir nodded at the black haired man, who nodded back. "I'm Cato," the man introduced himself, "I'm working with Mr Razzi on improving the paper production and would like to make use of your expertise."

"Why don't you come inside and show me what you're planning?" Weir waved them in, even if he didn't believe this person could do anything for the best paper workshop in Selabia, supplying direct to the court, Mr Razzi was the owner and paid his wages.

When they were in the side office, Cato spread out a stack of drawings more complicated than anything Weir had ever seen. He recognized each individual element, yes, the rollers, belts and felt
presses were things they used right now. But the plans contained more rollers than all of Selabia's workshops had. Nay, more than even the capital's substantial paper industry.

But even if there were a few mistakes in the process, Weir could recognize a paper drying process from a mile away and the descriptions seemed to indicate it could produce paper in a continuous roll! At an unbelievable rate. He wasn't sure if this machine could meet the number Cato was saying but Weir knew that this machine would out produce his workshop even if he had a hundred workers.

He licked his lips. It was too bad the plans didn't include enough information for Weir to build his own.

"How are you going to move all of those rollers?" Weir pointed out the most major problem he could think of. A team of Pakas might be able to drive a wheel, like they used for mills, but to keep the machine going, one would need to keep pulling. The size of the herd needed to maintain a continuous pull didn't bear thinking about. There might not be enough Pakas in all of Inath.

"With this part here," Cato pointed to another drawing, "I chose this place because there's a large and fast flowing river running through the town. You use it for your paper making, building a waterwheel will drive this machine."

Weir blinked at the stacked slats. It was not like any sort of waterwheel he knew of, the traditional sort with straight paddles. This one had slanted paddles and the drawing seemed to call for the wheel to be wider than it was tall. It was a more powerful and ambitious waterwheel than any he had seen used in a mill. In fact, no one had used waterwheels other than for milling or pumping water, to Weir's knowledge.

"To build this will require building a diversion around the river. The barges using the river won't appreciate it if our wheel blocks the traffic," Cato said. Weir nodded, good to see he thought of that also. "A suitable incline would be useful as well and this site upriver is where we're going to build it."

Weir was directed to the map and nodded at the location. It was a good choice. The land was unused and the local lord could be convinced to give up a small plot.

"Razzi sir, I believe this thing has a chance of working, all the required steps are present. But who will fund all of this?" Weir asked, looking at his boss. Razzi was rich, that much Weir knew, but those cylinders were supposedly to be made of iron and heated with coal fired steam. To say the machine was expensive was beyond understatement.

"That's why we proposed a partnership," Cato said, turning to Razzi, "you may not wish to risk so much money on such a venture without a guarantee it will work. So we can supply a fifth of the funding. I'm sorry that we can't provide more but this is already too much of our capital."

Razzi snorted, "And how will we divide the profit? If there's any? And what are our roles in this partnership?"

"We provide the technology, we help with the initial building to make the machine work. We need you to provide the workers, the rest of the funding and direct the sales of paper once it is complete," Razzi nodded at Cato. That much was fair, so far. "Once this is complete, we will receive a twentieth of the profit from this invention for the next ten years."

Razzi raised an eyebrow, "a fifth of the funding, as well as such an earthshaking idea, for a twentieth of the profit? That quite reasonable."
Cato grinned, "that's all right. We're a company of just three people, and once you are comfortable and making profit, I want to come back with another deal for something I call a printing press. That's just the way we work."

"And how did you come up with so much money to fund a fifth of this thing when you're only three people?" Razzi asked curiously.

"You're not the only one who we have a partnership with," Cato explained, "you may have heard of the bottled juices and milk that will keep for weeks?"

Razzi's eyebrows could not climb higher. To tell the truth, Weir wasn't quite sure he believed that paka milk could keep for weeks, even if unopened, but the one in his kitchen had been standing for six days already.

"The merchant Kalny will soon be able to achieve the same with meats and preserved fruit, in much cheaper tins this time," Cato said, "And then there's the iron reinforced bricks and cement that Mason Muller is building a new bridge with. I also had something to do with the new cast iron product from the Ironworkers. we'll have enough money from that."

Razzi laughed and slapped the man on the back. Well, that's the deal then, Weir thought. "I had wondered how such merchants suddenly gained so much power recently but it was you?" Razzi shook his head ruefully, "seeing these drawings convinces me of it, they have that same mark. Who are you people?"

Cato shared his laugh, "us? Our company is the CaLa Consultancy. I'm Cato, and she's Landar. My magical advisor."

Landar nodded her head and Weir blinked in shock. Wasn't she supposed to be in Wendy's Fort? Apparently not.

"The Mad Alchemist herself too! Perhaps you are thinking of using magic in this process?" Razzi rubbed his hands, "I shudder to think of the obscene profits we could make. Well, since the dice of fortune are with me, you simply must join me over dinner and tell me about these future plans of yours."

(My) Record on Artificial Life Shaping Project

... six clutches failed to spawn anything. The extensive modifications do not appear to have carried on to the next generation. Apart from Taka, the display piece in the front lobby, the attempt to work from crustaceans appears to have failed as well.

Despite this, we have learnt that changes to form by lifeshaping are not inherited between generations. The display piece is 6.13 lengths wide and 20.7 weights. Its children fit in the palm of the hand without lifeshaping interventions. Neither do the longevity and self-sufficiency treatments carry over, the children still need to be fed even if their parent does not and by now most of them have died of old age.

We are confident such a problem can be solved eventually, with sufficient research. However, the lifeshaping experiments here indicate the possibility that such living weapons can be created to counter the steel legions of the First. I, Kumoto Reta, will submit my personal recommendation to the Central Authority.

Obviously, for moral reasons, usage of humans as base stock should cease now that we have
developed the ability to shape life on other than ourselves.

*unreadable torn section, next section appears to be dated some years later*

Despite the concerns of imminent evacuation orders, our team has managed improved the efficiency of the lifeshaping process substantially. Based on the work of Toko, we have created a fusion of spell and lifeforce that is finally stable. The demonstration example is a modified rocko to which we have grafted the ability to launch a standard air bomb manashape.

We are working on increasing the intelligence and trainability of the modified line. Even if unoptimized, the modified rocko can be used as a forward scout and the ability to train it without the use of ethically and practically inconvenient mindshaping. Once the ability set is fixed and stable, we will create a life template as per directive sixty one on germ line preservation of experimental specimens.

The war potential of such an invention cannot be understated. The versatility of the technique will allow us to finally match the firepower of the First, firepower that self-replicates without need for environment destroying mattershapes.
Cato's Notes

Chapter Notes

This chapter can get a bit too much infodump, and yet still barely scrape the surface of Inath. Don't feel like you have to read this since it just gives some colour to Cato's actions.

Time

I just realized. These people understand the concept of a 'week'. It's even seven days long. Amazing how certain coincidences happen.

On the other hand, they don't consider any day of the week to be a rest day. They work all week but that could be due to economic reasons, labour efficiency here is really bad, almost four in five people are farmers or hunters or paka herders or some other profession related to gathering food.

Despite that, I asked further and learned that they also have the concept of a month, which is thirty days. All twelve of the months, making a 360 day year. Since there are no astronomical features or seasonal cycles that would be natural to divide a year into, like Earth does, it makes no sense why they would have a year be almost exactly the same as Earth's. They are even celebrating a yearly festival called Cel Inci next month.

I call shenanigans. Something strange is going on here, they have similar concepts of time to Earth. So similar that I could even suspect a common root, adapted to local conditions.

The festival name doesn't sound like an Inath word either.

My attempts to build a clock... have not gone well. Water clocks suffer a large drift and can only be trusted to measure hours. Clockwork mechanisms required for a pendulum clock aren't high quality enough. Landar's attempt at a spring stores only enough torsion to power the clock for maybe ten minutes. Not to mention the irregularity in surfaces that causes it to drift perhaps a second every minute.

Speaking of hours though, whatever I call an hour isn't the same as an Inath hour. The time is perhaps close, but their hour is measured from the time of a Little Night, apparently the same anywhere on the planet. That gives them twenty one hours in a day.

Economics

There is very little concept of an industry in Inath. Craftsmen who produce various items, I count alchemists among them, are organized into workshops, with one master craftsman overseeing an apprentice or two. They also sell their products directly from their workshop, or to a patron or by work order, as Landar does.

Similarly the currency is positively medieval. A Rime is the official Inath currency and the most
common, but all the regional currencies still exist in circulation. And there's no such thing as a money changer.

How? Simple, the coins are all worth exactly the weight of the metal they're made out of. A Rime is a disc of iron with a smaller pellet of gold inside. The iron is worth almost nothing but they make the gold pellet easier to pick up. The people here love gold just like we do. Well, I guess it's shiny and rare.

One Rime is worth perhaps a cartful of chokos, a sour citrus fruit. Plus the cart. Meaning I massively overpaid the innkeeper. Telin, the small change of the official currency, is a thousandth of a Rime and worth about one fruit.

My current income from the bottled milk and the new building materials averages to half a Rime per day. I am getting ridiculously rich compared to the normal craftsman. On the other hand, that would be because Kalny and Muller are dominating their markets, so I'll only get to enjoy this until the competitors catch up.

The work culture is also unadapted to the sort of industry I am trying to introduce. A concept of a labour force who has no say in what gets produced and comes to work strictly on time is completely foreign, every craftsman is an independent supplier. Given our historical experience with Luddism, some sort of plan to smooth a transition into an industrial era economy would be required.

Obviously I am not in a position to implement any such plans. The most I can do is to introduce an industrial base as quickly as possible and hope the political masters can keep up.

Culture

I previously noted the hierarchical structure of relationships in this country but it runs much deeper than I thought. After a few social missteps, it is apparent that everyone in this society begins any meeting by assessing their social distance to each other. And the subordinate person automatically confers initial respect.

I also noted a few interesting lacks. There is no use of steaming while cooking and, as I discovered in Wendy's Fort, forks are not common. Neither are chopsticks, but I can't use those anyway. They just have spoons and knives. Perhaps I could introduce some of these as well.

Clothing and fashion is also another major difference. Robes are apparently in fashion among the upper classes, being easy to keep clean and therefore allowing them to always look their best. Kalny has worn his set a few times to major meeting with suppliers.

Unlike the industrial era on Earth, the women do have a high labour force participation rate. As most craft professions are piecework, crafters work from home and only head out to sell their wares on market days. Most such working women perform such roles, in fact I also observed this in the Fuka village. Market days occur once every week or so but there are always a few stalls open.

Writing is also an interesting area. The alphabet is thirty one characters, a somewhat reduced list from the thirty four of the ancient First script. While I know all of this, and how to write all the letters, I know for a fact that Earth English has twenty six letters. Somehow, my knowledge of language has been overwritten?
Politics

The northern region that I am in is known as the Kingdom of Ektal. One of the mid-sized countries making up the Inath federation. Each of these countries are still independently governed but they are subservient to the central authority of the Inath court. Even more interestingly, political control is centralized while monetary control isn't. Each country, or perhaps state would be a better word, is expected to manage its own affairs with its own taxes, as well as follow the directives of the Inath parliament, made up of each of the country's rulers.

As they only have a physical currency, moving large chests of coin around is quite a risk; so I can understand why this might be the case. Simply put, anything like an federal treasury is physically impossible because they simply cannot move that much money.

Each state is devolved into local counties, governed by another tier of nobles who collect their own taxes, pay taxes to the state ruler and implement their instructions. This makes each individual state have it's own court full of nobility. All in all, there is one federal parliament and at least six individual state courts, more depending on whether you consider the states small enough to only have a few counties. Plus the few special areas and principalities.

As you can expect, this makes the politics in Inath extremely complicated. Especially once you consider that the nobility have intermarried, harbour generations old feuds and have made cross state alliances. Even the state borders aren't quite solid, since the counties near the nominal border have ties to neighbours belonging to either country and sometimes are influenced more by the neighbouring state's court instead!

The leader of the Inath parliament and therefore the leading political power in this federation is the ruler of the state Inath. In fact, the federation takes its name from this state. Inath is the largest state and therefore has the most powerful voice in the parliament, but the Inath ruler, currently Queen Amarante, can be overruled by sufficient dissenting voices. Theoretically anyway, since the parliament is known for not obeying its own rules. The federation is only about fifty years old, being formed by the Inath king two generations ago when the first organized monster attacks began to happen. That would be the zombies.

I doubt I will fully absorb much of this quickly, Inath politics can make even the European Union appear simple. And the nobility here spend all their time on it.

Well, I suppose there's a market for a federal newspaper right there.

Magic

Magic. Once a dream, now a reality. Or so I wish, it turns out that no one knows what exactly is wrong with my lifeforce, so I'll never be able to cast magic until they figure it out. The Order of Pastora are mentioned often but they are currently having a feud with the Ektal's king so they're hard to find in this area. Something about the king refusing the High Leader's hand in marriage. Or was it one of the First Circle?

No matter, it turns out that most people here don't learn magic. Despite its battle power, magic isn't used to grow crops or make clothing. And to master magic requires dedication, training and time, luxuries that only the nobility can afford. Or people like Landar, who are practically nobility even if they don't have titles. The closest that comes to any use of magic in industry is how I had Landar heat a furnace, apparently that's pretty normal for blacksmiths who are also alchemists.
I will record my observations about magic here, based on questioning of Landar and Danine's learning.

**Casting Magic**

When casting magic, a caster uses magic from their lifeforce to enact a change in the magic in the surroundings. It's how spells aren't part of you, you just maintain a connection to them in order to feed them power. How this all works probably requires detailed knowledge of what magic is made of, which these people don't have, obviously.

In any case, since lifeforce is composed of magic, the act of casting a spell can theoretically be mimicked by a spell. It's all the same thing, but when I asked Landar to try, she told me that simple functions are easy but to attach more complex functions requires so many steps that no person can remember all of it. And casting a complete spell is not simple at all, at least compared to performing one or two modifications to existing spells.

**Magic Effects**

Examples of simple magical functions included most of the basic exercises mages learn, ranging from a targeted spell disruption (more efficient than a simple blast of raw magic) to pushing spells around.

Spells themselves can do things like create heat and light, push physical objects around. Useful things like that. So I asked the obvious question of whether you could lifeforce to do that directly. This is already known and the technique is called Ems, not the same as spells. Ems are less efficient than spells and are considered really really hard, but good Em users can achieve a precision and speed with their learnt techniques that no caster can do. It just takes decades of training.

Alchemy I have received the most detail about, Landar being a top ranked alchemist in the Order of Knights. Alchemy simply traps magic into physical materials so that they don't degrade over time. Spells that aren't bound like this will lose their power steadily and eventually disappear, and degradation happens over a span of minutes while humans recharge the magic in their lifeforce over a period of days.

But other than this difference, and a large cost associated with binding the magic to the material, Alchemy spells are no different to a normal spell. Due to its high cost, and therefore poor efficiency, Alchemy is often used to supplement a caster's ability. Whether as a small boost to power or to do something else while a caster is busy with the main target. As I had Landar do with the bellows and exhaust fans for the furnace.

Armour is virtually always enchanted, and one use items like magical arrows and wands with stored spells are common as dirt. This makes alchemists quite looked down on in the knight order, they are just a support function and most alchemists have rusty combat skills. On the other hand, alchemy is currently the only method by which one can store power for later use. This makes it essential for industry, which cannot afford to have highly trained people doing essentially grunt work. Having someone like Landar do something as simple as heat a furnace will never be economical.

On the other hand, since magic is rare due to a lack of education, I wonder if mandatory education could help there. Can magic be taught outside the apprenticeship system currently had by the Academy? Perhaps. I will also need to look into other possible sources of magical power, having humans do all the work of running the machines is defeating the point. Until magical power that is
not under the severe limits placed by how fast humans regenerate magic is discovered, magic cannot play a central role in technology. The industrial revolution was not powered by hand cranks.

**Future Work**

For the immediate future, now that I have some seed money, I can work on a few projects.

The most pressing is the need for standardized parts and this will require a set of measuring standards. Since Inath has no concept of a standardized anything except time, with each craftsman working with his own judgment, I can import Earth standards and the concept of metric units. Some unofficial weights do exist among merchants and builders but these are not subject to quality control and are rarely checked for drift.

A second similar to an Earth second will have to wait until we can perform good enough astronomy to measure the length of a year. Otherwise, I will currently just use 4114 seconds per Inath hour, assuming twenty one hours per Inath day. It will be off by a few tenths of a percent but that much is acceptable for now.

To this end, Landar and I will create a bar of steel that can be defined as one meter. Since gravity here is similar enough to Earth, I can also use the same historical definition of a one-second pendulum. One cubic centimeter of pure water will be the weight of one gram, at twenty five degrees celsius. A degree is defined by having one hundred degrees be the difference in the freezing and boiling point of pure water.

This should generate a basic set of units that will give results that are intuitively similar to those of Earth. It will still be off by enough to make parts in Inath not work with Earth parts but that won't matter too much.

Other interesting mathematical problems would be to calculate the value of pi and e, useful mathematical values that I will require for geometry and statistics, to at least twenty decimal place accuracy. I recall the statistical tests but unfortunately, I don't recall the formula of the Normal Distribution, which will have to be re-derived. At least I have the concept, hopefully I can find a good mathematician.

Apart from those, I anticipate a labour crunch happening soon without some way to increase the efficiency of food production. Current Inath requires at least half to three quarters of its population be farmers. This is of course extremely high for an industrial society and I should look into the problem to see what Earth technology might be able to help with.
"Father!"

The piercing shout greeted the man as he was leaving his coat at the door. A ball of high-energy girl barreled down the stairs in a most unlady-like manner, making the maids around the man sigh in exasperation.

"Father!" she shouted again, springing off the bottom step and coming to a screeching halt in front of him.

The man smiled indulgently and handed his heavy streetwear to the butler waiting to receive it. "Yes, dear, I have kept my promise. The glass is outside with the carriage."

A hand snaked out from the butler at his side and caught the girl on the shoulder as she tried to dash past him. "Young mistress, please don't try to play with the glass while it's being fixed," the butler said, holding on to the squirming girl with practiced ease, "it will be installed in your room and you can play with it to your heart's content later."

She, at once, turned to her father with her sure-fire puppy dog look. Under the threat of being overruled, the butler shook his head with a smile, "if you promise not to touch it, you may watch the alchemists install it."

With a squeal, the girl dashed out. One of the maids had to quickly step forward to catch the swinging door lest it hit the child.

"Arthur," the man said to his butler, "what news from the land? A short summary will do, the senate has taken me away for far too long and I need to leave soon to keep the neighbours happy."

"Wendy's Fort has been hit by another army of zombies. Michi sends his regards and says he has repelled it with minimal losses. He also reports that the zombies have a new ability, something called a black mist."

The man shrugged out the sleeve of the inner shirt and wrinkled his nose. "The bounty is paid? We have received it from the senate, yes? Good. Put the full report in my luggage, I will read it on the way to Greenspring."

"Your instructions regarding the tax rate on grain carts moving south are meeting some delays, the Greenspring towns aren't cooperating."

The man handed off his shirt to the maids and sighed, "good thing I'm headed there already. Chancellor Duport must have been working on them again. " Now changed to his indoor dress the man walked towards his study.

"Also, there is another matter. I heard the Ironworkers guild have suppressed a competitor in Corbin but it seems more complicated than that."

The man stopped in his walking, "really? The Senate squabble over the cast iron never mentioned anything about how it came to be. Does this rumour have substance?"

"Apparently it does, the Ironworkers guild in Corbin has put out a new product. But far from congratulating them, our Minmay branch is claiming they stole it. This could get messy."
"If it bad enough to need me here, send for me and I will come at once," the man paused then asked, "Did they find this cast iron in a First ruin somewhere?"

"Not so. The Corbin Ironworkers are claiming it is an original invention but I have two independent sources that claim that there was a scuffle in Corbin town recently, and they acquired it from the merchant who supplies Wendy's Fort's food, Kalny. I doubt they managed to suppress whoever is behind this invention, because Kalny is now working on something he calls tin food."

"Tin food," the man turned it over in his mouth, "a strange name, I was not aware that one could eat metal. Do you have more information on this cast iron and tin food?"

"I have taken the liberty of acquiring samples in your absence. They are in the study ready for your inspection, together with the claims made by the craftsman."

"Good work, anything else?" they continued to walk through the mansion.

"There is also a new type of brick made by the builder Muller, and a radical new theory of construction. He has appealed to you for funds to build a bridge with them, but I must caution that his plans appear far too grandiose. The bricks are proven on a new bridge in Selabia town but now he wants to throw a bridge across the Tine river at the crossroads, says that he can do it if you can give him six hundred Rimes."

"Six hundred?!" the man shook his head, "nonsense. The Tine is huge, twenty lengths wide at least. A bridge would help immensely but there's no way we can spare that much coin. How does he even think he can do it with only six hundred? They said last year we would need an iron bridge at least and no one can afford that much iron."

"The new brick, he says, contains cast iron rods inside. He claims to have built a bridge across the Tine at Selabia big enough to permit carts two abreast, and it has support columns less than a shoulder wide. He also claims to have enough clearance to allow barges below it."

The man reached his study and paused at the door, "Very impressive, if true. But this is so preposterous I have to see it for myself to believe it. If the iron in his bricks get cheaper, and we don't pay his workers, then maybe we'll consider it. You can tell him that we are interested but funds do not permit. Anything else of note?"

"The Iris have also re-acquired a lost Ritual Stone. It is already enroute to The Great Yang. That is the end of my report."

The man nodded at the butler, "Thank you, I have much to think about. It seems that this region has been extremely busy while I have been away."

"Indeed, Chancellor Minmay, makes the petty land disputes between the farmers seem rather insignificant. Allow me to prepare the evening meal with Kalny's new tin food. It does not make for good eating but I thought you might be curious."

"This man, Cato, seems to work miracles," the burly man said to the thin woman, "I told Razzi to chat with him and now Razzi is building a new paper workshop upriver."

The room was well equipped but still showed its functional roots. The cushioned chairs and woven cloth carpet was luxurious by the standard of any merchant, but it was considered poor for a noble. The right to collect taxes from land and custom netted one a comfortable life even out here in a dead end town like Corbin.
"So you believe me now, Mayor Selabia?" the woman said, leaning forward. The Mayor of Corbin was an old woman, almost forty years, but despite outliving her husband, she still maintained watch over her domain like a hawk. Sharp-eyed and sharp tongued.

"You must forgive me for being skeptical when you first told me of this one man who has gotten Kalny and your branch of the Ironworkers... what's his name, Elma? They're making money by the barrel-load. " The burly man nodded, taking another swig from the large goblet of wine on the side table. "So yes, I believe you now. Cato must have discovered a First artifact, perhaps even the secret teachings of one of the guilds in that era. It's the only explanation. "

"We need to keep him," Corbin said, "he may be here now, but once the bigger nobles get wind of this and work out what's going on, everyone is going to want that artifact. And word's already spreading, Minmay is looking into this man and you surely remember the vicious fight we had in the Senate to defend our right to not give away the cast iron process. "

"Thus," Selabia put down his goblet and wiped his chin messily, "you called me here for a visit. What is it you want from me?"

"Minmay is going to come sniffing around," Corbin said, "I want you to help me keep Cato away from him."

"Why?"

The woman leaned forward, hands curling on the armrests, "Minmay may be the Chancellor now, but if we become stronger than he is... how do you like the sound of Chancellor Selabia? If we play this right, Corbin will supply the steel and Selabia the paper. They say the sword is weaker than the paper, but having both will make us more than important enough to get out from under his thumb. "

The mayor of Selabia nodded slowly. "Agreed."

Cato got dressed with more care that day. A Rime or two had been spent on acquiring properly aristocratic clothing. Landar had her own set that she said she was bringing to the meeting. Cato hoped that it wasn't another battlesuit. Landar knew the customs better than he did but she also liked crazy ideas and wasn't too keen on sticking to formalities.

"I don't care what is in fashion but you look awful in that," Danine said from one corner of the room.

Cato shook his head at the puffy sleeves around his upper arm and the frilly row of buttons down the front. "I think so too," he said, trying to imagine what he looked like. Ridiculous definitely. The shirt was even bright red to make things worse. Oh, what he wouldn't give to show up in a formal suit and tie, but the tailor told him that the suit design was going to take them two weeks.

He tried to adjust it into something less ridiculous, letting Danine be his mirror, but they were cut short by Landar's knock on the door. And he had completely failed to get the frills tucked in. "I've got to go," Cato said, "we should be back by tonight. You have enough money for food?"

Danine nodded and sent him off.

Landar turned up in a completely normal looking set of robes. Thick and heavy cloth that draped over her hands, leaving huge gaps in the sleeve under her arms. The body part was cut more like a bathrobe, folded across her body and somehow held closed by a cunningly tied bow at the back. The dark blue cloth didn't have any overt patterns but there were cunningly hidden lines where the surface gloss was different and only visible from certain angles of light. Her movements seemed to
make the lines move around her body.

Together with her long black hair, Landar was looking much fancier in Cato's opinion. And also saner.

As the door to their rented single floor house shut behind him, Cato could hear snickers and then outright laughter coming from inside. Landar raised an eyebrow at Cato, who could only shrug. Well, at least someone was happy he was wearing this.

Landar led him down the main street of Corbin, towards where the Mayor had invited them for an evening meal. And a discussion about the incident involving the Ironworkers. The sun overhead was still bright and hot, Cato wondered what his shirt was going to look like once they had walked across town. Then there was a small flare of magic beside him that settled down into a slow burn, followed by a sudden chill in the air around and under his clothes.

He looked at Landar, who winked back. "Don't get too far away or I won't cover you," she said.

Cato grinned and they started the long walk in a private bubble of indulgence.

"How come our clothing are so different?" Cato asked after a while, "the tailor didn't have anything like yours."

"This is a Tsarian formal style," Landar said, "my mother gave me this set when I reached my full height. Very expensive, it takes a master months to make one."

"It looks very nice on you," Cato said. It looked more cute than formal but he supposed that was fine for women. Not that Cato was looking very formal himself.

She nodded in thanks.

"I had been expecting the nobility to start paying attention, but this is rather quicker than I expected," Cato commented, "do you think they will be interested in some projects too?"

"Maybe," Landar said, "the nobility don't have much to do with the merchants in towns however, even if they live here. Traditionally, most of a noble's income is tied to the land and taxes on food grown. The guilds are the ones who own the production of craftsman. So if you're thinking of another machine, or waterwheels, then you need to know that the nobles won't be as interested unless they have a personal reason."

"So they would be interested in a farming project?" Cato asked, "I'll have to know how farmers do things in this world and I don't know how my world did farming enough to talk in detail. And your crops are different."

"The nobles may know, if they pay attention to the land like they're supposed to," Landar sniffed, "but they prefer to distract a famous knight alchemist from her important experiments on glittery toys."

"You say that, but you still spent a lot of time on that window, didn't you?" Cato pointed out.

Landar smirked, "well, a certain famous knight alchemist can always see a military application."

"As long as it doesn't kill the nobles you made the window for."

Landar paused for a tiniest moment then laughed, "oh come on, I wouldn't make a mistake like that."

"
Uhuh. Well, Cato wouldn't want to be the noble who had commissioned that window.

"A-Anyway, I think we can give them a little bit more credit than that," Cato said, "they at least noticed that we're doing something. Perhaps I can find something I can help with."
The Corbin mansion was unimpressive. A three storey stone building, cut much like the Academy's, with a flat facade that was supposed to be imposing and powerful, but came off to Cato as inadequate. Its aged unpainted surface was worn smooth and the balcony overlooking the approach through the garden was looking a little droopy. The flowers on the garden were just normal flowers, not especially pretty but not shabby either.

Besides, no matter how impressive the building appeared, Cato wouldn't be unless it had a flush toilet. This town didn't even have a sewer system. Cato sometimes wondered how these people put up with the stink, but perhaps that was why perfume of some sort seemed to be one of the first purchases of anyone with some money.

There were guards at the gates, armed and armoured with very much functional weapons. They were expected however and the two men waved Cato and Landar through with only a cursory check of their names. They didn't even look inside Cato's document case.

"You are expected," the maid at the front door said, "please come in, Mayor Corbin is in the drawing room and she expects your company before dinner."

Cato nodded his thanks, Landar following silently behind him. The inside of the house was comfortably cool and well cleaned by the six maids who were even now still furiously cleaning every available surface. But the walls and floor were still just cut stone and the candles lighting the rooms were essentially just fancier ones than the single stick that Cato had.

Well, he was here to fix that.

"Ah, you have arrived!" the woman who greeted him at the drawing room was presumably the Mayor of Corbin. There were two other men waiting in cushioned seats placed around a large table set with sweets and minty tea. The room itself was a touch more luxurious than the rest of the mansion, with a carpet spread under the furniture and soft candlelight oozing out behind shades.

All three of them wore the same ridiculous looking puffy sleeved shirts and pants, except for Corbin who was wearing a well embroidered ankle length skirt.

Mayor Corbin was a thin woman with a head of greying hair, and a sharp pair of eyes and nose. The wrinkles on her face told of her age but their gentle touch showed her a true woman of the nobility, untouched by hard labour or back breaking duties.

"I am Mayor Corbin, it is good to meet you at last," she said, nodding to Cato in the traditional greeting. Cato returned it and she turned to the other two men.

"This is Mayor Selabia," she introduced the first man. He was large and round, that reminded Cato of Kalny although Selabia didn't have black hair. Clearly none of them had any Tsarian ancestry. The man nodded at Cato, not bothering to rise from his seat, and popped another sweet into his mouth. There was a crunching sound as he crushed the hard sweet between his teeth.

"And this is my son, Horast Rui," she gestured at the other man. He had brown eyes like his mother, but the man looked bored and uninterested. He paid more attention to Landar and Cato wasn't sure if he liked the look in the man's eyes. Landar didn't either and frowned at Horast. He broke eye contact.
"I'm Landar," Landar introduced herself, "I appreciate your invitation for dinner."

Mayor Corbin smiled and set about pouring them a cup of tea each as they took a seat. There were no servants in the drawing room.

Cato asked Landar, "why are the mayors called that? Were their towns named after their ancestor?"

"In Ektal, the noble who rules the land takes its name. So when Horast Rui inherits this town and its land from his mother, he will become Corbin Rui," Landar explained. She muttered to herself, "much good does it do to make them care about the land though."

"May that not happen soon," Mayor Selabia said.

Mayor Corbin nodded, "let's talk about your recent achievements, Cato. Kalny is preserving food in glass bottles and Mason Muller is obsessed with building bigger and bigger bridges. Both of them point to you as a key factor in helping their work. And despite what the Ironworkers say, we suspect the new cast iron is yours too."

Cato nodded, "that much is true. I also talked to a Mr Razzi about better ways to make paper. I believe he has started construction upriver of Selabia."

"Indeed," Selabia said, "I am expecting much from him."

"So, we would like to talk about what you are doing and how," Corbin continued, "it is clear to us that you must have uncovered a stash of knowledge from the First."

Cato frowned, he didn't like where this was going.

"We want you to sell it to us," Corbin said, "it can be very worthwhile for you, without any of the risks of talking to the merchants."

Cato raised an eyebrow. "But if it is not a stash of knowledge?" Cato asked.

"We are nobles you know, it would be to your advantage if we could trust your words," Selabia cut in.

"He means that you shouldn't lie to us," Corbin shot the man a look, "no one can create this many changes, improvements that change things as much as my father saw in his entire life. Unless you're claiming to be a genius."

"Not a genius," Cato said carefully, "I really haven't got anything from the First, but let's say I do have some special knowledge that isn't written down. You couldn't buy the knowledge itself but you can pay me to help you. In fact, that's what I was going to propose over dinner."

"Nonsense! You can't possibly-"

Corbin cut off Selabia's outburst with a wave of her hand. "Let us hear what you have to say first," Corbin said, "we should try to understand each other's position before negotiating."

Cato nodded and took out his notes. The farmers here only used manure as fertilizer and irrigation was unheard of. Depending on the location and how hard the ground was, cast iron plows might help too, as would a double plow pulled by more one Reki. And the seeds of Wind Eyes were currently cast by hand, Cato could probably devise a simple seed drill linked to wheels on the plow itself.
Cato wasn't sure how much increased yield the farmers could achieve with these Earth inventions, for all he knew they weren't suitable for Wind Eyes. But the saving in labour would at least increase the farmable land area.

"But chief among all these ventures we can try is a laboratory," Cato explained, "too much of this is guesswork on my part, I don't know how much they will help, if at all. If I can get funds to perform experiments, my ideas will work better and help more. In particular, I know very little of magic and a laboratory would help a lot."

The two mayors frowned at the papers spread across the table. Some parts contained more detail than others, projections of yield increases, animal driven irrigation pump diagrams and plows were well defined, crucial measurements made in Cato’s own set of units were less detailed or even left out entirely. Landar had told him not to give away all his ideas when presenting them.

"But I also heard you can make steel," Corbin said, "I would have thought you would want impress us with that."

Cato blinked. But the nobility were supposed to be more interested in farming? He shook his head, "I'm sorry, I didn't bring my notes for those."

"What about this bowgun we heard about from Wendy's Fort?" she asked again.

"That rightly belongs to Landar," Cato said.

Landar stepped forward, "the bowgun is a simple mechanism but not many alchemists can make one. It takes some skill to be able to create the trigger block and there are deficiencies in the construction that make accuracy poor. Besides, I don't see why you would be interested in one, no battlemage would have any use for it."

They sat there in silence for a moment, Cato had a feeling they were a little disappointed. "Give us some time to discuss this," Corbin said. She gestured at the door, "can you wait in the neighbouring room until we are done?"

"Certainly."

"Landar, I thought you said they would be more interested in farming?" Cato asked Landar once the servant had left them alone in the side room. "These two seem to want to make steel."

"I'm not sure," Landar said, "the nobles back in the Central Territories where I grew up always complained that us Iris could never help in the farming. And the nobility are never interested in the Ironworkers."

"So these two are different," Cato said, getting up to pace. What if these two nobles actually wanted to learn how to make steel? He might be able to sell them on the Bessmer furnace, instead of their impossible demand for everything he knew. That stack of books he had painstakingly written wasn't going to be easy to recreate, nor were they complete. "What do they actually want?" he wondered aloud.

"I suspect they're not looking for money," Landar said, "I was watching them while you talked and they only appeared slightly interested in increased yields. You may not have noticed Selabia's eyes when she mentioned steel, but they lit up with as much greed as I've ever seen in any merchant."

"To build a new industry from ground up is very difficult," Cato added, "much less if the
Ironworkers are trying to sabotage it. I'm sure the nobility can protect their own operations better than Kalny but still.

"They are concerned about something else," Landar said, "I don't know enough about the politics to say what though."

"What do you think?"

Selabia looked at the woman and just shrugged. Her son Horast said lazily, "I think he's telling the truth. There is no such stash. Either that or he has memorized it."

It went without saying that memorizing the knowledge and destroying all copies was a perfect method to prevent theft.

"The bowgun could be a possibility," Selabia said, "together with steel, we could arm a militia. One that Minmay can't ignore."

"Are you sure you should be having the paper mill? It's starting to sound like I should be making the paper and you the steel."

"I'm the one with the river," Selabia grunted, "even if the iron ore comes through me, you still have nearby forests to make charcoal from. Razzi won't move to Corbin anyway, he has a sister here."

"What about the grain?" Horast said, "those were ideas I've never heard of before. Not even in the stories."

"They're no good," his mother said, "our farmland is too constrained. Corbin by the Death Marsh and Selabia by the Snow Wall. Minmay will benefit more than us."

"So about the bowguns?" Selabia brought the conversation back to his preferred topic.

"They might work," Corbin said, "it'll be tricky, training bowguns to face off against battlemages but it could be done with enough people and arrows. The steel should help."

"But how do we prevent Minmay from developing the same bowguns?" Horast said.

"We need him then," Selabia said, "we can't buy out the stash if it doesn't exist so we need to keep Cato to ourselves."

They looked at each other. Then Corbin finally nodded and rung the bell for a servant.

"The steel is very interesting," Corbin paused to wipe a bit of oily sauce from her lips, "as well as the bowguns. We would like to discuss more about that."

"I don't see why we had to wait until dinner to discuss it," Cato complained a little but still ate anyway. The paka steak was quite delicious, a welcome change from the usual bread. Not that their bread wasn't better too, it didn't have those hard shells of the grain stuck inside. Of course, the nobility would have better food, although Cato winced at the thought of the cost.

"We had to make some arrangements and verify your claims," Corbin said, "you understand of course."
"Perfectly," Cato nodded, "do you have an arrangement in mind or shall I start with our proposal first?"

"We would like an exclusive agreement," Corbin leaned forward on the white tablecloth, "you work for us and no one else. Apart from the three partners you already have, you keep your activities completely secret. Let us handle the Ironworkers."

Cato raised an eyebrow, that was a condition he hadn't expected. Not even Kalny expected him to keep everything to himself. "And what are you offering?" he asked out of curiosity. He couldn't agree to it of course, Cato intended to spread most of the initial inventions as widely as possible. It was essential to advancing as quickly as possible.

"Funding of course. We will allow a laboratory, as you call it, six rimes per week. If you create an easy way to make bowguns, or improve their accuracy substantially, we will buy those for twenty rimes each," Corbin said, "you will also be on retainer to Corbin and will be paid a rime per week. The arrangements for the steel can be discussed when you have collected your notes but we are prepared to be generous there as well."

Cato sighed and shook his head. This was far too low. Even his half a rime per day income from the three merchants was half what they were offering. And if he managed to optimize the bowguns, the spin off advantages of standardized construction would make their offer of twenty rimes look puny. He couldn't accept this even if they didn't want exclusivity.

"I can't agree to this," he said, "your offer is too low by far. By your interest in the bowgun, I suspect there is a market for it, just not with the order of knights. And the exclusive agreement simply isn't possible."

"We do insist though," Corbin said, "the exclusive agreement is the most important part. What can we do to make it worthwhile?"

"I aim to spread these inventions as far as I can," Cato said, "especially the plow and seed drill. The main problem the Inath federation has is the huge numbers of people dedicated to farming. To support more industry, you will need to make farming more efficient or there simply will not be enough people to make things. I trust you see how having an exclusive agreement makes that difficult."

"Even so, those inventions will spread anyway," Corbin pointed out, "you may still do the same through us."

Cato shook his head, "I don't think it will be the same. In any case, I would prefer to retain our independence."

"Is there no possibility we could make this agreement work?"

"Not with the exclusive agreement," Cato said firmly.

They stared at each other over an interrupted dinner. Next to them, Landar chewed on another forkful of paka patty, still watching the three nobles. Mayor Corbin looked at Selabia for a moment, who shrugged back.

With an exaggerated sigh, Corbin picked up the servant bell from the table and rang it twice. "In that case, I am afraid that I can't let you leave."

Two magical sources appeared outside the room at her signal and began to move towards the door.
Danine crept across the roof slowly and carefully, her furry tail sticking up from the tiles like a giant question mark. Below, in the alley, the three rather familiar bullies were passing around a few stolen chokos and generally having a laugh.

Their banter drifted to the mention of Fukas and Danine's ears flicked. That was the only outward sign of distress she gave.

"That little girl kept mewling, like some kind of animal," the big leader boy said.

"My papa always said they weren't people. And he's in Redwater," the smallest of the trio added, "What did you do after you got her?"

"She was good for nothing," the big boy spat on the ground, "No matter how I nudged her, she just wouldn't do anything."

"Did you push her down?" said the other boy. The fat one, Danine liked to refer to him, even though he was more bulky than fat.

"Ew, no. Who knows what sort of monster diseases they could have?" the leader spat again, "I hoped to get a show, what do animals need clothing for eh? But she wouldn't listen no matter how many times I hit her. I got nothing but a couple of Telins. Couldn't hold her down with less than both hands."

"We should have been there, then you can get some action," the fat one said.

Danine crept away in silence.

Her heart was not silent however. Not as she beheld the small girl trying to squeeze herself into the gap between the roof tiles, a ragged tail wrapped around her bruised neck and arms. Tam hadn't had much success trying to approach her for the last hour, which was what sent Danine out to track down the bullies.

More like little gang members in training, she thought.

"You'll be fine here," she said gently to the girl, not daring to approach too close, "I don't think those boys can climb up here like we can."

"I'm sorry, I couldn't even get her name," Tam apologized.

"It's all right," Danine said, "we shouldn't push her too hard. Come, follow me."

They left the Fuka girl on the roof as Danine lead Tam over the rooftops whose handholds were becoming rather familiar now. She pointed out the ledge just below the edge of the roof tiles on the opposite side of the alley. She hopped across and hit the ledge with a foot. A pivot and roll later, she was beckoning to him.

"Where are we going?" Tam asked as he followed her across.

"Just a little hunting," Danine said with a deceptively flat voice, her tail puffed up in anger. They crossed the town again to where she had last seen them then a glimpse out of the corner of her eye caught them lounging in one of the side alleys, laughing at each other's jokes. No doubt planning further nefarious acts.
"Wait!" Tam tugged on her sleeve, "what are you doing?!"

Danine looked around the roof and spotted a loose tile. She pried it out of the roof, silently apologizing to the owner. Well, it was for a good cause. She looked over the edge again, they were still there right below.

"It's all right," she grinned as she pitched the tile over the side, "we have the high ground. "
Landar looked around the room quickly, scanning for any more magical sources. Even if it didn't require her to actually look, she still did it instinctively. Those two guards outside had activated magical weapons but there were no other magical sources from them. So not true battlemages, these were probably magically trained guards who weren't good enough to actually become a knight. Not many knights would accept being a guard for a low noble like these two mayors.

On the other hand, Landar was considered very slow at combat magic and she had come unarmed. Or very nearly unarmed.

"Don't you think making threats is rather unproductive?" she said, leaning forward and crossing her hands under her spacious sleeves.

"Oh, it can be useful sometimes," Mayor Corbin said, "Especially towards an alchemist and a scholar when negotiations break down."

The two guards came in, wearing a heavy leather armour and carrying short spears with a long blade at the end. The magical enhancement on the metal blades pulsed no less menacingly for all that they were bog standard equipment.

Landar smiled, "I'm not just any alchemist. And I am an Iris you know?"

"Your name precedes you, everyone knows how slow you are," Corbin said, "plus, we know your estrangement from your family. If it means your cooperation, we can take the risk. It's not like you brought any magic with you."

"You mean I almost didn't bring any magic with me," Landar took out the two tubes from under her sleeves. They were fashioned like miniature bowguns, far too small to fire full sized arrows, but this one was loaded with tiny darts. Tiny non-magical darts. The only magical thing was the tube for the darts themselves and it was so weak that even Cato next to her wouldn't feel it.

"Stand back madam," guard on the left said, she pulled the mayor back. The other guard kept his weapon ready while herding the other two nobles out of the room with one hand.

As Mayor Corbin moved towards the door, Cato took the chance granted by Landar drawing all the attention to take out the tiny crossbow from under his shirt. It was too weak to penetrate any armour or have good range, but it did fit under the puffy ridiculous aristocratic shirt, at least once enough of the inner fabric had been cut away. Cato had not felt any regret at ruining the expensive clothing.

Landar watched him take aim out of the corner of her eyes, hoping he wasn't aiming at the nobles. She poured her magic down into the two dart shooters. This enchantment was the same application she used on the robot, using her own power to propel the darts instead of using the magic from the enchantment. Cato had pointed out that such a setup did not require any complex spellcasting from Landar, just raw power for which her maximum limit was very high.

The guards reacted to her threat almost immediately, swinging their weapons down to face her. The nobles hurried out of the room right when the first shot was fired, from Cato. The small bolt scraped a deep scratch in the female guard's armour but pinged back and buried itself into a bowl of dessert chokos, knocking sweet syrup over the tablecloth.

The male guard stepped up to the table and thrust the spear, narrowly missing as Cato dived to the floor. The female guard began to go around the long dinner table and flinched as Landar fired one of
the dart guns at her full power. The dart zipped past the guard's face then shattered on the wall, the force behind the dart crushing the unfortunate brick into a fine powder that exploded back out over the dinner spread.

Oops, that was a bit too much power. Landar took aim with the second dart gun then had to dodge the tip of the guard's spear. The disruption magic on the tip grazed her arm and her second dart knocked out the leg on the table near the female guard, the tipping table dumping plates of warm soup onto her legs.

Landar rubbed her stinging arm and concentrated, a bubble of magic surrounding her and Cato. The guards wouldn't be able to stick their bladed spears through it without the magic on the blade hitting the bubble first. Neither would Cato nor the guards be able to walk through the wall of disruptive magic without getting a powerful magical shock, possibly strong enough to kill them or at least put them unconscious.

Pure magic wouldn't stop the spears nor Landar's darts but that was something quick and simple was all she could manage.

Cato had grabbed a knife that had fell on the floor and was furiously trying to crank his crossbow back for another shot, Landar also hastily drew out more darts from under her sleeve. The male guard had gone around the undamaged end of the table to cut them off and the female guard was approaching quickly. She leveled her spear at Landar and the magical charge on the blade flew off to impact on the bubble.

The bubble absorbed the hit, growing thinner. Landar cursed and dropped one of the dart guns to focus on reloading the remainder. Stuffing another dart down the front, Landar looked up to find the spear coming straight at her. She fired the dart gun at it instinctively and it hit the iron blade. The iron merely dented but the wood shaft below it couldn't take the shock and shattered, sending the guard reeling backwards in a shower of splinters.

Behind her, the bubble shuddered then collapsed from the other guard's blade enchantment. There was a sound of a crossbow string thwacking and then a scream from the guard. Cato must have gotten in a clean hit.

Landar scrambled backwards to put some distance between her and the guard, forming her magic as fast as she could. The guard picked up her broken shaft of wood and charged at Landar only to stop wide-eyed when Landar pumped as much power into the hastily constructed ball of magic in front of her.

The glow in their magical sight filled the entire room, more than enough power to raise the roof off the foundations.

"Enough," Landar said, between her sharp breaths, "you're too late. You can't hope to stop bolt from killing you if I fire it."

The chaos in the dinner room suddenly came to a halt. Landar glanced at Cato. He was standing over the wounded male guard with the bladed spear, watching the groaning guard who was clutching his leg. The dinner knife had penetrated the armour when fired at nearly point blank and stuck out of his thigh, oozing blood over the cloth carpeted floor.

The female guard dropped her spear shaft slowly and nodded, "all right, you win."
"That was far too close," Cato rubbed a bruise on his arm painfully, "it's a good thing one of your specials finally worked as advertised."

"I agree," Landar said, "but what else can we do? Even if I start carrying fireball wands using this technique, we'll still end up with a reputation for packing weapons that could destroy a building. That would impolite to bring to a friendly meeting. We might as well take a charged iron staff to future dinner invitations."

"I wouldn't call that a friendly meeting."

Landar looked around the street, filled with people browsing the market who didn't know what had just happened in their own mayor's home. "Yes, but if another noble wants to talk to you?" she asked.

"Even so, I doubt Mayors Corbin and Selabia will just let us go like this," Cato said, "not when they work out that your final spell was just a bluff. I still can't believe you tried to bluff with nothing."

"It was the only way, Cato," Landar said, "another second or two, that guard would have stabbed either of us. And while they know I'm slow, they couldn't know that I can barely even make the shape of a magic bolt in that time, much less shoot it."

"In any case, we need to move. I don't care to find out if Mayor Corbin will stoop to hiring assassins but clearly she would rather us dead if we aren't going to cooperate. It will make working with the merchants difficult, but those problems can be solved."

Landar thought for a moment then nodded, "we should lodge a case for arbitration with the Order of Knights but they won't defend us if there really are assassins. I think we need to find a patron, preferably a noble and a powerful one."

"What about the next one up from Corbin?" Cato asked.

"Chancellor Minmay?" Landar nodded, "a good possibility. He's busy but honest. That glass window I made was actually for his daughter so we do have a working relationship."

Cato tried to think of another angle, "What about the other chancellors? How about the nobles where your family is? Surely your name will be worthwhile there."

"True. And Corbin certainly won't be able to get at us there, while Minmay city is right next door. On the other hand, that would mean starting over. No one there knows your name and my family can... be a bit overbearing."

"Let us think about it for a while," Cato said finally, "there are arrangements we need to make so we can't move immediately. The knights may be able to mediate a little but we need to think about home security."

The tile shattered into tiny pieces on the cobbles.

"Tsk," Danine hissed in irritation. So close. Danine glared down at the three bullies.

There was a satisfying set of yelps below in the alley though. She looked around but there were no more easily usable tiles. Prying some more off was an option but that would damage the roof.

"You again!" The big one roared.
"What are you waiting for?" The leader said, pointing up at her, "get her!"

With a yell the thin boy started to climb the wall, the fat one trying vainly to follow behind. Beside them, the leader took the short boost of a window sill and leapt upwards.

"What- what do we do?" Tam trembled, "they're going to kill us!"

Hyperbole surely. Danine sniffed, "look at them try, we could climb this faster than any of them. If you're still scared, you can feel free to run."

She didn't look at Tim, there was no sound of feet over roof tiles. Clearly he felt that he couldn't run away leaving Danine to get beaten up.

She wasn't planning on letting them. With a familiar burst of concentration, a colorless ball of raw magic collected above her open palm, a few finger widths across. She tweaked it a little and it turned an angry red to mirror her mood. Tam gaped beside her. Danine had only ever showed him minor magical exercises, there was no point drawing on her maximum safe limit in exercises meant to train finesse.

Hrm, how did she move the ball around again? Oh right that. She pushed the magic inside the ball and a wave built up in the magic. Right when it hit the bottom of the spell, Danine let the ball go and it flew down at the leader.

"What is that-" "Magic?!" "Aaaah!"

The leader of the trio screamed as the ball splashed over him. His clothing didn't catch fire, to Danine's disappointment, but it made him flinch. That turned out to be a bad idea when he was clinging to the brick wall half way up. With another scream, he fell down to the alley and landed with a sharp crack.

The thin boy paused in shock and that was his undoing. By the time he started moving again, to the shouts of the fat one below him, Danine had summoned another ball of magic, this time raw disruptive magic.

The thin boy flailed as the ball hit his face, magical shock from lifeforce damage stunning him temporarily. Then he fell and together with the fat bully landed heavily in the alley again.

The three of them groaned in varying degrees as they lay there for a good few moments. Then Danine's laughter from above them brought the fat one up, shaking a fist at her.

"You'll remember this! His father is in the Redwater gang and you'll-"

"The Redwater gang who got shredded the last time I saw them?" Danine sniffed, "I'd say you are the one who should be prepared. How many of them are still around anyway?"

"Grr!" the thin boy gritted his teeth and stumbled to his feet at the provocation.

With various yelps and curses, the three of them ran off down the alley. Another magical bolt arced after them but missed and buried itself into the ground. Danine sighed as they disappeared into the street outside.

She sank to the rooftop with a sigh of relief. Her legs felt like jelly and the chilly wind bit through her thin clothing. Danine wrapped her tail around her waist and laughed, "I did it! That showed them!"

"Won't they come back? They will find you," Tam said, horror building in his voice, "the Redwater
"That part was true, you know?" Danine said, shivering on the roof, "the Redwater gang tried to attack Cato's work and Landar fought them. Slaughtered them, actually."

"Are you talking about the Red River incident?" Tam asked, "there's a rumour going around that some street gang tried to attack a powerful mage and he painted the street with their blood in a sacrificial ritual before the knights stopped him. You saw that?!"

"Is that what they're calling it?" Danine shook her head, "it's not so dramatic. Landar was defending the warehouse while inside a giant robot she built and blasted them once with her arm cannon. Those arrows shredded them, broke them into little pieces. I think that's where the Red River name comes from, the blood must have sprayed across the street."

She stopped when Tam started to look a little pale. "I guess that's pretty dramatic too," she added.

Tam gulped and looked back down at the alley. "Landar won't fight the Redwater for us unless they attack you. She might even defend me if she sees it happen but there are more Fuka than just me or my mother. They might not attack you but I wouldn't dare to go out alone anymore."

Danine blinked. She hadn't thought of that. That whatever was left of Redwater would attack other Fukas because they didn't dare to incur Landar's wrath. And there were undoubtedly more Fuka in Corbin than just Tam.

She looked up at the cloudy sky, feeling rather small and powerless not for the first time.

Despite using the magical attacks Danine didn't feel sleepy, but she failed to note it in her bleak mood. After all, a small but constant growth was hard to notice.

Cato tapped the notepad, one of the first of its kind in Inath. Landar's springs might not hold a lot of tension but they still had their uses, and pressed against a stiff board of light wood, they worked admirably as a portable document holder. Kalny had already ordered twenty notepads, paper not included. Other merchants were also expressing interest, with the Ironworkers sniffing around Landar trying to understand how to make the springs.

He picked up the crumbs of bread that had fallen on the paper and tossed them back into the pan. Razzi might give him a discount rate, but that didn't mean paper was cheap.

"I still don't see a way to introduce better farming tools or even fertilizer to the farmers without having to go through the nobles," Cato said, "you are sure the farmers aren't organized in any way?"

"The nobles wouldn't let them," Landar shook her head and took a bite out of her sandwich. She swallowed, "you could say the nobles are the people who organize them."

Cato sniffed, "and the same nobles are the people who want to kill us. Or belong to those who do. Why does everything have to be so hierarchical around here?"

Landar waved the bit of bread at Cato, "because otherwise people like you will try to get around them. No, not even Kalny will be able to sell to the farmers he buys food from, the nobles own the land and the peasants won't have any money to buy it. They don't own much of the food anyway, why would they buy it?"

"The nobles will buy it!"
"Yes, of course they will, but those under Corbin are subject to her whims," Landar sighed, "I don't think she likes you very much now. Besides, don't we have bigger issues to worry about? Like how to defend ourselves from potential assassins?"

Cato was about to reply when the door opened.

A slightly disheveled Danine and Tam stood in the doorway. "What happened to you?" Cato asked, slightly shocked. Her clothing was even torn in a few places, she looked like she had got into a fight.

"I have a problem," Danine said, leading Tam into the house and closing the door behind her. "It was my fault," she admitted.

"Before that," Landar asked, "tell us what happened."

"I fought the bullies Tam told us about before," Danine said, looking at Cato directly as if daring him to criticize her. Cato merely nodded for her to go on. "The leader guy had attacked Tam's friend and she was so frightened! I fought them off, with magic."

"You don't need to justify yourself. Remember I said that your actions have consequences and they are your own," Cato said, "so what do you need help with?"

Tam and Landar looked at him strangely but Danine took a breath and seemed to stand straighter. "One of the bullies is the son of a Redwater gang member," she said, "Tam thinks that the Redwater gang will now attack Fukas in Corbin, which is my fault."

Danine appeared to deflate again as she talked but Cato's words seemed to give her hope again. "But how many Fukas are there in Corbin?" he asked Tam, "and how much time do they have?"

"Time?" Tam asked, "what do you mean? And I know of at least twenty families."

"I meant time they don't have to spend working," Cato said.

"We would like to spend more time working," Tam explained, "but often we can't sell enough. We're barely getting by as it is. I don't know how it is for other Fuka families but all my friends are like me."

"Do the Fukas talk to each other? Or work closely in any way?" Cato asked.

Tam shook his head, "how can I expect them to help me when I can't even feed myself well enough to help them?"

Cato nodded and looked at Danine, "the Redwater gang can threaten the Fukas because they are organized."

Danine thought for a long moment, "so we should break up their organization."

"Or organize the Fukas," Cato said, "I expect most of the families stay far apart from each other? Yes, wherever they can find space I assume. That makes things harder but you have the luxury of free time."

"I see, I think. I managed to fight off the three bullies, even if I just shot them while they were trying to climb a wall. What could have happened if you joined in?" she asked Tam, "and your friends? Their parents might even be willing to help, when they're not busy. We could even make our own gang!"
Danine paced around Tam, who looked increasingly bewildered, "imagine that! And I can try to teach you magic too! If the Fukas in Corbin can do this, we could give this Redwater gang a warning that the others won't forget. We can even secure other Fukas from threats!"

Cato raised a hand as Danine regained her usual cheer and then some, "that's not quite what I-... never mind."

He caught Landar's eye as Danine ran out of the house, pulling Tam along with her. Landar merely raised an eyebrow and swallowed the last of her sandwich. She had watched the entire exchange with an amused look. "I think you have a very bad effect on people, Cato," Landar said, "Putting myself aside, I think Danine is too young to be exposed to your ideas. The excitement will make her head explode someday."

Cato sighed and waved a hand vaguely, "we'll deal with that when it happens."
Dear Arthur,

Thank you for your correspondence, it was the correct decision to inform me.

It is truly disturbing that Corbin has attempted to detain and abduct a famous alchemist on spurious grounds. I cannot believe that Landar is claimed to be aiding the monsters. Your contact with the knights has done well to obtain news of her request for arbitration so quickly. It shall be well received among the Minmay household, see to it that we pass on the message with all due urgency.

I strongly doubt Corbin's motives in this affair, and where she is making a move, Selabia is never far behind. I cannot know why she has taken such a costly and seemingly pointless action, there is more to this matter than greets the ear. You may expend a measure of the special funds to investigate, I trust your judgment in this as much as I always have in the past.

In the shorter term, I suspect Corbin will not let Landar's escape go for long. Unless her escape has nullified the same reason, we cannot assume that she is out of danger. Landar must be confused and scared, she will almost certainly appeal to her family for help. And while I would rest assured that Iris can protect its own, we cannot afford to let the Central Territory encroach into what is ultimately a local affair.

Extend an invitation to Landar, present it as a proposal for a new order and invite her to my estate to discuss the details.

Needless to say, I must urge caution and discretion in this matter. Chancellor Duport may be looking for another excuse to start a border dispute again and will certainly be on the look out for such an opportunity to obtain the services of her name if he hears of her need. Furthermore, I have received dispatches from the Ektal court that attention is being drawn our way after hearing news of the three inventions we last spoke of. It would not do to have the Minmay name sullied by internal disputes that escalate to royal attention.

I have concluded my business with the Greenspring towns and will return with all haste. Send further updates along the standard route and I will meet your couriers on the road.

I have always trusted your intelligence and independence. I believe I can trust you to act in my stead in this matter until such time as I arrive to take over. There can be no stronger emphasis on the importance of this task.

Signed and Sealed,
Chancellor Minmay

"I am ready, Head Yan. "

"You came quickly," the man said, not looking up from his meditation. The classic ball of light hovered motionless above the man's head, although the rumours said that he could sustain multiple balls for hours.

"May our stones weather together. "

"You understand then," he said, still not opening his eyes.
"Yes, Head Yan, my family have agreed to lend my aid. I will confirm her safety and return her to your side."

"Even if you must anger the nobles of this land?"

"If I must."

Head Yan finally opened his eyes and looked at the man kneeling in front of him. He said in a less formal tone, "she is not as strong as she imagines, so you may be able to drag her in but a caged bird does not fly. Her safety comes first, I do not want the nobles to touch a single hair on her head."

Not any more than they already did of course. Yan continued, "My daughter may not wish to return, encourage but do not force her. If she insists on going her own way, once she appears to be safe again, you may consider my request discharged."

The man bowed his head in acknowledgement and waited.

"The sword of the stone is in your hands and the debt of names grows one longer."

Danine balanced on the top of the belltower, her tail bobbing up and down to adjust against the wind. Below her was Corbin, spread out like a drawing on those maps that Cato so loved.

The town was laid out in three sections. The main street, which turned into the trade road leading east, was where the central market and warehouses were. Further along the road was the tiered rows of wealthy stone houses of the original construction. The town also grew down towards the south as it overflowed its walls and the houses were of progressively worse construction the further south she looked.

Built right up against the defensive wall, the not-quite slums were packed to a high density that allowed the roof walking to take her all the way up to the town wall itself. Roofs of varying tiles, heights and construction butted up against one another as neighbours cared not for architectural niceties and simply built their houses however they liked. Little dead spaces, tiny alleys and secret passages would be a godsend, Danine thought, tracking someone through the town was going to be downright impossible.

The wall right where that smithy was located was also more ragged than usual, which gave her enough handholds to climb up and over the wall into the town proper. The more aristocratic areas inside the town itself did not adjoin one another though, standing a respectful distance from each other, and also inconveniently preventing her from scrabbling over their roofs. Well, it wasn't as if she needed to run away from any gangs in there, ruffians were... discouraged from entering the area.

And so were Fukas, but the meager town militia didn't keep Danine out. They didn't even notice Danine had climbed up here to the belltower at the center of town.

Danine caught sight of a small group of Fukas popping up onto the roofs above her favourite perch above the baker's shop. So Tam had managed to get some interest. She squinted. Hmm. Tam she thought she recognized, but the others were around the same size as him. No adults in that group of six.

Danine stood up and waved at them. One of them saw her and pointed at her to Tam. They waved back.

All right, it was time to fight back.
Danine frowned at the small circle of Fukas sitting on the roof in front of her. They were all children, like Tam. In fact, out of the seven of them, Danine was the oldest.

"Is this everyone?" she asked him.

"Everyone who could come," Tam confirmed, "the adults won't listen to me and those older are too busy with errands."

So only the relatively useless children had any sort of free time to roam around. How was she supposed to turn this lot into a gang to rival the Redwater? They might be able to fight off the bullies if they stuck together and didn't run away at first sight, but to think that these kids could match the Redwater was a sick joke. Her idea wasn't looking so bright now.

Danine sighed and exchanged introductions with them. The smallest was Ashild, a tiny girl who was too small even for a six year old, one of her ears was tragically broken and perpetually lay flat against her head. The eldest and largest was Ikine, another girl only a year younger than Danine. Her eyes bore into Danine with a mix of skepticism and disbelief.

She hauled herself up mentally and thought, what would Cato do? The answer came to her quickly enough.

"All right," Danine said, "I'll be honest, there's no way we can go up against the Redwater. But that doesn't mean we won't ever be able to do it." She looked at all them again. "I know some magic and I have someone who I can learn from. I'll teach you how to use magic and then we'll strong enough."

The wonder in Ashild's eyes was almost worth every single moment of magical practice, Danine nodded at her unspoken question. Yes, this was real.

"What good can magic do?" Ikine said, "we're still children."

"I fought off the three bullies who like to go after Tam with it," Danine pointed out. "From what Tam told me, their clumsiness when climbing was the reason," she retorted.

Danine looked at Tam for help but there was nothing forthcoming. Ikine spoke up again, "how much can we learn anyway? The knights take years to get that good and we don't have years before we all grow up or get beaten up by them."

"But I've grown enough," Danine said, "it's only been a month since I started and I can already-"

"So show us," Ikine snapped.

Danine looked at the girl in dismay, she didn't understand why this girl seemed to keep attacking her like this. How could Danine even try to show off when she was still this weak? They would all just laugh at her.

Oh what the heck, she didn't have a choice. Better they laugh at her now than be disgusted at her lies later. Danine stuck out a hand and collected the magic in front of it, pouring out as much as she could.

"That's as much as I can manage," she said finally, keeping her concentration on the ball of magic, "as for what you can do with it..." she pushed out all the other colours and left a red ball of heat in its
place. Then with another push, Danine launched the ball forward.

The tiny bolt of fire magic landed on Ikine's tail by sheer coincidence but that didn't stop the girl from leaping into the air like a startled grass racer.

A few moments of frantic scrambling over the roof later, they finally managed to calm down. Danine heaved a sigh of relief, her power wasn't enough to actually set their fur on fire, Ikine might have been seriously injured.

No one questioned Danine's magic after that.

Cato pointed out the house to the cart driver and helped the man unload the carts. Despite the cost, Cato had bought out the other tenants' leases so he had the entire building to himself.

Wrapping up his affairs with the various merchants here, ensuring that they could continue to operate with only occasional visits and advisory letters, was going to take some time. A week or two at least. And it would still reduce Cato's share in their enterprises.

At least when they were out visiting, Landar did visibly carry a pair of small bowguns and Cato was armed with a full sized set and twenty arrows. The enchanted weapons they had were more than enough to make most people leave them alone and put pause to any assassin who wanted to survive an attack. Landar enchanted their clothing as a last line of defence, although they were rather poor as cloth could sustain only a little magic. But hopefully it would let Cato survive a sniper if any tried to take a shot.

Furthermore, it was more likely any potential assassin would lie in wait at or near they stayed, after all assassins didn't magically know where Cato was right at this moment and Danine had proven quite capable at getting them well and truly lost in Corbin. That lead to Landar moving into the upper storey rooms. She had offered to add various magical defenses to the house and the offer was too good to resist, Cato was rather attached to his life after all and despite his success against the two guards at Corbin's manor, Cato knew that he couldn't really fight. Not in a world where any knight was also a mage capable of demolishing his house.

He maneuvered the last heavy box onto the ground and thanked the cart driver. Man, what did Landar have in here that could be so heavy? It was like carrying gold around, except that most of these boxes radiated strong magic.

Cato gave the final pile of Landar's boxes a stern look and walked up to the street facing door to fetch Landar. He had just got past the large crate holding the robot next to the front door when a sudden chill ran down his back.

There was magic on the door.

What the heck had that alchemist done while Cato was away getting her stuff from the Academy storage?

"Landar?" he raised his voice, "is it safe to touch this door?!"

"Coming!" came a distant shout. There was a sound of running feet and then a ping of magic from beside the door. "All right, you can come in now."

Cato gingerly raised the handle to lift the bolt that held the door in place. The door failed to explode. Cato shook his head and pulled the door open. "I've got your crates, Landar," he said, eyeing her disheveled appearance as she ran past him with a large grin.
When he left this morning, Landar had come in heavy work clothing but it was clean and her hair was still straight. Now her black hair stuck out at odd angles and there was dust and scuff marks all over her body. Also, now that he was through the door, Cato was feeling a lot of magic around the house. It was practically smeared all over the walls.

"What... what happened here?" Cato looked around, taking a step into the two storey building.

Landar crowed behind him, "Yes! It's here! I knew I made something like it before!"

Cato turned around to see her standing in the middle of a bunch of opened crates, lifting out a wooden plank. The plank glowed with magic.

Landar grinned evilly and ran back past him into the house again. Cato watched her place the plank carefully on the floor some ways inside the house while keeping an eye on her boxes outside.

Landar hummed to herself as she worked her magic across the floor and then looked up and rubbed her hands gleefully before running to the back wall to fiddle with what appeared to be a pair of strange contraptions.

No, not contraptions, those were crossbows. And Landar had managed to put them on a pedestal to aim directly at the door.

"Um I have to ask, is that a trap?" Cato asked when she came back out to root among the crates.

"Of course!" Landar said happily, still digging around a box full of small non-magical metal parts.

"Can it kill someone?" Cato asked again.

She stopped examining bits of iron and looked at him strangely, "it would be a poor trap if it couldn't. But I learnt a lot when I built that suit of armour and I think I see how I can make coordinated traps and aim them and-"

"Why don't we start by moving the boxes indoors?" Cato said with a small smile.

Landar never noticed the nervousness concealed behind it.

"That woman," Elma muttered as he read the report.

"Yes, we do seem to be hearing a lot about her," Klaas remarked dryly.

"It's not her doing," Elma said, "the Mad Alchemist of Wendy's Fort is famous yes, but last year she managed only a few eccentricities. Solving the problem of the magical arrow was acknowledged to be the high point of her fame."

"Cato, yes. We are familiar with him too."

"More than most people, thanks to his iron. Our branch here in Corbin are pouring more iron than all the workshops in Ektal City!" Elma nodded, "Will you believe that our master craftsmen are still finding things to learn about in that furnace design? Apparently the type of brick lining the inside makes a difference in the iron's strength. So no, you still don't get to kill him unless we learn everything he knows about iron."

"Corbin will try to kill him," Klaas observed.
"Corbin can perch on her roof and sing to Selna," Elma laughed a little, "Landar's thing is right outside his door. Unless she's suddenly raised enough money to hire an army of mercenaries? For that matter, I don't know if many adventuring groups would wish to try their hand against that."

"She can't be in it all the time," Klaas said, "what if someone waits in their house to ambush them? Or climbs in the window to slit his throat?"

"Hm," Elma blinked. He was a smart person, Klaas reminded himself, but not a fighter.

"Hm," Elma blinked again and tapped his finger on the report, clearly slightly worried now.

"So am I to try to save him?" Klaas asked.

"No," Elma said finally, "Landar can do more than just build a big piece of armour. A very useless piece of armour now that you point it out for me, but it did result from her working with Cato. Maybe she has another surprise. If Corbin sends someone and you try to save Cato, who knows what will happen to you? They think you're an enemy."

"So we just sit down and wait?"

"Just watch him. I won't expect you to track him now that he's learnt the back alleys but watch the house just in case. If you see the chance to help him, do so, it will make him indebted to us," Elma steepled his fingers, "and if you can't, then we will only have a river of gold instead of an ocean of it."
"Did you hear about the Minmay issue?"

"That fight over the cast iron? Yeah, I've heard of that. It does not reflect well on Minmay to have such disagreements in his territory."

"I doubt Mayor Corbin can prevail over Minmay though, even with her town's cast iron. Minmay is just too big."

"But perhaps he is weaker than we thought? If he can't control Corbin. There was a recent large battle against the zombies, he might have lost more than the report said."

"And not claim anything from the defence fund? What good would that do him?"

"... A good point. Then how do we explain his actions?"

"Do we need to? Perhaps we are just making steam over hot water?"

The two men looked at each other for a moment.

"A small issue."

"Yes."

"I'm rather more worried about Mayor Ymir's planned wedding."

"Choosing a bride from across the border is rather bad for us. Chancellor Aldar is too weak to face off the Ranras."

"Perhaps Aldar will be willing to part with his food if we can help somehow?"

"Perhaps. I know Centra will be interested, we should talk to her first."

"Lead the way."

Danine looked over the gang of six, including herself. They were sitting above the baker's shop again and trying to concentrate on making magic, the first magical exercise Landar had taught her.

"You push your magic out, like this," Danine held her ball in front of little Ashild, where the tiny girl was futilely trying to pool her magic.

After less than a day, almost all of them were able to make some amount of magic appear.

Ikine had picked it most quickly and by now a stable ball of raw magic was floating in front of her. Yuti had created too big a ball and was now sleeping against the chimney. Amra and Maen, the two other boys, had issues stabilizing their ball but were otherwise successful.

Tam was already at the level of trying to purify his ball to make a heat source. After he succeeded at summoning a magical ball on his first try, Tam had admitted that he had been secretly trying to copy Danine ever since she had shown him magic.
The balls were tiny and only summoned with great difficulty but it seemed that they could do it. Danine didn't mention how glad she was that it worked and that she hadn't turned out to be a special Fuka who learnt magic easily.

Ashild flicked her one good ear and looked at Danine's ball. Her ball coalesced and suddenly snapped into a clear smooth marble of stability.

"Good! You did it!" Danine jumped up and shared a grin with Ashild. "Now put out the ball and try it again," she said, causing the little girl's ear to wilt, "you have to practice. Until you can do it as quickly as Tam can." Danine let her ball to dissolve in the air and summoned another one with a mere flick of her wrist. Well, Danine had had a lot of practice.

Ashild nodded obediently and went back to trying on her own.

Ikine came up and asked, still balancing her ball above her hand, "when will you teach us how to shoot fire like you did yesterday?"

"It's been one day," Danine said incredulously, "and you can't even make the magic properly." Ikine frowned, "but the humans. They attack us every day! How long must we wait before we can defend ourselves?!"

"I can teach you how to turn the magic to fire and how to move the magic," Danine said, "but how will you do it when you can't make the ball appear?"

Ikine didn't have an answer to that but Danine sighed and gave in anyway. Ikine would change her mind when she experienced how difficult it was. "You just push out all the other colours except red," Danine explained, "red is for fire, blue is for cold. Green is for moving things."

"What about yellow?" Ashild asked.

Danine looked up from her coloured ball to find the five of them gathered around her. "Um, yellow?" she said stupidly, "I... never heard of a yellow."

"I thought I saw a yellow when I was trying," Tam said, "but I can't even make a red ball."

Actually, why not try? She stuck out her hand and concentrated on the ball above it. It cycled through the colours as she tried to filter it and then slowly, turned a bright yellow.

"Huh," Tam said, "so I did see that right!"

"What does it do?" Amra muttered under his breath.

She didn't have an answer. Danine frowned, "I'll ask Landar tonight then I'll tell you tomorrow."

They nodded to each other.

"So, back to practicing?" Danine asked. They groaned.

Landar lowered her hands and examined the line of magic laid into the walls. It was tough, having to not damage the building when making her traps, but there was a challenge to it that made the task more interesting.

Her stomach growled and she looked out the window. Oh, wow, it was getting late already.
There was a smell of roasting meat from the ground floor kitchen and a loud sizzle accompanied it. Landar grinned ruefully and made her way down the stairs.

The sight of what Cato was cooking almost made her gag.

"Sandwiches?!" Landar said incredulously.

Cato waved the strangely shaped oily stick in his hands, "it's the only thing I know how to make. "

"Then I'm never going to let you cook again," Landar sniffed then frowned, "it smells different though. "

"My request for cooking utensils got fulfilled," Cato explained, "as well as the oils I asked Kalny to prepare. "

He gestured at the cast iron bowl sitting on the stove. Landar had seen pots and pans before but this bowl was not like any pan she was familiar with. It was too big for one thing. And even the stove itself looked different now, with four little legs holding up the big bowl. Landar squinted at the utensil in his hand and noticed how it would make scooping up the frying paka meat in the bowl easier.

"That's clever," was all she could say.

"I know it's not impressive like the blast furnace," Cato said, "but little things like this make life much nicer. Still, I'm surprised Inath has never heard of cooking oil. I wonder how the chefs ever manage to get their pots and pans clean. "

Landar shook her head, "what do you mean by that? I always see them cleaning and scrubbing. "

Cato smiled and turned over the pieces of meat, "see? No sticking!"

Landar raised an eyebrow. There was only a little bit of charring where the meat had met the black metal but there was none of the usual rinds left behind by cooking.

"It's the cooking oil," Cato said, "there is a tree out there that's similar to the oil palm in my world. The fruit is a hard kernel that can be crushed to make a oily residue that is edible. We don't eat it because the oil has a bitter taste but I hope can be used in cooking. The taste might not carry over to the meat. "

He scooped out the oily meat and placed it on the waiting pieces of bread sandwiches, then carried the large bowl over to the washing buckets and washed it clean. Landar would have watched but her growling stomach wouldn't let her ignore the sandwiches.

She picked one up and bit into it. Hm, the bitter was still there but the sweetness covered it. It gave the sandwich an interesting aftertaste. Not so boring, although she would have preferred it spiced.

"Did you add sugar?" Landar asked.

Cato nodded as he put the iron bowl against the wall to dry, "yeah, I thought it might help to cover the taste. "

They ate the sandwiches in silence.

Cato looked at his empty plate and asked, "you mentioned elemental Water back when we were defending the blast furnace. "
Landar nodded, paying attention.

"That's not part of the six magical functions you taught Danine," Cato said, "and I haven't seen any of the knights make it. Do you not use elemental Water? At least it sounds like it could help with cleaning the pots and pans."

A cook using Elemental Water to clean?! Landar laughed, "you can't! The Water would dissolve the pot. It eats everything."

Cato frowned, thinking, "where does the things it dissolves go?"

"It goes into the Water. Elemental Water, like most magic, disappears eventually and the things it dissolved are left behind."

Cato shot out of his chair so fast that it fell backwards onto the ground behind him. "That... That!" he sputtered, "that's incredible!"

What. Landar stared at him. Elemental Water was universally recognized as quite useless except in very rare circumstances. "You can't store it, you know?" Landar said, picking up the chair, "it just dissolves the container."

"There must be something it doesn't dissolve," Cato paced across the kitchen, muttering to himself, "that depends on how you make it. And depending on how it disappears, the materials left behind..."

He looked up at Landar sharply, "we really need that laboratory. Without experimenting, I can only speculate and Elemental Water sounds too dangerous to try in here."

Landar frowned and she popped a ball of magic in front of her. Shaping a dense cloud that was impenetrable to magic was simple enough, for once her high power helped, then she condensed her magic into the liquid Elemental Water.

"One of the ways to contain Water is to use a magical barrier," Landar explained, "there's nothing to dissolve. Other methods like levitating it suffer from control problems, liquid Water is too runny to lift properly without splashing it. As long as I'm around, it's not that dangerous. If we spill it, I can always dispel it."

Cato's eyes widened at the handful of liquid Water pooling seemingly in the air. Then he picked up an oily spoon from the plate and stuck it into the Water.

Nothing seemed to happen at first but when Cato withdrew it a few moments later, taking care to draw the spoon through the magical barrier to scrap it dry, the spoon had become shiny.

"No oil on it," Cato said, rubbing the surface with one finger, "and I think it lost the top layer of the metal."

Landar wrapped up the Elemental Water and turned her barrier actively dispelling. The Water sank downwards and vanished, leaving only a strange silvery ball that fell to the floor.

Cato picked it up and it crumbled into oily droplets and iron flakes.

"This..." Cato's hands were visibly shaking. Was it really that surprising? Residue from Elemental Water was just useless residue.

"This is crazy," Cato said, still staring at the flakes, "we should have investigated this first. The number of uses for it is incredible!"
"But you can't contain it," Landar said, "an active magical barrier like what I did needs someone to maintain the magic or it'll disappear very quickly."

"We don't need to store the Water," Cato said, still fingering the oily drops on his hand, "this thing, the precipitate is useful. In my world, we had composite materials, layered steel with carbon fibre. It's light and strong but also hard to make. But Water... this dissolves anything you say? If we can control the deposition and the shape of the precipitate, or perhaps even grow it like a crystal... I cannot imagine the kinds of the materials you could make with this."

Cato squatted over the iron flakes, "and there might be even more simple uses. It can contain chemical reactions. And maybe there is a way to fractionate the components so they come out one at a time? We could use it to separate mixtures by how well they dissolve in the Water. If carbon and silicon can be separated, you might even be able to turn cast iron into steel without the heat."

Steel without the heat. Landar felt a sudden need to sit down. Steel without the heat! "Are you sure?" she asked him.

"We don't know," Cato said, "this is why I said we need to investigate magic. A laboratory would be nice to have."

They shared a look. "Yes, it would be nice," Landar said wistfully.

"So how is this elemental Water any different from a spell?" Cato asked later over dinner.

Danine nibbled at a stick of braid, Cato thought of that vegetable as a long red cucumber. She had been uncharacteristically silent over dinner today, perhaps due to Cato and Landar discussing this new concept of elemental magic.

"It's similar, in that magical barriers stop it and you can use magical disruption effects to remove Water," Landar said, "but it's also a physical thing. Like this tea I'm drinking. If we had a material that wouldn't dissolve in elemental Water, you could pour it into a mug and carry it around."

"So while purely magical spells pass through non-living objects, elemental Water will not," Cato nodded, "it does sound like something completely different to normal magic."

"Can I learn to make it?" Danine asked suddenly.

They looked at her. "Danine, most people don't bother to learn elemental magic," Landar said, "they're hard to control, because they're not spells. You can make elemental Water but you can't push it around or make it fly like you would with a spell. The most you can do is use a spell to make it where you want it to appear, but if you're going to shoot a spell at a target, you may as well just attack directly."

"So why did you learn it?" she asked.

Landar shrugged, "because I could? I was curious about elemental magic, but until I showed it to Cato, I never thought I would find a use for it."

"I'm curious too," Danine said, "and Cato thinks it's useful."

Landar chuckled, "all right, I'll teach you."

Cato was about to continue his discussion when Danine interrupted again.
"I'm teaching the other Fukas here in Corbin about magic," Danine said, with a defiant glint in her eye. As if she expected them to argue about that.

"How did you teach them?" Cato asked, "Are there any problems?"

Danine blinked at the unexpected lack of scolding but recovered quickly. She continued with more enthusiasm, "I tried to do the same lessons that Landar taught me, but they're not improving as fast as I did."

"How many people are you teaching?" Landar asked.

"Five, including Tam," Danine said.

"That's the problem," Landar said, "most mages only take a single apprentice at a time. I teach the exercises based on what I think you can handle, and what I think you need to improve on. That's why you're getting power exercises now, your control is improving faster than your magical strength. Most mages can't handle two apprentices, you've barely started learning magic and you want to teach five?!"

Cato asked, "Danine, have they managed to learn magic?"

"They can do the basic on and off exercise, yes," Danine said, "I taught them how to stabilize a magical ball, most... can do it. With help."

Landar frowned, "most mages learn to do that within a day. You did also. How long have they been learning for?"

"Slightly more than two days," Danine said, "we didn't get much done on the first day."

"That's pretty good then," Cato said, drawing their attention. Her answered Landar's unspoken query, "one mage teaching one student has them learn a simple exercise in a day. One apprentice teaching five students? They might learn it by tomorrow."

It was Danine's turn to frown. Cato reassured her, "it's all right to continue, Danine. I'm interested in seeing how fast they can learn, and if it helps them in the future, that's a bonus. Landar, how many people do you think you can teach at once?"

"They won't learn it properly, and they will hate me for not teaching them magic the correct way," she huffed, "how many do you have in mind anyway?"

"Let's say, thirty?" Cato ventured.

Landar practically choked on her tea. "Thirty?!" she sputtered, "they won't learn anything at all!"

"The teachers in my world often had class sizes that large," Cato said, "and outside of practical lessons, we had lecture classes that sometimes had a single teacher teaching a few hundred students."

They gaped at him in utter astonishment. Cato elaborated, "there are times when all a teacher is doing is explaining a subject to the student. A simple transfer of knowledge. There is very little feedback needed from the student in those cases and you can get away with teaching large numbers of students. In other times, like when you're showing someone how to perform an experiment or develop a manual skill, you need to actually show them how to do it. Of course, in those cases you cannot teach quite that many."
"But but," Landar visibly swallowed and put down her teacup carefully, "but what do the other students do when their teacher is teaching those lucky enough to get the demonstration?"

Oh. Cato suddenly felt stupid, no wonder she was confused. "Students don't just have one teacher," Cato explained, "our teachers have specialist subjects. For example, one teacher would teach Newtonian mechanics, another would teach chemistry and so on. The students gather together for a large lecture, but split between many teachers for their demonstrations."

"Your teachers share their students?!" Landar was looking shocked again.

"Well, of course," Cato said, "how else would someone... I mean, if they're trying to learn alchemy, wouldn't the student want to learn it from the best alchemists? Like you, for example. Then learning spellstorms from the best teachers of those, and so on. Right?"

Landar shook her head, "it doesn't work that way. All the teachers would want to steal each other's secrets! You would ask your apprentices to teach you whatever they learnt with the others! And you wouldn't teach them yours."

It was at times like this that Cato felt most strongly that this was truly a different society. He pointed at the books containing whatever he could remember from his studies, stacked up in a heavy chest. "What about that? Would you say those are my secret knowledge?"

Landar nodded, "what else could it be?"

"The knowledge in there is quite common in my world. Anyone can learn whatever I know just by buying the correct books," Cato said, "and not very expensively either. About what a normal person makes in a month is quite enough to get all the books you need to learn it."

Landar had that fish out of water look again.

Cato just couldn't resist, "in fact, you could say there are too many books. There's not just one book to teach you chemistry, for example, there are a few hundred books all about the same subject written by different people. All of the books slightly different and all the writers trying to sell you their book."

"But surely there are some teachers who only have one or two students?" Landar cried, "or does your world not have any sense?"

"We do," Cato said, "at the most advanced level of study, where we are learning new things, a teacher does not have more than a handful of students. And in those cases, we do worry about having our secrets stolen."

Landar shook her head, "then you mean to say that those books you wrote are such basic knowledge that anyone would give them away for a scant day's work."

"Yes, indeed."

She could only shake her head more.

"Landar, I think it's time for my lessons?" Danine asked, once she had the chance to get a word in.

"Oh, I'm sorry, yes," Landar said.

Cato was about to reach for their plates to do the cleaning when Danine dropped another bombshell.
"When I was teaching, one of them asked me what a yellow colour was," Danine said, creating a new type of magic that Cato hadn't seen among the basic exercises. Nor was it the same as the elemental Water Landar had shown him.

"Oh that," Landar said, mirroring Danine's sphere, "well, I may as well teach you. Create as small and as powerful a ball as you can, while maintaining that structure. Once there, you activate it, like this."

Landar's ball of magic condensed into a tiny point and was suddenly replaced with a shining spark. It was actually shining, not just in the magic sense, Cato could see it casting shadows in the kitchen.

"Wow," Danine whispered as her own spark appeared, a firefly glow trapped in her hand. Almost as quickly as it appeared, the light faded and vanished along with all traces of magic. "What is that?"

"Liquid light," Landar replied. Her spell hadn't used all its magic in one go, instead slowing feeding the drop in her hand as it replaced what disappeared. "The principle is very similar to the elemental Water we were talking about earlier, but liquid light isn't dangerous. All it does is glow."

"So you mean to tell me that elemental Water isn't the only magical material you can make?" Cato said, with a rueful grin, "I suppose I should have expected that."

Landar nodded, "yes, I keep forgetting that you don't know anything about magic. But first, I'll create an exercise for Danine today, I will introduce the magical materials to you later."

Cato smiled, "all right. I can't wait to see what sort of miracles you have up your sleeve."

Klaas crouched on the roof across the wide street. The wet rainy night obscured enough of his vision that the dark figures in the street were only vague blobs without defining features. He sighed and tugged the oil coat tighter around himself, at least the cold would prevent him from getting sleepy even in the dead of the night.

The three figures scurried up to the front door. The magical door right next to a familiar large crate.

Klaas smiled to himself. Now, how would these mercenaries deal with it? The myriad magical signatures inside the house screamed trap to anyone who had ever fought in a defensive battle.

One of the three stepped back and leveled a long staff towards the door. The figure didn't get to blast it however, another dark hooded figure was walking up the street, a spell held ready in front. The first three and the second later arrival considered each other for a long moment.

So there were two people out for Landar? Klaas wondered who sent the other person, and which side was the mercenary from Corbin. He watched the lone figure approach the three confidently and they exchanged inaudible words.

There was some disagreement, with much waving of arms and rain-muffled words. Most of the gestures were towards the door. Then the lone figure separated from the other three and the two groups took some distance from each other, on guard but not outright hostile. Klaas would give good money to know what that talk had been about, but he wasn't going to get between them. His was only to watch after all.

Klaas somehow managed to yawn and shiver at the same time. That jostled his vision and he
blinking, sleepiness blowing away in a hurry.

There, the shadow in the corner of the alley was a big darker than it had been. Almost as if someone wearing pure black was standing in it trying not to be seen. Klaas rubbed his eyes and squinted. Yes, there was someone there. In fact, there were quite a few shadows looking darker than night scattered around and in the alley. How had he not noticed that?

The four figures in front of the door certainly hadn't. They were still sizing each other up when the shadows started to move, all at once as if at some signal.

There was a loud crash as one of the shadows smashed in the wooden slats facing the alley off the main street. The four figures jump and looked around, just noticing the new arrivals.

The group of shadows converging on the house didn't stop for them though, instead rushing towards every entrance, smashing and scrambling with improvised weapons.

Klaas gaped at the flash of a signature red arm band. Redwater?! Seriously, this gang was really coming back after what the Mad Alchemist had done to them? He idly wondered who paid them and how much it had cost. He could use a few minions too greedy to live as well.

The first of the Redwater tried to kick in the front door and the entire door simply blew outwards, bits of wood smashing into the face and body. There was a high pitched scream and the woman went down thrashing. Klaas raised an eyebrow, he hadn't known there were women in the Redwater, he had always figured them too obtuse to manage to work with women.

The Redwater didn't seem to care and simply charged into the house, axes and clubs raised.

The other four figures standing in the street in shock recovered admirably and approached behind the Redwater, more cautiously. They were still keeping an eye on each other too, Klaas could see them splitting up to take a different direction.

He sighed and wondered if Landar knew just how popular she had become. Almost overnight, there were now at least three sides gunning for her and Cato's knowledge.

No, wait, there were at least four. Klaas was here too after all.
Traps and More Traps

The three thugs who broke into the lower level ran straight into the main ground floor. And right into a veritable hail of magic.

The pair of bowguns on the other end of the room tapped into a modified wand, which instead of flying down range like a crossbow bolt, simply fired a magical bolt that flew towards the thugs. They couldn't appreciate the deftness with which the bowguns tracked their movements but they did know that there was no escape from the flurry of magical bolts that aimed unerringly at them however they tried to dance.

Upstairs, Landar laughed as she watched the action through the floor with her magic sense. "Attack me on a prepared ground?" she snorted, "without magic at all? I wonder what these people are thinking."

She couldn't hear their curses but she could feel the bowguns swiveling towards the activated floor boards by the direction of the magical wands. Wherever they might set foot, the magical floors would sense it and her spell would aim the bowguns. The reservoir of magic Landar had woven into the walls and floors throughout the last few days would power the wands for more shots than they could tolerate.

"You see, I did learn from making the robot," Landar said to Cato, who was also watching. "Making the robot take a step was far more difficult than this," she continued. She frowned as a magical bolt missed a target trying to climb in through the alley side window. Hrm, were the hinges out of alignment already? She tweaked the magic a little, just a touch on the angle, and the next bolt sent the thug into a dream-less sleep of magical exhaustion.

"They don't stand a chance," Landar laughed harder as a thug tried to enter through the kitchen backdoor and one of the bowguns swiveled all the way around to fire straight through the walls at him. Or her. Landar couldn't know if she couldn't see them.

She ignored the sidelong look that Cato was giving her.

There was a series of explosions from below and she felt parts of the spell in the house die away. A pair of magical bolts had shot at the bowguns and destroyed them. From the explosions, that was probably a fireball.

Landar was quite flattered whoever it was had considered the two bowguns threatening enough to use that famous fire and pressure combo. Fireballs were inefficient and weak, for the amount of magic they needed to work, but they worked on just about anything. It meant they didn't know what to make of the bowguns and weren't going to risk getting shot.

The new intruders stepped into the trapped main room, a strong magical bubble grazing the top of her floor enchantment. Aw, they weren't going to be overly cautious and try to dispel her magical floor. Well, it was too much to hope they would waste magical power... unless she made them do it. After all, it was bad of them to assume she had made the floor solely for aiming purposes.

The three intruders got halfway across the room towards the stairs leading up when the magic underneath seemed to boil upwards. Each of the spells making up the enchantment of the walls and floors had been based off the same idea that made the robot move, they could transfer signals and magical power to each other, and each of those individual arms-length squares could also be turned into a magical bomb at a mere signal.
They were, after all, just large flat squares of raw magic meant to feed the bowguns. Without the bowguns, Landar didn't have any use for them anymore.

The expanding clouds of raw disruptive magic from the floors near the bubble shield began to eat away at it rapidly. As if that wasn't enough, the squares right below where the trio were standing began to attack them directly.

Flashes of dispelling magic swept away the clouds, but not before it had cost the intruders their shield. As the magical barrier of the shield dropped, Landar choked in surprise.

A clear image of a long cylinder glowing with magic appeared in her magic sense, formerly concealed beneath the shield.

"What is that thing?"

"That's an iron staff," Landar answered Cato's query, "alchemy enchantments can only support a limited amount of magic based on volume, but certain materials, especially iron and steel, can support much more. That magical density you feel down there is only possible with iron."

She could see him nodding to himself and turned her focus back to the three intruders. They were making their gingerly across the first floor, heading for the stairs up. The shield was back now and they were slowly dismantling all of the remaining sensor panels on the first floor.

Landar grinned, there was more yet to come.

The leading wizard drew more magic from the staff and smashed the enchantment on another wooden plank.

"Just how many of these things are there?" said the wizard.

"She had only a week!" wailed the battlemage, "how could she have enchanted this much of the house?"

"I still think we have enough magic to get to her. The question is whether we have enough to fight her afterwards."

The archer at the back observed, gazing up at their dome of magical disruption centered on the wizard's staff. It was convenient, having a magical shield, when entering the lair of a mad alchemist who didn't know that traps didn't work against a well-prepared team.

Only that her traps were so dense that clearing them was putting a serious drain on their magic. And the magical shield was also blocking their magic sense, so that they didn't realize they were walking into traps until the shield took hits or they got close enough for the trap to be under the shield.

"Those living bowguns were the worst though," the wizard said after they got into the back room. The stairs were there and all of them were fairly sure the target was staying on the second floor. No one in their right mind would live on a floor trapped to that extent.

"I'm not so sure though," the battlemage said. They fired their magic in unison at a cloud of magical disruption that boiled up to attack them from the stairs.

"Do you have any idea how hard it is to make things aim like that?" the wizard protested, "maybe you think it's easy because you can shoot magic at things, but I did not detect her controlling the bowguns. Those spells were aiming themselves."
"You're freaking out," the battlemage replied, "surely there must have been some trick behind it. Besides, the magical bolts didn't chase their targets. They just flew straight."

"That's not what I'm worried-"

"Discuss it later!" the archer interrupted, pointing at the door at the top of the staircase, "are we going to talk about her impossibilities all night or are we going up the stairs?"

The trio looked at each other. Where the other Iris man had disappeared to was unknown but they had agreed not to interfere with each other. For now.

"Let me check the stairs," the wizard approached it and the bubble of magic around them shrank back into the staff.

The huge crushing weight of magic appeared around them again. Their path in was obvious by the way they had carved a line out of the magically active structure, but that line was small compared with the cloud of enchanted walls and doorways that glowed all over the building.

"Stairs are very much NOT clear," muttered the wizard. He took aim at the enchantment on the door at the top and fired a blast from the staff.

The magical blast bounced. It hit the door and somehow reversed direction.

"What in-" The disrupting blast burst on the hastily deployed shield amid surprised curses.

"What was that?!" the archer asked.

"A parlour trick," the wizard spat, "if I was just a bit slower, it would have even worked. The door hijacks all magical blasts and reverses their directions. I got careless and thought all the enchants were the same bomb types, just by keeping my connection to the spell, I could have prevented that."

"Doesn't everyone keep their connection?" the battlemage asked.

"We're not all like you," the wizard snapped back, "And I already know my own mistake."

He leveled the staff at the door and blew away the enchantment. Behind it, a wall of magical mist that came rolling down the stairs. It had been trapped behind the door and was now silently pouring down the steps in a eerie green glow.

"Miasma?!"

"How can that be here?"

That was the last straw and the mercenaries ran away, there were just too many traps here to deal with. The screams faded away as the stairs were vacated once again.

The greenish glow faded slowly, leaving only a few wisps of white pooling on the landing.

"How did you make Miasma?" Cato asked Landar, as the yells echoed into the night.

"It's fake," she grinned back, "I used Mist here, with a layer of liquid Light. I just tuned it to look green. No one can make Miasma, the people who try have a tendency to end up dead. But I suppose I showed them enough unusual things they might have thought I could do it."
She looked at the retreating glow of the iron staff, "well, I guess being known as the Mad Alchemist helped too."

Not for the first time, Cato thought that the nickname was quite well deserved.

"You can make Light emit a certain colour?" Cato asked. He decided to focus on a nice safe question.

"Yeah, it's possible. And if you keep liquid Light in a very dark place, it won't disappear so quickly. It doesn't make light if you don't shine any light on it, so the magic doesn't get spent."

Huh.

"So is that the last of them?" Cato asked after a few more moments of silence.

"Yeah, it is-"

There was a loud crash from below. A large magical flare below appeared, then concentrated into a thin plane. The plane swung outwards in an arc, smashing aside walls, both the magical ones and not.

"No, apparently not," Landar said, frowning.

"Is there something wrong?"

"That's not a mercenary," Landar muttered, "someone powerful enough to create a spell that strong? And a spell as sharply focused as that?" She shook her head, "That's a summoner. Probably my father sent them, and gave them a sword stone too."

"Is that the Minor Phantom I heard about in Wendy's Fort?"

"It's one of the types," Landar said, looking down at the plane of magic swinging around.

She shook her head again, "the traps aren't going to work against someone like that, I'll have to go fight him directly. At least Iris won't want my head, only my freedom."

Or wait for him to come. There was another swing and crash as the magical blade demolished the door at the top of the stairs and a rough stocky man stepped onto the second floor landing where Landar and Cato had planted themselves.

"Your father wants you to return, Landar," the man said as they looked at each other, "it's not safe here."

"Who do you think is making it unsafe for me?" Landar spat acidly. She gestured at the mess of wood splinters the man's orbiting blade had made of the house.

"Those petty tricks you use," the man began, "they work against useless people like Corbin's mercenaries but not if she's serious about trying to kill you. Come with me, Iris will protect you. " He nodded at Cato, "of course, your companion is welcome too. Although you'll have to give up on the relationship to get a proper marriage."

Landar managed to laugh and glare at him at the same time. "What? We're not involved like that," she laughed bitterly, "and I see that my father still thinks of me as a play piece in his little family games. I'm not going. Not unless you carry me back and chop my legs off to stop me running away."
The man ground his teeth audibly and the blade of force swung down horizontally to knee height. "Even if it's your own family, to think you would insult the second branch like that... perhaps what you say is just what you need to learn how to behave."

Landar responded by glowing in magic sight, in more power than Cato had ever seen her use. It coalesced into a dense ball in front of her, a turbulent wildfire facing off against the laser-sharp fineness of the blade summon.

They stared at each other for a while, magic building into a crescendo of raw power enough to level the building. Then the blade shot forward to collide with Landar's ball, grinding and churning in a contest of strength, magic flaring and ebbing like tides.

This was not the same way the knights gave battle, not the darting stinging blows and sudden hail of destructive bolts that Cato had seen at Wendy's Fort. This battle between two Iris was more like two sledgehammers, wielded by eggshells. Considering how little power it took to throw deadly crossbow bolts, the two globs of magic were strong enough to snap a person in half. And grind the remainder into powder.

The two balls sprang apart, gashes and wounds healing over into calm smoothness. The Iris man's blade had been deformed into a shapeless lump but grew back into the familiar sharp edge again. Looking at them try to gauge each other's remaining strength, Cato thought Landar might have come off worse. She was already breathing hard even though her ball of magic was still strong. They stared at each other, tension coiling like a snake waiting to strike.

The second round was interrupted by the sound of Reki footfalls in the street. The pounding of feet and voices surrounding the front of the house drifted up through the window, drawing their attention. Both of them were too busy watching each other so Cato decided to take a look.

"Um, there's a lot of people outside with torches," Cato described it. The people were wearing armour too.

"The local knights," Landar said triumphantly, "give it up. You can't make me come with you. Not with the order of knights here."

"Are you sure they're here to rescue you?" the man asked, "Perhaps Corbin paid them too."

Landar suddenly looked less sure.

The man sighed and drew something out from his pocket, "my first duty was to make sure you're safe. Even if your power is lacking for a second branch, you should still be able to handle this." He tossed a small green crystal at her.

Landar caught it and gasped, "Phalanx is Major Phantom! My father actually gave this to you?"

"He expects it back," the man said dryly, "it would be beyond embarrassment if you stole another summoning stone."

Landar snorted and her ball of magic seemed to drain into the stone and out the other side. Raw power fed into the stone in one direction and a dizzyingly complex network of magical lines and power came out the other, filling out the ghostly shape of a curved shield. Then before it reached the eye watering magical density of the man's blade, another shield began to form.

Somehow, Cato could still see the lines connecting the shields to the rough green stone in Landar's hand. Magic flowed up and down the lines, balancing power between the shields and coordinating
them to form a ring around Landar. The shields didn't seem to care that some of them clipped through walls, even though they had a misty look that made them physically visible.

Cato reached out and poked the shield at Landar's back. It felt solid and his finger didn't get very far in. He quickly drew back, the magic in the shield was eating into his lifeforce and while it didn't feel like anything, Cato wasn't about to risk any damage.

"Just keep in mind that the sword always beats the shield and we'll get through this just fine," the man said.

"I've handled a Ritual Phantom before you know," Landar remarked, "I'm not a little kid using a stone for the first time, thinking he's invincible. I'll give it back."

"Then let's go meet them and see what they want."

"Who goes there?"

"Chakim of Iris," said the Iris man as they stepped out of the house into the light drizzle and the circle of torchlight around the front door.

The circle of adventurers looked at each other. Cato could see how they were divided, each of the seven groups stood slightly apart from the rest, each group watching both Cato and the other groups. It wasn't quite distrust, they were not fighting each other, but they weren't used to working together. The large group of Rekis behind them in the street shuffled and snorted at their handlers, also divided into groups.

"There was a report of a disturbance in this house," said the leader, "the three of you are clearly involved. Explain what happened and what you were doing here."

"You presume to question the Iris on our internal matters?" Chakim said, "and towards the daughter of the second branch herself?"

"We cannot overlook a fight of this scale," the leader stated flatly, "the order of knights will launch a full scale investigation. You will cooperate."

"It is a strictly internal affair," Chakim growled, "Iris politics are not for you to question."

"They are if it happens in Corbin town."

"Then submit a protest to Iris but you will not detain us," Chakim said.

Chakim and the leader glared at each other. Landar glared at Chakim. And Cato looked around at the circle of adventurers, thinking that there was no way Chakim and Landar could fight them all if the leader of this group decided to start one.

The tension was climbing and Cato began to search for a convenient corner to hide in, perhaps behind Landar's crate of armour. Then the sound of heavy Reki footfalls broke the tension as people glanced towards the newcomers. There were a few shouts and the crowd of the adventurer's Rekis parted to let a small party of three enter the ring of torches.

"I am Arthur of Chancellor Minmay's household," the lead rider announced with a deep voice, "what is going on here?"
"Arthur sir!" the leader of the adventurers bowed hurriedly, "we received a report that a large fight has been going on in this house. We were just investigating these suspicious characters."

Arthur looked over to Cato from his Reki and indicated for them to state their business.

Chakim opened his mouth hotly again but Landar cut him off with a wave of her hand. She stepped forward, "you are Chancellor Minmay's assistant, if I recall correctly. I am Landar, alchemist. What is your business here?"

Arthur looked at her sharply then hopped off his Reki. "You are Landar then?" he held onto the reins while examining the ghostly shields around her, "my business is with you. The chancellor is very pleased with your piece and wishes to commission another work. He extends his invitation to you to come to his residence to discuss the details."

"Thank you for your kind praise," Landar said but didn't reply further.

She frowned and seemed to think for a while. Everyone else seemed to be watching her, which only made Cato confused.

"What's going on?" Cato whispered, coming up behind her.

"We need to make our decision now," Landar explained softly, "I think Chakim can get us away from here, even if we can't fight everyone. Arthur has Minmay's backing and he can override the local authorities. I don't think the order of knights in Corbin is truly listening to her, so my arbitration request should attract attention, enough to make things safer after this. But we may not be able to trust them?"

So the question was whether Minmay could be trusted enough to make him a better choice than going to Landar's family? Cato stepped around Landar, attracting their attention.

"Sir Arthur," he said, "our residence here in Corbin was attacked by thugs and then later by three mercenaries. They were almost certainly sent by Mayor Corbin who was very interested in detaining us for our services. What assurance can you give to say that Minmay will not do such a thing?"

There was a series of gasps and dumbfounded looks from the adventurers. Arthur and Chakim were staring at him as if Cato was an alien.

"What under the light of all Selna are you doing?" Landar whispered urgently.

"Why are they doing that?" Cato asked, watching them looking a little lost, "Did I just say something wrong?"

"You just accused Corbin of trying to kill us!"

"But she did do that, and those mercenaries are almost certainly hers too," Cato stated. There was another round of whispers.

Landar performed a very good imitation of a facepalm for the resident of another world. "She is a noble," Landar hissed, "you do not do these things!"

Oh. Hm, that might be a problem.
Arthur slid off his Reki slowly and stared at the young man, just out of boyhood. To presume to throw that kind of accusation indicated a spoilt young master of the nobles who thought his parents were all powerful. Or a total buffoon.

Then again, Arthur had investigated Landar before coming and rumours didn't place any sort of noble who had been attached to her.

On the other hand, Corbin had tried to kill them, so... hm.

Arthur backed up for a moment and took another angle. Why did Corbin want to kill or capture the alchemist? Clearly they had insulted or threatened her somehow, Landar's arbitration request had said they turned down a business arrangement with Corbin.

Or was it that Corbin simply had to have an arrangement with them or kill them? She was not known for such bloodthirstiness, even in the cutthroat arena of business.

The young man conferred with the alchemist in hushed whispers, with occasional glances his way. As if they were considering whether to trust Arthur.

"I can assure you that the Chancellor has no intention of detaining you. It is simply a friendly invitation to an associate," Arthur said, "Besides, could you tell me what you think Corbin is after?"

The young man talked more quickly then seemed to break off the conversation, "Sir Arthur, I believe in honesty when seeking to make allies. My best guess is that Mayor Corbin wished to detain us for our contribution to the various inventions you have heard happening in Corbin town. She seemed anxious to stop us from working with anyone else. Perhaps to the point that she would rather kill us instead when I refused."

So unless that woman staring angrily at him was just an act, that was probably as close to plainly stated as anything Arthur would be able to get. But if Corbin thought they were worth more dead than alive and not working with her, meant that she thought these two would help her enemies more than they would help her.

And her perpetual obsession was always Minmay. Hopeless in Arthur's view, but perhaps she did not know that. So, Arthur could infer that these two had some ability to help Minmay, as judged by Corbin. Provided of course that this young man was telling the truth.

"What is your name?" Arthur asked, patting the Reki, "and are you claiming that you are responsible for the iron bricks, tin food and the new cast iron?"

"I am Cato Lois, and I do claim so," Cato said.

A First artifact then, one large enough to yield the knowledge of iron this man was spreading around.

"It's not a cache of First knowledge," Cato said, almost as if he was reading Arthur's mind.

The situation was rapidly getting beyond what Arthur was allowed to handle, delegated power or no. But before Corbin could kill this pair, Arthur was sure Minmay wanted to see them and if there was any possibility of helping the Minmay household, Arthur was going to take it. After all, if Cato turned out to be lying, Minmay could always throw them back to Corbin's clutches.
"Very well, as Minmay's representative, I will have to ask you to back down," Arthur turned around and said to the adventurers gathered around the ruined house, "Minmay requests for a delay in the arbitration case."

The lead adventurer bowed to Arthur, "Yes, Arthur sir, we hear you."

With that, the ring of adventurers began to disperse, still whispering among each other about Cato. One group in particular was obviously hanging around to eavesdrop, but they wouldn't interfere any more. They didn't really have a choice, not with a Chancellor's political clout for a case involving his own vassal.

So it was down to Minmay and the Iris man now.

"Minmay appears honest," Landar nodded, "Arthur sir's word is almost as good as Minmay's himself."

"So how are we going to tell Chakim that we're not going to follow him?"

Landar responded by walking up to Chakim and pressing the small green stone into his palm. The circle of shields around her remained though, as they would until they ran out of stored power.

"Please tell my father that I will not be returning," Landar said, "not if he's going to send someone to pressure me into doing so. I am doing work too large and too good to stop."

"Your father will not be happy-"

"My father should worry about his place in the Iris clan than about one rogue daughter who can't live up to the Iris name," Landar snapped back, "he'll see, in ten years my name will be bigger than the Iris clan itself!"

Cato sighed and pulled Landar back. He was noticing that whenever her father was mentioned, Landar morphed into a rebellious teenaged kid. Cato didn't know what her circumstances were but her perpetual chip on her shoulder was too much like trying to burn a bridge that Cato wasn't willing to give up yet.

"I don't know her father," Cato said, Chakim paying attention to him now, "but surely he can see how much good Landar can do outside of Iris? Allow us to take the chance, we can improve Inath and Iris will benefit from her connection."

"That will not be for me to decide, my orders was to make sure Landar is safe and bring her back," Chakim said.

"I don't want to return! I get that you are here to protect me but I don't need that!" Landar stamped her foot, splashing rainwater over their shoes. "Or are you going to fight me? With Minmay watching us?"

Cato had to pull her shoulder again. This was getting a bit repetitive.

Chakim seemed to think so also, instead of shooting back he just stared at Landar's snarl for a long moment. "Then I will accompany you to Minmay's household," Chakim stated flatly, "the nobles are not easily trusted."

Arthur stepped up at that, "so I presume you will allow me to guide you to Minmay? I have a
carriage at the outskirts of Corbin, let us leave now before the news of this night reaches the ears of others.

That was as close to an acknowledgement of Corbin's guilt as Cato was going to get from him, hm? Cato nodded, "but first, I need to talk to a friend of mine."

"I see, so that's why you're in a hurry to leave," Kalny said, rocking backwards in his chair, "well, I wouldn't want to keep Chancellor Minmay waiting."

"Thank you for understanding," Cato said and turned to Danine sitting next to the table, "so it is up to you then, Danine. You can choose to stay here in Corbin with Kalny, the mayor won't target you. Or you can follow us to Minmay."

"I'll follow you!" Danine said instantly.

"This is not the same as Wendy's Fort," Cato reminded her, "will you leave Tam behind? What of those Fukas you are training in magic? You can decide to do so, but you must know what will happen to them."

She opened her mouth to reply again then paused. "I- I don't know," Danine muttered, "I didn't think about them. I just wanted to follow you, like I thought before."

"If you leave the Fukas, all the work you have done so far will likely be lost," Cato said, "they may even dislike you for leaving them, although you probably won't see them again."

"But if I don't follow you, how will I learn about magic?" Danine complained, "and I can't teach them what I don't know."

Cato smiled, "I don't want to bias your decision but Landar made this for you in case you decided to stay in Corbin."

He took out a slim paper book.

"I still don't believe this will work," Landar said beside him, "the idea that you can teach someone through a book is preposterous. I'll grant that you can teach a few ideas or things but an entire field of practice? Why, she won't ever learn magic properly!"

"So you have it," Cato turned back to Danine, "it's something of an experiment, but I believe it will work. Landar and I worked to write down the steps to using magic from the very beginning exercises. You will have to decide which ones you need more of, and you will have to observe how magic works to figure out how to use it."

The book in Danine's hands made the decision for her. "Then I will stay here," Danine said, getting up to bow formally to Cato, "the Fukas here are in your debt, Cato. Here and at Wendy's Fort. Thank you for everything you have done for me."

"Not at all," Cato bowed back, "your village took me in when I didn't know anything about this world, when I am a human under whom you have experienced prejudice and hardship. I hope you succeed in helping the Fukas here, and hope you remember your grace when you finally win."

Danine drew herself up and nodded eagerly. So that was one thing settled.

"Kalny," Cato turned to him, "the tin food carries a metal taste because I think the iron is leaking into the water in the food. In my world, we coated the tins with a waxy layer that I forgot to mention. I think it was meant to prevent this but I haven't come across any suitable material in Inath except the
wax of your candles. I don't think those are very edible."

"So you want me to look for this material?"

"Indeed, it will make sealing the tins easier too," Cato said, "in my world we grew rubber trees for the material but here in Inath, I'm not sure whether it exists or if it will be a tree."

Kalny nodded, "I understand. What are we looking for?"

"The sap of the tree is a milky thick fluid, almost like boiled glue. When dried, it hardens into a tough material that can be stretched without damage and repels water. Of course, you may not find it in the sap, and the fluid might not appear milky white, in my world, we had red rubber that came from a vine too," Cato said, "I suggest you send people to collect samples of every type of fluid from plants, including from pressing or grinding them, then send them to me in bottles with and without heating. I would also appreciate it if your people could note any observations of the fluids and a drawing of the plant itself. Samples would be best if you can manage it."

"What sort of plant?"

"Any sort. Everything," Cato said, "I know it is a lot to ask, but I think it is best to cast a wide net."

"I see," Kalny rocked back again, counting costs. Then he smiled and nodded, "I will arrange this."

With that settled, they got up to leave and Cato stuck out his hand. Kalny stared down at it then looked back up at Cato in confusion.

"It's a gesture from my world, of welcome," Cato explained, "we shake hands to say we understand each other."

Kalny grinned and clasped his hand in a large sweaty palm. "Then let us shake hands," Kalny said, "to better food and better profit."

The carriage was not any more comfortable than Kalny's delivery cart, Cato still felt like he was rattling around like a pea in a pod.

That was why he was sitting outside on the roof, staring up at the night sky. A sky that glittered with stars, free of the light pollution of Earth that obscured it.

"It's beautiful, isn't it?" Landar said, sitting next to him.

Arthur had declined to join them, sleeping inside the carriage instead. How he managed to sleep when the carriage went up and down all the time was beyond Cato.

"It may be," Cato said, after a pause.

"Do you not find it beautiful?" Landar said, pointing up at the sea of glittering stars, fading into the black night next to the bright red orb of Selna. It might be worth a picture or two back on Earth, an otherworldly night sky, but Cato didn't feel that.

Cato replied at length, "that sky is a mystery to me. You've looked at it for all this time you've grown up here but I didn't. Selna and its Little Nights always reminds me of how little I know this world. It's a miracle that I'm even alive, that I can eat your food and speak your language. Among so many other things that had to be the same between our worlds."
"That makes no sense. You're talking about..." Landar waved a hand as she tried to search for a word, "about how the world works? I mean, not like how the nobles work in your world or whether we bow or shake hands. Facts like people have to eat food is just...

"You got that right, I am talking about how the world works. Basic things like physics and chemistry," Cato said, "out of all possible ways that worlds could work, how is your world so different from mine and yet still the same?"

"I don't know what physics and chemistry are but how is our worlds different?"

"You have magic," Cato said instantly.

"Maybe you just haven't learnt how to use it?" Landar said, "Or your people are all like you, unable to use magic at all."

"It's not just like that," Cato said, thinking for a moment, "in my world, the study of physics of the very small scales can be described in simple rules. Of things called atoms and forces. I wrote one of my books on that, and even performed simple experiments, but they aren't conclusive. Two things told me that your physics is the same as mine, the carbon content in your iron to make steel and the making of soap from ashes and fat."

"But that doesn't mean you can't have magic that you haven't noticed."

"You don't understand just how much we knew of how our world worked," Cato said, looking down from the stars, "take the biggest ideas, like Newtonian mechanics. It explains why things fall down, how fast and how far an arrow can fly, and even the motions of stars in the sky. I've tried all the easy experiments and they all say that my world's understanding is the same here in Inath. " Cato paused, "only I'm not so sure of the last one now, a moon like Selna is impossible in my world. It's too big."

"How does that mean anything for magic?" Landar said. A small burst of magic and a clod of dirt flew up from the ground beside the road, floating in the air. She plucked a pebble out and threw it. "Without magic, pebbles fall down. Just because pebbles fall in your world in the same way doesn't mean your world doesn't have magic."

"We would have noticed," Cato said, "just not through Newtonian mechanics. I'm thinking of the way living things die here if you disrupt their lifeforce. Lifeforce doesn't exist on Earth. I'm not supposed to have one. And if everything here has lifeforce, then surely your biology is different, the chemistry of living things will be different. So why can I eat your food and get everything I need to stay alive? Are your animals and plants similar to ours except with lifeforce? But our plants stay alive without lifeforce, so how come everything here dies without one? Or perhaps, I am the one who is different. Maybe when I appeared here, I changed and now I have a lifeforce."

"Do you need lifeforce to survive?" Landar asked curiously, "if you don't, then maybe you haven't changed and your world just hasn't noticed because nothing there needs one."

Cato smiled at the observation. Even if she missed the finer points of scientific inquiry, Landar was clearly smart enough to ask the difficult questions. "Somehow, I don't want to test that," Cato remarked dryly, "that makes finding out a little more difficult."

They shared a quiet laugh. But it died quickly and the quiet night resumed.

The two people rode on in silence for a long while, with only the swaying of the driver's lamplight and the creak and bump of wooden wheels on rough dirt to accompany them.
"I never did ask about your time in your world," Landar said, "on Earth."

"What do you want to know?" Cato asked.

"I asked about what your world looked like before, but I also want to know about you. What did you do? Besides studying to be a materials engineer?"

"About me?" Cato leaned back against the rumbling roof and returned to looking at the strange stars. Where to begin?

"What were your parents like? I never hear you talk about them, do you miss seeing them?"

"You assume I have parents, perhaps babies in my world pop fully formed out of the fruit of a peach," Cato couldn't resist laughing at the incredulous look on her face, "no, of course not. I have parents, yes."

"That was quite too much for a joke," Landar rubbed her head ruefully, but she chuckled all the same.

"I don't miss them as much I thought I would," Cato said simply, "if you think it's cold of me, I think so too. It's not like I was beaten by my father, or abused. I grew up in a normal family. That means we get fed properly and go to school to get taught, by the way."

"That's normal?" Landar asked, "well, I suppose your world is rich enough that all the nobles could go to the Academy. Or you just have many Academies."

"School isn't like your Academy here," Cato said, "the closest equivalent we have is a university, where I was studying to be a materials engineer. Its certainly not a place where you send small children. I've attended school since I was six years old and I am almost twenty five now. This is normal for us, in fact, it is by law that everyone has to attend school until they are eighteen."

"By law?"

"And we don't have nobles, except in a very limited form. I'm not a noble either," Cato added belatedly, "when I said everyone, I meant everyone. There are some differences in the quality of schools you go to if you have money, but even if you can't afford to pay, school can be free. Of course, the free schools tend to be the worst but still."

"Free?!" Landar sputtered.

"Yes, free. And we do have a huge number of schools. Every town and village has at least one. Larger cities can have hundreds. But enough of my world, you wanted to hear about me."

Landar muttered furiously but inaudibly, then she visibly controlled herself. "Yes. So about how you don't miss your parents?"

"I don't really know why," Cato said, "but I've known this for a long time, that I wouldn't miss anyone. My university is outside the country I grew up in and I saw my parents only once a year. I didn't feel anything either, then or now."

"Was there anyone you might want to see again?" Landar asked, "a brother or sister, maybe?"

"I don't have siblings, my mother lost the ability to have children when she had me. Sometimes I think that's what went wrong with me, why I don't feel very much," Cato said, without a trace of the sadness one might have expected, "it's silly I know. But the fact is that I never did care much about
"Then why did you help the Fukas?" Landar asked.

"It would be a lie to say that I did that to help myself survive," Cato admitted, "but I still don't know why."

"Or you don't know what you yourself are feeling."

Cato shrugged, "maybe."

Silence descended but Landar didn't let it stay long. "Then do you ever think about going back to your world?" Landar asked.

"I used to think that, back when we were at Wendy's Fort. Inath is hot and uncomfortable. I could kill for a good bottle of Coke," Cato snorted his own joke that Landar couldn't possibly understand. "But no, I think I do like it here," Cato said finally, "if I had a choice, I don't think I'd go back."

"But your world has so much more than we do!" Landar cried, "you don't have monsters and you even grew up there! Do you not miss it or maybe you really do feel nothing."

"It's not that, I do miss the comforts of Earth. But I saw you making one of your specials, the aiming bowguns actually, and I thought that was what I was missing all my life. The look of single-minded concentration on Landar's face as she aimed and calibrated her spells on the bowgun turrets had been like a light bulb. As if something had filled a void that Cato hadn't known was there. Her cheer when she tested the complete setup and it promptly shot her in the chest, the blazing glow in her eyes when she had dragged him over to take a look. That was like seeing the quiet sense of accomplishment during his long weeks of working on the blast furnace compressed into a single moment, a spark of pure creation.

And Cato had been jealous. A biting envy where for one instant, he wanted nothing more than to take Landar's place.

"I think what I always wanted to do was to make something," Cato said finally, "something useful. I want to change the world for the better, to make an impact and to help do something great. On Earth, that's impossible."

"Why not?" Landar waved a hand nonchalantly, "it's not like it's difficult. You just have to get up and do something."

"How many people are there in Inath? A million? Ten million?" Cato shrugged, "there are seven billion people on Earth. A billion is a thousand million by the way," he explained to Landar's skeptical face. "So you think you're smart, yes? And maybe you think I'm smart too," Cato got a vigorous nod from Landar, "maybe even the smartest people through all of Minmay's region. On Earth, the number of people smarter than us outnumber the population of Ektal, perhaps even all of Inath. And I don't think I'm that intelligent, I was only average on Earth. For a doctorate student anyway."

He sighed, "so you tell me how people like us have any hope of doing anything truly useful? I've talked to mathematics professors who make me feel stupid and slow. They find answers to problems I can't even imagine, perhaps the best way for me to help is to polish his boots. Or those who can lead tens of thousands in a multinational company, engineers who design spacecraft or build skyscrapers, or famous film writers who are watched by millions. If there are ten thousand such people in the world, of seven billion others, what chance is there for me to be one of them?"
There was a harsh scoff next to him. Landar hopped up onto the carriage roof and stared down at him, her head framed by the red light of Selna. "You just do it," Landar said angrily, "it's not difficult to make something, why even you had new ideas the moment you saw elemental magic for the first time. And don't tell me you didn't feel a little bit inspired when you first learnt of magic." "Easier said than done." "That shouldn't stop you from trying," Landar cried, "I made a robot. Maybe it's not the most useful thing but it is something new. You made the blast furnace, are you telling me that's not useful?" "That blast furnace is nothing to us on Earth," Cato shot back, "there are thousands of them and they pour tons of iron every day. What I did is not special." "It is special here in Inath," Landar glared, "and I won't let you think otherwise." "And that's why I don't think I'll go back," Cato concluded, "here in Inath, I have a chance to do something. Here, my knowledge is useful and meaningful. On Earth, I'm no one." She had no reply to that, there was nothing she could say that wasn't already said. They shared a long look before Landar settled back down. Above them, the stars went by silently, uncaring for the troubles of little humans.

Below the thin wooden roof, Arthur smiled and nodded to himself, lying awake on the carriage bench.
The servant led away their Rekis and began to stow the carriage as they arrived. The large garden surrounding the stone house was of a completely different scale to Corbin's much smaller mansion. Servants and grounds workers moved through the afternoon sun, tending the lawn. A wide paved path ringed with flowering bushes and neatly trimmed grass lead up to the ornate front door, flanked by twin sculpted columns.

What caught Cato's eye was the windows. There was actual glass windows, and every one of them was arranged in a glittering artistic pattern of shards in a thin iron framework, displaying one picture or other.

Chakim and Landar pulled ahead with Arthur, Cato stood there and frowned. Landar turned around to look then followed his gaze to the windows. That brought the others to a halt.

"Isn't it hard to see out of those windows?" Cato asked.

"Better than wood slats," Landar said, "unless you think you can make wood transparent?"

Cato shook his head, "I mean the windows. Why is the glass like that?"

"Like what?" Landar tilted her head, not understanding the question.

"It's not flat," Cato said, "and those frames must cost huge amounts of money to make. I don't even want to think of the repair cost if someone breaks a piece."

Arthur bowed, "Chancellor Minmay has no lack of money."

"He would have more money if he had flat windows," Cato pointed out, "or more windows."

"Cato, you can't make flat glass," Landar said, "how would you blow a glass that was flat? Glass comes in globes, you know?"

They shared a look, then Cato's grin spread slowly onto Landar's face.

"I won't pretend to understand why you're smiling but please be invited to Minmay's household. The servants will show you to the guest rooms to wash and refresh yourselves. Feel free to partake of his hospitality. A Arthur waved them up to the front door, "if you wish, we can discuss more of glass when Minmay returns tonight."

They didn't bother to wait for Minmay of course. After a luxurious dinner that Cato tasted none of, Landar and Cato occupied the far section of the long dinner table, exchanging drawings and ideas as they always did when trying to work out the details of how Earth did something that Cato wasn't familiar with. There was no need to worry about someone stealing ideas, the chance that the anyone could understand all the parts was close to zero.

"Polishing always works, but it costs more than the windows themselves," Landar said.

"It can be left for the final stage," Cato said, "only if that level of precision is needed of course. But
to my knowledge, glass is poured or drawn, in the same way that we did for iron. The question is how perfectly flat glass is made without excessive polishing.

"Obviously the glass is made almost flat first," Landar observed.

"Use a mold," Cato said, "if you blow glass into a box shape, then each side is flat. Cut it out and make a window."

Landar frowned, "still too small though, and only one side will be flat. And it's hard to get a mold flat enough."

"You could pour it into a flat pan," Cato said.

"Perhaps," Landar said doubtfully, "we're not glassblowers and I think that idea must have been tried already. There's some reason why it doesn't work."

"We should just try it," Cato laughed.

"That's an interesting way you work," a deep voice from the door made them look up.

The voice came a well-built man, solid but without excessive muscles or fat. The light yellow hair peeled backwards over his head and a clear pair of blue eyes highlighted a face that perhaps could be called handsome on a good day. And to look at the way he stood, the man radiated a sense of importance, as if his body was loudly proclaiming that he was the most important person in the room. He even managed to make the formal fluttery lace around his neckline and cuffs look decent. Except when it was on the man.

"Chancellor," Arthur bowed from the side. That caused Landar and Chakim to bounce out of their seats and bow as well. Cato reacted too late and all he could do was climb out awkwardly and nod.

"You must be the alchemist I have been hearing about," the chancellor asked Landar, flicking out the creases in his sleeves with a practised shrug, "thank you for accepting my invitation."

"It came at the right time," Landar said simply.

"Very well, let us discuss this after I have washed and eaten. It has been a long journey for me too," Minmay said, looking over the crowded table, "Arthur, bring dinner to my study, I will need to talk to you as well."

The chancellor and his butler left the dining room, leaving only Landar and Cato among the servants. And half a table full of sketches and ideas.

"Tell me of them," Minmay said to Arthur, crunching down on a long stick of illon, "what happened in Corbin that you had to talk to me about?"

"The young man with the alchemist is named Cato. When I arrived in Corbin to deliver the invitation personally, their house was being attacked by multiple groups, at least one of which is the Iris man here. That man's name is Chakim. After questioning the pair on the behaviour of their attackers, I strongly believe that Corbin did target them to kill them and that Landar's statement for the arbitration request is largely correct."
Iris seems to think so as well, Chakim carries two summoning stones, Sword and Shield Wall. He claims that his purpose is to ensure Landar's safety and return her to Iris but I suspect that his instructions are less strict on the second point. Chakim clearly caved to Landar's well known disagreement with her clan and fell back to escorting her here.

There may be political issues with Cato. He unwisely voiced an accusation towards Corbin in front of a response party from the order of knights. "

Minmay nodded, drinking down a bowl of soup, "a good summary. But who is this man? I had not known that Landar was working with anyone. And from that discussion I overheard from outside, I think Landar is the weaker party. "

Arthur paused significantly, "I do not know, sir. I overheard them talking on the way here, when they believed me to be asleep. Cato claims to be from another world and Landar believes him. From what I heard, Cato believes in it too. "

That got Minmay to put down his spoon and pay close attention. "Really?" he asked. Arthur nodded. The chancellor frowned and stood up to look directly at Arthur, "did he say that? Specifically say that he came from another world?"

Arthur nodded again, "he said that he came from a world called Earth. "

Minmay froze for a while then looked up at the ceiling. "Among us nobles, talk of a certain Hero has been all the rage of late. One that Queen Amarante of Inath had summoned from another world, claiming that he will find the Legendary Sword to win this war against the monsters," Minmay said slowly.

"If she could summon one person, she could bring more," Arthur said, "could Cato be one of them?"

"It is said that there is only one place a Summoning can be done, and that place is First Landing. I doubt any summoning there could be done without Inath knowing about it," Arthur said, "and Inath's queen would not keep quiet if she summoned a second Hero. "

He thought for a long while then nodded to himself, "Don't spread this too far. Cato has probably talked about it before so the secret is already out. But I'd rather not the Inath court find out about this too soon. "

Minmay sat back down to finish his dinner and waved for Arthur to continue, "tell me more about this Cato. "

Minmay entered the dining room to find even more paper spread over the main table. It wasn't the disorganized mess that he had found when he first got here. There were three distinct groups of papers, multiple sheets stacked together into sub groups. It was all very organized and deliberate. Two servants were standing next to a half-filled box of paper that had obviously come from their luggage.

He looked up at the lanky young man who had sprung to his feet, faster this time.

"I was going to ask more about Corbin but I think you have something you want to say," Minmay indicated the papers.

"Indeed," Cato waved at the chair opposite, "if you would take a seat, I will give our side of the
story.

The alchemist and the man sat down in front of their papers, Minmay sat opposite them. They were clearly prepared now and Minmay prepared himself for a well-told account. If not outright lying, most people naturally distorted their version of the events.

What Minmay got nearly blew him out of his seat. The idea that this one man had been behind all of the recent inventions of the merchants in Corbin and Selabia was preposterous on its surface. He had not known politics for over three decades for nothing though, Minmay made sure none of his mounting surprise showed on his face.

And that was just the first pile of papers. Minmay also suppressed the desire to ask what the other two piles were for.

"So you claim this is how cast iron is made?" he asked the young man and got the expected nod. It was either an extremely elaborate lie or... or this Cato had somehow stumbled across this treasure trove of knowledge. Or knew it from his past world, if that man's statements could be trusted on the matter.

Minmay couldn't verify whether the things in the diagrams would do what Cato claimed they would, but the drawing of the blast furnace and tinning process had a solid attention to detail that made Minmay think it was real. Quacks tended to have more hot air and less down to earth specifications of materials. And besides, the cast iron and tinned food were real enough to touch.

"I am inclined to believe you," he said finally, after inspecting the small stack of paper Cato had given him. "It explains why Corbin would want an exclusive agreement with you. And try to kill you when you wouldn't agree," Minmay leaned back to digest the new perspective. It all hung together. "She was ever so ambitious for my place and it's a simple fact that Minmay is bigger than Corbin by far. Your inventions would benefit me more than her, if she could not monopolize you for herself. And I could believe that Corbin is crazy enough to try kidnapping you to work for her."

"And will you do the same?" Cato asked.

His tone was light, but Minmay could see the tension in the Iris man standing behind Landar. The had been silent throughout the explanation but at Cato's deceptively light words, Chakim was suddenly exuding an aura of danger.

"With two Iris next to you?" Minmay smiled and waved a hand towards them. Even Landar was looking a little jumpy, "I'm not suicidal. But that brings me to my point. While I'm not about to threaten you into working for me, we are going to need an agreement if we want to work together. I won't stop you from going back to Corbin if you want."

"That's still a threat," Cato pointed out.

Minmay merely shrugged. That was true of course, but one did not live in this business without using cards dealt so fortuitously.

"Here's what I think," Cato said, "I won't agree to exclusivity, but I am interested in making sure some of these inventions get implemented. So if you provide a good platform for me to spread them, then we won't need an exclusive agreement."

"You do realize I'm not a merchant, right?" Minmay said, Cato had only dealt with merchants before and he didn't know that nobles like Minmay didn't usually have business enterprises. For some reason, noble owned enterprises were invariably loss-making. "So, you're asking me to subsidize
these ideas,” Minmay said, "how much are you asking for and what do I have to gain from that?"

"You gain by improving the amount of taxes you collect," Cato said instantly, "if every farmer who adopts new methods grows a third more food, then your collected taxes from them increase by a third as well. As for what it will cost you, not that much."

Minmay watch him finally draw a few sheets from the second stack and took it from Cato. There were drawings of a few contraptions, one of which seemed to be for distributing seeds. Two of them though appeared completely abstract, with symbols for something written over them.

"To implement those will take time and money, perhaps a month to design and test. I don't think the cost will be high, ten Rimes could be more than enough for my experiments," Cato said, "what will cost you more is to find a carpenter or bronze worker who is good enough to make it. And convince them to do something they don't have experience with."

Minmay snorted, "I'm the Chancellor. If I give a blacksmith money to make something, that he will do. If not for the Nurren Agreement, I might not have needed to pay at all."

"Excellent," Cato said, "then simply, what I'm asking for is money and influence."

"I shall want a special tax on what you earn," Minmay said, "half will do quite nicely."

"One quarter," Cato replied, "and be warned that I won't earn the benefits for most of what I do."

"In that case, I will take one third and no lower," Minmay said, "I have to get some benefit."

"Most of the arrangements I have with the merchants in Corbin and Selabia were not negotiated with that in mind. I can't agree to that."

"How about this, then? One third of all your earnings from contracts made during our agreement. Any contract that you negotiate with my influence and money, I get a third, and of course, once I publicize that I'm backing you, that will be all of them. Of course, I will have a representative to... help negotiate those contracts so you don't ask for too little, I'm sure you understand."

"Reasonable," Cato admitted. He thought for a while, then asked, "You're really sure you're not even going to push for an exclusive agreement?"

"You wouldn't agree," Minmay said, feeling a smile on his face, "besides, Minmay really isn't the biggest place in the world, despite what Corbin thinks. And I've got myself covered, what with you paying me a third of everything you earn. If that's going to be everywhere in Ektal, why, I might even get to pay for Muller's bridge out of my own pocket. " Carefully now, Minmay suppressed a gulp of tension, hoping that the man would accept that he had been tricked. If mildly.

Cato grinned and then finally laughed. "Indeed, I didn't notice that you did say 'all of them'," Cato nodded, "I can still live with that. " Thank Selna for that, Minmay allowed his legs to fidget a little in relief. He knew the man would not keep the agreement once his name was sufficient to stand on its own but Minmay could benefit immensely from this in the meantime. Being the first person to have all these inventions might catapult Minmay into direct competition with the capital Ektal itself.

"You see, you don't need an exclusive agreement," Minmay chuckled, "just apply a little creativity and you can get the benefits even if your client is helping other people. Corbin did always run a bit short in that department."

A joke at the expense of an enemy always went down well and Cato chuckled together with him.
Time to get to the hard part. Minmay leaned forward, "so, just what are these inventions are we talking about for me to sponsor?"

The talk dragged on and on. Long past sunset and into the depths of the night. Candle after candle was replaced as each burned down, water and other refreshments were brought by the servants to keep tongues wet and lips moving.

Throughout the time, Cato showed and explained page after page of notes. A diagram of a seed plow, a drawing of a water turbine or perhaps a bicycle. They were never the same, never repeated. And he mixed in the occasional off the wall idea from the third much smaller pile to keep things interesting.

"And you want me to sponsor an expedition to the Snow Wall up north to find what, buried magical crystals?" Minmay asked incredulously, "no one's ever found magical crystals in the ground."

"You do not hear me wrong when I say this is perhaps the most important point," Cato said, "why I left it for last."

"But magical crystals," Minmay shook his head wearily, then looked at Landar, "have you heard anything of what he's thinking?"

"Not that I know of," she replied.

"It's not just crystals," Cato said, "I admit, magic crystals is just an image I had, but I am looking for natural magic. Anything magical that happens without the presence or activity of people."

"The monsters?" Chakim said, one of the rare times he spoke up.

"That's a different subject," Cato shook his head, "not them."

"Why not? They are magic that happens without people," Landar said, "for that matter, we know a number of plants that do give magical phenomena. Dewdrop trees, for example. But those plants are not safe to be around either, they're like monsters that can't move."

"How do you fancy trying to capture monsters?" Cato asked Minmay, "I would like a chance to study the monsters too, but I don't think keeping large numbers of them is very healthy. Nor is farming dangerous magical plants."

"It's an odd request, for sure," Minmay frowned, "normally, adventurers get asked to find and kill them. Not bring them home. Why would you need large numbers anyway?"

"I don't," Cato clarified, "not to study them. Of course, the more samples the better, since we have no shortage of lethal test ideas. But the numbers I would need for this idea would be like building a small city of monsters. I don't like that idea and neither will anyone else."

"What exactly are you trying to achieve here?" Landar asked, "you've been dancing around the main purpose of this search. What do you want magic crystals or natural magic for?"

Cato took his time to compose his reply, and when he did, his tone waxed didactic. Landar knew better than to interrupt him when he got this way, Minmay would just have to learn.

"Take your idea for improving the bowgun's power. Using the bowgun to generate a field of magical acceleration to make the bolt move faster and correct its path is a good one, I'll give you that Landar.
The downside is that we need an expensive magical enchantment on the bowguns, which have to be made of iron or steel, and even so they'll run dry of magic within a few shots. Another example is the magical cart. Carts are big, but if you want them to keep moving, you need to use a lot of magic. They'll run dry inside an hour.

I didn't introduce these ideas not because they are hard to build. They're very easy to build actually, Landar can build and test a prototype in a few days. The problem is keeping the carts moving or the bowguns shooting, without a mage standing behind using their power to feed it. You might as well ask the mage to move the cart for you. And mages have limits to their power, Landar tells me that people regenerate their magic within a day or so, so the maximum sustainable magical consumption per hour is the mage's magical capacity divided by 15. Assuming six hours to rest. I doubt mages will be cheap to hire, nor will they appreciate ending every day completely drained of magic.

I've done some estimates, not even Landar can keep an upgraded bowgun firing continuously and she's an Iris. No one in Inath will be able to run a cart for more than a short time. So how long do you think it'll take to fill the cart with magic? Will you spend two days of magic to make a cart move for an hour? I don't think that makes much sense."

Cato looked around and saw that both Landar and Minmay were frowning. Good, they got the point.

"We have problems with density and power. The main problem with using magic like this is that we cannot store magic with alchemy at a density enough to power them for a long time, and we simply don't have enough power to store. Magical materials can help with the first problem and I have my own ideas. But storage doesn't help if you can't generate the magic you need. We'd be stuck using magic in applications that don't require ongoing usage like Water chemistry and composite materials. And even there we'll be constrained by the number and cost of alchemists.

Landar gave me the clue the other day, when she told me that she could reshape existing enchantments and spells. While alchemists use this to recycle or repair old items, you could use it on items that other people had made. I know, asking other alchemists to make items full of power that do nothing just so you can drain it for your project is seen as a failure to be powerful enough. But the idea has more than one use.

The answer to our power problem, of course, is the natural magic. Find magical crystals or some form of magic that doesn't require people to make, then have alchemists refine that into magical power stored in an item. No need to pay for huge amounts of magic. Or better still, make an item that does the refining then have untrained recruits use it, then you don't even need to pay an alchemist!"

Landar stared at him with an open mouth. For that matter Chakim had that fish out of water look as well. Minmay didn't, he was staring at the sheets of paper spread over the table, no doubt thinking which inventions would get sudden new ideas on top.

"You see why I didn't want to use monsters as a source. Sure, they have magic and no one will complain if we farm monsters, not on ethical grounds anyway, but monsters are subject to the same limitations as people. You need to feed them and grow them and still only have about as much magic as mages do per monster. And it's not safe, that's also important. Only non-living sources, especially magical power that has been collecting for a long time, will have enough power for what I'm thinking of. If we're lucky and the source is big and renewable, that'll make all these other ideas look trivial. With enough magic, most problems become a matter of cost."

"So why the Snow Wall?" Minmay asked finally.

"Actually, we need to look into the sea too," Cato said, "the reason is simple. Since no one has heard of any natural magic, outside of limited cases like the dewdrop tree, it clearly doesn't exist where
people normally live. So you need to look where people don't live. Or look in ways that people don't normally do."

Minmay nodded. Then he frowned. "What happens if we don't find any?" he asked.

Cato sighed, "then we either risk breeding monsters for magic or try this other idea I had."

They gestured at him impatiently to explain.

"The main problem with using mages for power is that we don't have enough mages. That's why magic is expensive. Mages are trained to be good at magic, not just powerful. That training is expensive and personalized by masters for their apprentices," Cato turned to Landar, "remember our discussion about teaching large groups of people? You told me that they wouldn't learn enough to become full mages. But what if you didn't need fully trained mages or alchemists? What if you only want to teach them how to use one spell?"

Landar frowned, "if the spell is very simple and they were content with learning it much slower than any student. Maybe."

"But you could do it, right?" Cato nodded at her, "if you had to teach thirty students how to channel mana and create a single spell, you might be able to do it in a month?"

"It would have to be a simple spell. They would be weak and wouldn't even be able to use it properly," Landar shot back, still frowning.

"That's all right, they'll get plenty of practice," Cato said, "the spell I'm thinking of has only one requirement, that the magic used in the spell does not degrade over time. At this time, we only have alchemical enchantments, can you turn an alchemy enchantment that does nothing into a spell and just teach that?"

Landar's frown deepened, "I don't like the idea that you want to turn alchemy into a rote thing that students do over and over again. Alchemy is more an art than the fixed formulas of battle magic. And battle magic isn't very fixed either. What you're asking me to do is to bastardize the entire process of learning magic into something... something flawed and useless."

"But it can be done, yes?" Cato pressed her. She nodded reluctantly.

At this point, Minmay's eyes lit up and he leaned back into his chair with a quiet smile on his face. He knew where Cato was going with this already. Landar still couldn't see it though.

"Then this is certainly possible," Cato declared, then looked at Minmay, "Sir Chancellor, how many people are there in Minmay who cannot use magic?"

"There's perhaps a hundred thousand people in the Minmay region. Almost all of them cannot use magic," Minmay said, still smiling.

"Assuming all of them can channel enough magic as a third of a knight's power, and all of them use all their magic every day on an alchemical spell, and you collect half of everything produced as tax, how much magic would that be?" Cato said, acquiring a smile himself, "and with that much alchemical magic on the market waiting to be drained, I doubt the taboo will live very long. Nor the cost. Now imagine all of Ektal, nah, all of Inath was doing this."

"A Mana Tax," Minmay nodded, stroking his chin, "I can see the merits."

"It's not as good as a big source of natural magic," Cato warned, "in the end, it's still powered by
people, but even if we set out to search for natural magic, we may not find it for a long time, if at all. A strong trade in stored magic will let us build up the infrastructure and skill to use a large windfall of magic efficiently, instead of letting it rot in a warehouse. Teaching shouldn't be a problem because your citizens will teach each other, they only need to know how to do one spell properly after all."

Landar could only sigh. Minmay however smiled tiredly, "I listened to you expecting a better way to make steel and new farming ideas to try. I didn't expect you to also try to rewrite how our entire society will function."

Cato raised an eyebrow. So he had seen that far ahead? Chancellor Minmay was yet another example of not to underestimate the intelligence of Inath people. Landar just looked confused, clearly economic consequences were not her forte.

"Imagine what happens if you teach a bastardized magic to everyone in Minmay and some of them decide to study further into say, battle magic?" Cato said, "Or that all the poor downtrodden peasants or unemployed beggars on the street learn how to use magic and can sell enchanted rocks to the alchemists for money? I don't think your peasants will stay peasants for very long."

Landar and Chakim's jaws were almost hitting the floor. Landar's expression got more horrified the more she thought about it, muttering to herself, "and even if they only practice one spell, that's sort of a strength exercise. They will not be weak for long, even if they can only use one spell. And once someone solves the problem of how to make alchemical enchantments absorb other enchantments for power without an alchemist, you can make wands recharge! From peasants! And they'll have the money to buy fireball wands! The very thought of it!"

"That's an idea I never thought off, and it could make life rather complicated. On the bright side, it should solve the zombie problem quite nicely," Cato said, "You see, Sir Minmay, I did say I was saving best for last."

Minmay shook his head and sighed, "I must say that you certainly aren't boring to be around."

Cato smiled back, "I at least try to be mildly interesting."

Chapter End Notes

If you were Minmay, which of these ideas / inventions would you focus on first?
Pick your top three, at least one from each of the two lists. Or if you think much slower progress is acceptable, you can pick more, but keep in mind that Minmay's funds are large but not unlimited. Note that I didn't list all the benefits or drawbacks of each, this is not a prediction, only what Cato has said in the long talk.

Farming - NPK fertilizers, soil pH, irrigation pump, seed plow
Steel - Bessmer Furnace, steel alloys, high/low pressure vessels
Re-inventing flat glass, printing press - telescopes, newspapers, consumer publishing
Machines - Water turbine, bicycle, re-inventing steam power (needs steel)
Magical Weapons - Improved bowgun, spellstaffs (multi-spell wands with central pool of power)
Capture a monster - ???
Standardized Process - interchangeable parts, quality control, SI units
Chemical and physics lab - basic electrical power (battery, wires, magnets), re-inventing
gunpowder, Elemental Water chemistry
Microbiological lab - better alcoholic drinks, antiseptics, attempting to re-invent antibiotics (long), study of lifeforce
Investigation into types of elemental magic - ???
Investigation into Em magic - ???
Financial reform - limited company, fractional reserve banking, fiat currency (slow)
Compulsory education - Mana Tax
Derivation of mathematical constants - pi, e, the Normal distribution formulae (statistics)

Reminder of the Current Projects: (for you and me)
Tinned Food - searching for rubber (and other useful plants)
Paper Mill - water powered machinery, production line
Blast Furnace - new competition for Corbin branch Ironworkers
Iron Bricks - cement (synergy with Elemental Water composites), iron/steel rebar, iron/steel-framed construction
Expedition for Natural Magic
Danine looked up from the magical strength exercise to see one of Tim's friends running along the roofs. Hrm, Amra, yes that was his name.

"Danine!" he shouted across the alley gap, right before jumping across, "look at this!"

She kept the large ball of unformed magic hanging above her palm and just nodded at him to continue. The strain on her magic was already making her feel sleepy but she could hear him out. Danine hoped she wouldn't suddenly fall asleep mid-conversation.

"See what I found!" Amra held out a fist.

Danine stared at it stupidly for a few seconds before realizing what was strange. His fist had magic inside it.

That wasn't an exercise she was taught nor read in Landar's book on magic. Magic always existed outside of people's bodies, you couldn't push magic into people because you hit their lifeforce first. The book was pretty clear on that.

So how was it that Amra had a bit of magic inside him? Danine put away her training exercise and looked more closely, trying to figure out the structure.

She couldn't do it, the structure was ridiculously complicated, more than even the large gem Landar had shown her on the way to Corbin. And it wasn't like normal structure, the magic flowed and divided and subdivided in a disturbingly organic fashion, unlike the rigid lines and forces that Landar's exercises taught. How could Amra even use magic so complicated when no one, not even Danine, had managed to do much more than launch the simplest crudest magical bolt? Magic more complicated than even a Summoning Stone itself?

All Danine managed to get from it was that the magic was blue.

"What is that?" Danine whispered, wanting nothing more than to know where he learnt that from.

"I already figured out what it does," Amra said, opening his fist and taking her hand. His hand was cold to the touch, a chill that abruptly stopped halfway up his wrist. A chill that spread to her hands solely because he was holding hers, not like sticking her hands into a chilling spell.

She explored the magic for a while then nodded at Amra, "you can turn it off now."

His expression seemed to relax and Amra shook some life into his cold hand. The Fuka boy grinned at her and took her hand in his still clammy fingers, "please don't tell the others I can do this, I want to keep it a secret."

Danine was too surprised to take her hand back and just blinked at him, "why not?"

"I can teach you how to do it, I'm sure we'll find it useful," he stood a bit closer, "it can be our secret. A special ability just for us two."

Danine raised an eyebrow. That made no sense, she had gathered the Fuka children to form a... to defend each other. What was the point of keeping this interesting discovery a secret?

She said as much.
Amra looked closely at her, still holding her hands, then he sighed dramatically, "all right, if you say so." He only made her even more confused by letting go of her hands then sitting down on the roof and looking out over the town.

Why was he disappointed? Danine couldn't quite figure out what was going on. Amra looked like he might even be sulking! Over her not wanting to keep a secret that wasn't a secret!

"What's wrong?" she asked, feeling a little concerned at his weird behaviour. Amra had always been rather distant at their gang meetings, er, training sessions. While he turned up for every single one, he always kept quiet and never talked to the others. Now he was being unusually touchy.

He just shook his head then sighed again.

Danine decided right then that she couldn't be bothered dealing with this when there was a tantalizing piece of magic dangling in front of her, waiting to be learnt. He would probably recover from his funk or whatever spurred on this bout of unusualness.

"So, how does it work?" Danine asked, sitting down beside him.

Amra looked confused, then flustered. Then after a long moment of staring at her strangely, he held out his hand again. The magic spread across it, shifting under his skin at a lower power.

"You know how you taught us magic?" Amra started, "you said to extend a part of ourselves out of the body to where we wanted the magic to appear."

His strange magic disappeared. She could tell he was concentrating but there was nothing appearing. "Then we do something like this. " They didn't have the words to describe what was going on, but Danine knew the process. It was a bit like flexing a muscle, only they did it where they wanted the magic to appear. The harder you did so, the more power you used and the more magic appeared. With practice, you increased your pool of magic, the total magical strength you could exert at any one time and your control over the magic.

Amra followed the exercise and a small blob of magic rotated in the air above his palm. "The thing is, the magic here in this ball is just a thing. We have to... push it around, like we are holding a real ball. The hard part was making them structured. Or coloured as we see it."

Danine nodded.

"So I thought, what if instead of making the ball appear then changing its colours, we just... make the colours. I couldn't do that, but what happened was this," Amra waved the ball of magic away then replaced it with the same pulsing lines of complexity Danine had saw.

"It wasn't what I wanted but it was interesting so I practiced making it appear, just to be sure. I think it's not a mistake, it's a magic that we can use," Amra said.

Danine frowned and tried Amra's idea. Extending her magic was almost easy now, but trying to purify the colour without any magic to purify? That was something she hadn't managed to do.

A flash of red appeared in her hand, a tiny spark of magic. Danine blinked in surprise. She concentrated again and the red appeared once more, solidifying as she grasped the concept. It really was like suddenly noticing a third arm she had always had.

Danine blinked and looked up at Amra. "It's that easy?" she asked, getting a nod from him.

"I only noticed this yesterday," Amra said.
A pulse of magic lines was moving inside her hand in time with her focus. Now that she could make the magic appear to her magic sense, she noticed that it moved under her skin to wherever she was extending her magic, in the same way she did when she was trying to cast a spell. She pushed more magic down the complex mesh of magic, wondering how far her control extended with this new application.

Her hand stung and then she was hopping around, trying to wave the heat away from her hand. Ow! It was like putting her hand into a fire!

Some minutes of panic later, Danine flexed her sore fingers in wonder, a cool blue glow of magic inside it taking away the burning heat like a welcome splash of water.

"This is incredible," she said, grinning at Amra, "it's so easy! I don't even have to practice to get this!" She demonstrated by moving the magic up her arm and around her neck, then down to her feet. Faster and more fluid than she could manage any sort of spell.

"Do you know what it is?" Amra asked.

"Landar's book didn't say, nor did she mention it," Danine said.

"So I discovered something the humans don't know?" Amra asked in disbelief.

"Maybe," Danine's grin got wider, "we'll get to give Cato a surprise then! If the basic functions work the same way, then I can think of some things right away!"

She flipped the colour to a solid green on her hand and immediately felt her hand become slow and heavy. The Resist magic nailed her hand to the air, making all movement difficult, even falling. Yep, exactly the same. Danine poked at her hand curiously with the other.

She blinked then turned to Amra, a wondrous feeling bubbling up inside her. "I think this is the key," Danine said, "your discovery will let us handle the Red Water gang."

"What?!" Amra said, shocked at her sudden statement.

"Take my hand," she said, expression becoming serious. Danine pushed her magic down to her hand again and he reached out, putting one hand above hers. Then he jerked away in surprise.

Her skin was as hard as rock.

"How's the evacuation?" Morey asked, putting down the two steel staves on the ground.

Ereli didn't raise her head from the table. She just murmured a negative.

"That bad huh?" Morey looked around the tavern. One would not have thought this was a village in the path of a huge army of zombies, judging by the crowds of people crammed into the tavern gawking at him. Every seat was full, except for the Hero table, which was right in the middle and permanently reserved for their use.

Honestly, he was starting to get sick of this worship. The Hero's table, the Hero's room, the Hero's... Morey looked down at the plates they doubled as paperweights for the map. Hero's cutlery? Surely not... right?

"They don't want to move," Ereli explained, "they think the Hero will save them."
"The zombies will get here a day before the nearest army unit!" Morey cried, "surely, anyone can understand that five people can't hold off an army?"

Ereli gestured at the people surrounding them. They surely hadn't missed what Morey was saying but no one seemed to be surprised.

"No one wants to move because they think we can hold off the zombies," Ereli said, her voice flat and exhausted, "you are the Hero, of course the Hero will win. It will be a glorious battle, perhaps a good time to have a picnic."

Morey picked his jaw off the table and rubbed his eyes. He should have expected this. There had been all the signs of Hero worship since he arrived, they even tried to lay out a red carpet using flower petals. When the nobles wanted to know how Earth treated its nobles, Morey should have just shut up. He had spent nearly an hour talking the villagers out of it.

Despite that, there were still no decent toilets. Heroes using the toilet was not part of the image.

"Try harder," was all Morey could say. And nodding futilely was all Ereli could do.

"So what about the defence?" Ereli asked finally, "should I come help?"

"Can you even help?" Morey asked bluntly. Ereli hung her head sadly, "but I still want to..."

"You're helping enough just by filling these," Morey reassured her by indicating the two steel staves he had put down next to the table. Spending the cost of steel for two long rods the height of a person was a waste, but steel could contain a bit more magic than iron per weight, so the staves could be smaller and lighter. As it was, the two hollow staves were already half Ereli's weight. Morey had to constantly remind himself that Ereli was tougher than she appeared.

"But that's just a strength exercise," Ereli complained, "all I do is fill these with magic every day!"

"And that helps us go much faster," Morey said, "we completed two rows today. It would not be possible without this huge boon of magic you give us every day."

"But still-"

"You'll get your chance to help when the zombies come," Morey said, "we'll be relying on Grand Cross to deal most of the damage."

Most didn't mean all however. Over the next week, the villagers became increasingly curious as to what the Heroes were doing on the nearby hill. For all they knew, it looked like the Heroes were planting magic items in the ground like crops.

The alchemist Locoss would draw off a sliver of magic from the steel staff and pack it into a pebble. Then Nal would bury it. Then they moved on to the next spot in the row. Meanwhile, Etani would examine the freshly buried pebble and wave some flags to Morey, who was standing in a big open field of wind eyes. Morey would then pace up and down until Etani waved for him to stop and then he would plant a stick into the ground. And thus the field began to slowly fill with sticks sporting little coloured pieces of cloth.

From Etani's perspective however, the pebbles were the size of human heads and each time, Locoss would enchant the rock to a pre-agreed magical power level then set it firmly into the hole dug to hold the rock and a clay bowl of water securely. Then Etani would take the curious metal device
Morey had given her, called a slide rule, and would sight along the direction the spell would fling the rock and then get Morey to move to where the device said he should be.

What the entire charade was for, Morey hadn't explained fully, but she was given to believe that the enchantments on the rocks would shoot them to approximately where Morey was planting his flags.

This was apparently something that his world had done before and after a few experiments on rock flinging, Morey had come up with that slide rule.

Locoss buried the last rock and nodded at her. After Morey had marked another position, Etani raised the black cloth to signal the day was over.

"Do you think it's enough?" she asked Morey as he came up to her to survey the work.

"The hunters are saying we still have another day before that field gets crushed by tens of thousands of feet," Morey said gesturing at the widely spaced flags waving among the wind eyes. "I think that's enough layers," Morey added, "it better be."

At least Nal was doing something they were sure would work. This rock flinging exercise was something that had never been done before and Locoss was left scurrying around trying to fulfill Morey's orders on making magical enchantments with exactly the same amount of power. The poor girl had tried her best, even practicing her art over and over into magical exhaustion without a word of complaint.

The five people standing on the crest of the hill was a pitiful force, but one wouldn't have noticed it from the makeshift banners and cheering that came from the village's walls. Despite his best efforts, Morey hadn't been able to make the villagers evacuate short of using force. And now the zombies were here and they simply had to defend the village.

"Why won't they understand?" Morey complained.

"I must still disapprove of this battle plan," Etani said, "noble or heroic doesn't help you if you're dead. We should run if the zombies become too overwhelming."

"But then all the people will die!"

"They didn't listen when we said we couldn't protect them," Etani replied, a tinge of frost in her voice, "as much as I would like to end this war without dead people, I am afraid that is already impossible now. You shouldn't throw away your life protecting these villagers, the Hero is worth more to Inath than a few hundred peasants."

Morey wanted to reply but Etani's assessment was correct. Cold, but correct. These four girls had been presented to him as Inath's best mages in each area of magic, they were practically indispensable for the war effort. Morey couldn't honestly count himself as necessary, but to lose these four would be like losing an entire company of soldiers. Not that Inath had a professional army with organized units.

When Locoss joined, Morey had suddenly realized that all four were girls around his age, even if Nal looked doubtful. And they pretty too. That was just a tad suspicious. But their skill was real and the five of them had a combat performance that was among the best adventuring parties.

But there was something morally wrong about running away and saving yourself when the entire village was going to be slaughtered. Morey's decision to intervene when they intercepted the
messenger had been strongly protested by Nal and Etani but his position as the Hero was quite useful in these matters.

There was movement at the horizon, a thin black line appeared above the gently rolling hills. The Enemy was here.

And the host of zombies grew and grew, seemingly without end. An endless black tide of misshapen bodies and patchwork abominations that pounded the grassland into brown dirt.

The movement of the zombies was predictable, they headed for the village straight as an arrow. And they ran into the first set of defenses.

With great roars and flashes, the ground itself seemed to reach up and swallow them, tossing broken bodies into the air to land as a rain of tortured flesh and soil. The huge boulders Ereli had filled with magic and that Locoss had turned into explosive bombs were now making their mark once the army of zombies reached it. Once any erosion of magic occurred from the dark magic around the zombies, or the rocks were touched by the zombies, the enchantment dumped its entire power into the rock, shattering it and sending fragments scything outwards in all directions to mow down zombies like wind eyes under a blade.

The zombies didn't care, they simply marched on, absorbing the losses. The black tide was not even stemmed in the slightest, the shattered zombies simply pieced themselves back together and marched on. The zombie magic came into sensing range, even at this extreme distance. It loomed like a dark cloud, diffuse and wispy but no less immense for its sheer size.

Then as the front line touched the edges of the cultivated fields, Morey launched his main defense. The red flags were the outermost and at the longest range. He waited until the front had went past it until they almost touched the second yellow line before nodding to Locoss.

Locoss nodded back and bent down to touch the thin red thread connecting the rocks. As one, the rocks launched themselves off the ground into the air towards the zombies with huge bangs and cracks. The ground churned upwards under the explosions of superheated steam as the enchantment in the rocks dumped their heat. Morey was quite sure that heat magic was more efficient than movement magic, judging by how easy it was to heat water.

The near-simultaneous explosion made them all jump a little. Even battle hardened Etani flinched at the wall of sound and the sounds of cheering from the village wall behind them was stilled. A steam explosion from a single rock was one thing but to have fifty go off all at once was quite another.

The accuracy wasn't quite what he had hoped for, but by now the zombies had overtaken the expected kill zone they had taken two weeks to refine and prepare. The rocks tumbled downwards like cannonballs then, right on at the set time, the same movement magic used in the boulder mines shattered them into a cone of shrapnel that shredded bodies and shattered bone. Huge circular holes appeared in the formation, there would be no reanimating those zombies.

Some rocks had exploded early, their shards spread across too wide an area to generate sure kills. And some never exploded at all, smashing a few zombies into pulp but leaving those to either side untouched. This level of success would only have been possible with Locoss's skill in alchemy though and for a while it seemed like the tide could be held back. The cheering started again once the rolling thunderclaps of exploding rock had quieted down.

The advanced faltered as the zombies in front halted, waiting for those behind to catch up. Then, as one, they moved again, a clear line of the dead marching forward as if at a drill parade. The feeling of their magic was buzzing higher and higher, but Morey put it out of his mind. They had crossed the
second yellow line far enough. He nodded at Locoss again.

Etani’s hand creaked on her warhammer as another line of holes appeared in the formation, more accurately this time. The second line had been used and while hundreds upon hundreds of zombies had been mashed like so much rotten fruit, there were still countless thousands. The third and last line tore savagely into the densely packed formation, the holes now overlapping into zones of total destruction.

It was clearly not enough. The zombies were visibly thinned, but there was still a huge army. From the start, it was pointless to have them fight the entire army by themselves. A good quarter of the zombies had already been felled, an achievement that was already legendary for a small band of five, but that put them in reach of the remaining thousands.

And there was still the village behind them.

As the cheers turned into a scramble, Morey turned to Ereli. She was standing in the middle of four steel staffs that had been planted end down into the ground, surrounded by so much stored magical power that the very air seemed to hum in her presence.

"Your turn," he said simply, "but save your own magic. We will probably need Blade Wall once the zombies reach us."

Ereli nodded and held up the summoning stone that was also the pride of the Iris family. Magic wafted up from the four staves and gathered into the familiar formation above her. The magical glow swelled in defiance of the zombies' magic but it was clear which was bigger.

Grand Cross slammed down, squashing zombies with its downdraft and smashing through the thinner cloud of the zombies' dark magic. They watched as the rotating cross moved across the formation, leaving broken bodies and gaping holes in the magic behind it. Then the glow faded and was finally consumed by the tide of dark magic, leaving Ereli with only four dead sticks of steel.

"Did you see that?" Nal said.

Locoss simply nodded, to Morey's confusion. "See what?" he asked.

"The zombies. When Grand Cross touched them, they fell down immediately," Nal said.

"Well of course, that's what Grand Cross does," Ereli said, "it flattens everything."

"No, I mean before that," Nal pointed at the hole that was closing up again, "some of the zombies, the ones outside the force area, some of them just fell over. Doesn't Grand Cross have a magical disruption field larger than its force field?"

"It does, but-"

"The zombies fell down even without the force!" Nal said excitedly.

"Warning," Locoss interrupted and pointed at the zombies.

"What?" Morey looked again. Something glinted off the front ranks of the zombies.

They all looked closer. "Is there some sort of crystal on them?" Etani remarked.

"I wonder where they got it?" Morey said, "or what it does."

That wasn't the only surprise. A small glow appeared in the middle of the formation once the
zombies had gotten close enough. They had only a second to wonder about it when there was a flash of air and a clap of superheated air. A bright beam of light connected the glow to a patch of soil in their direction and disappeared in a blink of an eye. A puff of glassy soil was thrown up, like someone throwing a pebble.

"What was that?" Morey said once they had all hurriedly dived to the ground behind the hill.

"Light attack," Locoss said, frowning worriedly.

"What does that mean?" Nal asked.

Another puff of soil at the top edge of the hill in another flash.

"Concentrated light." While her reticence was famous, at times like this, Morey felt like strangling her. Of course, that only made her even more unwilling to talk.

"I've heard of things like this," Nal said, they turned to her. "I once read about a famous philosopher, dating from the Migration Age after the collapse of the First. He wrote that light was the same thing as heat, that it just travels further."

Morey smacked his forehead, so this was like one of those science fiction laser beams. Only it didn't fly around, it behaved more like light would, being instant. That was much more dangerous.

"Source is crystal monster," Locoss finally deigned to elaborate, "saw one. Not zombie. All crystal."

"We saw crystal too, on the zombies," Nal said, "I wonder if they're the same thing."

A shower of fused dirt came over the top of the hill again. "Leave it for later!" Etani said, "we have bigger issues to worry about. Like how to survive the next hour."

Then they felt it, the tramping of countless feet was now close enough to start making the ground hop and vibrate.
Morey was relieved to find the village empty when they arrived back at the wall, zombies hot on their heels. The villagers had sensibly evacuated once Grand Cross proved to be insufficient, as was clear the moment Ereli summoned it. The last of the villagers were already streaming out the furthest gate from the zombie advance. Etani gathered her magic into her feet and simply bounded to the top of the single storey wall in one leap.

Not for the first time, Morey resolved to try learning Ems again, the last few times he had given up in frustration after the amount of work made itself apparent. But it was sure convenient.

"Now's our chance to go as well!" Etani shouted from the walls, pointed at their Rekis the villagers had left tied in the middle of the village square.

"But then the zombies will overtake the villagers!" Morey shouted up at her as they ran through the small side gate and up the stairs, "we must stall the monsters for them to get away! Nal, fire the wall enchantments!"

Instead of blasting the raw power of the enchanted walls at the zombies, Nal instead began to cast a spellstorm. Ever since Morey had got her to attack the Titan with that unusual spell conversion, Nal had suddenly developed an interest in not doing things the normal way.

"Do you want to die?!" Etani screamed. Still, she slammed the door down beside her and unslung her bow. The compound bow designed by Morey's stories and the best smiths in Inath over the last two months was very close to what a weaponized compound bow might have been. Optimized for Ereli's Em-enhanced strength, the steel limbs could drive the metal arrows clear through four feet of solid stone, with all the speed and accuracy of a normal shortbow, and that was before the acceleration and aiming enchantments they could stack on steel arrows. The downside was that the bow couldn't fire normal wooden arrows, it was so powerful the arrows invariably shattered on firing.

They hadn't managed to optimize the accuracy yet, but judging by the black tide of zombies pounding the crop fields flat, she wouldn't need it.

Morey left her to it and looked at the other two. Ereli was already setting up her Blade Wall summoning stone, surrounding their short length of wall with a ring of sharp flat plates. Locoss was moving up the walls, tweaking the enchantments according to Nal's instructions.

Etani's arrows began to fly right before Nal finished her spell. A swarm of small spells flew across the wall, activating enchantments. Then all the platforms behind the walls, except for the area directly under them, exploded outwards over the walls.

Morey had noted that the black mist of the zombies behaved a lot like a magic disruption effect. And thus physical projectiles were the obvious counter, given their experience with the giant crab-thing.

The logs making up the wall tumbled end over end as they flew outwards towards the zombies, a rain of wood from the sky the size of tree trunks. More zombies were crushed and even more broken and knocked over by the rolling bouncing projectiles.

Zombies normally couldn't shoot back, but this time they answered in the form of two beams of light. Only for the beams to scatter into wide cones. Morey flinched as one of them caught him, it was hot! Even through his armour! But at least it wasn't instant death. He nodded a silent word of thanks
towards Locoss, the telltale distortion in the air in front of them as a waterfall of magical Mist blurred all light heading their way.

What protected them from the deadly beams also protected the monsters generating them from Etani. She had fired back almost immediately but her aim was off and the arrow merely plowed into the zombies near the shooter. Her next arrow caught it dead center and the blurry glow from the charging second shot winked out. That was insanely lucky.

The other shooter missed them entirely, even the area of magical Mist hovering in front of them.

As Etani exchanged shots futilely with it, it was up to Morey and Ereli to protect them, the zombies were now at the walls!

He huffed and puffed, the air was getting hot in his armour from all the dancing around. Another wave of zombies came over the tops of the walls only to be bisected by the rotating shields of Ereli's Blade Wall. The edges of the flat shields were as sharp as any Sword summoning.

Three zombies made it through and Morey pounded over to them. His sword smashed into them, wielded more like a club than a cutting device. It bounced off a crystal growing over the zombie's head, ringing in his hand. Shit! These zombies were hard!

Morey sent his magic into his arm, driving it downwards again with more force, the only Em he could use as yet. The sword vibrated like a ringing bell and Morey hung on with a death grip as the crystal shattered and the zombie crumpled. As zombie limbs flew in all directions, he caught a glimpse of more out of the corner of his eye. A mental command sent his Sword summon to the other side of their platform, beheading a zombie that had climbed up from the side.

Behind him, Nal continued to fire her spellstorms downwards into the zombies packed around the base of their platform. All around their little section of defended wall, zombies were clambering over the walls and falling into the village itself. There weren't too many to overwhelm the Rekis yet, but it was clear that it was only a matter of time before they had to retreat.

Etani growled as she fired another arrow and missed again. The first lucky shot that destroyed one shooter hadn't been repeated yet and firing at the blurry white dot was like trying to hit a mirage.

"We can't hold on for much longer!" Nal shouted over the stampeding zombies. The dogpile of zombies outside the wall was turning into something like a ramp.

"One more shot! Just give me one more-" Etani's yell was cut short when the Mist generated from the wall enchantment suddenly collapsed under the onslaught of the dark disruption magic and Ereli's blade shields suddenly wavered. The disruption hit them like a tidal wave, lapping at their magic and lifeforce like the ocean attacking a sandcastle.

Below them, the Rekis howled as they savaged another group of zombies. They felt the dark magic too.

Growling in frustration, Etani slung her bow over her shoulder and readied her shield and warhammer. Right on time. The entire crysteel door suddenly flashed pure white, light pouring from it in all directions as it absorbed and scattered a beam of light. The crystal shooter on the zombie's side was clearly aiming for Etani now.

"Back! We're leaving now!" Morey said, praying that they had done enough to delay the zombies.
If the zombies reached the fleeing villagers... he shook the dark thoughts out of his head. Etani leapt straight off the platform and landed in the dirt pack road, warhammer bowling zombies left and right like so many pins. Ereli recalled her blade shields into a tight circle and they simply ran down the staircase, not caring if the edges bit zombie or wood.

As the platform collapsed below them, Ereli renewed her flickering summoning spell with more magic while they mounted the Rekis and bounded clear out of the ever increasing zombie horde.

Riding through the streets, Morey suddenly slowed to a halt in front of the tavern that had been housing them. A thought came to him.

"Wait! Let me check something!" he said. The four girls looked at him incredulously, eyes darting from him to the zombies running after them. Nal rolled her eyes and fired a spellstorm down the street.

Not wasting any time, Morey looked into the tavern. Yes, the spirits were still here. At least that crazy innkeeper wasn't crazy enough to take the Hero's alcohol with him. Morey ignored the conspicuously missing plates they had been using the past days.

He charged up the maximum five firebolts he could manage and scattered them into the tavern's wine cellar, making sure at least one went into the cask of strong spirits.

The Hero's party rode as fast as they could away from the village, trying to catch up to the column of fleeing refugees. The burning village, including the zombies inside, left a streak of dark smoke in the sky behind them.

"It's the Hero. " "The Hero has come!" "Hero!"

Whispers surrounded them on all sides as Morey walked through the camp. The huge group of adventurers rushing to save the village was camped, there was no village to save anymore and the zombies weren't moving fast.

He sighed at the worshipful stares sent his way, Morey hadn't wanted to walk in front of the four girls but they wouldn't hear of it. Despite seeing his inadequacy of combat power, the four girls still regarded him as the Hero. And it looked like everyone else in the camp did so too.

"It is good that you are here," the big adventurer leading them to the center said cheerfully. The man was almost three heads taller than Morey and the shiny bald dome of his head fit the rippling muscles all over his body. Everything about the man was big and strong. The man's arms was almost as thick as Morey's own leg! Now that was what Morey thought of if anyone asked what he thought a 'Big Damn Hero' should look like. Or 'Human Wall'.

The big man's arm slapped Morey on the back, knocking the breath out of him. The man laughed again.

"We fought the zombies before this, trying to buy time for the villagers," Morey said, "I thought I should tell you what we saw. There is a new type of monster, and it's very dangerous. "

The big man, whose name Morey learnt was Deka, listened attentively as Morey began to describe their battle. Gasps and looks of astonishment surrounded them, the adventurers following behind to hear the story.

When he was done, they were nearly at the center of the camp and Deka had a rather familiar look
on his face. One that Morey had come to recognize very well in the last few days.

"Truly you are the Hero," Deka said, a wide eyed grin on his face. Then he bowed suddenly and deeply. A heartbeat later, everyone else around them was bowing to him as well.

"What-" Morey stammered, looking at the circle of adventurers all looking at him with starry eyes, "why are you bowing?"

"I was sure you were called here for a reason," Deka said, still bent at the waist, "only a Hero could have achieved what you have done. With you to lead us, I am sure we will win this war! Please, lead us against these zombies! As the Hero, your rightful place is as our commander!"

"I don't understand," Morey turned around to find Etani grinning at him.

She smiled and spread her arms at the bowing adventurers all around. "Do you think they can do what we just did?" she said, "I almost forgot what it was like to be an adventurer, after traveling with you for so long. But no adventuring group can do so much damage to a zombie army. We must have destroyed a few thousand zombies all by ourselves! Anyone would be intimidated."

Morey glanced at Locoss, their most recent member. She hadn't been intimidated when she joined, unless he had seriously misread her silence. "Except her," Etani qualified lamely.

"That's just what happens when you put the four best people in the country together with the best equipment that money can buy. We could only do what we did because of all your power," Morey said. He looked down at his sword sadly. It was true though, that all the work had been done by the four girls. In all their battles, Morey was always playing second fiddle to one of the girls at any time. "I haven't actually done anything heroic. Not personally."

"Perhaps you haven't noticed but all our tactics comes from you," Etani said, off to the side, Nal nodded as well. "My bow, storing Ereli's power, steam propelled rocks, even this door. In all cases, you came up with the ideas to improve what we do, to make us help each other in ways no one has ever thought of before. You tell us when to attack, when to retreat. Please don't sell yourself short, Morey. You have led us, as a leader. And as a Hero."

Almost as if they had pre-arranged it, the four girls bowed to him as well. Morey fought down the complex feeling, a mixture of pride and guilt. He still felt like he wasn't worth all of this praise but it sure felt good to receive it. He knew most of their admiration was just plain hero worship though.

"All right, if you think I can help," Morey nodded as they raised their heads, "then I will try my best."

So much for acting all cool and heroic out there. Morey rubbed his forehead as he tried to wrap his head around the next problem they were bringing to him. The commander's tent he had appropriated from Deka, Morey wasn't surprised to find out he was the commander, was at least spacious enough.

"And so you want Nuem's group to pay you compensation for damaging your Reki?" Morey asked.

"Of course!" the big man shouted, causing the smaller girl standing on the other side to flinch a little. Honestly, the man's account was a little sketchy, how had one tiny girl managed to steal his Reki and take it for a ride only to put it back where she got it? And use it as magical target practice? But Morey had had enough and he just waved to Etani.

"I'll pay for the Reki, you will hold no grudges against her," Morey said, then turned to the girl, "the
evidence speaks against you but I have doubts about this case. I will not hold you to this but if you were guilty, I trust that you will not repeat this. Now go, I don't want to hear about this again."

The two of them looked at him as if stunned, then they bowed and murmured, "the Hero is truly generous."

When they were gone, Deka spoke up from the side, "was that wise?"

"I don't know, I don't care," Morey said, cradling his head. "What is this, Deka? You asked me to be an army commander, not a judge," he held up a hand to stop Etani from speaking, "I do not mind the money, it's just two Rimes and I'm not short of those. Why do we have so many problems? Shouldn't we be working on tactics to deal with the zombies?"

"But that's what a commander does," Deka said, "you keep the army together and in fighting condition, until you reach the enemy. The commander manages the morale and keeps the adventurers focused on the target. Sometimes with incentives."

Incentives. Wasn't that just paying them to fight? "What about these squabbles? Why do I have to settle all these small problems?" Morey complained.

"They happen all the time," Etani explained, "adventuring groups don't get along well, even when they are have decided to team up. I mean, you can't expect different styles of magic to work together."

Morey rubbed his head for a moment then he blinked. "Wait a minute," he looked up at them, "what do you mean different styles of magic don't work together?" Was there a completely different magic he hadn't heard about?

"The battlemages are too rough and lack elegance, of course," Nal snorted.

"And stuck up pampered Academy mages are clearly not ready for the battlefield," Etani shot a smirk back.

Morey shook his head in exasperation. He understood that the two of them were just joking but Deka seemed to consider it normal. He looked at Ereli and Locoss.

"Summoners are too rare to bother with, same for Em masters," Nal said.

"Rarely fight. Alchemy is wrong magic style, too slow," Locoss explained in her own stilted way. Wait, Locoss can talk in complete sentences? Morey shook his head again to remove unnecessary thoughts.

"So you mean to say that the people using different styles of magic don't work together?" Morey frowned.

It was common sense that they should work together. Battlemages and Em masters were natural frontliners, delaying monsters and guarding the more destructive but also more fragile summoners and spellstorms. Alchemists were also extremely useful, when not in the middle of battle; Locoss's efforts had increased the efficiency and accuracy of their alchemical enchantments by at least two fold, probably three, and had opened up a vast array of magical traps and weapon enhancements that Morey couldn't use before. And one of the summoner clans provided the bountiful supply of magical power for alchemical and general combat purposes.

And here he was, hearing for the first time that none of them liked to work with each other. Only Em masters and summoners worked with other groups simply because there were too few of them to
form independent adventuring parties. As outcasts.

"How is it then that we are working together? You guys supposedly hate each other," Morey asked, "all four of you are from different styles of magic. And I'm... a bit of everything."

"We don't hate each other," Nal said, "in the end, we're all in Inath fighting against the monsters. And we're not like the others, there's no need to feel superior to rivals. We are superior, the best in Inath. Besides, the four of us were specially chosen to be in your party."

"You are the Hero," Etani said simply.

Right. So it all came down to the fact that he was special. A Hero.

That made no sense at all.

"Deka, if I told everyone to disband their parties and form groups like ours with different styles, how would that work out?" Morey ventured.

There was total silence in the tent for a few moments. Then Deka shook his head minutely before appearing to change his mind.

"Not going to work, I see," Morey cut him off before he could make an excuse.

Deka grimaced then apologized, "I'm sorry, even if you're the Hero..."

"So, you see that there are limits to what a Hero can do," Morey made sure to smile. He didn't want to find out what would happen if they thought he wasn't joking. "But you asked me to lead your army, so that is what I will try to do. I don't understand your customs. If I'm about to break some social taboo, I'll have to rely on you to tell me. Please don't hold back just because I'm the Hero. I don't want you to tell me I can do something and find out later that it wasn't done because you didn't want to tell me I'm not allowed."

"I- I understand," Deka said, looking conflicted.

Morey stood up from behind the commander's table. "I don't want to deal with these petty disputes. Deka, do you know someone you can trust? Someone who has a sense of justice and understands the law?"

"I have a few friends," Deka said cautiously. Well, even if he didn't like where this was going, Morey was the Hero, whatever that counted for.

"Get one person and tell all of the petitioners to talk to him, I give him my authority as a commander to arbitrate. As long as he is fair and settles the problems quickly, I won't complain. He can even use my money like I did just now, as long as it's reasonable," Morey said. Then he turned to Ereli, she probably couldn't help with what Morey had in mind. The girl had no sense of battle tactics, as expected of an Iris. She did however, have a bright and innocent outlook, even naive at times. That could be useful too. "Ereli, will you please go with him and work with his friend? I trust that you can represent me."

She beamed and nodded happily. Then after Deka passed a message to his party sitting outside the tent and sent Ereli off with it, they got down to business.

Morey dragged the big commander's table into the center of the tent.

"Firstly, does anyone in this army have a map? If we don't, I need someone who is very familiar with
this region to help draw one, please find them and bring them here," he said, continuing as Deka began to relay messages to his subordinates, "secondly, I need to know what kind of people we have in this army. How many battlemages, how many spellstorms. What are the most common spells everyone knows. That sort of thing. Give me a rough guide, your best guesses will do, until we can compile a more complete list."

Then he hunched over the table, drawing in Etani and Deka. He took out a few large sheets of paper from the drawers underneath. "After that, we need to create a simple formation we can use. Hopefully with little training. If we just charge the zombies, that new light beam attack will cut us to pieces..."

The order of knights that had positioned itself across the road would not have been recognizable to any Inath observer. A commander usually arrayed his forces into a single thin line, to give everyone an equal chance at the bounty. This force was arranged in a rough square. And that was not the only difference.

With a sea of glinting iron in front packed into a dense block, the heavily armoured battlemage knights formed something of a vanguard. It wasn't as dense as a proper pike formation Morey had read about in history but this was the best they could manage. Besides, the knights weren't using pikes anyway. A much less dense crowd of less armoured spellcasters was arrayed into large groups behind the battlemage line.

The zombies crested the top of the hill, the tallest in the region. The downslope to the frontline wasn't that steep but it was enough to conceal most of the zombie army from them. As well as any of those deadly light beams that happened to lag behind. That was also unusual of course, most commanders just attacked the enemy directly.

Morey had only managed all this by promising everyone who participated to the end and followed orders a payment higher than any of them had expected to receive from bounties. Of course, that meant that he was exhausting the entire allocated budget for the battle, leaving none for himself, but Deka hadn't explained to Morey that most commanders usually aimed to profit as much as possible while maintaining victory. All Morey wanted was to win.

That and the fact that he was the Hero.

The battle was joined almost immediately. As multiple light sources appeared among the zombies, the back line showered their immediate vicinities with a storm of flying rocks that pounded the area into a fine paste. Morey had made it clear that the shooters were to be killed as soon as possible and each of the firing teams of roughly twenty mages had been given a preferred target zone beforehand for which they would target any shooters first.

Of the ten attempted shots, only one managed to fire. The beam of light struck the front line and diffused into a harmless shower of heat against the Mist wall. Then the first of the zombies were charging into the waiting swords of the battlemages. The battle had begun for real.

"I would never have thought simple force spells could be used so successfully," Deka said, watching the veritable rain of fist sized rocks that streamed out over their heads. The zombies' own magic disrupted magical energy and ate away at spells and fire. But it didn't stop projectiles, so Morey had applied the same protocol for dealing with antimagic. He was tempted to start calling it the Anti-Crab Tactic in honour of the titan but he suspected that Etani wouldn't find it as funny. In any case, a sackful per mage had relieved the entire local area of rocks.
"Signal the vanguard to spread out, the zombies are spilling around the sides," Morey said and the waiting runners sped off to the front. His command post at the base of the hill afforded him the best view of the battle without a tower. And he didn't want to be sitting in a makeshift wooden tower when the enemy was throwing around those beams.

"Message from Etani at the front," a runner came in, "she says that the zombies have more crystal on them. It's like armour. And the number of light beams are higher."

"Tell her I noticed the light beams too," Morey said. They had faced only a pair of shooters two days ago and Etani had destroyed one. And now the knights had destroyed twenty already and there were still more appearing over the top of the hill. He nodded to Deka and pointed at the center of the vanguard, "signal to give ground, the front is pulling too far forward."

Deka nodded and blew two short notes on the big horn. The battlemages at the very front had been pushing forwards into the mess of zombies and now they risked getting pressured from the sides. At the signal, the entire front moved back slowly, still chopping zombies. A single short note stopped the retreat.

Any Inath knight was more than a match for a normal zombie, even these crystal armoured ones. Most of the time, zombies were only a threat when they surrounded and assaulted the knights and adventurers from multiple sides. In the dense frontline that Morey had created, there was barely enough space for a man to swing a short sword and a knight faced only two, at most three, zombies at once, and only directly in front of him. The flashing of swords and bladed spears made mincemeat out of the dead flesh, like a blender in slow motion. The real threat of the frontline was the constant drain from the zombies' erosive magic and keeping the Mist wall functional against stray light beams.

The roar of the knights in battle and subvocal mutterings of concentrating spellstorms reminded Morey of the time he went to a football match. It waxed and waned according to its own rhythm, the pulse of battle. Occasional crashes and bangs cut through the noise, making the ground jump. The source of these was the huge boulders that went sailing overhead. The four summoners present, including Ereli, took turns hefting massive boulders and flinging them like a giant's bowling ball. Each of these would flatten zombies and carve out a line of destruction as they rolled down the slope, on the other side of the hill. They didn't have many, but not even the summoners had unlimited magic and those boulders were big.

The battle was turning into a slog. The zombies were being destroyed with a ridiculous kill ratio but there were just so many of them. Bodies that had been destroyed many times kept reanimating and the knights continued to chop them down methodically. A pile of shredded zombie flesh and bones were piling up in front of the front lines, forcing the knights back.

Morey looked up at the sky and saw that the sun was already past noon. The fighting had gone on for more than an hour now and the frontline must be feeling tired. And the zombies were starting to threaten their flanks again.

"Send the signal, fire one," Morey said.

Deka nodded and blew a long high pitched note on the small horn. The four summoners had been waiting for that signal ever since they ran out of boulders early into the battle and now they pooled their magic into Ereli's summoning stone, helping her to control the building spell. The power came from the wagon load of iron and steel beside them though, no point wasting their magical power.

Ereli only used just enough power to summon Grand Cross. They had enough for three shots, with some spare, so Morey had told her to keep magic in reserve. The Grand Cross slammed downwards in a thunderclap and threw back the zombies, smashing into the right flank and flattening that
The vanguard subtly shuffled left as Grand Cross swept a line of destruction across the zombies’ right, relieving the pressure on the knights there. Then Grand Cross expended itself in a final explosion of force that made the ground jump and knocked over the zombies in a huge radius. A light shower of dirt pattered downwards. Dirt and bits of zombies.

Morey brushed himself off and examined the effect. The battle was tilting towards the left and he caught sight of Etani on the exposed side. She was leading a large group of battlemages off to one side to intercept the flank and within a few minutes the zombie advance there was crushed. That was good thinking, and Morey didn’t even have to give any orders.

The zombies continued to pour over the top of the hill, in a seemingly endless flood. But the knights had regained all the ground they had lost, Grand Cross had done its job and they were back to square one. Only more tired and with thousands of crushed zombies underfoot.

Time to do it all over again.

The moment the tide turned was visible to Morey. He had been staring at the zombies, issuing orders to close holes opening in the front lines and rotating out exhausted spellstorms. In a way, he was learning to read them, the swarm of featureless grey hulks that alternately lurched and charged in a pulsating counterpoint to the knights’ roar.

Past two hours into the battle, all three Grand Crosses exhausted and Ereli debating whether it was possible to launch a fourth with contribution from the spellstorms, Morey suddenly felt the flow change. An undefinable ripple passed through the zombies, the pressure on the knights easing slightly.

Then the zombies stopped charging, slowing their reckless run down the slope towards the mountain of chopped bodies then stopping. Morey could hardly believe his eyes when the zombies turned around and began to retreat.

They ran! The zombies were actually running away!

Surrounded by cheers of the adventurer army, Morey's grin suddenly died as a thought occurred to him. Since when were zombies smart enough to retreat?

Cato sipped the tea appreciatively. There was actual sugar in this cup. A true display of Minmay’s wealth given that purified sugar was only available through a specific species of root plant that was very labour intensive to harvest. One more thing for Cato’s to-do list.

"We still need to decide which projects you want to focus on," he said.

Minmay nodded, sipping his tea as well. The bright morning sun outside beckoned temptingly but neither Cato nor Minmay was inclined to go out. The front reception room was as good a place to have tea as any other.

"Which projects would you suggest, Cato?"

"That depends on how much tolerance you have for change," Cato explained, still holding his cup.
"You will find that I can be quite flexible. I want the projects that you think are most useful. " And earn the most money, was left unsaid.

"You can say that because as far as I know your history hasn't undergone rapid change since the fall of the First and the Tsar," Cato put the cup down and faced Minmay, "you yourself told me that apart from the Inath federation being formed, your father lived a life much like yours. These ideas I am considering come from my world, where our society changes so rapidly that we're barely keeping up. The most radical ideas can cause change so quickly that your daughter may grow up to find a world completely different from her childhood. "

"Hmm? So what do you have in mind?" Minmay raised an eyebrow skeptically.

"Out of all of them, the most disruptive ideas are the farming tools," Morey said, "the second I would guess is the Mana Tax. Or let's call it compulsory education since I also plan to teach reading and writing. Thirdly, the fastest way to gain money would be to start a bank and issue money. And lastly, I would like to start studying magic. I admit a magic laboratory is a shot in the dark but we may discover properties of magic that could be extremely useful. "

Cato didn't mention how much he was looking forward to investigating magic. He would still work on it in his free time even if Minmay didn't want to fund it. The main benefits would accrue to himself instead. That said, Cato was fine with any sort of laboratory if Minmay was interested.

"I didn't understand your concept of a bank, however," Minmay said after some thinking, "I don't see how a place that gives you money for keeping your money is anything but a sure loss. "

"You find people to loan money to at interest," Cato explained, "but the main effect comes afterwards, by convincing people that your promissory notes for the gold is just as good as the gold itself. After all, if enough people put gold in your bank, they won't all take it out at the same time. Also, you are Chancellor Minmay and a bank under you will be guaranteed by tax income. That lets you have more promissory notes than the gold in your bank, which means you can lend out or spend money you don't have simply by printing more notes. To a certain limit, of course. "

"I still don't see it," Minmay admitted, "won't people know that you don't have the gold to pay for all those notes? They will want their gold back and we won't have it!"

"If you're still uncomfortable with the idea, we can do something else," Cato shrugged, "hopefully one that earns money. "

"What about the magic laboratory? What can that do?"

"I don't know," Cato said simply, "that's why we should do it. "

Minmay raised an eyebrow, "if Landar won't do it, I can teach you magic. But why do you think anything unusual will happen? Everyone learns magic the same way. "

Cato frowned, "you can teach magic? I never saw you use..."

He paused at Minmay small smile. The chancellor was holding up a finger, with a small ball of magic balanced in front of it. "Most nobles do learn magic. Some of them even go on to be adventurers, although I'm just an alchemist and quite out of practice at that," Minmay explained, "All of the nobles are honorary members of the Order of Knights, if we didn't know a little magic, we would just be embarrassments. "

Cato nodded in apology, "I understand but I'm sorry. I can't learn magic. Landar tried to teach me but there seems to be something wrong with my lifeforce. "

Minmay had a complicated expression at that. A mix of disbelief warring with something harder to read. "All right. I'll take your word for it, but then how will you study magic if you can't use it?"

"Landar will be there to help me," Cato said, "I also have a few ideas for magical tools. Landar showed me how she could use spells to influence other spells, and I intend to try making alchemy items that can manipulate magic. It's probably going to be even slower than Landar but I'm not intending to cast spells in battle anyway. Their main purpose will be to see if I can make using magic more accurate. More a science than an art."

"The primary benefit won't be that however," Cato continued, "I noticed how practically no one understands how magic works, apart from how to use it and what effects it has. I intend to study magic itself. What is magic, how do we cast spells, how spells affect each other. That sort of thing. Who knows what I'll find?"

Minmay nodded and sipped his tea. "Ambitious," was all he said.

That it was. To imagine that Cato would do better than generations of Academy mages before was arrogance. But he couldn't not try, not when there was magic right in front of him, just calling out to be studied.

There was a clatter of shoes on the wooden floor behind them and they turned around.

A young girl, barely out of her childhood, was standing behind them staring at the ball of magic above Minmay's finger. Her waves of blonde hair framing two deep blue eyes and fair skin was the very image of a noble girl. Her light dress was rumpled, as if she had just got up, but the girl paid it no mind.

"Papa!" she cried and almost leapt into his arms, "you're back! Why didn't you tell me!"

"Haha, I had to talk to an important guest yesterday," Minmay said, nodding at Cato, "I'm sorry but by the time I was done, you were already asleep."

The girl turned to stare at Cato. He nodded at her hesitantly, not quite sure what to say.

"I'm Arisacrota," she untangled herself from her father and bowed politely to him, "Arisacrota Eien, daughter of Chancellor Minmay. May I have your name?"

Cato snorted involuntarily at her suddenly formal attitude. "Ah, sorry. I'm Cato Lois," he bowed back, "it is nice to meet you."

"Say, what are you talking about?" Arisacrota asked. Her formal pose evaporated as fast as it appeared and she was just another over excited little girl again.

"We were talking about magic. About studying how magic works," Cato said.

"Ooo, I know about magic!" Arisacrota clapped her hands happily, "papa bought this amazing magical window! I can even draw pictures on it!"

Wait, she was the one who got Landar's magical window?! He looked at Minmay worriedly, was this really safe to give to a young child? Minmay rubbed her head indulgently and smiled.

"So are you here to give me another toy?" Arisacrota asked again, looking at Cato, "I can't wait to see it!"

"Arisa," Minmay got her attention with a more serious tone, "he's not here to do that. We're talking
about how to improve Ektal. It's about how to grow food better."

She looked at Cato again, her face showing a hint of displeasure, "is that going to cost money?"

"A lot of money," Cato said, "if you want to see improvements quickly. But we expect to earn even more money later."

"Muh," she pouted, "so that means papa can't buy another thing like the window?"

She was worried about a gift from her father? Cato sighed, guess she was just another spoilt kid.

"Arisa, please, we have to do this," Minmay said, looking at her seriously, "Cato is a very important guest and his ideas can give us so much more money later. In a few years, I can buy ten windows for you."

"But I-"

"Actually," Cato cut off her impending protest, "how would you like to see a monster? Your father could put a request for someone to capture one or two."

She was suddenly right in front of him, eyes wide in astonishment, "a monster? Like the ones the knights are fighting?"

"What?!" Minmay said, pulling his daughter back, "but I thought you said that you didn't want monsters?"

"I know I said last night that the monsters aren't a good source of magic, but we still need to study them," Cato said, "I have asked many times for a chance to capture some monsters but the knights never listen to me. It shouldn't cost too much to obtain a few, right?"

Minmay frowned, he obviously didn't like the idea, but Arisacrota did and she was using every kid's ultimate weapon against their parents, the wide-eyed innocent look of anticipation.

Minmay was not immune to that and eventually he sighed and rung a bell on the table.

The butler Arthur walked into the room almost immediately. "You needed something, sir?"

"Arthur, you were an adventurer when you were young," Minmay asked, "how much money do you think would be necessary to get knights to capture a monster for me?"

The butler seemed to freeze and glanced quickly at Arisacrota's excited face then at Cato. It was obvious what lead up to this.

"Sir, you are asking the knights to risk their lives. Capturing a monster will be much harder and will mean risking the monster's attack," Arthur said unhappily.

"But it is possible, yes?" Cato asked.

"It is," Arthur said reluctantly, "if you ask a large group to target a small monster, perhaps a few zombies, they shouldn't have much problem. If I was still a knight and needed to plan this mission, I wouldn't try to head into the monster lands without at least a mixed party of twenty and not expect to return in less than two weeks. And paying that many adventurers for so long will be expensive. Perhaps even a hundred Rimes."

"It will be worth it," Cato said, looking at Minmay, "I doubt the zombies or nightcryers are without weaknesses. We can find out what they are, how they work and how to kill them. In fact, I have a number of questions I don't have answers for about zombies already and this information will help
the knights defend your borders better."

"A hundred Rimes is a lot of money," Minmay said, "how will you fund the rest of the projects? What about that six hundred Rimes bridge across the Tine that Muller wants and you say is a good idea?"

"The bridge can pay for itself," Cato said, "even without setting up a bank, you can still issue something called a bond to borrow money. I can explain the details of that arrangement if you want. The other projects, especially farming, will cost even more money I'm sure."

"You're asking me to trust you enough to put myself into debt," Minmay said, "that's too much risk for me."

Cato sighed and looked at Arisacrotia eyeing him unhappily again. It looked like she really wanted to see some monsters. If Minmay wasn't willing to risk debt until he could trust Cato's ideas, then that severely restricted the number of things he could do. He would have to choose.

"Leave the bridge for later then," Cato said, "there is at least a ferry. Since we have limited funds, I suggest we focus on only a few issues at once. How about farming tools, the mana tax and capturing monsters? You can ask the monster hunting expedition to search for natural magic while they are at it. I have a few other minor requests for such an expedition too, like collecting rocks."

And once the monsters were captured, Minmay would likely agree to study them using magic.

The council sat around the only stone table in the village, tails fluffed and ears twitching. It had been two weeks since the letter and they still hadn't managed to reach a decision.

"Taking in outsiders is foolish," Tharoden said, slamming his hand onto the table.

"We need more people here," Banage said, "with every tail, we will defend ourselves better. With every pair of hands, we can feed more mouths."

"Who knows what sort of outsider ideas they will bring in? You know what the Inaths are like, and you propose to take in people we don't even know?" Tharoden slammed his hand again.

"Cato came from the outside," Banage pointed out.

Tharoden's face twitched a little as he realized he just got called, "I admit that not every Inath is bad, and that perhaps the Inath Fukas are more trustworthy than the humans. But that is still no reason to trust all of them blindly."

"Then let us choose," Banage said, "send someone to Corbin to meet the Fukas and check those who want to come. Only those we can trust and are useful are allowed. Simple."

"The Fukas out there are suffering," Tatit spoke up. That happened so rarely in meetings that everyone paid attention to her. "We do remember how the Inaths treated us. That is why we did not follow them when they retreated. Now that we have a place we can call our own here, can we ignore the other Fukas?"

They looked at her then clearly decided to ignore that.

"It would appear that my way is the middle ground," Banage said, "perhaps the two of you could consider it as a compromise?"
Tharoden sniffed and looked at the Elder. Tulore simply watched their discussions, thinking and listening but not saying anything. "Elder Tulore, would you please lead us," Tharoden said, "our village council cannot reach a conclusion like this."

Banage winced. That was low of him. The village council often presented agreed decisions to Tulore before asking for her authority. Traditionally. With the Elder's authority, Tulore's opinion would sway the council too much and neither she nor her mother before her had wanted that kind of control. Of course, traditionally, they wouldn't have left at all and would all be dead now.

Tharoden was using her authority like a club, sure that she would support his stance. After all, Tulore was known for being traditional. He only did that when he absolutely needed to, out of respect for Tulore, but everyone knew that this debate had been going on for so long that the council was beginning to lose face.

She looked at Tharoden then nodded. "I think we should accept Danine's request," Tulore said.

What. Banage could feel his jaw dropping. He could see Tharoden's mouth flapping open and close but no sound was coming out. The other three council members were statues in their seats. Only the most junior member of the council, a certain hunter called Ryulo, was looking like he had received a present from Aleas.

Tulore settled back into her chair, "we will need to choose who we can accept, this village does not have unlimited food or space. But Tatit's point is valid."

They looked at Tatit who was slowly melting in her chair. She had never had any real influence in the council, meek and unassertive as she was, and now the Elder had suddenly taken her position in everything but practical details.

Banage thought quickly. Tharoden had effectively undercut himself, so now was the time. "Elder, please understand that we also have concerns about the proposed newcomers. Can we really afford to support Fukas who cannot contribute?"

"I do realize that, but we are not so poor. Especially if our first caravan visit has given us so much," she raised an eyebrow at Banage, clearly indicating his clothing. The heavily dyed blue velvet cloth that made up his luxurious shirt was one of the many benefits Banage had traded for when the merchants Cato sent had last arrived. It was even more luxurious when one took in account the fact that the dye was also the same one that Tulore needed to make curse breaker.

They had all gained many things, even Tulore was looking considerably... rounded. That was probably from the amazing array of spices the merchants had traded her for just a few potions of curse breaker. Cato had been right that much of the village's food was in high demand since the Inath Fukas weren't able to produce very much. Banage had made private arrangements with the bigger merchants for certain highly prized desserts that his extended family was going to make for the next visit. Yama jam was ridiculously expensive, even if it was a pain to make. He was looking forward to that.

"Even so, our pockets are not deep," Banage said, glaring Questeross to avoid any insinuations about Char clan’s profits, "we cannot simply send all the Fukas here. Besides, the Death Marsh is quite the formidable barrier from what Danine tells us. Can weak Fukas risk such a journey and survive?"

"It is simple, we send someone to guide them," Tharoden said, "someone with much experience in fighting such monsters and surviving."
He was looking at Ryulo. Banage blinked then turned his glare to Tharoden.

"Yes, indeed," Tulore said. She got up and addressed Ryulo, "will you go to Corbin on behalf of this council to welcome those who would join us and guide them safely back?"

Ryulo, the straightforward charge happy idiot that he was, shot up out of his seat and grinned, "of course! It would be an honour to perform this duty for the council! I only hope Aleas can follow me. " No doubt he thought it was a great honour.

Banage caught Tharoden's smile, concealed from Tulore. Even if he had lost the argument, Tharoden had still managed to remove Ryulo from the council temporarily. Darn him, Banage had been counting on having another Char voice on the council once Ryulo finally married into his clan.

Banage sighed. Oh well, at least with yet another achievement when he returned, Ryulo would have even more influence. All the better for Banage's eventual replacement.

"So you have heard," Amarante looked up to see her husband walk into the council chambers.

He had his full parade dress on. Glinting gold lines set into an impractically huge steel full plate, flanked by twin pauldrons emphasizing his shoulders. A heavy glittering cloak trailed out behind him, adding to the regal air. The heavy steel boots clanked on the polished stone floor, Amarante could already see her groundskeeper wincing, polishing down the scratches was going to a pain. There was no helmet for this set, it wasn't meant for battle after all.

On that bear of a man, the armour turned General Vorril into a giant easily twice the size of a normal man. Larger than life and impressive, he seemed big enough to hold back the hordes of monsters all by himself. Still, Amarante was glad he had taken her advice and turned up to the grand council chambers in this, rather than his unpresentable battle armour. That thing even had actual scratches!

Vorril never appeared in casual dress in any formal occasion, despite Amarante's attempts to make him more approachable to the nobles. He would even turn up to dance balls in parade armour, although there was no lack of noble women futilely trying to get him out it every time. None of them succeeded and they wouldn't try if they knew of the beast inside that armour. Amarante had felt like she was being crushed to death on their wedding night and didn't want to repeat that experience.

"I have," Vorril said, his rumbling voice echoing around the gathered Lesser Council. He eyed each of the most powerful people in the Inath federation, feeling no intimidation. The leader of the Order of Knights could have a seat at the table of kings any time he wanted. "I want you to recall him from his quest," Vorril said, straight to the point as he always was.

The leaders of the federation murmured amongst themselves while Amarante held his stare.

"I will not do that," Amarante stated, "there can be no task more important than finding the Sword."

"Send someone else to find it," Vorril stated flatly, "we can always give the Sword to Morey."

As virtual sparks began to fly between them, Ektal interrupted before one of the famous arguments could break out again. "General," he said, waving his hands nervously, "why don't you tell us why you want this request?"

Vorril looked at Ektal, a flat gaze of cold hard steel wilted the fragile flower of the northern king. "His victory was nothing short of brilliance," Vorril said, "the man has a talent for command, we can use him."
"How do you propose we use him?" the Ranra king asked.

"You have prevented me from leading the army from the front, he can be a good substitute," Vorril said, "his status as a Hero and the strength of his companions overawes most adventurers, he can organize them far easier than anyone else, even me. Let me give him an army, just a one and a half thousand adventurers, and we can recapture Algami plains."

"The Enemy grows stronger year by year," Amarante retorted, before anyone else could be tempted by the thought of regaining land, "if we don't find a permanent solution, any gains you could make are only temporary. Didn't his report include a description of zombies growing crystal armour? And a ranged attack?"

"All the more reason to strike!" Vorril grunted. But even he knew when an argument was lost, the kings and queens were already making non-committal sounds.

He glared at them again and then turned around. "Fools. " And with that parting shot, he left the chamber. The slam nearly broke the door.

Amarante sighed and leaned back into her throne, the seats of the Greater Council were empty, leaving Vorril's footsteps echoing around the chamber. The moment of indulgence passed and she returned to the table. The other kings smiled and nodded at her in sympathy. None of them wanted to be the person who had to hold the General's reins.

"I spoke true," Amarante said lamely, "I am sorry that he just doesn't see it."

"We understand," the king of Ranra said, "the General has his uses of course, it's too bad that he is unaware of our greater concerns."

"Well said," Ektal said, still flustered from his brush with the General.

Amarante nodded, happy that they were still happy. Things could ugly if the General managed to anger too many kingdoms. He just didn't understand how nervous he made them.

"I trust that you will not let him form this... army?" Ektal asked again.

"Of course not, one man controlling a thousand knights at once?" Amarante shook her head. It was just not done. Not since the self-proclaimed Emperor Muppy the Terrible. The name often made noble children laugh but back when his feared death squads made up of hundreds battlemages roamed the land, no one found his name very funny. And everyone knew of the terrible concept of Total War wrought by the First and the Tsar. It had given Amarante nightmares when she was a child.

Besides, when Morey found the Legendary Sword of Tsar, he could destroy the Enemy outright. Might as well use Morey and his brilliance to find it all the faster than prolong their slow death.

And she had better find a girl Morey liked before he found the Sword and won the war. The man's loyalties were unknown, even if he seemed cooperative. Also the idea of one man holding that much power without someone to restrain him was too awful to contemplate.

Hopefully a nice and naive girl that he could be happy with in a luxurious retirement.
Cato's Notes

General

Time certainly flies quickly, it's been months since I've come to this world and I've barely noticed it. It's scary how used to hot weather I've become, the midday sun is considerably hotter and wetter than I'm used to; but I barely sweat at all now. Just the other night, I actually felt cold. Even if it was raining with chilly winds, the house was still at the level of a summer afternoon back in England.

The Inaths celebrated Cel Inci three days ago. This is a year end festival, paralleling Christmas without the Judeo-Christian roots. Like any other festival, Cel Inci is an excuse to eat and drink to the heart's content... for those who can afford it. In certain ways, Cel Inci is more like a modern Christmas with its shopping sprees, delicacies and alcohol; compared with a more contemplative religious festival.

It doesn't signify a new beginning or start like our New Year does either, I guess that would be because there are no seasons here, or extremely mild ones. Cel Inci is more a way of counting time and an excuse to have some fun. Apparently pranks are traditional, Landar enchanted every piece of clothing with a strip of rainbow coloured lights. It took hours before I could step outside without looking completely stupid.

Religion and Stories

Now that I think of it, I've never heard of any religions. I'll have to ask- Apparently, there aren't any at all! Landar hardly understood the concept of a religion, her closest understanding of a divine being is the First. Which is interesting, because I think they probably descend from a society with a secular tradition. When I asked, it turns out they do have myths and legends and stories, just that all of them appear to be about the legendary golden age of the First. And the attendant heroic figures and mythical characters.

The first and supposedly oldest myth is not surprisingly an origin story. What is more surprising is that it isn't a creation myth. The traditional story tells of the coming of humans to this world and doing battle with the spirits of magic before the Hero Legan defeated the spirits in single combat. Thus slain, the world became safe and the humans lived in the world given to them by Legan. This of course poses the question of where the humans came from but there is no story that explains that. I suppose this is similar to how no creation myth tells the origin of the godly characters like Legan anyway.

Another interesting legend is the story of the Tsar and their rebellion from the First. Rather than a legend, this seems to me like a historical account, distorted and exaggerated over time. Perhaps more detailed records exist somewhere since the First and the Tsar definitely existed. This story recounts how two brothers, called First and Tsar unsurprisingly, studied and perfected magic over many long years. As they studied magic, the brothers came to disagree over how magic should be used, with the First wanting to control the external world and the Tsar wanting to control the internal self. And so the two brothers fought each other, destroying the land in the process. Once they were weakened, the spirits that Legan slew returned to punish these two brothers and killed them. These spirits are now the monsters we are fighting.

Obviously, this is a transparent metaphor for the war between the First and the Tsar but mastery of the external world against the internal self is so vague as to be useless for determining what the First
and Tsar were capable of. Nor are these spirits the actual explanation since the ending draws material from their origin story, which is unreliable, and uses it to turn the story into a parable. I had to have Landar explain it, the story concerns how people are supposed to work together instead of fighting. I don't think that's the real reason for the war.

**Politics**

As I've noted before, Corbin is subservient to Minmay in this feudal structure. In many ways, Minmay is the lord of this region and has the power to declare and enforce laws as he sees fit. So how can Corbin get away with such blatant ambition without being removed by Minmay?

It turns out that nobility have restrictions on their power, Minmay isn't a king and can't do whatever he wants. Firstly, he cannot interfere with the workings of the Order of Knights although he does retain a large influence over the actions of the local branches. Secondly, he cannot award or remove hereditary noble titles without the permission of the king, Minmay can only give a strong suggestion. And such actions are very rare, noble titles are created as exceptional rewards or to fill a vacated position; removing the inheritance right of a noble title is deemed a higher punishment than execution, one of the few ways of vacating said title.

Thus all Minmay can do is levy special taxes or exert his economic influence against Corbin, but making such a dispute too obvious causes Minmay's standing to drop in Ektal's court, so engaging in a tariff war to destroy Corbin's economy is also a last resort. It won't remove Corbin herself anyway and the towns in this world are far more self-sufficient than any town on Earth. Corbin can survive without trade quite easily, having at least some natural resources and smuggling to fall back on.

Minmay himself is also one of the mid-ranked nobles in Ektal's court. As a Chancellor, he governs a region of five major towns, two market towns and a series of smaller villages and mining communities. And of course Minmay city itself. This is quite a substantial region quite similar to our ancient city states and their satellite towns, it could be mistaken for a small country if not for Minmay's political subordination to Ektal.

I wonder if it would be possible to acquire funding from other nobles despite having an agreement with Minmay. Minmay's negotiation person might not like the way I will have to give up a large portion of the profits. On the other hand, the Minmay region is large enough to be a testbed for my ideas and inventions. They will naturally spread across borders anyway.

**Magic**

**Lifeforce**

I've heard it said that our lifeforce is made of magic. That... doesn't answer anything, now that I think about it.

What does the magic do in our bodies? Since I can survive off the food here in Inath, either my lifeforce is doing something to keep me alive or the organisms here have all the amino acids. And a number of key vitamins. Which implies they have the same biochemistry, which is obviously extremely unlikely to have a different root from Earth's. Given that I have noticed a number of traditions being the same, from counting time, , I suspect Earth and Inath have a common root somewhere. Evidence of panspermia? Perhaps even migration from a society after the seven day week concept? If I can answer this, I might be able to find a way to get back to Earth. Ideally that
would be a two-way bridge that connects both worlds.

This all doesn't help answer the question of what lifeforce does. All I know is that lifeforce is a magical effect like any other, except that lifeforce gains magic over time instead of losing it.

I shall have to investigate more on this matter.

Magical Materials

I did some simple tests with Landar's magic on magical materials. It does appear that elemental water dissolves anything. I noticed it takes longer to dissolve polymeric substances like wood and textiles, while simple salts and metals disappear like sugar in hot water. I confirmed that wind eye starch is somewhere in between these two extremes. Water appears to have an affinity for smaller compounds over bigger ones, although I suspect this observation is not complete. After all, if that was the case, Water would dissolve the gases in the air and saturate instantly.

Elemental water can be saturated, refusing to dissolve more material. Based on attempting to compare the weights of saturated salt and wrought iron solutions from the same amount of starting elemental water, I suspect the saturation point is based on the total number of atoms. I can't be sure but the added weight ratio of about 1.06 is somewhat close to the ratio of molecular weights.

A few basic experiments showed that making composite materials is more complicated than I thought. Dissolving a piece of cloth and some iron then dispelling generated a tangle of iron filings and fibres. On the other hand, the grains of iron are of different sizes. I suspect that crystallization of the iron is happening as the amount of elemental water decreases and simply dispensing the water causes the crystals to crash out too quickly. This will require some development work to come up with a process that makes large single crystals of material. Similarly, I also need to find a way to separate dissolved compounds in a mixture, as well as conduct chemical reactions between dissolved material.

This sort of investigation would require some laboratory glassware, ideally volumetric, and would start by attempting to obtain pure compounds of various sorts. Unfortunately, Minmay is too focused on the three main projects I suggested and I have to fund this on my own money. It does not help that only one local glassblower master can meet the standards I need for glass containers and even his work is wanting.

Source of Magic

It has been explained to me that we manipulate magic in the surroundings and in our lifeforce to generate effects. Where does the power to generate said effects come from? How can lifeforce recharge it's pool of magic? Where does the magic come from? There are no answers of course, just questions to keep in mind for the future.

Magic Tool

I've discussed with Landar the process of casting magic. While creating an alchemical enchantment that can cast spells other than raw magical blasts, which are barely spells at all, is very difficult, I believe this is possible. In consultation with Landar, we have created a list of basic magical functions
for a non-human spellcasting mechanism. The end goal will be to create a configurable magical construct made of smaller parts that will be able to create a spell given a source of magic. I will call them magical tools.

Transfer Magic. This tool will move magical power around, from a source to a final area for other spellcasting purposes. This can be further subdivided into conduits and drains, where conduits is the tool that does the moving and drains are the portion that absorb magic for transmission along the conduits. A related tool will be to move entire magical constructs, including structure. Essentially pushing spells around.

Magic containment. What Landar calls stabilization of a spell, I think is actually just a containment of the magic inside. When unconstrained, magical power simply disperses into the environment like a gas. The most basic technique is to bond all the magic to each other such that it becomes a fixed shape and individual bits of magic cannot escape. There are some other ways but those are all niche and complicated and can be left for later. One of those is structures used by alchemy to bond magic to physical objects. Ems have no need of this since they are extensions of the person's lifeforce and remain under the caster's direct control.

In a way this is the first magical function that any mage learns. But there is no reason why more advanced functions or even magical material creation functions cannot be imparted. In fact, these form the main part of the spell. The individual functions are complex enough but spells are often delayed or based on various triggers. For example, the all purpose fireball spell is usually time delayed or solid object detection based.

Thus tools that impose the structure of a particular magical function can be divided into a few categories. Functions that create a desired physical or magical effect, of which all the various operations of casting spells fall under; functions that are sensors and triggers for a spell and functions that are internal logic linkers between different sensors and the operational functions.

I almost fainted when Landar explained that mages created spellcasting steps for various spells based on nothing more than testing until they worked. There is no... uniformity when it comes to casting spells that do more than 'go there and do this', the caster just makes up the logic on the spot, directly linking desired triggers to end functions. The most complicated operation I have seen is in an alchemical enchantment of a lamp, where the same trigger toggles the lamp on or off, which is nothing more complicated than inverting a logical state. A Not function. I have not seen a single magical spell that required an And or Or functions.

**Summoning Stones**

What are these summoning stones and why does everyone think they are different from normal magic? Landar and Chakim simply accept the fact that these stones are artifacts of the Tsar that no one understands. And no one knows how to make them, the only source is looting ancient Tsarian ruins or perhaps old battlefields.

One would think that these stones were used as weapons, given their offensive applications. The vast majority of summoning stones are used to attack a target in many varied forms, the Ritual class in particular are famous for their destructive capability.

On the other hand, there are a few stones which aren't combat focused or whose purposes no one understands. One functions a bit like a torch, generating light in a controllable cone, which most spellcasters can mimic to an extent using liquid light. The moveable light source is aptly named Dancing Lights but it is considered only a training tool. Another creates an image of a small bird which records sounds near it then immediately plays it back, and since no one has understood how to
make the bird move, it is useless. One can only guess at the controls, having been lost to time.

Even stranger is how that larger and higher ranking summoning stones aren't more powerful. Of course anyone knows of the destruction a Ritual stone can wreak but I suspect that even Minor Phantoms can do the same thing given the same power. Summoning stones can absorb unlimited amounts of magic to power their effects and the more power given to it, the larger and more powerful the effect.

This isn't limited by the rank of the stone, in fact no one has found any limit on the ability of summoning stones to utilize magic. Summoning stone ranks are based on the minimum amount of magic required to activate them, not the size of the effect, corrected for magical power. For example, even the Minor rank Sword can be used to generate many blades or a single larger blade that exerts more force.

And of course, summoning stones do not actually summon anything, not in the way I have appeared in this world. They generate holograms and deadly effects but I do not see any stone doing things that aren't possible with normal magic. I haven't figured out how Tempest Bolt can shoot lightning but there should be an explanation. The stones simply do all the spellcasting work when provided with power, and make controlling the magical effects much easier.

What I suspect is that Summoning Stones aren't magical weapons as I understand it. Not the way the bowgun and the single shot wands are. They only assist the caster in creating and controlling complex magical effects. They are magical foci or spellcasting assistants. Or a bit like a very complicated, hyperspecialized magical tool. After all, this was how I got the idea.

**Magical Language and Reductionism**

With all of that, I foresee the need to create terms to describe and classify magical effects and concepts. Every field begins this way and develops its own terminology. I don't see why magic should not have the same.

The easiest way to begin would be to divide the process of casting a spell into individual steps and breaking down all known magical effects into the smallest component parts that can work independently. There should be some overlap and these discreet units will form the basis of the first magical terms.

Then we need a way to link the terms together with concepts to describe the process of using magic in detail. Only then will we have the ability to really ask questions about how magic works.
A Small Step for Cato

The city of Minmay spread below him, snaking alongside the river Tine. An island of red roofs amidst a patchwork quilt of green and brown crop fields, shot through with a thick and lazy blue-brown river. Towards the horizon, the fields began to break up into clumps of light forest and the satellite villages. There were no defensive walls to be seen. The scene was so peaceful that it hard to believe these people were at war.

The oblong shape of the city hugged the riverside, its growth over the years evident in the way the streets and houses clustered along cluttered streets without much planning. There was no planned aristocratic grid in the center, or even a clear center at all, unlike Corbin. This was a town that was founded and grown without imperial planning, a natural center of the region's bountiful plains. The wealthiest area just north of the large stone bridge boasted the biggest mansions and stone buildings of the local guilds' headquarters, but there was no dividing wall between commoner and aristocrats and usually no encircling garden.

It was a free city in many ways, both from outside interference and from aristocratic aloofness. That reflected in its character and even atmosphere, people walked boldly on the streets between all districts without restriction. It was perpetually market day, with semi-permanent stalls lining the streets and even dedicated commercial buildings run by the larger guilds, all hawking their wares with loud voices to whoever might pass by, aristocrat and commoner alike.

Even from high up, the bustle of the city could be heard over the wind, snatches of voices and shouts. Occasionally, there was even the scent of one food or another carried over the air. Below him, people craned their necks and pointed up at the thing floating in the sky above them.

Cato adjusted the strap in his seat, carefully not touching the knot. His fidgeting didn't help make it any more comfortable but Cato wasn't going to risk undoing the knot, it wouldn't be funny if he fell out of the balloon on the first flight. Presently, he worked the pencil free and began to sketch on the clipboard, gauging distances by eye and the pre-arranged marker flags around town.

Above the single seat, the magical flame that heated the balloon was burning merrily. Cato prayed that it wouldn't suffer a fault like it did in the first test, but it held true and eventually as the balloon drifted out of the city outskirts on the wind, Cato let some air out the top with the red vent string. The balloon lowered itself and a few careful pulls brought him to roof height.

The riders had been following his sedate pace with ease and now the hired knights fired loops of rope out of overpowered bowguns at the balloon, catching on the array of hooks below the chair. Then, horses straining, they tethered the balloon and slowly brought it down to the ground.

"I never thought it would work!" one of the female knights said as she helped Cato out of the chair, "when I saw the job request, I thought you were insane!"

He wobbled a bit on his legs, it had been hours after all, and grinned at her. "We ran enough dry tests to know that it would fly," Cato said, watching the knights fold up the huge white balloon, "the question was if I could get down safely."

"Are you going to sell this... balloon?" the leader of the party asked, still supporting Cato's shoulder. Cato raised an eyebrow at her clear expression of interest.

"You can't afford it," Cato said, "you are free to build your own but unless you have a lot of money, I doubt anyone can replicate this."
After all, the first few disastrous attempts to re-invent powered flight by using magical force had eventually gave way to the much less ambitious but still ridiculously dangerous hot air balloon. This was actually the fifth balloon Cato had built, the previous four had suffered... accidents. Expensive ones. And even discounting the cost of learning to build one, the materials weren't cheap either. The fabric in particular had to have as little stitches as possible and be able to hold up the entire weight of the balloon, it had to be light, strong and as airtight as possible.

Just building this thing had taken more than half of Cato's money. Short of a guild or noble attempting it, there was no one else who could afford a balloon. And no one with interest since even the rare and troublesome Elkas could be had for far less.

"So what were you doing up there?" the knight asked Cato.

"I tried to draw a map of Minmay," Cato replied, still watching the knights carefully load his packed balloon into the cart for retrieval. She took the clipboard from him.

"You suck at drawing."

Cato directed the knights to leave the cart in the large warehouse on the freshly broken ground. The first thing Cato had done was to buy a field, with some urging from Minmay, and start to build his own buildings there. They were hastily constructed wooden buildings and made poor houses but that was enough to shelter experiments from inclement weather.

For those more delicate tests, Cato and Landar had dug out a small basement under the main laboratory building and even now the masons were shoring up the walls with bricks.

The strange set of buildings drew a cloud of gawkers and hangers on every day. As well as more educated and curious eyes. Cato made no secret about what he was doing, and told everyone who was interested to discuss and learn ideas.

And there were ideas galore. From the focused study on types of cement to refinements on the cast iron process, there were also more mundane ones. Primitive charcoal pencils like what Cato had used on his flight, clipboards, abacus, double entry bookkeeping and strangely enough, umbrellas. Cato had to resist putting palm to face when he realized that everyone here just suffered through rain with oiled cloth raincoats. Or just got wet.

Minmay's two administrators, the three alchemists on permanent loan from the Order, four expert craftsmen from the Ironworkers, Masons and two from the Recordkeepers, and more than twenty local guilds and lesser merchants were forming a core group of inventors, thinkers and writers. Not to mention their own connections and little cliques outside that spread ideas throughout Minmay.

Cato's efforts to break down the barriers the guilds had raised between themselves swept through the group like a breath of fresh air, as well as rigorous personal interviews and Minmay's backing to ensure the group was immune towards intimidation by outside forces. It allowed them to discuss their problems and propose solutions each of them would not have seen alone. Far beyond Cato's own ideas from Earth, the mixture of so many different fields that Cato insisted on was already beginning to bear the fruit of innovation. Partnerships without Cato had sprung up, for mass produced glazed pots fired in Ironworker designed furnaces, for an attempt to brew larger batches of beer in steel tanks, for the first instance of outsourcing accounting to the Recordkeepers, for a plan to design and build a printing press and start a new guild for region-wide postal and news services. Among countless smaller experiments to refine and improve current processes from more basic principles of physics and chemistry that Cato knew.
As Cato had predicted, the place was turning into a university. One that focused on science and technology, compared to the traditional Academy's focus on history and magic. Here, they would be equal before the light of truth and empiricism. The fight to make it truly independent was not yet won, even with Minmay's adamant neutrality, but the ball was rolling and gaining momentum all the while.

The most important innovation was the school building that Cato was headed to now. Built like an Earth style lecture hall design, the open air amphitheater wouldn't be open air for long. Not if Cato could convince the masons to test out cast iron framed constructions that would be needed to roof the huge area. Currently though, it was the focus of a large group of students.

Landar and a few alchemists hired by Minmay were currently in the center, conducting a basic class on how to use magic. The class was full of the children of lesser merchants, who had jumped at the chance of a low cost magical education, even if it was only half an education. This was the third group, the first two having managed to learn how to create and stabilize a basic magical ball were told to go home and practice it for a few weeks to get strong enough.

He nodded at the progress they were making, Landar was getting better at lecturing, however reluctant she was to admit it. The well-worn demonstrations and explanations had this third group already working at stabilizing their magic despite being only the fifth day of classes. The mana tax wouldn't be too far away now, a few more months at most once the first group turned into teachers in turn.

"The flight went well," Cato approached Landar as she wound up the lecture and sent them home to practice.

"Oh, how was the toggle?" Landar asked.

"The button works, I had to press it a few times to get the flamer to stop though, so we need to work on the accuracy," Cato said, "also, we need another method to store more magic, that short flight used up almost all of the reserve."

"What?!" Landar's shout drew the attention of the other alchemists who were packing away their notes. "Four days! It took all of us to charge an iron basket that weighs half as much as you and it's gone in less than two hours?!"

"Imagine if we were doing this with force spells," Cato remarked dryly, "by my estimates, we would need three to four times more power. Just to stay afloat."

Landar made a short choking sound and wilted onto the floor. "I see why we need the mana tax now," she said, gritting her teeth. The other three alchemists were also looking pale. The balloon flight had eaten up a truly preposterous amount of magic, more than Landar's golem in fact. "In order to build useful things, we throw away our pride huh?" she whispered, looking at the few stragglers left still practising their magic.

"Oh come on," Cato chuckled, "you're just thinking of all the cool weapons you can build with that much magic. I know you are."

Landar peeked up from under her eyelashes, a mischievous grin building on her face, "well, I guess that will be sufficient compensation."

"It's not like you aren't already building them," Cato sighed and helped her up from the ground.

"Well, I have a new idea to try," Landar said as she led him towards the firing range. Well, that was
subtle, Cato could already foresee another round of repairs. At this rate, there wouldn't even be grass left at the range. Landar's experiments tended towards the extremely dangerous.

Her creatively destructive weapons were mostly not useful. That didn't stop Landar of course. Only the lack of magic did and with all the magic she was buying, Cato had had to drag her off to dinner and sleep not a few times now.

"It'll be all right, I was just thinking that we don't need to store all our magic in the arrow before we fire it. If we assume a siege weapon transported by wagon, then we can have the firing mechanism transfer magic from iron storage blocks to the arrow. There shouldn't be too much degradation from overloading the alchemy if you fire it immediately. " Landar was practically skipping, "so with that technique I can count on the arrow having far more magic than it can normally hold! So I thought of the perfect payload!"

She conjured a spout of condensed magical flames in front of her that promptly fell onto the grass. "Liquid Fire!"

Cato backed away cautiously from the rapidly charring circle around the reddish liquid. The dollop of gooey fire shed heat like a torch, the grass around it was already smouldering. A close relative to the gaseous magical flames he used in his balloons, this magical material was hard to find uses for. Non-Landar uses anyway.

"Please put that out before you burn the place down," Cato sighed.

"How was the flight?" Minmay asked as Cato walked into the rented building. The chancellor was sitting comfortably on Cato's sofa. Currently the only one of that design in Minmay, although a bunch of nobles had placed their own orders. As the chancellor's own was still in waiting, the man liked to visit Cato's place to receive the daily reports. Cato suspected that he just liked the comfort of the expensive feather and spring stuffing.

"I managed to draw a crude map of Minmay," Cato said, holding out the clipboard, "the balloon definitely works well enough."

"I still don't see why you want to fly so much," Minmay said, examining the useless map, "the Elkas can do this just as well as you can."

"Elkas are too rare," Cato said, "there isn't even a single one here in Minmay. Taking resting time into account, an Elka can travel only twice as fast as a human. They can't stay up in the air forever."

"Neither can your balloon," Minmay pointed out.

"It is simply a matter of enough magic," Cato said, "or if I can manage to make a lifting gas. Back on Earth, we used to travel across countries by balloon before we had powered flight. Besides, imagine what would happen if we refined one of Landar's new designs and mounted it on a balloon."

The two men shared a mutual unspoken vision of a battlefield. It was on fire. Hopefully with monsters underneath.

"So it's still not ready," Minmay noted.

"No, the technology is still too immature," Cato said, "I could work faster if I could have a bit more money and people than just my own income, but you have other priorities."

"Indeed. The seed drill is working well here, as your double plow. The problem is making the regional barons use it, and the peasants too. They don't trust this new thing."

"For that matter, I'm not too sure you should have just applied it across the board like that," Cato said, "for all I know, wind eyes grow on the surface and work better with hand casting."

"They don't," Minmay said. "We already know wind eyes grow best when planted, but doing an entire field by hand is impossible."

"We will see when they start to grow, it should be only a week or so before the first shoots can be seen," Cato said.

"On to the second matter, the expedition set off today. Like you said, they are going to head to the Snow Wall first," Minmay reported.

"Good," Cato nodded, "let's hope they find something useful."
"A visitor for you, Danine!" a shout came from inside the house below. Kalny's door guard had quite the yelling voice.

Danine didn't bother with the stairs. She hopped off her perch outside the attic window, bouncing off the ledge on the house opposite then onto the frame of the back door. From there, it was a short hop to the ground. A visitor for her? Were her friends in trouble?!

She peeked out from the alleyway and a squeal rose in her throat almost involuntarily. "Ryulo?!"

The hunter turned away from the guard to look at her. Then another familiar tail appeared from behind him. Aleas waved at her, "hello, I'm here too!"

"Wow!" Danine bounded up to them, "why are you here?"

"To pick up a little lost lamb," Ryulo winked at Danine, "If you're not with Cato anymore, I think your purpose here is over. Time to go home."

Wha- Before Danine could even think about protesting, a certain tail lashed out and whacked Ryulo on the behind.

"Don't believe this idiot," Aleas grinned, "the council sent us here. We are to choose the Fukas who can make the trip to our village and guide them back."

"Hey, not in broad daylight!" Ryulo yelped.

Danine giggled and turned around to give him a whack also. Served him right for teasing her like that! But Ryulo blinked in surprise then flushed a cherry red.

"Well, aren't you a bold one," Aleas's voice was filled with mock anger, "trying to steal what's mine?"

Oh! Danine felt her cheeks burning. She hadn't realized the... risquer connotations until after she did it.

"I don't belong to you!" Ryulo protested.

"You're forgetting who is marrying who," Aleas pointed out.

Wait! Did she just hear that?! "It's real?!" Danine half-squealed.

"My grandfather made it official just before we left," Aleas said proudly, "and he's the one engaged to me."

Well, that was obvious, Aleas was the council member's granddaughter after all.

But to think that the two were standing here telling her the news in person! It was like a romantic dream come true!

Ryulo snorted, "not to worry, after all, I have the perfect plan to make you fall for me. " Smoothly like he had practiced for months, Ryulo dropped a hand behind Aleas and swept up her tail in one hand. With a perfect bow, he brought it up and kissed the tip. Danine utterly failed to suppress another squeal and even Aleas was flushing bright red.
There was the sound of a throat clearing. Kalny’s door guard nodded at the street and the open front door meaningfully.

The little fact that they were still standing on the middle of the street, attracting stares, had been lost on Danine but now the embarrassment came down on her like a block of cast iron.

Her tail was through the doorway and into the safety of the house in a blink.

"How is Minmay doing this?!" the hand slammed onto the wooden tabletop. The goblets arranged around the table wobbled dangerously but none spilled their contents.

The air was filled with a sweet cloying smell, smoke from acacia weed wafting up from glowing pipes to circle around the roof. They added a golden hue to the light flickering around the room. And a buzz to the thoughts of the lords and ladies hunched around the table.

"It is those inventions, of course," another voice added.

"But where do the inventions come from? That is the question!"

"My people have cased his place completely. There are no artifacts from the First, none in the guilds too I might add. Be sure to remember this favour."

There was a pause for a mutual waving of hands. A wordless agreement was exchanged.

"So it really is due to that new Academy he is building?"

"Pah! No way! That so called Academy is a dinner table of peasants, not a single wizard or spellstorm among them.

"Not even the Academy is paying them any attention. I shall quite enjoy turning Minmay into a laughingstock come next Parliament."

"That is, if he doesn't buy out all your caravans. My estimates, by a very reliable recordkeeper, think that if he achieves what he is saying to his peasants, his tax income will rise by a full tenth next year. And another tenth after that."

"It could put him solidly above the Central Territories. If you're not overestimating things."

There was a short silence in the room during which goblets were refilled with expensive spirits and new rings of smoke joined their brothers hanging out below the polished wooden ceiling.

"Something needs to be done about this."

"We know what you're thinking but no. Minmay is a border territory. You don't do that sort of thing, unless you want to turn into a border territory yourself?"

"Then what are we going to do about this?!"

"We need a political solution."

"It's too slow!"

"You forget yourself, Chancellor," the voice was stern, "do not presume to tell us what we can or cannot do."
There was another silence, this one deeper and more nervous.

Zaraan the alchemist waved a forkful of braid leaves to emphasize his point, "And so I think we can use elemental Water to form a weld between the stones."

"But you haven't even managed to recrystallize something out of water," the objection was immediate from Sari.

"This is for after we can do it," Zaraan retorted, sucking down another forkful of the leafy vegetable.

The camp along the road was halfway up the mountain and the knights were out scouting for any monsters nearby. The explanation the three alchemists had received was transparent, there was no way the knights would go out looking for monsters just to secure the campsite. They were out for the bounty.

After all, a request that paid knights to go out for a camping trip was clearly in need of livening up. Nutcases, all of them.

The three alchemists hadn't paid much attention to that and started up a roaring debate about the uses of elemental Water.

"There's no real point if we can't find Cato's natural magic," Mari cut in. Sari's twin sister was quieter but she had a piercing intelligence that Cato had liked immediately. Unlike the two of them, Mari had an open invitation to his rival Academy. Not that it would be much use.

"But imagine we could weld stones together!" Zaraan exclaimed, "a thin layer of magic, then poof, two stones are now one stone. Imagine a city wall bonded so! It would be almost indestructible!"

"And where would you find such magic?" Mari asked, "surely you're not going to undertake this project yourself?"

There was no real answer for that. Zaraan's idea had been considered by the masons already, as an alternative to iron bridges, but it still cost too much magic. In the end, Cato hadn't managed to convince them to fund research into elemental Water.

"The mana tax perhaps," Zaraan added lamely. They all knew that ambitious projects like welding together Wendy's Fort's walls would probably require years of tax income.

"If you're going to consider using ludicrous amounts of magic," the knight staying behind to guard them interrupted, "you might want to get on with finding this natural magic our client wants."

The knight pointed upwards into the night. On the dark mass of the mountain looming up, there was a tiny light, blinking.

"That's Quinn," the knight said, "they found."

"Found?" Zaraan asked, "you're not making sense."

"Not me, them," the knight pointed at the blinking light, "they're just saying 'found' over and over."

The 'found' signal turned out to be a mistake. The front party forgot to bring a copy of Cato's code book and the only relevant signal the knights remembered was 'found'.
But it wasn't an error that they had found something. The six knights had come across a cave system and wanted to explore it.

"Haa..." Zaraan complained as he dragged leaden feet up the steep slopes, "why is it all the way up here?!"

"You're just unfit," the escorting knight said, with a glance at the twins behind him. They weren't in any better shape.

"I don't understand how you can climb this cliff while carrying all our tents and food!" Zaraan huffed as he pulled on the rope to haul himself up the steep slope.

The knight raised an eyebrow. The knight not only managed to climb with straps and bags hanging off every limb, he also had three bedrolls and a tent across his back. And he was even wearing light chainmail.

If Zaraan wasn't completely sure, he might have thought the knight was some kind of monster. Why, he wasn't even sweating! After three hours of hiking!

Zaraan reached the top of the incline and stumbled onto the ledge the knight was standing on. Then he turned to the two twins also puffing their way up and helped the knight pull them up the rope.

As the alchemists sat down to nurse lungs on fire, there was a clink of metal further up the slope. Then another knight appeared around the corner of the rocky cliffside, clanking in full plate armour.

"Hey there Quinn," the escorting knight waved.

"Not doing too well, huh?" Quinn said, looking down at them, "you'll spoil them if you carry all their luggage, Tarral."

"A one hour brisk walk is taking more than three hours, if I give them back their tents and beds I think we'll never make it up here."

Zaraan could only pant on the ground, it was frustrating but true. None of them had ever left Minmay except during their apprenticeships, and going on extended hikes was definitely not his thing. But Cato's money was substantial.

A little thing like a hundred mile hike was a small sacrifice for becoming rich, at least until you actually tried it.

"Come on, it's just a little more," Quinn said, pulling the groaning Mari to her feet. The twins were so tired they couldn't even talk anymore.

They moved carefully along the ledge, holding onto the safety rope tied to Tarral. After another half hour of walking, they came across the gathered knights.

The party was standing in a huge flat area in front of a cave mouth. Rocks the size of heads sat amid a sea of gravel that had settled into a rocky soil. The barren area tilted downwards further away from the mountainside, shedding rocks and soil until it became a bare rock cliff over a vertiginous drop.

With such a convenient base camp, the knights were already starting to pitch their tents under the light of torches placed around the perimeter.

"This is an interesting place," Zaraan said, looking around the area with interest.
"What do you mean?" Quinn said as he helped Tarral unload the alchemists' tents.

Zaraan squatted down and brushed at the rocks, the gravel went quite far down, more than he might have expected. Then he looked up at the damning evidence, the cave mouth itself.

An oblong hole in the mountainside was what came to mind in the common conception of a cave, and indeed, this matched that idea to a tee. None of the knights or even the twins saw anything amiss.

Zaraan walked over to the mouth to examine it. Nope, no traces of water at all. "Caves don't form like this," he explained as everyone started to pay attention to him.

As Cato's designated rock collector, Zaraan was the only member of the expedition who had studied what little there was to know about stone. "Why are there small stones here when there are no small stones elsewhere?" he asked the air, "and don't caves usually have water that wears away the rocks? This one is dry. It has always been dry."

He gestured at the cave mouth, just a little higher than a person, and apart from the wearing of time, the floor and walls were unnaturally smooth for most caves, lacking random undulating rock surfaces.

"I don't think this is a cave," Zaraan concluded, "someone mined this place."

"How is it you people manage to come up with this?!" Landar cried, dropping the book down onto the table.

"Is it too hard to understand?" Cato asked, looking up from the ugly glass contraption on his side of the laboratory building.

"No, I mean, I understand it. Momentum, forces and friction is an elegant concept to explain why things move," Landar sighed. She picked up the polished iron ball and rolled it into another ball lying on the demonstration table. "But to think of something like a 'force' as an thing... or an interaction between objects. Whoever thought of that must be a genius! And you say there are more advanced concepts!"

Cato caught her eyeing the bookshelf storing Cato's primary set of writings. They both knew it was the book on relativity Landar had been thinking off. What little of relativity Cato remembered anyway. And quantum mechanics too.

"Did you read about the scientific method?" Cato asked, "I had a book on that too-"

"Why would I want to read about how to discover stuff when you've already done that for me?" Landar shot back. She looked down at the book and picked up newtonian mechanics again, "besides, how hard can that be? I don't need a book to tell me how to discover things."

Cato frowned, discovering rules and patterns wasn't something that naturally came to people. "Why don't we play a little game?" Cato asked, "then we'll see how good you are at discovering things."

Landar raised an eyebrow, clearly skeptical about whether a game could teach something this fundamental. "All right, I'm listening."

"I'll give you a series of five numbers and your job as the player is to guess the rule that governs whether a series of numbers are valid or not. You can propose your own series of numbers and I'll
tell you whether they are valid series or not," Cato explained.

She grinned and nodded.

"Let's go then," Cato said, "numbers can range from one to ten. 1, 3, 5, 7, 9, is a valid series. " He wrote down the numbers on a sheet of paper.

"Is there more than one valid series?" Landar asked immediately.

"You'll have to find out," Cato said.

"2, 3, 5, 7, 9," Landar guessed.

Oh, that was good. "That's valid," Cato smiled.

"So adding two was just a bait," Landar grinned. She thought for a moment.

"1, 6, 5, 7, 9." 

"Valid."

She was frowning now. "So what isn't valid?" she muttered to herself, "Five 1s."

"1, 1, 1, 1, 1? Not valid."

Landar nodded to herself.

"1, 2, 3, 4, 5."

"Not valid."

"3, 4, 5, 6, 7?"

"Valid."

"What in the world...?" Landar frowned for a while then suddenly thought of something.

"2, 4, 6, 8, 10?"

"Not valid."

This pause was much longer. Landar stared at the paper and muttered to herself. Then she sighed, "all right, you made your point. I've thought of all the simple rules I can think of but nothing quite explains this. So what is this scientific method you speak of that turns people into geniuses?"

Cato stared at the paper in turn. Yet another reminder not to underestimate Inath people just because they didn't come from a scientific tradition. "Actually, you were right," Cato joined her sigh, "you already know all the main points."

"What?" Landar looked at the paper filled with numbers and back to Cato, "but I couldn't solve this?"

"Your first guess, do you remember why you asked that?" Cato pointed at the number two.

"Well, the first thing that I thought of was that the numbers had to increase by two," Landar said, "so I changed one number to stop that."
"Precisely," Cato said, "you guessed a hypothesis and tested it. And tested it in a way that was designed to falsify it. That's the core of the scientific method."

Landar frowned, "that's it? You're telling me that your special scientific method is that simple? A child could figure that out!"

"You'd be surprised, most people can't do it on Earth," Cato said, "and from what I've seen, the same in Inath. If you've figured that out on your own, I would say you're pretty special."

Landar smiled, "you're not going to get any favours by praising me. But you're seriously saying there's not special method for thinking of ideas like these?" She waved at the bookshelf of distilled genius.

"No, there are no special techniques, but I still think you are amazing for working that out yourself," Cato shrugged. "What could he say after all? Cato wasn't like one of those historical giants, he didn't know if there was any special method for finding bright ideas beyond waiting for them.

Her smile just got bigger then a frown crossed her face. "By the way, what was the rule?"

"The series is valid if there is a seven in it."

They shared a long look. Landar slowly broke into a sunny smile, "you have no idea how much I want to strangle you right now."

The arrow shot through the leather belt and the man's pants fell to his ankles. Without even pulling it up, the Red Water gang member fled down the alley in his underwear.

"Hmph, these guys can't even stand and fight," Ryulo scowled, unstringing his short bow.

"The Red Water gang have knives and swords, I don't think many of them can shoot a bow," Danine said, "I've followed them around."

"Then all the better for us," Ryulo said, an undercurrent of anger in his voice, "so have you tracked down where this gang likes to hang out? What about their homes?"

Uh. "What are you planning?" Danine asked.

"Just a little night time visit," Ryulo said, the angry twitching of his ears putting the lie to his light tone, "you have to pay your respects to people who have taken such good care of you."

Behind them, Aleas was dressing the wounds of the Fuka man lying in a pool of dark blood. Her ministrations had stopped the bleeding but his pale face was not a good sign.

"I am starting to question whether it is a good idea for you to stay here, Danine," Ryulo added, "the Red Water is attacking more viciously ever since I got here, they're even attacking Fukas in broad daylight now."

He didn't mention how many new faces they had seen in the Red Water lately. Ever since Ryulo arrived, the Fukas in Corbin had started to take Danine's little gang seriously and many more Fukas had turned up wanting to learn magic for self-defence.

The Elder's agreement to take in the Fukas had been tempting but most of the Fukas in Corbin were still skeptical of such an offer. Some level of trust was needed, that the offer was real and their lives
could be improved. Along with that, rumours had spread that the Fukas were arming themselves with magic, and Red Water were the only people who could stop them. It was totally unfair of course, to treat Fukas as unable to do anything properly and yet still be a threat with magic, but unfairness was normal.

"I started this fight," Danine said, "so I'll be here until we win."

"Even if it's dangerous? Your mother will be very worried," Ryulo pointed out.

"Even so. " Danine tried to inject some confidence into her voice. Ryulo just raised an eyebrow.

Aleas hefted the Fuka man up onto her shoulder and they were about to leave when a new voice interrupted.

"That's quite the dangerous weapon you have," the speaker said from behind.

Ryulo snatched up the bowgun from his own belt and spun around, ready to fire faster than Danine could even react.

"Oh no, I'm not here to fight you. Or are we beyond talking already?"

Danine turned around and snarled involuntarily.

"Someone you know, Danine?" Ryulo said without taking his eyes off the man.

"Klaas, he's the one who broke Cato's iron furnace," Danine explained. She couldn't help the rising fear in her throat causing her tail to fluff up. She took him by surprise last time with a ball of magic but she didn't think the man would fall for it this time.

Klaas spread his arms wide, the signature cane in his right hand hanging from idle fingers, but clearly ready to snap up into a fighting position at any time. "Now now, you know how it is with Ironworkers, you couldn't expect us to overlook that, could you?" he spoke, "Ryulo, I have heard many things about you in the last few days."

"What is it you want?" Aleas said, still keeping an eye on the injured Fuka.

"I heard about a new pair helping the Fukas against Red Water and I wanted to take a look at you for myself," Klaas said, "first Danine shows up then two warriors like you, I wonder where you come from?"

They were not going to tell him of course.

"Well, your performance with those Red Water hooligans has been interesting to watch. Do show me more," Klaas said, the cane snapping up into his hand as if alive. Danine frowned, was that magic she felt?

Without any warning, Ryulo fired his bowgun right at his chest. Klaas was already moving and a flare of magic bounced the arrow off the back of his hand to shatter against the wall.

"Good, good! That's the spirit," Klaas smiled and backed away as Ryulo pulled another magical arrow from his quiver, "well then, it seems I have overstayed my welcome. We shall meet again."

Ryulo fired again at the retreating man but it just bounced off the man's coat again, then Klaas disappeared around the corner of the alley.

They all relaxed slightly.
"Who was that? And how does he survive getting shot by bowguns?" Ryulo asked, still holding his bowgun nervously.

"I think that was magic. It has to be. People don't deflect arrows with their fists. " She remembered the Resist magic dancing under her skin. Perhaps Amra's discovery wasn't actually new after all?

"Indeed," Ryulo agreed, "I saw a flash of green, maybe. "

"So did I," Aleas said, "perhaps you should teach us too, Danine. "

Teach them? Ryulo and Aleas?! Danine looked at the two best hunters in the village and nearly choked. She was going to be teaching them magic?!

Klaas lounged on the chair while Elma read through the report.

"Your opinion?"

"If it comes to open war, the Fukas could win," Klaas said, "those two warriors have magical weapons and they're not like the Redwaters. They've fought and killed people before. "

"So has Red Water. I recall using them for that very purpose."

"They're different. The gangs have always been better for intimidation and mayhem than killing, murder draws too much attention after all," Klaas indicated his chest for emphasis, "that Fuka man? He aimed for my heart without hesitation. Frankly, I wouldn't want to fight him without magic. And the order won't move if a known Red Water member gets himself killed. Gang wars are always messy because of this. Are you planning to take a side here? What's there to gain?"

It went without saying that the order wouldn't investigate Fuka deaths either. They were just Fukas after all.

"I wouldn't count on their inaction though. " Elma picked up another report and tossed it into Klaas's lap.

Klaas scanned it and whistled, "I see. So Cato continues to influence events even after he's gone."

"With Corbin's earlier attempt to kill Minmay's favourite toy, she won't want any reason to be criticized for public disturbances," Elma explained, "if the fight between the Fukas and Redwater starts to spill over into the streets, she might decide to take action. I doubt she realizes the connection between this scuffle and Cato, Corbin always had a blindspot around tails."

"So, what would you have me do?"

"What do you think are the Fuka's chances?"

Klaas raised an eyebrow at Elma. What could he be thinking? "Like I said, they may win a fight against the Redwater. Especially if rumours of them practicing magic prove true."

"The Fukas are favoured by Cato," Elma muttered.

"What are you thinking about?"

"We are getting rich here," Elma said, "but with Cato somewhere else, I doubt that will last for long. We need some way to attract his attention again, and the Fukas might just be it."
"You're planning to side with the Fukas?!" For a distinguished guild to help mere Fukas was beyond unheard of. They would be the mockery of all other guilds in Corbin.

Elma just shrugged, "Cato is our money source, yes? If we want to get more inventions from him, it would be best to gain his favour somehow. The Fukas could be one way."

"Chancellor Minmay, news from your province is rather worrying."

The Chancellor stood stiffly in the small room, "what news are you thinking of, your majesty?"

"The Mayor Corbin is causing disturbances regarding a certain man," the king leaned forward on his desk, "it has not escaped our attention that a rather interesting figure has opened a rival Academy in Minmay itself, and that Corbin, Selabia and yourself are all vying for rights to work with this person. His name is Cato, I believe."

Minmay bowed, "this much is true, your majesty. But I see no cause for alarm. The matter with Corbin is minor and easily dealt with, I am sorry that she has troubled your ears. And rumours of this rival Academy are greatly exaggerated, there are naught but two handfuls of people participating in this cooperative."

"Interesting you should paint it so, Duport thinks that Cato's work is the most amazing thing to have happened," the king locked stares with the chancellor.

"Your majesty, I have not known the good chancellor is given to praising the goings on in my lands, it would appear I have misjudged him," the chancellor smiled faintly, "nevertheless, I feel he is praising me too much."

The king knew that Cato's Academy was something Minmay wanted to keep to himself, the chancellor knew that but continued to pretend that Cato’s impact was much less than miraculous. This dance of words had been going on for some time now.

The king had had enough. He looked at the row of servants waiting for orders and indicated the door with his head. Without a word, the servants filed out and the door closed to leave the two nobles in true privacy.

"Your majesty needs something from me in private?" Minmay raised an eyebrow.

"Drop the formalities, Minmay, I need to know what is going on in your province," Ektal said, "What is he doing in your territory and why are you so eager to keep what he's doing to yourself?"

"You put me in a tight spot, sir," Minmay frowned, "I don't wish to say."

"Do I have to issue a writ? Because I really will launch a formal investigation. If I can't get the truth."

Minmay was silent for a long while then he spoke up, "Cato is responsible for the cast iron invention that we have discussed lately."

"Ah," the king thought for a long while, "very interesting. I presume the disturbance with the Ironworkers... hm, a clash between the guilds and the nobility cannot end well. They are too strong and this cast iron will only make them stronger."

"Indeed, sir, I fear that if news of Cato spreads too far, the guilds will attempt to use him. They may
even become unruly. " Minmay left the 'revolution' word unsaid but it remained in the air.

"And you think the cast iron is too valuable to not be used?" the king eyed Minmay, "how will you presume to control the Ironworkers by keeping it a secret? No one will help you if you lose control of the Minmay guild. "

"I have plans to engage the order of knights. I know most of the local leaders in Minmay and I believe I can handle any disagreements that may arise. "

The king continued to eye him for a long while then nodded, "so be it. I wish for your experiment's success then, may we see a day when all of Ektal is pouring iron. "

"Perhaps in a few years," Minmay nodded and with that farewell, hurried out of the room.

The king wrote a few more lines on the paper on the desk then said to himself, "an Academy of iron makes very little sense, cast iron is not crysteel. There is more to this than Minmay is letting on. "

The room remained quiet for a few more moments then the air seemed to get lighter, as if a hidden pair of eyes was now gone.
"A Sword to the Face"

"The issue regarding the formulation of bleaches and pulp has been satisfactorily resolved. And with the new installation of the last chain drive, the final extra set of drying rollers are now operational. With only one remaining minor problem of the belt timing, the paper mill is functional," Arthur read from the letter, "I have written this letter to you using the first batch of rolled paper packed with an empty roll, I trust you will find it a fitting commendation to our fruitful enterprise."

"Congratulations Cato," Arthur said, putting down the letter, "Razzi sends his compliments."

"Of course he would," Cato grinned, "we're about to become his biggest customer. Heck, even with the profit sharing, I'll be the one giving him money!"

It went without saying that Minmay's subsidization of the mana tax education effort that required a lot of paper. Cato had plans to make all the students copy out a primer to learning magical power as a method of teaching them basic literacy. The primer itself would also serve as a way for them to teach their families and friends, spreading the impact of Landar's teachings further.

After all, these barely trained pseudo-alchemists were being taught to enchant objects by rote, not actually learning the principles of using magic. They wouldn't inherit the snobbishness and insistence on perfection of Academy trained alchemists.

"What about the other matter?" Cato asked.

"The Recordkeepers and Ironworkers objected. Strongly."

They would do that. "Perhaps asking the guilds for further cooperation is not feasible right now," Cato sighed, "ah well, I had a dream of naming this group the faculty of a university."

"Faculty... university..." Arthur turned over the new words in his mouth, as if tasting them.

"Once the mana tax education takes off, I would like to move to the second phase of the plan," Cato said, "for that, it requires a core group of knowledgeable people willing to teach advanced techniques. I was hoping the guilds would be willing to share their knowledge if it meant I would release mine."

Arthur looked blank then he frowned, "I shall have to consult the Chancellor on that. This wasn't part of the agreement."

"Consult me on what?"

The deep voice from the doorway made them look up from the dining table. Minmay was standing there, fresh off the carriage.

"Sir, you are back! How was the meeting with the king?"

"It went fine," Minmay nodded, "thank you Arthur, for managing things in my absence. So what is this about things not in the agreement?"

Cato bowed, "I believe Arthur is talking about my request to the guilds to form a university by contributing those currently working under me as the first faculty. To which I will add my own writings about whatever I know and can remember."
"Ah, that cabinet," Minmay said, thanking a maid for bringing him bread and a bowl of soup, "you did secure it, right?"

"Landar wanted to 'upgrade' the enchanted panels with a self-destruct function," Cato said flatly, "I didn't let her. Of course."

"I wouldn't be too sure of that if you've ever left the cabinet alone," Arthur muttered under his breath. Clearly he was still sore about the firebolt launchers he had found hidden all over Minmay's estate. There was even one in that magical glowing window belonging to Arisacrota that he had to strong arm Landar into removing.

"You want to publish those books, I think that would be a bad idea," Minmay said.


"The meeting with the king," Minmay sighed, "the nobles are worried that your inventions will give too much power to the guilds. The king is worried that your work will result in another Nurren Agreement situation."

Ah. Cato was wondering how long it would take them to notice. The spreading of inventions, the mana tax and now this controlled release of basic science from Earth would result in financial independence of the people from the nobles. And not just the merchants either. Political change would be inevitable.

"Aren't you still in control of the projects? The university cannot survive without your funding and political support. I don't think there's much cause to worry about," Cato said.

"That was what I told the king," Minmay replied, "but I know just how little control I have over these projects of yours. After all, none of us know the way to proceed without you."

"In that case, since you are my financial and political backer, you have control over what I have the money and approval to do. The only person you have to worry about getting too much is power is me," Cato said.

"Exactly why I don't want you to publish your books, I don't want other people to start those other projects you mentioned," Minmay stated, "I'd much rather deal with just you. Besides, I would rather not throw my money away by creating competitors. I have full confidence that you can bring prosperity to Minmay by yourself."

Well, thank you for the show of support, but I can't settle for just Minmay. Cato only nodded silently however.

"I suspect that I was not able to fully persuade the king of my ability to keep the inventions under control," Minmay said, "a close friend of mine told me that a special investigation team was dispatched from Ektal. I don't think I need to point out where that team is likely to be heading. And why the king declined to inform me of it, he hopes to catch us off guard by sending the writ together with the team itself."

Minmay looked at Arthur and Cato, making sure they knew what he was talking about, "so please refrain from any actions that would give them cause to sending worrying reports back to Ektal. I have plans to divert their attentions with guild meetings and your university but for the time being, we need to give the king the impression that I am firmly in control of what is happening."

Hm. Royal attention, potential guild defiance and who knew what else? Other nobles would
certainly have learnt of this by now. That was certainly an explosive mixture.

One that could be put to good use.

Cato pushed the door to Landar's workshop, trying to balance the pile of food in his arms. He caught a falling piece of bread with his chin and finally managed to nudge the door open.

"Hey, there, mind helping me a bit?" he called out. Cato couldn't see her, his head being stuck above the top piece of the tower of bread.

There was no reply even when he shuffled into the dim wooden house. Drat that Landar, she was either too absorbed or out testing her new weapons. With much difficulty, Cato managed to unload the stacks of bread and flatbreads onto the food tray. Covering the pile with an oiled paper and placing a jug each of mild ale and boiled water next to it completed the set.

"Landar, you could at least help me with this," he huffed, eyeing Landar. She was hunched over something on her desk. Cato hadn't pried into what she had been doing the past week and a half when she turned into a recluse, thinking that Landar's genius somewhere he didn't want to be and best left untouched, but this really getting too much.

"There's some cookies and choko ale that you like," he ventured a temptation. That got her to look up. Gods, her face was terrible, black rings of sleepiness around her eyes and wild hair tucked away haphazardly with clips or behind ears. There was a sheen of sweat and oil over her face and thinned arms that said she hadn't even washed in the last few days. She was even developing pimples on her face!

Then without a word, she turned back to her task.

"Gods, did this woman even know what moderation meant?"

"Landar!" he snapped at her suddenly, causing her to jump. She eyed him with a look of irritation in her eyes but Cato ignored it. "Get over here and eat something!" he commanded, "you ran out of food two days ago and didn't even tell me! And don't think you can get away without rest either!"

He grabbed her arm and practically dragged her over to the food table.

"... so close..." she was protesting but only feeble noises came out of her parched throat.

Cato poured a cup of water for her and helped her drink it slowly. Then he gave her a piece of bread, watching her tear into it with ravenous hunger.

Once she was a little less crazy, she glared at him.

"You disturbed me, one of my threads broke," Landar complained, "now I have to make it again."

"Do that later," Cato said, snatching up a tablecloth and pouring some water on it before trying to rub some grime off her face, "you need a break from whatever it is you're doing-"

"No!" Landar whined, "I need to finish this! It's almost done! If you had come just half an hour later, I'd be finished!"

"You can have as many half hours later as you need," Cato explained gently, looking into her half-crazed eyes, "but if you kill yourself, you won't get to finish it."

"But I'm so close!" Landar whined again, "just another half hour. And a bit more to repair that thread
you broke. I only need to put one more thread down and it's done!"

The crazy light in her eyes was still glowing strong, and her eyes kept wandering back to the fire arrow in the corner and the mess of tiny objects on the table. Landar really wouldn't let this go until she had finished it. No, it was more like she couldn't let it go.

"All right, but you're going to eat, wash and then sleep right after that!" Cato relented, then raised an admonishing finger, "and I'm going to sit right here to make sure you do it!"

Landar nodded and sleepwalked back to the desk again, too tired to notice the obvious joke opportunity.

Cato left the shed and sat down in the chair outside. She didn't even notice him go.

What were these threads she was talking about? Well, there would be time enough to find out what she was doing after he made her rest. Perhaps he ought to get a pencil and clipboard to take some notes too. This ought to be good, if Landar was going this crazy over it.

Cato stared at the crisscrossing lines of thread above a forest of needles poked into a heavy cloth board.

"What exactly is this, Landar?"

"Oh, you know, I was trying to make that fire arrow design I talked about last week," Landar pointed at the 'arrow' leaning against the corner of her shed. That was more like a ballista bolt than an arrow, it was nearly as tall as her and as thick as an arm. "It's really quite amazing, what you can do if you just assume you have lots of magic," Landar said, running a hand over the wooden shaft with a grin.

A disturbing grin. The evidence of her exhaustion was still all over her face and body but not a trace of it crept into her voice. At least the wildfire in her eyes had faded once she thought the project was done, replaced with a glow of proud satisfaction.

"Um, what fire arrow idea was this? I thought you said that the timing system only worked at one range?" Cato asked.

"I made the enchantment require the mage to set a specific timing before firing," Landar said, looking at Cato expectantly.

"But you did say that unless the mage understands how the spell counts time, they wouldn't be able to make such modifications on the fly? Not unless they were familiar with your spell."

Bingo. Landar's eyes lit up as Cato asked the question she had been waiting for.

"So the first thing to do is to make the counter uniform between enchantments," Landar said, "and this is my attempt. " She waved at the pincushion with some thread woven around the needles.

Cato examined it more closely. The needles were regularly spaced across the board but there were distortions in the grid, it had been arranged by hand obviously. The rough attempt at making a square grid of six by six was clear enough. The threads were also woven together in a pattern, now that Cato saw it. No thread touched or crossed each other, and the needles on which they ended were the starts of other threads further up or down the needles.
And the whole thing faintly glowed of magic. Thread, needles and board.

"So, what does it do?" Cato asked.

"It builds a timer into the arrow enchantment," Landar grinned from ear to ear, "with this, every timer is the same timer, and can count in the same way."

She took out a pair of fine tweezers and held up a magical string that was hanging loosely from the needle at the corner. "The timer works by slowly shaving away at the trigger block of magic here in this string, every time a pulse goes around the central circle there. It's essentially a tiny conduit in a circle, a sensor for the pulse, drain for the block and a sensor for the block," she pointed to the relevant threads, "it's a common way to make a delay timer but the size of the timing circle, the strength of the drain and the size of the trigger block all affect how long it takes to trigger, and every mage makes it differently. Not even I can make the same size of circle each time, and the error gets worse the longer times you want it to count. Anything past a few minutes is quite unreliable."

Landar then pointed at the needles and the board below it, "this part here then takes the above circuit and imprints it into the enchantment below." She picked up the board and laid it on the base of the giant arrow. A stream of magic flashed through the board and into the arrow and the deed was done.

"So far, I can only make it create circuits on the surface of the enchantment and it can only do conduits and drains. I also have to connect it to the payload," Landar pointed at the main shaft where the majority of the enchantment's power resided, "But the result is I can make timers that are virtually identical! I've tested the timer with a trigger block set by the board and it works with unbelievable accuracy even out to one hour! It's accurate to within a handful of heartbeats! If a mage learns where to find the trigger and how to set the size of the trigger block, it should be quite possible to achieve good control for a battlefield weapon with some practice."

Cato was busily writing the spew of words down. It explained a lot though, if he understood it properly.

To be honest, Cato had no idea how to validate her explanation, given that he couldn't use magic, but there was something he absolutely needed to ask.

"I never heard of anything like this board here," Cato said, "an enchanted item that can use magical power to modify other enchantments?"

"Ahahaha, yeah," Landar laughed, evidently happy Cato noticed that, "that part took me all week. Well, I had to cheat a lot too. It's actually three separate enchantments for conduits, drains and a magical power sensor. Honestly, it's not any use outside of making timers, the board enchantments only make the parts with all the other things like size and activation conditions fixed."

"And the board takes the pattern of the enchantment from the threads on the needles?" Cato asked.

"Yeah, that's the other cheat, or should I say genius?" Landar shamelessly indulged in self-praise, "A conduit going in a circle is traditional, but... it doesn't need to be a circle. Right? I mean, it just has to start and end at the same place. So what if it's a square, like these conduit threads going round these four needles? Oh yes, there are three types of threads to tell the three parts of the board enchantment what to do. And tying the ends to the needles tells the board to connect those two parts of the pattern. And no, you can't cut the threads, I enchanted each string individually. Terrible headache that gave me."

In other words, Landar had made something akin to an enchantment that allowed the user to enchant other objects in a precise way controlled by the patterns of threads set on the needles.
The analogy to a compiler for a programming language was obvious. Or a numerically controlled machine tool for physical parts. And in hindsight, that explained why Landar had gotten hopelessly addicted to the project. She was clearly a true mad scientist, presenting her with an analog to a programming language like this was like dangling yama jam in front of a reki.

Well, she certainly deserved to be proud of the work. Cato re-read his notes, trying to absorb the magnitude of the invention that was described messily on the paper. "Landar," he put his hands on her shoulders and looked at her seriously, "please believe me when I say that this is the most important thing you have ever made. Drop everything else you're doing and improve this."

She blinked at his sudden intensity. "What- er, what do you want me to do?"

"Anything that improves the board. Find a way to allow the threads to control those parameters you said were preset in the board. Find a way to make more types of enchantments the board can do. Particularly, find a way to make functional components with the board, not just control patterns. Heck, it doesn't even need to be a board!"

"But I spent all week on this! You're asking me to spend even more weeks?!" Landar cried, "and there's so many other ideas I haven't tried out yet! Like the wind blade spell your stories had!"

Sorry Landar, the wind blade will probably never work. Air just doesn't work that way. Cato silently apologized. "This is really important!" Cato emphasized, still gripping her shoulders. "this board of yours is the first step to a true magical tool. It is already a prototype that can be used to manipulate other spells. Once the mana tax starts to roll in, magical tools will be the next big step."

"Eh? But but..." Landar's eyes escaped his grasp, darting to the ever growing pile of half-baked unfinished ideas in the other corner of her workshop

How about a bribe? "I'll buy you the entire field next door," Cato said, "one huge area just for you to shoot anything you want, full power. I don't care if you burn it, pound it, glass it. Whatever. Just spend most of your time on improving the magical tool."

Landar's eyes wandered over to the fire arrow. Too obvious. "Ooo, that's romantic. A girl might get ideas if you start buying land for her you know?" she teased him.

"Yeah I'm sure you already have ideas," Cato said dryly, "a bit of dirt that you're going to turn into a giant smoking crater though? Pardon me if I don't think that's very romantic at all."

"All the romance I need is a pile of magic and giant fireball to turn it into!"

Their observer arrived together with the writ, just as Minmay expected. The excuse for not announcing it seemed to be that Ektal didn't want to spread rumours too far, but judging by how fast Minmay himself got the news when it was supposed to surprise him, the royal attention they were drawing must be all over the country by now.

After the expected tour of the grounds, Minmay had tried to keep the observer busy in meetings with the local guild leaders but the man insisted on doing so.

Cato nodded at the merchant and the Ironworker discussing how to use the drying rollers, the same ones that Cato introduced for Razzi, for washing clothing. Cato didn't give much chances for it to work though. Mechanically, squeeze drying the clothing shouldn't be a problem but Cato couldn't see how it could be commercially successful. No one except nobles could pay that much money just to do laundry.
Well, not that Cato would stop him. And who knew, maybe that merchant would surprise Cato.

In the middle of the discussion about the drive chain sprocket jumping problems, the noble who had been watching them suddenly cut in from where he was sitting.

"I have heard of gears from a famous blacksmith in Inath," their observer said.

The conversation stopped and they looked at him. Um. Okay?

"Why do you use chains to move the rollers when you suffer so many problems of them coming off the sprockets? I'm sure you find gears more useful."

Oh, he was making a suggestion! Cato was about to reply when what the noble said finally got through his head. Er. "I am sorry, sir, but we do use gears," Cato explained, "the chain is just a way to move power over longer distances."

"But why not use gears to do that as well?"

"Because you either need a drive shaft or many gears, and chains are cheaper." But Cato had a hunch that explaining things wasn't going to work.

"So if you did use drive shafts, wouldn't that solve your problems?"

It looked like he was either determined to derail the conversation or was just obstinately denying their insinuations that the man didn't know the least bit about what they were talking about.

"Do you even understand what the problem is?" Cato asked him, "perhaps you should refrain from commenting on topics you are unfamiliar with." To avoid looking silly, Cato only thought about the last bit, he had learnt something from Landar's warning not to speak badly of nobles after all.

Or maybe he hadn't learnt anything at all. The noble drew himself up and, with a self-satisfied grin, declared, "and you shouldn't insult me so casually. I am Rany Rize, the third son of Chancellor Duport!"

Ah crap, so it was a trap after all, that noble was just baiting Cato. He sighed and looked over at Minmay for help. The Chancellor was looking at him too, with an amused look in his eyes. What was so funny about this situation?

"Was it an insult, my dear boy?" Minmay said, still smiling, "I only heard well-meaning advice. Perhaps a little more casually than is polite but one cannot expect commoners to reach the lofty heights of formalism such as ourselves, no? Do you wish to state your grievance more clearly?"

The merchant and the alchemist were all looking at Minmay with raised eyebrows. Belatedly, Cato realized the trap in Minmay's words. All Rany could do was grit his teeth impotently. A duel with words, this was. Round one to Minmay.

Cato sighed, he had a feeling he would be seeing a lot more of this in the near future.

Hmm? So that was the much talked of rival Academy? It didn't look like very much. Polankal hoisted her backpack and walked across the strangely barren field.

"Oi! Look out!"

Eh?
She looked upwards as the distant figure on the other side jumped and pointed. There was a small dot... No, it was getting bigger. Wait, it's coming here?

She stepped backwards slowly. The dot expanded into a palm-sized blob and she could see the surface was wooden, then it suddenly burst into a red flower of magic. Ahh! She turned and shot back across the thin fence, the blooming heat from behind was very good encouragement.

Just what under Selna was this place?!

It was the most mismatched bunch of people she had ever seen. If this was how Minmay did things it was a wonder those people got anything done at all!

A merchant was waving his arms around, talking rapidly while a knight, an alchemist and a noble listened and gave comments. What the merchant had to say was beyond her hearing range. Beside them was a group of knights escorting another noble, who seemed to be just observing.

Polankal had wandered into the meeting area, wondering how she was going to join this new Academy. Try to bluff that she was a merchant's daughter? She was starting to regret not running away immediately.

No, she had to do this. Even if she was just a peasant, she would have to learn to stand among nobles.

"Are you here to join us?" a woman approached her, "don't worry, if you're just here for the magic classes, it's open to all. Allow me to welcome you."

Oh, that was easier than she expected. Then Polankal turned around and saw the waist length black hair from the woman's ponytail. A clear mark of the Tsarian summoner clans. One of the heroes of the stones?!

"I-I... yes! I'm here! To join, I mean," Polankal mentally cursed herself for stuttering, "I'm Polankal, from Taia village!"

The woman blinked and then suddenly bowed, to Polankal of all people! "I'm Landar Iris, I'm really sorry for the accident earlier, that must have been frightening."

A true summoner! From the Iris clan! Was apologizing to her! Polankal blinked away sudden tears, aware that her clothing was far too sloppy for the majestic woman in front of her. "It's all right," Polankal muttered, wondering when the woman was going to snap and break her in half.

"No, really, it was my fault for not checking if the range was clear before testing my new weapon," Landar sighed, "well, it seems that you are all right, physically anyway. Allow me to buy you lunch, as an apology."

"I- I wouldn't dare," Polankal cursed herself as her voice barely squeaked out.

"No, I insist," Landar said, holding out a hand, "come on, I know a nice diner. And I need an excuse to skip out on escorting this stuck up noble."

From the woman's look, that would be the noble who was observing the discussion. But Polankal could feel her mouth hanging open. Landar had started out as the perfect image of a noblewoman but wasn't this getting too casual?! And Polankal could feel the heroic image of summoners proudly wielding their stones crumbling slowly.
Not caring about her reaction, Landar just continued ranting, "just because he has the king's backing doesn't mean he can poke his nose in everywhere and tell us what to do!"

It looked like Polankal might need to adjust her expectations.
"Muller! It's good to see you again!"

The bulky builder shook the fat man's hand. It was fast becoming a code among those who had worked with Cato.

"Take a seat and allow me to serve some snacks and wine," Kalny walked out from behind his desk and gestured at the small tea table to the side. "Prepare a set number 1," he said to the maid waiting at the door. She bowed and left immediately.

"If you do this for every person who visits, it's not wonder you look like this," Muller commented, looking at Kalny's round body.

"Haha, you have to forgive my indulgences," Kalny laughed as they took their seats, "the canned food business is doing well, salt and sugar seem to work well as preservatives, it covers up the taste and you can imagine the damage that has on my waistline."

Muller grinned, "doesn't change the fact they taste awful. And I think your waistline expands in proportion to your business. Nothing to do with your canning."

"Ability to preserve wet food for months is worth the taste though," Kalny said, "I still have some bottled Choko from the very first batch that hasn't rotted. What about you? I've heard some unbelievable things about your iron bricks."

"I've gained contracts to renovate city gates, build a house and a tower next to Tine river crossing. Ten floors. A vanity project."

"Ten floors!" Kalny blinked in amazement, "How much stone are you hauling? Will I be looking at higher transport prices?"

"The latest batch of cement formula turned out well," Muller replied, "With cast iron reinforcement, the bricks and this new cement, the walls won't be any thicker than this table. The soil will need reinforcement too but the site is known for a shallow bedrock."

The two men looked down at the wooden table, it was perhaps an arm's length across.

"Amazing isn't it?" Muller said, "what Cato has done. I wonder where he gets his ideas from?"

"Nowhere. He doesn't get them from anywhere. I'm very sure there's no such thing as a First artifact behind him."

"But then how can one person change so many things?" Muller asked, "I could believe it if he thought of canned food or iron bricks, but not both at the same time! And that paper machine Razzi just finished! I hear Cato's building some kind of flying balloon in Minmay too."

"Despite what Corbin wants to believe, I really don't think there is a First artifact. I think what he does can be understood," Kalny said, eyeing the display cabinet holding a rack of dusty glass bottles. Chokos, paka milk and other foodstuffs floated in them, free from rot despite the obvious age. "And what we can understand, we can do also," Kalny added.

The two merchants looked at the rack together, thinking of possibilities.
"But where to start? We can't think of any ideas like Cato does," Muller said.

"Think about the way Cato refines his ideas," Kalny said, "he recently asked me to collect samples from every type of plant I could access and send them to him. Presumably he's going to try looking for some property that makes the plant good for lining my tins to prevent the metal taste. "

"But how is he going to find that property? That is the main question. "

"I don't know how," Kalny admitted, "but I do know that he can't be doing anything too complicated. He did say that all the interesting 'chemical reactions', whatever those are, need better equipment. So I should be able to do the same as he does. Maybe try drying, boiling or fermenting them?"

"How is that going to help me? When I don't have anything to try?" Muller asked.

"I don't know either, but perhaps you can do the same thing," Kalny said, "try changing the way you make the cement? Maybe if you add different types of stone?"

"Maybe," Muller sounded unconvinced, "but I'll give it a try. "

"I- I am waiting... await... your instructions. "

"I await your instructions. "

"You got here, both of you, good. "

"You are too kind. "

"I-"

"I don't expect you to think of me as kind, Piyo, as long as you remember what happens if you fail. "

"I un- understand. "

"We have all arrived here differently and seen many things, but there is no change to our roles. I will be the distraction, the obvious target. Reki will be the hidden knife, striking at their weakness. And Piyo, you will be the one moving unseen. "

"Yes Ra-"

"Don't use our real names! Idiot!"

"Yes! Sir... But can I... really do it? I- I can't imagine... how..."

"You will do it. You have no choice. "

"But- but, it's too much! This place... I can't..."

"Your family is quite well known among us you know? Who knows what could happen if I report that you refuse to play your part?"

"! I- I understand. "

"Will you do it?"
"I... will..."

"Good. Now, you, Reki, how is your part?"

"I cannot believe how undefended they are, sir. I could walk in and out ten times a day and not be caught even once. Tell me who and I will take their life, like taking the bobtail from a piyo."

"Very good. Observe for now, refine your plans. When you see an important target, strike. Remember that Cato must not be killed. For him, capture if possible, otherwise leave him."

"Understood."

Polankal sat at her seat, trying to make the magic appear from her hands.

The young boy to her left was already trying to form a ball. She sneaked a peek at his magic, it was almost spherical already.

She sighed and concentrated again, a wisp of magic appeared as usual, but just the same, it died out and didn't return.

Just what was she doing wrong? Polankal sighed again.

"Having trouble?" Landar asked.

Polankal jumped out of her seat and hurriedly smoothed down her dress. "Uh, uh, yes. Um, I am fine," Polankal bowed.

"Doesn't look like it," Landar smiled, "here let me show you."

She pushed Polankal back into her place on the brick bench and held out a hand. Polankal could feel a small stream of magic flowing out from Landar's finger.

"Please, don't trouble yourself with me," Polankal said. How could she accept this? A personal lesson from the leading alchemist? And an Iris at that? Surely Landar had more important things to do.

"It's fine, we are here to teach," Landar said, "or are you going to waste my magic by talking instead of practising?"

"Eek!" Polankal squeaked and turned back to her magic practice.

They were the slow ones. The few students who didn't seem to be able to use their magic after the mass lecture and demonstration. Those twelve people out of two hundred had been taken to a side room after the class for more focused teaching.

After the ministrations from the three alchemist teachers, all of them but Polankal had managed to at least create something like a ball.

Her latest attempt died out again and wouldn't return no matter how hard she concentrated. Polankal could almost cry in frustration. No wonder only the nobles studied magic, simple peasants like her would never be able to use it.

"Nonsense! There is no such thing!" Landar snapped, giving Polankal a light slap on the back of her head.
She must have said that out loud. Polankal looked up at the alchemist, feeling tears well up in her eyes.

Landar sighed and spoke more gently, "Don't give up so quickly, it's only been a day."

"But but-" Polankal couldn't help but look at the other noble and merchant children sitting in the class. The slow learners were all without exception young children, except for her.

"Hmm," Landar frowned, tapping her finger to her lips as if remembering something, "Danine was the same, wasn't she?"

Then Landar ruffled Polankal's hair, examining the dark brown strands closely. What? What was she doing?

"Here, try this," Landar said finally, holding out a hand. There was no stream of magic coming out but there was a distinct feeling of something there. Something like magic but not quite. Polankal poked a finger through the space above Landar's hand curiously.

"Imagine this," Landar lectured, "you can feel your body without looking at it. You are aware of your body. When you move your fingers, that awareness moves with it, right? That is your magic. Now try to move that awareness without moving your body."

This time it took Polankal less then five tries before something changed. She had managed to extend something out of her palm. It felt like she had somehow grown a phantom limb out of her hand. "I did it!" Polankal cried.

"Not yet," Landar cut off her excitement, "now remember that exercise we were teaching? Only don't push your magic out of your body, just let it flow out here, in one spot inside that area you extended."

In the similar area above Landar's palm, a single bright dot of magic appeared, dispersing as soon as it was formed. But Landar continued to put out a small flow, keeping the spark alive.

And again, Polankal managed it quickly. The spark appeared and grew. Without prompting, she moved on to the next exercise, shaping the magic into a ball. it was so easy! Magic appeared, moving and taking shape like a hand she didn't know she had. She poured out her magic, keeping the ball alive despite the dispersion.

Without warning, the magic cut off. Polankal tried to look up at Landar to ask but she was suddenly too tired. Her whole body felt listless and heavy.

"You overexerted yourself," Landar sighed and muttered to herself, "come to think of it, Danine did that. And so did I when I learnt magic for the first time too. I wonder if that's common."

Polankal couldn't respond to that, the crushing weight on her chest had grown until she couldn't hardly breathe, much less speak.

"You," Landar said down at Polankal sharply, "do you have Tsarian blood in your family?"

Her grandmother's brother had black hair, a throwback to some distant ancestor they said. But all she could do was nod.

"Interesting," Landar muttered again and walked away.

In slow motion, Polankal toppled from her seat to the floor, struggling to breathe from the backlash.
Her whole body felt like it was burning up. The noble child sharing the bench with her leapt up and shouted something at the teachers but Landar didn't even look back, not even when Polankal tried to croak out a cry for help. As if she didn't hear anything, Landar walked out the door.

One of the other alchemists rushed over to her, laying Polankal down on the bench. "You'll be alright," the teacher said, his eyes reassuringly steady, "a little backlash won't kill you."

Had she done something wrong? Something that offended Landar? Polankal felt the tears come again. Obviously she was so bad that she overused her magic on her very first success. Landar must have been disappointed.

The male teacher caught her eye as she looked painfully at the door. "Don't mind Landar," he said, sighing heavily, "she always gets that way when something catches her interest. It wouldn't kill her to be a little more sensitive but well, she wouldn't be Landar otherwise."

Polankal looked up incredulously. So that was all just Landar being distracted!?

"Please forgive her," the teacher bowed. To her! That was the second time someone important had bowed to Polankal in her entire life. Incomprehensible, all of them. Landar most of all.

She sighed internally. I give up, this place is weird. With that thought, Polankal fainted dead away.

The man crouched in the alley, concealed behind empty barrels. His eyes scanned the street relentlessly.

There was a woman's laugh and the sound of approaching people. In the street outside, a woman and two men were walking along and chatting.

Completely defenseless.

"Now Landar, you should know that rye goes best with braid sticks!" one of the men laughed again, obviously tipsy. He munched down on a soggy vegetable stick.

"Your love of alcohol will kill you one day," Landar sighed, holding the man up with the help of a walking stick. The other man was holding a stick coated with Liquid light, illuminating the street as they walked down it.

The man squinted from his cover. Not completely defenseless after all, Landar was covered head to toe with a faintly magical barrier.

Useless, such a weak barrier was nothing before him.

The man crouched deeper, one hand drifting to the curved steel blade at his side. One heartbeat later, his hand flashed outwards, the blade snapping out of the scabbard for a mere instant before immediately returning to its sheath.

"Hoh," the man raised an eyebrow.

The man Landar was holding up screamed as his hand detached from his arm, blood spraying over the street. The moment of shock passed but the man noted how Landar's shield suddenly flashed to full power.

He stood up.
"Amazing," he said, walking out of the alley, ignoring the screaming alchemist, "I give you my compliments for surviving that attack."

Landar snatched her gaze away from the bleeding stump and glared at him. She said slowly, a false calm in her voice, "I was part of an adventuring party once. Omal, take him and run!"

The alchemist holding the light snapped out of his shock and grabbed the screaming alchemist from Landar. Then the street broke out into screams and cries as the few remaining patrons in the night scrambled to get out of the way of the fight.

With a presence of mind that surprised even the man, the alchemist dropped his light and used his belt to tourniquet the bleeding stump.

"What manner of blade is that?" Landar asked, "I've never seen a sword that could fire a cutting edge." The man smirked, "it's my sword after all. And no ordinary walking stick could super charge your shield so quickly. An iron staff, I'm guessing. Only that could have enough magic."

"Omal, run! Now!" Landar hefted the staff, watching the severed hand slip down the stick onto the ground, "a blade that fires the closest thing to a Sword summon. And that speed. You must be Light's Edge." The man bowed in mock politeness, "indeed, the very man am I. I am honoured to be facing the Mad Alchemist herself." Landar sighed, watching the man in front of her warily as her companions ran away down the street. Neither Landar nor the man made any move, separated by a mere ten paces. "Why are you here?" Landar asked finally.

"To kill you and everyone who works with you," the man said simply.

The two of them acted immediately. There was a flash and another blade of magic cut deep into Landar's shield but failed to penetrate again. Landar herself lit up with enough magic to tear the street apart, blasting forwards in a stream as powerful as only an Iris could make it.

The man known as Light's Edge flashed to the side, the Em in his legs moving him faster than any human. Landar grunted and the stream bent around, the magic coiling in a wide circle around their entire battlefield. It closed in a full circle ending back at her, trapping him.

He eyed her warily, no Iris had that much control over their spells. But this was the Mad Alchemist after all, perhaps she was different. He readied his sword again then with a series of flashes, loosed a storm of magic targeting every limb and joint on her body, with the last six all targeting the same spot around her neck.

The magical force cut deep into thick aura of magic around her but the aura ate it all. Even the six cuts he tried to punch through with failed to connect.

Hm, this could get a bit tricky. Just how much power had she stored in that iron staff? With her uniform disruption aura, to absorb six consecutive attacks anywhere would require a considerable amount of magic. And how could he not have noticed that amount of magic? The staff was still only faintly magical, the amount of magic she was using now could be felt halfway across the city and certainly more than any lone Iris could have managed. There was no way she could have stored that much magic in her staff and not have it noticed.
He squinted at the staff. The question was just how much more magic was in it. He was running out of magic fast, those slashes took a lot out of him. And if he couldn't get through that disruption aura before she cornered him... Hm, the encircling magic was thinner?

I see, she drew back her attack magic to power her defense, looks like my attacks had at least some effect. He thought quickly, then decided not to take his chances. He ran down the street, channeling disrupting magic into the scabbard. With a swing of the sheathed sword, he punched a hole through the encirclement and escaped.

Left behind on the street, Landar heaved a sigh of relief and began to withdraw her magic.

The men and women sat around the table, a gloomy atmosphere wafting through the room like a bad smell. Worry lined their faces, despite the snacks and alcohol lined up in front of them. The entire inner group of the university was here, including Minmay and Chakim.

"Are you sure he was Light's Edge?" Minmay asked, "not someone simply claiming to be him?"

Landar simply looked at the alchemist whose left hand was now a bloody stump. There were very few people in Inath who could use a sword to cut at range, exactly one to be precise. She was still wondering if that sword wasn't also a magical weapon.

The gloomy atmosphere got deeper.

"Why are we all so afraid of him?"

Well, there was at least one clueless person here. Being from another world, Cato wouldn't have known the famous people of Inath.

"It's Light's Edge! A sword faster than sound, faster than light!" the alchemist cried, "he's one of the most dangerous Em masters. His blade is unstoppable!"

"Doesn't look unstoppable to me," Cato pointed out, "Landar's still here."

"I only survived because I had my iron staff," Landar retorted, "the barrier I placed around it because the flare in magic sense was getting too annoying prevented him from knowing that I was nearly running out of magic. If he had continued to attack, I might not have gotten away."

"Can you do better next time?" Cato asked her.

"Perhaps," Landar shrugged, "Light's Edge has strong magic and is very fast, but ultimately he has only one main trick and some martial skill. If I charge my staff beforehand and set up shields, I should be able to drive him off again."

There were sighs from all around the table. "As expected of the Mad Alchemist..."

"And I will be her escort," Chakim said, "with a Sword and Shieldwall, I will not let him touch a single hair on her head."

"What about the rest of us?" the uninjured alchemist asked, "Landar might survive an attack, but we won't. Also almost all of us can't even use magic. How will we survive?"

Another layer of doom and gloom settled on their shoulders like a heavy blanket.

"We cannot wait for him to come to you," Minmay said, "since Light's Edge is stronger than any one
of us individually, if he attacks someone alone, that person will likely die.

"Then what can we do?"

"We stay together," Landar said, "move everyone into the university, change one of the new classroom buildings to dormitories. Then when he comes, I and Chakim will be here to defend us."

"It would make defending you easier," Minmay mused, "I could call on a number of knights to help as well."

"But how long are we going to stay like that? We can't all stay in the university forever. Can we find the man and capture or kill him? Perhaps use the order of knights?" Cato said while looking to Minmay.

"He's not in the order of knights," Minmay sighed, "he's a freelance mercenary and assassin. While no well-known person would try to assassinate a noble for fear of reprisal from every other noble, this does not extend to the noble's interests. We need to know what his targets are, which is clearly everyone here, and who sent him."

Obviously, no one could answer that last question.

"At any rate, since his target is the university, Light's Edge must have been hired by another noble who objects to what we're doing here," Minmay spread his hands, "I will investigate on my end, as well as request the knights to hunt this man. All we can do is wait for him to show himself."

Polankal ate in silence, Landar on the other side of the table wasn't talking much.

Since the huge uproar over an assassin had locked all the staff into the university, Landar had invited all the students receiving special attention to stay on the university grounds just in case they were targets too. While most of them didn't take her up on the offer, Polankal wasn't about to waste money on lodging. She didn't have money to spare like those lesser noble children or live nearby like the local merchants.

And so for the last two days, she had been eating together with Landar in what was fast becoming a local cafeteria. Despite being shut into the grounds, the resourceful university staff had enticed a cook into renting a room on the ground floor and opening a cookery. It didn't just sell food, but also cooking lessons that were proving surprisingly popular among the forty odd staff who found themselves with very little to do. And some of the poorer students of the magical training program.

Besides cooking lessons, the staff were also getting fond of having day long discussions like the current debate on what to do about soaring rent prices in Minmay. The debate was just as lively as ever, almost as if the invisible sword of the assassin wasn't hanging over all of them.

Polankal paid half an ear to it while sipping the braid and wind eye porridge.

"Rent of a single room has risen by nearly two telins per day in the last week, which is the fastest rise in our records. Ever," the Recordkeeper said.

"Our apprentices and handymen are complaining that they can't afford to pay their rent," the Ironworker added, "many of them are sharing rooms with other families and the inns are filling with temporary residents. We need to build more houses now."

"We already are," a local builder said, "My teams have a backlog of nearly three streets. Streets, not
houses. I'm raising prices but there's simply no end of orders in sight."

"The same over here," said another builder, "I'm already refusing orders from everyone who I can afford to. I hope you understand that I can't very well refuse to build a new workshop when the Ironworkers demand to jump the queue. Also, I would like permission from Minmay to build in the outskirts, we'll run short of land inside the perimeter of the city in two months at this rate-"

"We have created three new districts in the last month," a knight from the order cut in, "patrols are already over stretched. If we don't post more bounties for guard duty, we risk allowing gangs and violence to grow. Our patrols are also complaining that the new districts are... have a stench of waste. The night haul men aren't doing their jobs, Minmay."

"There is no money to do that," Minmay said, "I can't be paying you more than the taxes I'm collecting from the trade tariffs."

"In other words, Minmay city is growing faster and the services can't keep up," Cato concluded, "does anyone know why? Who is coming here?"

"Peasants," the knight said, "many of them carrying farming tools and coming with no useful skills. I see beggars everywhere now. What is going on out there, Minmay?"

They were silent for a while before Cato laughed, "I know why. It's good! Good! The project is already working!"

"The cast iron double plow and seed drill?" Minmay asked, "but we haven't even gotten a crop out of them! I expected this to start in a few months once the next harvest is gathered and the crash in food price, not immediately!"

"The plow and seed drill reduces the number of people who need to farm. Same with the animal powered threshers and grindstones," Cato explained, "with your monetary backing, we are giving every village near Minmay a set of the equipment and training on how to use them. The peasants are already running out of work."

"They can go farm more... oh, I see, they're running out of land to farm too," Minmay muttered.

"The Mana Tax was the right decision, sir," Cato said with a smile, "you need to find another method of employing the peasants and the alchemical power is perfect for it."

"That still doesn't solve the present problem," Minmay pointed out, "all these peasants will need a place to live in and bad conditions will only make crime, illness and fire more likely."

"Issue a property tax," Cato said, "every new house requires more services, from guards to taking out the crap. So make each house pay for it. Tax all property owners a fixed amount per land area every week or month. And each new building on a fresh piece of land pays a special one time levy to use the land. Sell the land to the builders, don't just give it away. Or sell the permission to build, however you do things here."

"What?!" the two builders shot up simultaneously. They looked at each other, then the first one took the lead. "That is insane! How are we going to do business if we have to pay Minmay everything we-"

"The tax does not have to onerous," Cato said, "a building as long as ten Rekis and as wide as six could pay perhaps a telin per day. A new building of the same size might only cost a few Rimes for the land. It's up to Minmay to decide how much money he needs to pay for the services your customers require. Surely with rising rent and building prices, the landlords and you can afford that
"Why don't you tax the Ironworkers who are bringing in all those new apprentices? Or the farmers?" the builder asked.

"Minmay is not ready for an income tax," Cato explained, "I don't believe many guilds calculate exactly how much they pay their workers. Asking them to pay a tax based on income will just be inviting corruption. A tax based on land use is much harder to dodge, and corruption is best avoided whenever possible."

Polankal watched as the table dissolved into a fierce argument over the practice of 'side dealings'. It did not escape her attention that the observer from Ektal did not participate, he merely watched everything with a sharp eye.

She avoided his gaze and looked back down at her empty bowl.

"It's amazing," Polankal ventured, making Landar look up.

"What is?" Landar asked.

"Cato," Polankal said, "he has all the answers to the problems, doesn't he?"

Landar smiled, "not all the time."

"Can I learn to do that too?" she mused idly. Maybe she could learn the answer to her own problem?

Landar raised an eyebrow, "really? You want to?"

Polankal nodded eagerly.
The turnout to the small field at the center of the university was almost everyone, except for a few sleepyheads. Morning mist had rolled in from the south again, giving the whole area a washed out look and a fresh wet smell in the air. The murmurs from the crowd of staff and their families were quiet, punctuated with sounds of Minmay city waking up in the distance.

"Where's Cato?" Landar asked the alchemist beside her. The man who had lost his hand to Light's Edge. Hm, what was his name again? ... Well, it wasn't important anyway.

"He's still sleeping," the alchemist replied, cradling the stump in his other arm.

"That sleepyhead had better get up soon or he'll miss this," Landar snapped to no one in particular.

It had taken her three whole days to come up with this idea and refine it into a workable condition and he wasn't even going to show up to see her use it?! She looked over the gathered university staff and sighed. They were chatting quietly, shivering in the cold morning air and watching her with curiosity. Screw waiting, Landar would start without him.

Landar unhooked the roll of thread from her waist and unrolled a short length. Tying it to a nail, she fixed the thread to the ground and began to walk, spooling out the thread behind her. With all eyes on her, Landar walked until she reached the first building, the new classroom block converted into a makeshift dormitory. After pinning the thread to the wall of the dormitory, Landar started laying more thread towards the lecture area.

After walking to each building and various chosen points, Landar finished laying the threads and returned to the front of the dormitories, facing the group of bewildered staff. She explained what she had been doing.

The threads themselves were only very faintly magical, they were so weak that it was practically impossible to notice them even if one was standing right over it. But each thread was enchanted with a two-way conduit to carry magic along it, linking the iron staves that Landar and Chakim were charging in the buildings. Light's Edge might be tempted to attack a building defend by only one staff but if he did try, he would be in for a surprise.

Even beyond that, the threads also powered buried fire and magic bolt launchers that Landar had put on completely normal looking stones and scattered around the buildings. They couldn't aim unlike her first turrets but they were set up to fire if the triggering threads laid across their line of fire were stepped on.

"So with this integrated defense network, we can drive him off if Light's Edge dares to attack us anywhere on the grounds!" Landar declared, puffing out her chest. The term she had picked up from one of Cato's writings on Earth military warships was too delicious not to use. Even if no one really understood what it meant.

The two alchemists looked around the grounds with some interest and a whole lot of skepticism. Everyone else was just looking blank.

Ha... a misunderstood genius, she was.

"Oh, you started already?" Cato's voice from behind her made her turn around. Cato rubbed his eyes sleepily and stepped out of the dormitory.
"No, stop!" Landar shouted but it was too late, his foot landed on a trigger thread. The firebolt launcher aimed just outside the door spat a screaming bolt of flame towards his head.

Cato fell backwards in a panic as the bolt zipped past his face, missing by less than the width of a palm.

Cato looked at her blankly, still shocked at the close call. Almost without thinking, Landar cut the trigger line with a tiny disruption spell and rushed over to Cato. That bolt could have easily taken his head off!

She brushed his hair and shoulders, hands shaking. Yes, safe. Only a few signed hairs.

"Uh, I'm all right, Landar," Cato caught her hands. She sighed and collapsed as her knees suddenly felt too weak to hold her.

"That was a bit dangerous," Cato said simply, "I think you had better undo the rest of the trap lines before someone gets killed."

Yes, that was a good idea. She let go of Cato and looked back at the gathered staff. They were huddling nervously in the center where there were no threads at all. Uuhh. Perhaps she had overdone things a little.

All right, the bolt traps had to go. She would just have to think of another way to guard the courtyard.

"Um, could you let me go?" Landar asked. His hands were still holding onto her wrists.

"Oh, yes, sorry. I'm still a bit shocked. " Cato peeled his hands off and rubbed his eyes, "you go on ahead. I'll be up by the time you're done."

Landar hurried out of the dormitory, heading towards the lines of triggered traps. Cato followed on behind her after a few minutes and watched her dismantle the all the traps she had spent the last hour working on.

"It really is an interesting idea," Cato said, as she removed the last of the dangerous threads, "using the threads as conduits."

"You think so?" Landar turned around, a certain happy feeling rising like the dawn mist. Finally, someone who understood the genius behind the idea!

"It's similar to the traps you made in the house. But I wonder, won't the threads break? They will be outside in the rain and wind."

"I considered using a fence," Landar explained, "but that would be too obvious. He'll just destroy them. We can always replace the threads after all."

"How about burying the threads then? Or actually, hmm..." Cato frowned, "actually, what do you mean by a fence?"

"A fence?" Landar gaped at Cato. A fence was a fence. Did he not know what fences were? "It's made of wood and is meant to keep animals that can't climb it inside pens?"

"And there's no special wood or iron fence?"

An iron fence?! "Do you even know how much that would cost? An iron fence!" The very idea!
"So you mean to say that the fence is just normal wood?"

Landar nodded. Of course. They couldn't afford anything else. She could build a defence enchantment as powerful as the Wendy's fort wall enchantments with a solid iron fence but dreams were just dreams.

"Then can you try enchanting this rock?" Cato picked up a rock from the ground, "just something simple."

Landar examined the rock. It didn't appear like anything special. Hm? No, just a rock. "Um, that firebolt launcher from just now," she pointed at the deadly doorway, "that was on a rock just like this one. I mean, a rock like this can't contain enough power to launch a firebolt, but I linked them to the staves in the buildings with these threads. You did understand that right?"

"Yes I did. But I thought they were some special material disguised to look like a rock," Cato frowned, "so you mean to say that the threads and the enchantments are just... normal thread and rocks? You can enchant any material, the only difference is how much magic they can contain without degrading?"

Landar nodded.

Cato paused, still thinking. With a hesitant air, he asked slowly. "So this might sound like a stupid question," he ventured, pointing at their feet, "but what about that?"

No, he wasn't pointing at their feet. He was pointing at the ground.

"Why don't you enchant the ground?" Cato asked.

Landar felt her face twitch. Enchant the ground? Enchant the ground?! But... But the ground was too... big? No, you could just enchant part of it. A very small thread-sized part? Or since there wasn't any shortage of ground, she could use a much bigger pipe with control functions like in the house... or why not just turn the entire university ground... Landar felt her face twitch again.

"You'd have to remove the grass first," Landar said lamely, "you can't use magic through a living thing." But she already knew the problem was solvable.

"Weed it, plow it and put Muller's new cement over the top," Cato shrugged, "or just sweep a wall of disruption magic to kill it all."

Landar rubbed her temples, trying to come to terms with the new idea. It was insanity. But a very Cato-like insanity. Why not enchant the ground? Why not indeed? She could feel the crazy grin tugging at the corners of her mouth again.

She looked out at the messy tangle of thread over the university grounds and sighed. She had worked for days on her crazy pet project and spent countless hours fiddling with tiny strings and Cato had made it obsolete in less than a minute. And his idea was even more insane.

"What are you doing, Piyo? How have you not taken their secrets yet?!"

"But master..."

"You are already inside their circle! You have gained their trust! If you will not strike now, then when?"
"I can't! The secret is written on books. But I can't just take it..."

"You must! The secret knowledge must be ours!"

"But but, they are always in there..."

"... so we need a distraction then. Reki!"

"Understood."

"I don't mind even if you kill them. Just leave Cato alive. Piyo, when the chaos starts, you must get those books."

"But -"

"No buts. Or I will have your entire family executed."

"I- I understand."

The seventh day of the siege, everyone locked into the university grounds had gathered in the makeshift cafeteria again. Despite the fact that they normally spent most of their time working on various experimental projects supporting the commercial interests, being forbidden from leaving made the atmosphere feel gloomy and stuffy. The streets of Minmay never seemed so exciting, beyond the safety of Landar and Chakim's guard.

Cato had introduced board games from his world, chess, go and reversi, and it had been a good distraction for a day or two, but the distraction faded into a ceaseless worry and only the most interested players could concentrate at all.

Landar's attempt to booby trap the university in the same way as she did in the house at Corbin might have been caused by the pressure they were all feeling. Some of the guild members who didn't have magic and couldn't fight had barricaded themselves in their rooms. This morning, the battlemage knight had been seen trying to build her own firebolt launcher traps. She claimed that it was for the purpose of catching and killing Light's Edge. Hence the meeting.

They were all slowly but surely going mad.

"We need a way to draw him out," Minmay said, "the knights say they don't have much chance of finding Light's Edge."

"If his goal is to kill us, then I might have made that harder," Landar said. The iron staves inside the buildings were close to fully charged now, Light's Edge might not dare to attack them at all. And he wouldn't come even if Landar removed the staves or placed a magical barrier over them, the sudden lack of magical power from the buildings would be too obviously a trap.

"We need an opportunity," the knight said.

"Adest, you nearly blew up the building," Landar cut her off, "I don't think more firebolt launchers are going to make Light's Edge attack."

"You also did the same thing," Adest pouted, "but if he won't come because he thinks he can't kill us, then we just need to make him think he can."

"But how do we do that?" Minmay asked, "I shouldn't need to point out that none of us actually..."
want to die so we can't actually expose ourselves."

No one had an answer.

"Light's Edge thinks the buildings are fortified," Rany said, spreading his hands and looking at them, "but the open area in the center definitely isn't. You could pretend to do something in the open area to tempt him into attacking."

The discussion group looked at him incredulously. Their observer had never said anything useful before.

"Wouldn't that be suicidal though?" Cato objected.

"Yeah, we can't just go walk around outside alone until he attacks us," Adest said.

"No, he has a point," Landar countered, "you might be able to do it, Adest. You can't defeat Light's Edge because you don't have enough magical power. So if you carry a thread along with you, the staves in the buildings should be able to transfer enough power for you to at least survive an attack."

"And after that you come out and save me," Adest clapped her hands together, "all right, teach me how to draw power from your threads and we'll do it."

Landar blinked. She had expected more objections from Adest to being bait. But perhaps she was getting a bit stir crazy too.

"Let us discuss this matter further," Minmay said, looking at Rany, "we should be able to refine the plan."

A light drizzle waved across the grassy courtyard, driven from one side to another by stormy gusts. Tiny droplets coated the windows, dripping off roofs and pooling underneath doors.

Amidst the darkness and rain, a lone figure slipped out of the dormitory, a heavy oiled coat guarding it against the descending mist. The figure staggered out into the courtyard, looking around warily, before dashing towards the gate.

A stroke of lightning blew away the darkness for a second. The figure screeched to a halt in the muddy ground. Another flash outlined the silhouette outside the gate, an inky shadow in front of the sun-bright glare.

There was a third flash, the figure was stepping backwards as the shadow advanced.

The sound of the drizzle blanketed the thin whisper but the figure still dived to the side hurriedly. A sharp pulse of magic snapped out from the shadow, a particularly famous cutting edge, and three blades flashed out into the wet night.

The rain strengthened, blanketing the smell of cut grass. Three lines were scored into the ground, long furrows in the path of the blades. The threads behind the figure broke apart silently but the middle path stopped right in front of the figure.

The figure stood up carefully, a glowing shield taking shape in front of it.

The shadow appeared to be surprised but the moment of shock passed and a storm of blades flashed out, converging on the figure from multiple angles. Droplets split in two and soil flew up from the
The sky began to pour down the water as the two confronted each other silently. The glowing shield had multiplied into an interlocking wall of seven, the wall broke up and began to rotate around the figure, magical power gathering around the figure like moths to a flame.

The shadow suddenly dashed to one side, the blade flickering faster than the eye could see. Three of the rotating shields snapped into a line as the magical assault pounded its way through one shield after another. The third shield thinned and vanished but the storm was over.

There was another pause as they regarded each other again. The shadow seemed to be panting slightly but the figure continued to stand its ground proudly. Another lightning glare lit up the figure, the body shape was undoubtedly male.

It hesitated then decided that there was no point in continuing. With a burst of magic, the shadow dashed back towards the gate.

The figure didn't move but it was the shadow's turn to grind to a halt in the mud. There was another cloaked figure waiting outside the gate.

And a wall of disruption magic rising up from the ground behind it.

Polankal tiptoed over the boards, hoping that the pounding rain and magical battle outside would cover the squeaking below her foot. There was a crash below her feet as one of the magical blades plowed into the side of the building. She took the chance to run up the stairs once the panicked screaming started. The second floor classrooms were deserted. Good.

There was a flash and the staff below her on the first floor pulsed, a torrent of magical power flowing out of the university grounds before manifesting into a huge wall of magic encircling the entire area.

Oops, better get going now.

Polankal padded towards the office at the end, where Cato and Minmay had forbidden everyone else from entering. She had watched him enter it often enough to figure out how the latch worked.

She jiggled the door slightly and inserted the card of hard paper through the gap. Dragging it upwards, the latch on the other side flipped over and the door opened.

Trembling with nervousness, Polankal looked around the room and her eyes settled on the bookcase in the corner. There!

She darted forwards, unslinging her backpack, reaching out to the handle on the bookcase.

"I wouldn't touch that if I were you," a voice from the door made her jump.

Cato was standing there, a bowgun in his hands, glowing with magic. It was pointed right at her.

With a squeak, Polankal collapsed backwards. She was noticed?!

Cato sighed and stepped forwards. "Drop the bag and put your hands in the air," he said, gesturing with the bowgun.

A sense of defeat welled up in her chest. She was never going to get those books now. And without those books...
A tear streaked down her face as she raised her hands.

"Don't worry, if you're not going to attack me, I won't shoot you."

She silently apologized to her father as Cato kicked her bag aside and patted her down with one hand, the tip of the arrow pressing against her back. When he was satisfied that she wasn't carrying any weapons, he stepped back and lowered the bowgun.

He pushed Polankal into one of the chairs in front of the desk and sat himself on the other side of the desk, the bookcase behind him. Cato didn't put the bowgun aside though, even if it wasn't pointing at her.

"I was wondering when you would make a move on it," Cato said finally.

Polankal just looked down at the floor. So he had already known, she never had a chance after all.

"Frankly speaking, when all your students are third sons of a minor baron or wealthy merchant daughters, having a random peasant requesting to study and being able to present the fee stands out too much," Cato smiled wryly, "so you know I have to ask. Why are you trying to steal my books? I know a lot of people don't even know they exist but Landar did always talk too much."

"I- I have to... take them," she tried to sniff back her tears unsuccessfully. It was all over after all.

"Yes, but why," Cato continued to press her, "you don't have any use for them."

There was a clink of ceramic in front of her. She looked up to see a cup from Minmay's private tea set set in front of her. A hot cup steamed in front of her, the faint minty smell was shot through with a thick cloying sweetness. Yama jam and tea. Very expensive.

Polankal looked up at him in confusion. Cato just smiled back and indicated for her to go ahead and drink. Wasn't he going to interrogate her? The sudden act of kindness clashed with the fact that he was still holding onto the bowgun.

She sipped the tea gingerly for a few minutes, trying to still her shaking hands. The cup was probably more expensive than her own life. Outside, the fierce blasts of magic built into a crescendo and finally stopped but neither Polankal nor Cato paid that any mind. The tea was far too sweet. She wondered whether Cato had a sweet tooth.

"So tell me," he said after she calmed down a little.

"I-... I come from a small village to the south. My father is the mayor," she pulled up her legs onto the chair and huddled behind them. Her parents and younger brother were going to die, now she had failed. It was all going to be her fault. Polankal sniffed back a fresh wave of tears. "Chancellor Duport said he would kill them if I didn't do what he said."

"And he told you to steal my books. Interesting that he knows they exist," Cato mused.

"We meet secretly," Polankal rocked backwards and forwards on the seat, the childish action was somehow a little comforting and the words came easier. At least she wouldn't die, Cato didn't seem like he was going to kill her. If only he could prevent Minmay from executing her afterwards...

"Rany is his third son, he is the one controlling Light's Edge and me. He must be informing Light's Edge of how your defenses work."

Cato stirred a large dollop of yama jam into his own cup and considered it for a while.
"All right," he seemed to come to a conclusion, "I'll let you have them."

What?

He grinned at her. "I'll let you have the books," Cato said, "or more precisely, I'll let you copy them."

Polankal blinked at him stupidly. He was just giving them to her? But how did that make any sense?

"Minmay figured it out actually," Cato said, "that Rany was in contact with Light's Edge. The man always seemed to know that we were baiting the staffs' houses with knights. Someone was leaking our movements to him and given that Duport and Minmay are perpetually enemies, it would be too much to expect Rany to be a neutral observer."

But how did that link to giving Polankal the books?

"I have my own reasons. " Cato must have read her confusion but waved it away. "I'll think of a plausible story for you to tell your chancellor. So in exchange, I just need you to do a few things for me."

What sort of things? She wasn't arrogant enough to believe that she was beautiful enough for him to want certain services. But her family was at stake, she would have to do it if he said to. Polankal nodded.

"You will put on a little play with me and I will ask Landar to rescue your family. And then," his grin grew wider, "I want you to leak a second copy."
Cato looked out the window and nodded to himself, "looks like they won against Light's Edge."

"How..." Polankal breathed. Light's Edge was Rany's trump card. A powerful and expensive Em master. He wasn't supposed to lose.

"Minmay said that if you are told something as fact, it becomes hard to notice when reality turns out differently," Cato said, "truly, we couldn't have done it if Rany wasn't telling him everything."

Polankal frowned, still not understanding.

"That wasn't Adest out there, being bait. Minmay told Landar, Adest and I in private about Rany being the informer and to change the plan without him knowing," Cato explained, "when Light's Edge was told Adest was the bait and an opportunity existed to kill one of us, even if Chakim uses his summoning stone, Light's Edge would just think that it was Adest who stole it to help run away. It would help too if Chakim didn't use his full power right from the start. And once he was baited into spending too much time trying to kill Chakim posing as Adest, Landar could circle around and prevent him from escaping. Light's Edge might be a bit stronger than each of them individually but both together? With two summoning stones that he wasn't expecting? We had a good chance and the gamble paid off."

Polankal still frowned. It was all too complicated, this sort of twisty thinking.

Cato sighed, "Short version. Minmay is better at this than Rany. The end."

Ah, that was much easier. Polankal nodded and sipped her tea again. "But what about me? Did Minmay see through my part too?" Cato's explanation didn't cover that part.

Cato shook his head, "Minmay doesn't know about this part. Landar and I did. And we would rather it stay that way. " He looked severely at Polankal until she nodded.

"I very much doubt Minmay will let you off lightly if he knew anyway, so it's also in your interest."

"This is what you will tell Rany when you meet him after this," Cato continued, "you were caught sneaking into my office by me but managed to convince me that you were just curious. Moved by your enthusiasm, I have agreed to hire you as my secretary. There you will have a chance to copy the books. Which is exactly what you are going to do."

Polankal had a different sort of frown now. "But I can't read or write well," she said, "just a little bit from watching my father."

Cato raised an eyebrow. "All right, secretary in training then. For room and board only. And making two copies of the books on this," he pulled out a stack of grey paper, "is your writing practice that I will leave you to do. Of course, you will say to Rany that you pretend to practice while actually copying my books when I'm not around."

She pouted unhappily. Would Rany even accept that explanation? She wasn't confident she could give it without appearing nervous. It was more of the same sort of twisty thinking.

There was something earlier he had said that was more important though. "You said you would get Landar to rescue my family," Polankal said, "what do you mean by that?"

"Exactly what I said," Cato leaned forward onto his desk, "it will be hard for them to leave friends
behind, but at least your parents and siblings can come here. If Landar goes to them, I'm sure they can manage to escape Duport's soldiers. That's what I'm offering you."

Offering her?! But she was just caught trying to steal his books! Polankal didn't much choice but cooperate if she wanted to keep fooling Rany into keeping her family alive.

"I do need a secretary to help me here to organize my affairs, and I would rather that person be someone loyal to me rather than to Minmay. I want you to trust me to deal with you fairly, I do not want to control you using your family like Duport does. The next part of my request for you is a hard one and I'd like you to consider this much compensation as a fair trade," Cato said, "Rany and your family is only the start. Here, let me draw this out for you."

He took the top sheet of paper and started to talk.

After he was sure Polankal understood and agreed to the plan, they sat in silence for a long while, listening to the rain.

Cato spoke up suddenly, "you know, you almost died back there. " Cato nodded at the bookcase in the corner when he saw her confusion.

"What do you mean?" Polankal asked.

"The bookcase is what I mean," Cato said, "When you tried to open it, if I hadn't stopped you, there's no telling what could happen."

Cato looked at her bewildered face and felt a smile creep onto his face. "It's Landar you know?" Cato said, "even if I told her only to make an alarm, she probably also added a few more traps."

And there was no need to say what sort of trap it was. Triggering a Landar-special placed on the important secret books? There wouldn't be an office left afterwards.

Cato turned back to his desk, there were certain guilds he needed to write to soon. He pulled out a quill and began to draft a letter, a small matter like Landar's craziness was nothing at all to worry about after all.

He heard Polankal faint away with a soft sigh.

"So you see why enchanting a liquid is risky, it's too easy to lose contact with parts of the fluid and kill your enchantment."

Cato nodded at Landar's explanation, "but if it is enclosed, then a liquid can be used to support an alchemy enchantment?"

Landar nodded back.

"In that case, this one should not pose a problem?" Cato indicated the delicate glass rod on its specially carved wooden stand.

The glass rod was the first of it's kind in the world, one that had taken the master glassblower a month to make. Inside, a highly purified alcohol was encased in the large bulb. The distilled spirit filled the bulb and a little portion of the extremely thin hole drilled through the rod. Once the glass
device had been sealed, the entire assembly was carefully sterilized to prevent degradation.

In other words, a crude thermometer. And this one was paid for fully out of Cato's own earnings, not the budget for the mana tax education that he was diverting for the university.

The unevenness of the painstakingly carved glass column for markings made it useless for dividing fine gradations but Cato didn't need it for that. He had something much simpler and much more selfish than a temperature standard in mind. He only needed it to mark one temperature.

The wooden ring made to fit over the glass tube was already enchanted, only awaiting its sister enchantment on the thermometer. The enchantment meant for the liquid inside that Cato and Landar had designed would block magical signals passing through it, like the tiny signal the wooden ring tried to send across its hole. This allowed the liquid to act as a trigger when it touched the wooden ring, a situation brought about when the liquid climbed up the thermometer to the point where the wooden ring had been secured. This signal would then be captured by the wooden thermometer stand.

A thermostat. This entire elaborate assembly was then connected by one of Landar's threads and used as a controlling trigger for the main part of the magical device, a large hollow metal tube.

Landar nodded to Cato and he slipped the wooden ring down the tube to an arbitrary point just below the alcohol. An increase in magical signal from the metal tube indicated that its enchantment was also working, as of course it would. Landar had tested each part in isolation after all.

A chill wind blew out of the tube at the thermometer.

The alcohol level rapidly dropped and once it crossed the level of the wooden ring, the metal tube abruptly shut down.

The cheer could be heard from the next building.

"It works! It really works!" Cato grinned, almost jumping for joy.

"Of course it does," Landar puffed out her chest, "between the two of us, it's only a matter of time until we figured it out!"

"You have no idea how much I looked forward to this day!" Cato cried, dragging over a chair to sit in front of the tube.

The thermometer climbed up as the cold air settled down and the metal tube blew a puff of ice cold air into his face.

"Hey, give me a spot too!" Landar dragged another chair over and tried to bump him off. Cato held firm for a moment but was forced to relinquish half the air stream's area.

"Ah! To bask in the luxury of air conditioning once again!" Cato gave a mock sigh. The tube coughed once as the alcohol vibrated up and down through the wooden ring.

Landar frowned at the metal tube that couldn't decide if it wanted to be off or on. "Hmm, it still needs some work though," she noted as the cooler enchantment began to cough like a sick patient.

"Agreed," Cato smoothed over his wind blown hair. The joy of a new creation might have taken longer to fade for others, but these two weren't exactly... normal. Less then a minute after the first success, he was already spinning ideas for improvement. "For one thing, the wind is too strong and the temperature drop is too much. The thermometer also toggles the tube too quickly, I doubt letting
it flip on and off like that is going to make it last very long."

As if reading his mind, the tube coughed a few more times then went silent. They watched the thermometer climb for a bit before Landar held her hand over the metal tube.

"Yeah, the trigger for the power reserve is jammed. Probably because it toggled too fast," Landar said, "perhaps if we pointed the tube away from the thermometer?"

"And made the ring only change state every few seconds," Cato said, "if the tube didn't output freezing temperatures, I doubt this room could get very cold even if the thermostat was left on for an extra minute."

Magic apparently didn't have any difficulty in reducing the temperature of an already cold object, as contrary to physics as that was. One of the dangers of having a cooling enchantment active in a room was that such a spell could quite easily freeze a person to death, or would run out too quickly if it was limited to a non-lethal power reserve. Without a thermostat, it was impossible to have an enchantment that would keep a stable temperature. Having an alchemist watch over it was defeating the purpose of course. One might as well hire a mage to use cooling spells, the traditional way for people with too much money.

"Mm, I'll see what I can do," Landar said, "we haven't solved the power consumption problem however. Since it's going to eat a firebolt's or two worth of magic every hour and every time someone opens the door, I will be spending more than half my power every day just to keep this room cold. That's quite an incredible amount of magic to be spending, and most of it because of the alchemy inefficiency."

Needless to say, while cooling a room to lethally low temperatures was simple enough to do once for any semi-powerful mage, just keeping a small temperature differential all day was going to require a few times more going by their prior experiments. Insulation hadn't been heard of and the heat load through these wooden walls was terrible. Not to mention the temperature differential between Cato's idea of a cool room and the outside during the hot afternoon, when it was most needed. Cato cursed himself for not having foreseen this and insisting on brick walls. Well, wasting money on brick for Landar's workshop was not something Cato wanted to do, he was still surprised he hadn't had to pay for a new wall yet.

Luckily, there was a solution just ready for that.

"Well, we are having a mana tax for a reason," Cato laughed and rubbed his hands evilly, "I don't anticipate any problems convincing Minmay to power one once the magic starts rolling in."

Landar joined him in his evil laughter. No, there wouldn't be a problem at all if they installed one in Minmay's house, Arisacrota would make sure of that. Mana tax or not.

Not to mention, most nobles and wealthy merchants could probably afford one too, once a market trading in magical power started. It would be a good source of demand for stored magic, if frivolous. Oh, and the device would almost certainly be an instant hit in the Tsarian summoner clans, at least the ones who weren't as uptight as Iris and wouldn't turn up their nose at learning a little alchemy to power it. Why, it was almost as good as a power training exercise!

"On the other hand," Cato looked at Landar with a knowing grin, "I'm sure you will be keeping this room cool at least. I'll be looking forward to doing all my paperwork in here."

Landar scowled back but there was no denying that she would be tempted to just live in her workshop now.
"And so with Light's Edge in custody of the Order of Knights, Rany has failed to disrupt our operations. He will likely try to bias his reports to the King," Minmay explained.

It was three days after the battle, Cato was sitting on the opposite side of the desk from where he normally would. After all, the entire building belonged to Minmay. "Will there be any problems from that?" Cato asked.

"Not particularly," Minmay dusted his fingers off with a small smile, "the rivalry between Minmay and Duport is well-known to King Ektal, he will expect no less from Rany. Furthermore, Rany cannot risk being caught reporting outright lies because this is a royal investigation. Exaggerations and interpretations, yes, but not lies."

"I think you better write one to defend yourself though," Cato said.

"I write one to the palace every week," Minmay smiled, "it's always good to appear cooperative with an investigation."

Cato nodded in agreement. "What about telling the king that Rany is behind the attack from Light's Edge?" he ventured, "surely that counts for something."

"We don't have conclusive proof, Cato," Minmay said, "frustrating as it may be, Chancellor Duport will never let me get away with accusing his son of a crime when he is sure we don't have that proof. Surely my good Arthur has told you that you can't just go around telling everyone everything you saw."

Cato sighed but there wasn't anything he could about that. If only Light's Edge had kept something to identify his connection to Rany other than suspicions of a leak. And not telling everyone everything was obvious, the question lay in what was considered alright to talk about, Cato had never gotten a straight answer on that.

"Come to think of it," Minmay asked, "I haven't seen Landar and Chakim around. Do you know where they went to?"

Cato sighed and shook his head, "Landar left because she had to go look for someone. She didn't tell me who or where since, of course, I do not control her movements."

"Oh, that's surprising," Minmay raised an eyebrow, "I would have thought you two were joined at the hip, what the two of your cooperating with her alchemy projects."

"Haha, no, not really," Cato waved him off with a laugh, "I'm keeping the projects in her workshop for her, but they really belong to her since I can't learn magic. Landar works at her own pace, you should know her better than me. We're only cooperating because I am weird and interesting."

"A pity you can't call her back," Minmay sighed with mock exasperation, "your little trick with the cold fan has Arisa asking me for one every day. I swear under Selna that you two are trying to squeeze my estate dry."

"But of course we are!" Cato spread his hands with a broad smile, "money sitting in a vault does no good. It is our solemn duty to put it to work. More seriously though, I would suggest you wait until the mana tax is mature or you'll be paying far too much just for the magical power to run the cold fan. And of course, we can't do anything until Landar returns, only she knows how to make one."

"And you're not bothered that she's gone? I thought you two were courting?" The mischievous
twinkle in the noble's eye revealed that he was just joking.

Cato laughed again. "We're just friends. I wouldn't dare to get too close to an Iris princess."

"A good idea that," Minmay said more seriously, "the Iris do not make the best neighbours."

"Your other neighbour is Duport. That's no comparison at all."

"Point."

Minmay laughed at the jab at their common enemy.

A knock on the door interrupted their merry conversation. A slim hand pushed it open to reveal a young girl with dark brown hair. She balanced a small tray with cookies and teacups on her hand and shut the door behind her.

"Oh, Polankal, good timing," Cato nodded at her. She set the tray down on the table and bowed at Minmay then at Cato. "Let me introduce her," Cato said, "my secretary in training."

Minmay raised the cup and sipped a bit of tea, "a secretary? Is that something like a private scribe? And why training?"

"Something like that," Cato said, "in my world, secretaries made schedules, took notes and similar organizational duties. Rather than trying to remember everything by yourself and forgetting what you need to do. I thought it best to train her to read and write myself, we can't trust the nobles or merchants to not steal our secrets."

"I understand why we can't trust them of course. She's a peasant then?"

"Polankal was our first student who isn't from a wealthy or influential family," Cato said, "since the first three classes have covered most of the wealthier students in Minmay city, it would be wise to start lowering admission fees to further spread the education."

Polankal bowed again. They acknowledged her and turned back to the discussion.

"The first group are already mastering the enchantment process and will be able to start teaching soon, and not all of them are rich nobles. The teaching fee will naturally decrease as the knowledge spreads," Cato said, "I know we have taken a few weeks longer than we planned but your mana tax is off to a good start."

"Good work, Cato," Minmay sampled a cookie, nodding at the light sweetness, "I must admit that our arrangement is certainly more profitable than simply buying your knowledge like others tried to do. Only you, who understands all of it, could have implemented it so quickly and successfully. I hear the Recordkeepers are planning to borrow the lecture and classroom format as a new literacy training program."

"But unfortunately, convincing the other guilds to run their own training and recruitment courses is proving more difficult."

"Of course," Minmay waved a hand, "I don't expect the guilds want to give away their secrets after all. In fact the Recordkeepers are only doing that because I had a talk with their branch leader."

"Ah, yes, I did think they were suspiciously cooperative," Cato smiled, "I am trying to convince them to combine the training in literacy with the alchemy and farming tools training. It would save time when we begin training the general peasantry and improve overall performance compared to just teaching a few village leaders."
"I will see what I can do," Minmay nodded, "I don't expect to have to push them too hard. The Recordkeepers surely want to steal your secrets after all."

With that, the weekly report was over and after a few exchanges of pleasantries about the competing cookie recipes between Kalny and the Minmay bakers, Minmay took his leave.

The girl ran down the street, heavy footfalls from the Rekis close behind pushing her forwards. Her breath ran ragged, but she still clutched the heavy bag on her back with a death grip. The bag banged against the corner of the alley and she bit down a cry of pain as the straps jerked at her shoulders.

"She's down this way! Quickly!"

She wiped sweat from her brow and ashed forwards again. The bag rattled against her back again, the heavy solid mass inside did no favours for her exhaustion.

The light of the alley exit suddenly disappeared in a whirling mass of claws and teeth. The girl changed directions and dived down another branch, only to run straight into a large steel shield.

The knight reacted first, he shouted and swung his shield, bashing her to the ground. The girl slammed back against the wall and dropped the bag. The knight immediately pounced on her shouting, "found her! Over here!"

An archer appeared on the rooftops and readied his bow. Down the alley, a spellstorm in the characteristic starburst patterned robes sealed off any chance of escape.

"That's as far as you go, missy," the knight said, hauling the girl to her feet. She hung limply in his hands.

"I don't think she can hear you," the spellstorm said, walking over to him. More knights appeared around the corners, crowding the alley.

"That was easy, I wonder why the request was so urgent," the knight asked.

"Clearly because of these," the spellstorm picked up one of the fallen books and idly flipped through it. He snapped it closed and nodded at the knight, "looks like it, we'll settle this in the main street."

After the unconscious girl was unceremoniously hauled into the central street over the knight's shoulder, the spellstorm shouted at the gathered knights, "we found her! It's ours!"

"That's only because we cut her off!" shouted back one of the Reki riders.

"But it's still the fact that we found her!" the spellstorm was confident that he could make the case. The finder and possessor of the arrest target was practically nine-tenths of the proof of request. He held the bag of books close to his chest.

"Make way! Make way for Chancellor Minmay!"

The cry came up from the side, parting the knights like a river around a rock.

The chancellor rode up on his Reki, looking down at the spellstorm, no the books in his hands. The six riders around him were all looking at them.

"Show me," the chancellor said, getting off his Reki. One of the riders from behind also unmounted. Wait, that was the royal observer that everyone was talking about! Rany, third son of Duport!
The spellstorm bowed. No point getting between two nobles like them, a small existence like his mediocre party could be crushed with a minor thought, and the... disagreements between these two often reached epic proportions.

"This seems like quite the find," Minmay said. The spellstorm was confused but he just nodded anyway. "Don't worry, I recognize your achievement," Minmay said.

The spellstorm smiled and bowed deeply, but the knights around him groaned. Minmay might think he was just giving assurance that he wasn't about to steal their credit but a statement like that from the chancellor was as good as the final word. The bounty was theirs!

"What was she stealing?" Rany asked, sidling up with that arrogant swagger he always carried. The spellstorm avoided his gaze.

Minmay looked lost for once, but eventually handed over the book with a reluctant face. Rany's eyebrows rose and rose as he read through a few random pages.

"This is quite a serious crime," Rany said, ignoring the unconscious peasant girl and focusing on Minmay. "Some of these might be considered national secrets."

A murmur ran through the knights. The spellstorm blinked. The mission had political implications. He was starting to regret being so eager to take up the easy-looking emergency capture mission.

"No no, nothing of the sort," Minmay sighed, "surely you don't think that such amateur writings could be all that important?"

There was another commotion as a low ranking but much larger group of riders pushed their way through the crowd of knights.

"Chancellor," the leading woman bowed.

"Hino," the chancellor acknowledged her.

The spellstorm could see the sparks fly between the chancellor and the woman, leader of the Minmay branch Ironworkers.

"We received a report that sensitive information regarding our trade secrets had been stolen from your experimental university," Hino said coldly.

"Such rumours might be exaggerated," Minmay shot back, but there was no fire in his voice. His eyes swept over the assembled guild leaders and prominent wealthy merchants. There was no way all these personages could have been assembled if one started after the capture request had been issued.

"By the agreement, we have the right to investigate," Hino said, getting off her Reki and walking up to Minmay.

Her height only came up to Minmay's shoulder, but the weight of the assembled guilds behind her pressured the chancellor. He sighed and let her pick the book out of Rany's hands.

She looked up after a while, "the assembled guilds of Minmay claim these under the trade secret clause of the Nurren Agreement. " Her hands were shaking.

Another murmur ran through the knights. Invoking the Nurren Agreement in broad daylight?
"Wait!" Rany stepped up, also eyeing the books hungrily, "to claim such a thing based on your own assessment is too much. We demand that the council investigate them."

"Such a council is not required, it would defeat the purpose of the trade secret clause."

"I challenge your claim that the contents of these books are trade secrets," Rany said instantly, "the contents have to be examined by a chosen council in order to prove your claim. Of course, the council will destroy all copies if they are found to contain trade secrets."

There was no way under Selna that all the copies would be destroyed. Even the spellstorm could tell that Rany was just aiming to get the books for himself.

Minmay sighed and looked up at the sky, muttering, "oh Cato, what have you done?"

Only the spellstorm seemed to have heard him at all. The fiery argument between a noble and the guilds in a very public area was taking up everyone else's attention.

The spellstorm kept his mouth shut.

**Just after the talk with Minmay**

"Does he suspect anything?" Polankal asked as she swept the cookie crumbs off the table onto the plate and collected the teacups.

"No, almost certainly not," Cato said, "Minmay is always on the lookout for nobles and merchants trying to take advantage of him. Peasants are just a statistic to him. Landar tells me that he won't even remember what you look like unless he meets you very often, which we should avoid of course."

"Statistic?"

"A way to analyze numbers. It's not important," Cato went around the table and took out a stack of paper and a book, "here, do another ten sheets for today's practice. At least."

Polankal took the quill and ink from him, sat down at the smaller side table and began to laboriously copy the contents of the book. Cato himself began to tally up funding numbers on his own set of documents.

They were accompanied only by scratching sounds of quill on rough paper.

"I still don't understand why you will go so far to help me," Polankal asked suddenly, putting aside a piece of paper to dry.

Cato put down his quill, careful not to stain the paper. He looked at her for a long while. "I heard about how peasants are treated from Minmay and Kalny but it would be good to get a first hand account," he said, more to himself than to Polankal, "so tell me, how has your life been up until now?"

"Me?" Polankal looked around the room but found nothing much to say, "I don't feel my life is very special."

"It's all right, just tell me," Cato said.

She bowed her head. "I'm the third child in my family. I have four siblings, two brothers and two sisters. My father was the mayor of our village. My mother is... she passed away more than ten years
"How did she die?" Cato asked.

Polankal looked away, facing the wall. She stayed silent for a long moment before answering, "I was six then, I don't remember much. But I do know she died during childbirth. Fourth sister died together with her."

"Fourth sister?" Cato asked again.

"I had eight siblings in total, including fourth sister. Only five of us have names," Polankal fell silent, unwilling to elaborate further. She hoped he could guess what happened to her unnamed siblings.

"We never really went hungry," Polankal said, "despite the tax, my father is the mayor after all. But it also meant that I never had many friends where I grew up."

"Because the other villagers sometimes did not have enough food?" Cato asked.

Polankal nodded, still looking away, "we... we have to give nearly half our village's grain to the lord. Without some special position, like my father, it's impossible to grow enough food."

"What about medicine?" Cato asked, "is there-"

"There isn't, not really," Polankal replied, "the nobles might be able to buy some, but ever since the Order of Pastora left Ektal... my second cousin was the only woman who could help my mother."

"What about other things? Surely it's not all bad," Cato asked, trying to be more gentle.

"Yeah," Polankal smiled, "there was the Cel Inci two years ago. That was the first time I ever tasted a yama jam cake. My father bought it for us using most of our savings for that year. I will never forget that sweetness. Imagine my shock when I see you put it in your tea every day."

Cato smiled back. "For all those reasons, is why I am doing this," Cato explained, "no, I'm not pitying you. Doing this won't make you rich, at least not more than being my secretary. But I do this to solve the fundamental problem, that life is hard. To make it so that there can be enough for everyone to eat, for people to learn how to heal, to make things like sugar and yama jam something everyone can enjoy. To stop the monsters from killing us all."

Polankal sighed, "no lands holds such a paradise. Only in stories does the land yield us so much food."

"It can be," Cato insisted, "simply through improving the amount we can produce with our hands. If right now, one person can farm enough land to feed two, what about if we can feed four from the work of one person? The people who don't have to farm just to survive can now be soldiers and doctors. Or they can make yama jam and even more delicious food. And why stop at four? Why not eight or a hundred people? And if it takes one person making yama jam for ten people to have sugared tea, why not improve that too?"

"There's no way one person can plough that much land," Polankal sighed again, "I've watched wind eyes grow all my life. It is not possible."

"It is possible," Cato said, "all you have to do is learn and understand how things work. How the wind eyes grow, how do you make them grow better? I brought with me knowledge, here in those books, that is the first step to making the tools that can do this."
He got up to open the book in front of her to the drawings of farming machines. Ploughs, seed drills, thresher and mill stones. Magically powered or otherwise. Theories and hypotheses on plowing and seeding geometry, fertilizers and the charting of potential crop cycles other than the current two-field system. There was even the preliminary results of a test field divided into tiny plots investigating fertilizer and irrigation mixes and schedules.

This much at least, she could relate to her experience. Even if most of the ideas were incomplete and probably not workable, Polankal could see the effort that had gone into studying the plants. And some of the ideas looked to be real improvements.

Duport had already tried to kill to get these books and now Polankal understood why. And if this one book was only about growing crops, then what about the other four Cato was giving her?

"I... this is too much for me," Polankal shook her head, "I can't do this. The nobles will surely take it away. So will the guilds! How can a peasant like me-"

"You can," Cato said, "the books here contain the knowledge you need. With education, you can improve your life. When all peasants can read, when everyone thinks and works for themselves, you will not need to let them take it away."

"But there are the knights? If we don't pay the taxes, they will come to take it from us!" Polankal could hardly believe Cato had not thought of that.

But of course he had. "And why can the knights use force to make you pay these unfair taxes?" Cato spread his hands, "because they train in magic. They train in fighting. Each knight is trained to be strong and powerful. But as knowledge of magic advances, personal strength becomes less important. Eventually, your magical tool will determine how much power you have."

But to fight them! The knights! How could peasants resist the knights, no matter what magical items they had? No, how would peasants get magical items anyway?

Cato laughed at Polankal's incredulous face. Making magical items that would let a peasant fight against a knight?! But how could it be? She looked up at Cato, as if seeing him again for the first time. Just what was this man trying to do?

She must have said it out loud. Cato replied, "I'm trying to change the world."
"So, Cato," Minmay said, leaning over the desk, "maybe you would like to explain what exactly you are trying to do?"

"I'm trying to speed up the reform," Cato said, leaning back in the chair.

Polankal was trembling in her chair, one hand tied behind her. It was a token gesture, one that even her could wriggle out of given time, but it clearly put her in the category of prisoner.

"Now wasn't our agreement supposed to do that?" Minmay said, "we agreed that the profit from your projects will be split between me and you. Furthermore that I was to negotiate any deals that resulted from your knowledge."

"Indeed, but these aren't deals with me," Cato said, "there was never any negotiation. I've just let Polankal take copies of the five books back to Duport."

"Don't take me for a fool, Cato," Minmay scowled, "who raised the alarm in the first place? How could the guild leaders all be so conveniently assembled right at the time she was captured?"

"Well, even if that was true, there will be no evidence for it," Cato said, "so you would consider this to be in violation of our agreement?"

"Certainly in spirit, if not in the letter. Why would you give it all away?" Minmay spread his hands over the five copies made by Polankal arrayed on the table. Just as predicted, there was no way the council had disposed of all the copies after the ruling that they were trade secrets. No one among the guilds had any illusions that the contents of the books had remained secret, the original copies in Cato's cabinet were still unaccounted for after all. And if each guild thought the others had copies, they were forced to get their own and exploit the knowledge inside as quickly as possible to prevent the others from doing it first.

"Like I said, I wanted to speed up the reform. Giving it away, especially not to the guilds, was the fastest way. I wouldn't be surprised if half the population of Minmay could read and write by the end of the year, if slowly."

Minmay shook his head, "there aren't enough books to teach that many people. Even your university relies on word of mouth-"

"Not anymore," Cato said, "one of the books contains a design for a moveable type printing press that the Ironworkers shouldn't have any trouble making."

"And what does that do?"

"Instead of copying books by hand, a printing press is designed to easily use cut blocks to stamp out entire pages at once. And instead of cutting a printing block by hand, you can simply cast metal letters and arrange the type into rows corresponding to the page. A print block that you can easily turn into a new page whenever you want without dedicated craftsmen," Cato shrugged, "the more advanced designs put the pages on rollers, so you can print them continuously. Similar to how the paper factory works out. With sufficient paper and ink, a press the size of a hand loom could easily print a thousand copies of the same page every day."
Minmay rubbed his temples. The printing press was one of the bigger inventions, but Cato hadn't wanted to give control over it to the guilds or nobles. The printing press would almost certainly first be used to make copies of his books, accelerating the design's spread.

"We'll be using that to introduce our magical practice exercises for the mana tax," Cato said, "once the first printing presses comes up, I intend to have the two assistant alchemist teachers write a book describing the training exercises we have been teaching. A book may be even slower than using teachers, but if you scatter thousands of books around, the Minmay region will be overflowing with magic inside the year."

Frankly speaking, Cato hadn't expected their official lessons to do any good of course. It would take years to reach any sort of penetration and Cato didn't want to wait. But a book that could teach basic magic in a few months? That could be fast enough. And once the first book appeared, Cato fully expected other people to start writing their own guides.

"Do you have any idea how much money you are throwing away?" Minmay said finally.

"Oh, I'm only throwing away a small amount," Cato said.

"A small amount?!" Minmay threw his hands in the air, "a thousand Rimes a year, easily! That printing press alone is worth at least that much! You could secure royal contracts for posters, for... just about anything! Why, the Inath Academy will come begging you to copy their books! And you have no idea how much merchants will pay for anything like a newspaper!"

Cato shrugged, "see? Only a small amount."

There was a choking sound from Minmay and Polankal. Her eyes were round just like Minmay's. In no one's terms but Cato's was a thousand Rimes a small amount. That was close to Minmay's yearly budget.

"Money is only useful for what you can buy," Cato said, "if you wanted a car here, right now, no amount of money can build you one. The first step is to expand what we can build, never mind who does it. You only become rich when everyone else is too. The nobles will only use it privately or for political gain, the guilds will squeeze every last drop of money they can from it. That's no way to achieve the economic conditions we need."

Minmay shook his head and asked in a trembling voice. "You are planning to give it to the peasants?"

"Already did actually," Cato said, "the printing press can fit into a single room, and a simple hand levered wooden press printing a hundred pages a day can be built by any carpenter in any village. Anyone can print their own copies of the books I released. By the end of the year, my books should be all over Inath."

"King Ektal is not going to look on this kindly. We were not supposed to create another Nurren Agreement situation! I'll have to ban the printing presses-"

"Which won't work," Cato smiled, "the peasants have more than enough free time to hide anything they want. Trust me, the rulers in my world tried that too. Unfortunately, our values here do not align. Empowering the peasants is the only way to make this work. The economy does not run only on the top one percent."

"I can't let this happen," Minmay said, "you have to stop this or I will have to take drastic measures."

Cato raised an eyebrow, "like?"

"Having you arrested?" Minmay frowned.

"By the knights?" Cato sighed, "I will, of course, ask for arbitration."

"You won't win. Any council will find in my favour, you were the party breaking our agreement!"

"And in the process, I will cite the other books in this cabinet as evidence," Cato waved a hand at the wooden doors behind him, "one of them contains Landar's notes on learning magic. Combat magic. Oh, and proper alchemy, including how to make simple magical weapons. And right now, Chakim is on his way to Iris with a complete copy of everything in here."

"Besides," Cato leaned forwards, "you mistake my capability when you think I can stop this. I can't and neither can you. Nor King Ektal even."

"Are you trying to destroy the nobility? Or perhaps the country Ektal itself?!" Minmay shook his head, "And what about my daughter? You will take away her right, her inheritance?"

"It doesn't have to be that way, Chancellor," Cato said, "Your position as the current head of government is highly advantageous. You just have to turn your aristocratic advantage into an economic one while you still have it."

"You are playing with fire, Cato," Minmay said, "If your work incites an uprising, he will want your head. And mine too."

"Killing me won't help, you know?" Cato shrugged, "but if it comes to that, we'll have to make sure to be out of the country before then."

Or make sure the winning side was the peasants, but that much didn't need to be stated out loud.

Dear Cato,

The news of the theft of your work is rather worrying. I always thought that you were too careless about security, do you need help on that? The remaining contents of this letter notwithstanding, I am willing to extend some hired help if you require.

I have to thank you for your introduction to the Mason Muller. Not only has he been building an excellent new brewery for me, he makes a good drinking partner. Indeed, I notice that the merchants who understand your ideas have something in common, something undefinable but that makes us good friends. Perhaps I should call it the mark of Cato? Ha.

In less happy news, it is late for me to do so but I shall have to reject your previous request to gather all the plants I can find. Not because the task is too difficult, but because I find that I do not require your help in their analysis. Of the numerous samples I have received, I tried every method of boiling, chopping, grinding and fermenting on them in an effort to find any useful trait.

I have found your rubber in a seed extract of a wild grass and am well on the way to perfecting a farming and processing method. It's a little less stiff and more elastic than you described but such can be optimized. A thin coating of the experimental rubber does indeed reduce the metallic taste of tin food to undetectable levels. I am testing the rubber for long term toxicity now.

Additionally, I have taken the liberty of expanding on your mentioned idea of paper
chromatography. I have managed to use it to separate out the colours from certain plants using a combination of water and alcohol solvent, creating a broad range of non-permanent dyes and edible colourings that have my chefs in a fit of creativity. This chromatographic process is consuming huge quantities of paper as recovering the dye requires me to cut out the dye band and boil it, to the great profit of Razzi.

The Weavers guild are also in talks about the two dyes that can be made permanent on clothing by heat treatment. Such concentrated colour has never been achieved and I expect great profit from this. It is ironic that I am also in talks with the Weavers to experiment with cloth chromatography in hopes of finding a better separator.

As I consider these my own efforts and inventions, I will not be paying you for profit derived from them although this will not affect your current percentage for the tin food. If you consider this a violation of our agreement and do not wish to work further with me, I can only consider it fair. Regardless of your stance, I will not be sending the plant samples to you. I have the confidence that I can continue developing this line of investigation on my own and if you wish, then I shall be honoured to be regarded as your rival.

That unhappy thought aside, I can only hope that you are still willing to negotiate a much reduced percentage for miscellaneous advice and troubleshooting.

Muller here. I have attached my letter to Kalny's in order to save on postage fees. Despite the huge backlog of orders for my iron bricks, the cost of raw materials and the delay between procurement and sale means that I am currently in debt, temporarily of course.

The cement formula you refined last letter has been a success, the new concrete does indeed set underwater. Once it has been refined and enough can be produced, I shall be testing it by using it to bond bricks in a simple aqueduct to a certain baron's farmlands. It shouldn't take much more than a month to test.

Similar to Kalny, I have been conducting my own experiments on the cement formula and have discovered a stable mixture with stone chips and slaked lime to form the material you described as concrete. It does display the mechanical properties of being resistant to compression but not stretching, although the current mixture is still a bit lacking in strength.

Combining this with my own ideas of the cast iron rod reinforcement, I have created an iron concrete that has sufficient strength to be used in wall construction while being far simpler to pour an entire wall instead of laying it brick by brick. New shapes and designs are also possible with concrete that brick and stone cannot achieve. The strength of a iron concrete wall is in fact higher than the iron brick wall as alignment issues reduces the feasible length of the reinforcing rods in a brickwork.

Again similar to Kalny, I will also consider this my own invention, even if inspired by you, and will not be paying for it. Nevertheless, like him, I also hope to continue working with you for a reduced fee.

Kalny & Muller

Dear Kalny and Muller,

Congratulations on your own inventions! I do not consider your actions to be a violation of our contract at all! In fact, I am very happy that both of you have begun to create your own and had
anticipated such a situation, even if this is a little quicker than I expected. I will indeed be happy to continue working with you for a lower percentage, one hundredth part of the profit for any product with my involvement or a negotiable fee per week are both acceptable.

You do not need to consider me a rival, save your efforts for the other merchants who will almost certainly begin their own development work. I am sure that by the time you receive this letter, you have procured a copy of the books I deliberately leaked and have foreseen the effects they will have on your business. In fact, I will be grateful if you didn't consider this a violation of our agreement and cut off all payments to me!

I have set up what I call a university in Minmay. You may have heard of it. It has been remiss of me to forget to invite your participation, so allow me to formally extend an invitation to both of you. I have also invited Razzi. You do not need to attend in person but I strongly suggest that your representative here be a person who understands your operations and products. The chief leader of the person you have used in your investigations will be the best choice.

Let me restate my congratulations to your successes. Competition in this space can only be a good thing and it would defeat my very purpose if I was the only source of inventive ideas. Please, redouble your efforts and surprise me!

Cato

Dear Kalny,

Thank you for your favourable response, a flat fee is perfectly fine for me. I agree to the price of twenty Rimes per week. I have already made arrangements with Muller separately.

Chromatography does not just have to be done lengthwise across the paper. You can perform the same by creating a large stack of paper and passing the extract through the middle, and collecting the liquid exiting the bottom of the stack into different containers based on the time since addition of the extract. In fact, I tried a small scale experiment in my university. I suggest that you layer discs of paper into a cylindrical column, held in place by a cylinder, preferably steel with a glass window, and with removable gratings above and below to hold the paper in place. Design documents attached. I have successfully recreated your red dye separation from the extract of nama leaves with this method. The dye can then be concentrated by simple evaporation.

You will want Razzi to control the raw material source of his wood pulp. I have a hunch that different wood sources will change the separation timing of the dyes. With a packed column, you also do not require true paper and can make do with waste pulp, although you will have to evaluate the separation efficiency. I suspect that with optimized treatment, dedicated packing pulp can achieve better results than paper discs.

The Weavers guild should know of a dye fixer. Certain substances can improve the retention of dyes, you may wish to investigate various woods to see if you can purify such a fixating agent from their extracts. I think there was one from wood. You may be able to discover more dyes in your investigation with this.

Separation and concentration of plant and animal extracts by chromatography will also give you purer substances to investigate. Please do continue developing the technique, I have a particular purpose in mind that will greatly benefit from a better understanding of purification techniques. In particular, preparation times are likely to be a barrier to large scale production, I am experimenting with pressured chromatography here in the university, will reply with small scale design documents once constructed and proven to work.
Have you considered trying to create artificial dyes? I know that my world had artificial dyes, some of which were based on modifying other dyes with chemical processes. You may wish to try your hand at true chemistry, especially since you have my leaked book on the periodic table and chemical analysis methods. You’re already on the first step with the chromatographic process. Perhaps you can try to see if you can break down the starch in wind eye flour into sugar. That would be profitable if you can manage it in large scale.

I have noticed your representative looking for a good site for your dedicated research building. The proximity will certainly benefit you and the university. I look forward to working with you directly again!
Cato

Petro had always been a fiddler of things. Other boys and girls fiddled with each other, but Petro was always trying to build one thing or another. It wasn't like he didn't have interest in girls but it was just that there was more on his mind than what to eat and talking about who slept with who yesterday.

The day when the merchant arrived in town, Petro had dutifully gone over to pick up the items he had been promised three weeks ago. And aside from the precious woodworking knife, Petro had spotted another item.

It was a book, or a bad copy of one. Paper was rare enough and books were even rarer, but that hadn't stopped Petro from trying to learn to read. The only two books in the village were expensive and precious but they had contained stories that Petro had gobbled up when he was younger.

"That book," he pointed at it.

The peddler raised an eyebrow and lifted the slim volume, just a handful of sheets really, and handed it to Petro. Amazingly, there was another book below that. "Copies," the peddler winked at his questioning look, "someone's been making them and these books are really popular. I don't understand it myself though."

Petro opened it and in a heartbeat, made up his mind, "I want this book."

"Two skins," the peddler said.

But he didn't have that much to trade. A pair of piyo skins was ridiculously cheap for a book, but it was still far beyond an immature boy's earnings.

The peddler must have seen the look on his face, "tell you what. I've had my eye on you the last three years I've been here. They say you're good at making things."

Petro shook his head. Not as good as the blacksmith.

"You see that device in the center? The big folded sheet?" The peddler pointed out the diagram stamped slanted on the page, "you agree to build me one of those by the time I come around again and I'll let you have this book. If you haven't, I'll have you copy out four copies by hand."

Just from that glance, Petro knew it was a bad trade. The device claimed to be able to print books, it was certainly much more expensive than this poorly bound booklet. But he needed the booklet for the design of the device and the recipe for common ink in the first place, so there was no real option.

Petro gripped the new knife he just bought and nodded.
"If you manage this, I've another offer," the peddler leaned forwards conspiratorially, "I've heard these books came in a set of five. This one is number one and the thinnest. If you agree to print six copies each for me, I'll give you a copy of the others as I find them. And after that, I'll drop by with books for you to copy. Deal?"

Petro could only nod harder.

The stranger riding into their village was too richly dressed to be anything other than a well-heeled merchant. She didn't display any colours to demarcate her allegiance however so the villagers ruled out the possibility she was a noble. Besides, not even the lowest noble, their local baron for example, would travel without at least a few guards, magic or no magic. And she had come to stay, with nary a piece of luggage other than the small pack on her back and a walking stick.

Over the next few days, she had acquainted herself with the village's layout and lands, simply uncaring about the suspicious eyes directly her way from every passing villager. They would tolerate no merchant muscling their way into the village, although what sort of profit a merchant could see in their humble land other than their wind eyes and piyos was beyond the villagers. And the food was already spoken for by the baron.

The stranger had also spent an inordinate amount of time staring at the mayor's house or the paths in and around the village, muttering to herself. The shivering and trembling mayor had also come up to her to ask what she was doing but had fled after she gave him a conspiratorial grin.

The villagers also noticed that wherever she went, she left something in the ground. It wasn't any physically visible thing, but anyone who walked past the areas could feel it, as if some sort of invisible light had been buried beneath their feet. One of the more adventurous farmers had tried to dig it up but they found nothing but dirt down there. The villagers cursed her as a demon or a monster, but not too loudly or anywhere near her. The things were obviously magic and the only user of magic currently in their village could do whatever she liked.

They only started to warm up to her after her sixth day in the village, when she helped the innkeeper dig a new privy hole with magic. No one knew quite what to make of that. Then she repaired the broken winch over the well and shored up the miserable fence around the village with new logs, also cut and chopped with magic. She had obviously started to grow bored with the village and was obviously waiting for something but just what that was, was a mystery and the source of no small amount of rumours. The rumour mill picked up speed when a gossiping aunty spotted her sharing a meal with the mayor one evening.

Not many people believed her story that the mayor was entertaining a wealthy mistress from out of town though.

Ten days after she had arrived, they got their answer. Right as a trio of the baron's mercenaries marched into the village, proclaiming something incomprehensible about the mayor's crime against the baron, the visitor made her move. One of the mercenaries saw her sneaking the mayor and his family out of the village and they gave chase.

The road with the invisible things practically erupted under their feet. By the time the mercenaries picked themselves up and rode after them, the mayor was long gone into the forest.

The clueless villagers never saw the mercenaries, the mayor or the woman again.
"These guys sure are persistent, aren't they?" Landar complained as she urged the two Rekis driving the mayor's cart harder.

The three guards gave chase behind them on their Rekis. Luckily, the guards had been delayed just as much as them by the undergrowth of the light forest. Their lack of magical capacity to clear the brush was offset by the cart's slowness, laden by the family as it was.

"Are you sure the baron is really out to kill us?" the mayor asked, "just because of little Polankal?"

There was a buildup of magic behind them and a firebolt screamed overhead to land in a ditch beside the path. The explosion of steam showered them all with mud. The Rekis straining at the cart pushed a little harder.

"I think that's a yes," Landar shot back, deploying a small barrier of disruption magic. It ate the next firebolt before dissolving together with another.

The little barrier wouldn't follow the cart, there was no point charging it further. That was always the problem of trying to fight on the move, your spells didn't follow you unless you dragged them along, and that load on your concentration prevented you from casting too many.

"So where are we going?" the mayor asked, still trying to put on a brave look in front of his wife and children. Some of the children were adults in their own right, jogging beside the cart and helping the Rekis along.

Landar raised her eyebrows and then nodded at him, "alright, you take the reins! Follow the path! I'll buy you some time!"

She jumped off the cart, smoothly drawing a long thin staff lying on the bottom.

"I know the crossing there looks short but the stream is not that thin!" The mayor shouted over the noise of another firebolt exploding a tree, "the path leads to a dead end!"

"Not anymore!" Landar shouted back at the retreating cart. It tried to slide into another treacherous ditch but the mud inside the rut was abruptly as hard as steel and the wheel bounced right over it.

"All right then, time to see if my magic is good enough," Landar rolled up her sleeves with a grin on her face.

The three riders picked their way up the trail, their firebolts were still evaporating not three feet in front of her. Her shield spread upwards and outwards like a wall, impossible for them not to feel its power by now but they didn't stop flinging the futile bolts. Probably one of them had an iron staff too.

Well, they thought they had the excess power to batter her down? Bring it on! Landar would show them what excess power was, the Iris way.

The salvo of firebolts began to grow, all of them were directed at her. The three spellstorms had given up trying to shoot them over her shield by now and were getting serious about grinding her shield down. Then there were rustling sounds to either side of her as the mercenaries tried to go around her. Oh no, she couldn't stay here to fight the one man in front of her holding the iron staff while leaving the mayor up against the other two.

Another flurry of bolts from the mercenary pulled her attention back to the shield, it was getting dangerously thin. Landar pulled back the sides to thicken shield and left it blocking the path before running backwards as fast as the iron staff in her hands would let her.
Behind her, the blocked mercenary began to work on taking over her abandoned shield.

The mayor rattled his cart out onto the bend in the stream, a small patch of forest thinning out into a clearing due to the higher bedrock, that also diverted the stream around it. The stream was fast and deep here, but narrow, cutting deeply into the soft soil around the thrust up rock. And where he expected to have to make an impossible jump, across the thinnest point, was a stone bridge. It was crude but that made its existence no less impossible.

Their mysterious benefactor had not lied, the stone block had to have been a boulder torn out of the earth and cut to fit. Even with ten days to prepare and even with such a makeshift bridge, he shuddered to think how convenient life must be to have magic if this was what was possible with it.

His sons and older daughter helped him push the cart across, the rock wasn't quite big enough for it to cross safely. His wife and their youngest daughter, still a small kid, were already herding the pair of Rekis into the forest on the other side.

The cart slipped and almost lost a wheel over the side when it suddenly righted itself again and rolled forwards. The mayor knew enough about carts to know that they didn't behave that way. So did the rest of his children.

He looked up to see the stranger running out into the open area, her iron cored staff held high.
"Heave!" Mentally thanking her again, he shoved one last time together with his sons and the cart cleared the stream's far bank.

"Go!" he shouted and his three grown children bounded across after the cart. So did he after making sure there was no one left behind.

An almighty thrashing came from behind them as two Rekis and their riders burst out of the under the forest cover, firebolts screaming out from them again. The woman didn't have time to throw up a barrier around more than herself and one bolt sailed high over her then swerved unnaturally as if controlled.

It dove straight at their cart.

Ignoring the exhaustion in his legs, the mayor made the biggest leap of his life, scrambling into the cart to pick up the small sticks the woman had left them. By some unnatural and probably magical means, the entire family had always been able to feel exactly where they had put the sticks. He had strictly forbidden any of his family from touching them.

Red and yellow. Red and yellow. He mumbled the woman's instructions as he struck the yellow stick on the base of the red, coloured accordingly on their tip, and an unnatural feeling waved through him. An expanding bubble sprang up around the cart, scattering the lone firebolt.

The woman cheered and ran forwards again, dashing for the bridge. Then the third rider appeared, with his magically glowing staff. "Ignore the woman, our target is the mayor!" he shouted at the other two and a jaw dropping swarm of fire appeared around all three of them. There was simply no way they could survive that!

They somehow did, the woman threw up a wall that shuddered and broke apart under the onslaught but somehow the huge swarm of bolts weren't controlled well enough to hit either of them. The few that did were eaten by the shield around his cart.

The bolts did land in the soil and river all around however, throwing up blasts of steam and fused
sand. Then the rock bridge groaned and collapsed into the river, with the woman still on the other side.

She didn't stop running. But there was no way anyone could make that jump! It was almost as long as five carts! The mayor screamed in his mind as the fighting resumed with another salvo of bolts.

"Red and red! Cover me!" she yelled, pointing back at the trio of mercenaries who were also rushing forwards.

The mayor tried to pick out a second red stick and fumbled it, scattering the sticks onto the ground. His eldest daughter ignored his injunction and rushed forwards, gathering up the red sticks and thrusting them into his panicky hands. He tried to get one of them pointed red end towards the riders and fumbled again.

The woman had reached the end of the bend now and pointed urgently at the riders following behind her, "now! Now!"

Oh screw this! He thrust the bundle of sticks towards the rough direction of the riders and rubbed the one red stick in his left hand against the base of the sticks, hoping that one of them would somehow work.

It worked beyond his wildest imagination. The sticks spat fire and screaming death towards the riders, unaimed bolts scattering wildly into the ground and over their heads. But it stopped the riders' headlong rush forwards as they hurriedly deployed shields and tried to survive the storm.

Amidst the red flower of destruction spouting from his hands, the woman took a running jump from the rocky tip of the bend and seemed to bounce in midair, tumbling to a messy halt on the safe end of the bank. Without stopping to get up, she was already beginning another spell. A big one.

The storm of magic from his hands died down. She immediately deployed her spell, a massive barrier following the stream, pouring all her energy into it. The magical light from her staff flickered and died out. But the mercenaries stopped, testing the barrier a little with bolts and thrown rocks, all were slapped down contemptuously, before glaring at them, seemingly given up the chase.

"Now that was a little too exciting for me," she said, picking herself up and dusting herself off as if they hadn't just been through the scariest experience of their lives. "Best we get moving before the mercenaries find away to get past the stream anyway."

"So since your daughter did so well, Duport is one actually after your life," the Tsarian woman said over the crackling fire, brushing her long black hair back into something resembling a ponytail, "so that's why we were going south, to make them think you're just running from the baron and don't know of the bigger threat. We'll turn north tomorrow morning upstream and wade through the shallows to lose our trail before cutting cross country north east until we hit the road to the Greenspring towns."

"A good thing you spent so much effort to save the cart then," the mayor nodded, "there's no way we could carry enough food for that trip otherwise."

"I know how important carts are. I was an adventurer in my day, you know?" the woman winked and cleared her throat awkwardly as the younger son was suddenly very interested.

"An adventurer?! Like, one of the knights!" His enthusiasm was unmistakable.
The mayor almost pulled back his son but the woman smiled indulgently, "yes, I was. Still am, for a matter of fact, but I didn't get out much in the last few months."

If that battle didn't count as 'getting out', he didn't know what counted. Besides, the woman was younger than himself! "Were those mercenaries the baron used knights too?" the mayor asked.

His son's face fell as the woman nodded.

"Doesn't that mean the knights are out to kill us?" the mayor asked again. The silence around the campfire was grim.

"The ones here who listen to Duport and your baron, certainly," the woman said, "but there are knights everywhere. Not all of them are out for your bounty, or even know who you are at all."

"Say say," his son's dampened enthusiasm was evidently temporary, "if I become a knight, can I do that.. that thing, just like you?"

The woman smiled sadly, "sorry, you'll be more like the three mercenaries. If you work really hard. I'm... slightly special."

"So who actually are you?" the mayor asked, "you can't expect me to believe Landar is your only name. Not with that display just now. You are some kind of noble right? Someone who Polankal managed to convince to save us?"

"I am Landar. Landar Iris," the woman said, "but you are right about the second part. I'm friends with your daughter after all."

The stunned silence around them spoke volumes. But the mayor was afraid meeting one of the summoner clans, one who carried the main surname no less, was not going to reduce his younger son's burgeoning hero worship. Especially not when it seemed like the middle sister was already acquainted.

"It's not such a great thing, being an Iris," Landar said, an undefinable sadness in her eyes. But she rubbed them away and patted his son on the head, "sure, if you want to learn, I'll teach you magic too. Real magic."

And with that, she had one ardent follower in the bag. Not that the mayor would forget the raw power blasting out of those wands. The remaining three had been kept far far away from each other, now that he knew what they were capable of.

But that power stored in his hands, that he, certainly not a defender of Inath out of legend, could use with no more difficulty than rubbing two sticks together. That he wouldn't forget for the rest of his life.

If they got to Minmay as Landar promised, the ex-mayor resolved to learn at least enough magic to make another stick just like it.

Something as powerful as that, usable by anyone, that spoke of things that had been denied his entire life. Things like hope and independence.

Chapter End Notes
Leaked books:
Printing press design, Alphabet and Phonetics
Mana Tax Exercises
Mechanisms and Standardization
Periodic Table and Stoichiometry
Farming Tools and Methods
Side Story: Expedition

Letter 1
Expedition to The Snow Wall
Zaraan's Log

Journal Entry Day 6 after reaching the Snow Wall

I started keeping a journal log in order to record the activities on our expedition. For all of Cato's brilliance, he forgot to tell us to document our trip to make sure we didn't fake it.

Today we found a mine abandoned in the mountainside. I'm sure it's a mine because the area isn't prone to caves, with few natural springs and the wrong sort of rock. The rock here is hard and primeval, they're the true bones of the earth that can't be worn away so easily. The cave itself is also dry and the cave floor is only mildly uneven. We could almost sleep in it.

It's already late so the knights voted not to explore it today. We set up camp just outside the mine entrance in the loose gravel. I suspect the gravel here is the waste material excavated from the mine.

Journal Entry Day 7

Our first step into the mine lead to a tunnel that bored straight into the mountainside. If there was any doubt that the mine was not artificial, there's none now. The mine floor is dusty with sand and dirt, blown in from the outside, and as we proceed deeper, the leavings decreased to nothing. Given the potential danger, we decided that half the team would remain at the camp for half a day and the mine team would switch roles for the other half a day. The camp team will start searching for the mine team if they do not return on time.

On our way down, we encountered a metal grating. It was a widely spaced sieve structure ringed with metal fitted to the tunnel's shape. That appeared to be meant to keep out animals and trespassers. The knights removed it and deposited the pieces in our camp for further examination.

I am writing this during a short rest stop. We have reached a fork, the tunnel opens up into a small room with three paths leading away. Three tunnels that are nearly at right angles to the entranceway. We have seen no signs of any occupancy by wild animals or by humans in the past, possibly due to the grate. We have marked the entrance path with chalk and will mark our choice next before proceeding.

The front and right paths were dead ends after a short distance. Although the front path appears to be the widest of the three, the path is blocked by a collapse. The left path is the only route. We have marked the route.

The left path contained many side branches but most of these were shallow and lead nowhere. Our time was almost up when the path finally lead to another open room, this time with a pit in the middle that contained a sheer drop into another room far below. The pit's sides is almost too small for a person, you could arrest a fall just by bracing against the sides. The pit room also has two offshoots, which we could not explore as we needed to report back to camp.

Exploration sure goes slowly if you're being cautious and observant. Many interesting rock layers
were seen but no natural magic. No useful resources either.

The second team reported that they explored the side paths. Both paths curve around in a large arc ending in collapsed tunnels.

In a fit of possible insanity, Mari decided to try clearing the rubble. It was far too lucky of her to get away unscathed and I made sure to reprimand her severely. She could have collapsed the entire tunnels with the team inside!

Nevertheless, one of the tunnels is open again, with a crawl space under two large rocks. We shall have to get it reinforced. It would be horrible if someone was crushed or trapped on the other side if the roof fell through again. We agreed on a tapping analog to Cato's light signals in order to communicate with trapped members.

The other side of the tunnel leads to a vast open space with dense columns. Or a series of interlocking rooms above and below each other, it's hard to tell which. That space will be the target for our explorations tomorrow once we can fabricate a proper iron bracing from the rods in the supplies.

Journal Entry Day 8

I'm on camp duty today, so I shall examine the grating we brought back. The knights aren't even interested in investigating anything, a bunch of muscleheads they are. I think Cato might have made a mistake hiring them.

The grating is made of steel. A steel that our best smiths cannot make. The material is uniform throughout its interior, there are no marks of the foldings and hammerings that we need to make good steel, and its strength is correspondingly higher. Whoever made this had much better steel making technology than we did, along with the implications of spending steel for a simple grate to keep out animals. Its no crysteel but I'm sure the Ironworkers would be happy to have it. I shall save a sample for Cato too.

I am now certain that this mine was dug by the First.

The other group had braced the tunnel with iron and woodwork holding up the weak tunnel roof. Let's hope it doesn't collapse behind us.

The other group has attempted to map out the cavernous area and found a return path on the other side that links with the other collapsed tunnel. They were not able to complete the mapping activity as the haphazard connections between the open spaces and the varying height of the spaces makes representing them on paper difficult and confusing. It does not help that the walls and pillars left behind appear to be unnatural rock, fused perhaps with the same idea I had with using elemental Water, clearly made to brace up the ceiling and not to divide the area into logical zones.

What is clear however, is that the area is vast, extending away from the entrance and downwards for more than hundreds of meters in each direction.
Beyond the obstruction, the tunnel continues to curve around and finally enters a vast cavern. Or something like it. It is evident some sort of mining activity occurred here but no Inath mines go this deep under the ground.

I noticed that the bracing walls and pillars were the thickest nearest the edge of the mined volume, with the exception of the pillars near the 'ceiling'. This allowed us to attempt to map the length and approximate shape of the mined volume by striking out directly towards the center instead of attempting to map the area.

However, the walls thin until they disappear completely, leaving a massive open zone at the center. It was clear to us that the pillars were arranged to support the ceiling by transferring the forces to the sides. Just the construction process of the pillars, especially since it must have been done during the mining process itself, is completely unknown, as well as the design of the expanding bubble-like shapes.

Needless to say, mining out such a huge area is obviously impossible for us. We stood at the edge of the void on the floor of a large hollow, looking across at the similar bubble-shaped hollows all around the walls on the other side. The void is large enough to fit a small castle.

In it is the most important discovery of the entirety of Inath. The natural magic. They were even magical crystals like you said.

In the center of the void lay the most massive agglomeration of magic I have ever seen. A crystalline formation was growing at the center of the void, a pile of fused transparent crystals of multiple hues and colours. Many of them appear to be growing out of the rock or each other, with smooth transitions between them. From where we were, the pile of crystals would stand nearly twice as tall as a human and could easily fill an entire caravan's capacity.

Its signature in the magic sense is extremely weak, for its size. But unlike techniques that bend the signature into itself to conceal it at range, the crystals' signature did not increase when approached, more than expected from a normal unconcealed magical effect that is.

What bothers me is why the First left these crystals here. This mine was clearly a crystal mine, meant to extract deposits of natural magic. Why would the First leave such a large pile behind when it is their very objective?

We have called the other group in and we will move our camp next to the crystal formation in order to investigate it further.

Journal Entry Day 9

Even the knights are excited. Some immediate experiments indicates that the crystals themselves are made out of magic. It may be a sort of magical material similar to elemental Water and Crystal, but this magical deposit does not display the same magic absorbing properties of elemental Crystal.

After some discussion, we have settled on using the word Mana when referring to the deposit of magical crystals to avoid confusion with elemental Crystal.

Raw magical blasts exert disruption effects on the mana, that causes it to disappear much like how a magical material would behave under magical attack. With some difficulty, Mari, Sari and I have managed to utilize a finger sized piece of mana to fill an iron staff, albeit with horrendous
inefficiency. Judging by the contained power, mana is a hundred or more times as dense in magical power as standard alchemical enchantments without special materials, at least without compression techniques to increase the binding rate of alchemical enchantments.

This means the deposit here contains more magic than the entire order of knights in the Minmay region could produce! It would not be surprising if all the powers of the knights for a month could not match the deposit here! Even with our current inefficiency in using it, this deposit of mana could refill the entire of Wendy's Fort wall enchantments! It is difficult to understate the magnitude of this find.

Mari has begun to work on improving the conversion technique, the knights are looking forward to getting enchantments that fully utilize the capacity of their iron or steel armour. Sari is investigating the physical and magical properties of the crystals, trying to figure out how they behave and what the different colours mean.

That leaves me to investigate surrounding area with half the knights to see if there are any other deposits the First might have left behind.

We have sent word back with one of the knights along with one sackful of crystals for further examination.

Letter 2
Journal Entry Day 11

We may have part of the answer to why the First have abandoned this mine. A swarm of tremors attacked us not long after nightfall and six knights have been killed in the battle. This is the first time we have seen small tremors along with the normal sized specimens, the smaller tremors were weaker, attacked more hesitantly and were easily dispatched.

The reason for this attack became clear when we retreated onto the mana deposit to gain cover from underground attacks. The tremors' attacks only increased in frequency and after a long battle to the death, we exterminated more than thirty tremors until none of them were left alive.

Small opaque angular crystals were found in the mana deposit and when these new specimens were examined by Sari, the opaque crystalline shell was broken open to reveal a malformed and clearly embryonic tremor.

Apparently we have stumbled upon tremors making a nest in the mana deposit. Tremor eggs were killed by magical disruption and the dead samples have been kept with knight Homa, who is tending to the knights injured during the fighting. The rest, more than a hundred, have been killed then smashed and disposed outside the mine entrance. We know very little about the lifecycle of tremors and I am sure studying them can yield much more information than we currently have.

We have left three living eggs with Homa under strict instruction to kill them immediately if they look like they are hatching.

However, something does not add up. Since we could clearly deal with tremors, it is inconceivable that the First are unable to. Why would the First abandon this mine upon attack by tremors, however many they were? And why leave this mana deposit behind instead of using it to defend the lives of the miners? Mari is certain that the First would have the ability to utilize the mana directly instead of
merely channelling it for charging iron staffs.

And why were the tremors nesting inside the deposit? Do they somehow require mana crystals to hatch their eggs? If so, we may be able to find more deposits by tracking the location of frequent tremor attacks, the fort at the Passage of the Great Yang comes to mind, suffering constant tremor attacks as they are.

The mine may be a lucky windfall but the facts we have are incomplete.

Journal Entry Day 16

It appears that there are no other deposits in this mine. All the passages have been extensively explored and there is no sight nor sound of more mana.

I also think that there is some significance to the location of the deposit. The shape of the mined area is a rough ovoid, clearly centered around the deposit itself. How or why this might be, I have no idea, I only know that this cannot be a coincidence.

Another point occurs to me as well. We found this mine pretty quickly upon entry into the Snow Wall, that would imply that we were either unreasonably lucky or these mines are fairly common. Could not others have been noticed by now? What happened to the other mines or do they not have any mana crystals inside them?

Towards the back of the mine, we have found the purpose of the sinkhole in the first room. A side tunnel from the bottom layer of the mined area leads to a room directly below the first room, connected to it via the hole. This was most likely used to haul the mined rock and mana up the shaft to the outside, allowing the flow of rocks not to share the same mining tunnels as people. We should spread this design among the iron mines, provided that such is not already implemented.

Since there is nothing further to learn here, we will be returning with as much of the crystal as we can carry as well as the tremor egg specimens. Perhaps once the casualties have been replaced, the knights will stage a second expedition to capture some zombies.

Landar pushed open the door, still steaming from a long awaited hot bath. She had been rather curious of the contraption Cato had been setting up when she got back but he had insisted she take a bath or at least a shower with lots of scented soap. Another invention by Kalny and an ex-rival he had bought over. Hmph, knights who had just saved a family from a pointless death should not mind the smell from a mere two week's travel.

The bag full of magic was intriguing but things had their own proper priorities. The device Cato had been trying to start before her bath was far more interesting. And for another thing, she simply had to enjoy the cool air of her last invention.

Wait, that thermometer was different and even the casing of the cold air fan was changed. Had Cato got someone else to work on the air conditioner while she was gone?!

"What is the meaning of this, Cato?" she stalked up to him, pointing at the air conditioner when he raised an eyebrow in confusion.

"The air-con? What's wrong with that? I got Omal to revise the trigger enchantment, with some
design work I managed to make it more stable. A one minute trigger delay seems to work best."

Landar pushed aside an uncomfortable feeling and pouted, "that was our work! I was looking forward to improving it! You can't just give it to Omal!"

"But I just wanted to see if my ideas would work?" Cato looked bewildered, "should I have waited for you to come back?"

She paused, wanting to say yes but realizing how ridiculous that sounded. Landar instead smiled and nodded, "all right, fine. I'll let you do that."

For some reason Cato winced and asked, "why are you angry?"

Angry? "No, I'm not," Landar said sweetly, "your reasons are good after all."

"You totally are!" Cato pointed at her, "cut it out, don't smile like that! It's creepy."

Eh, but she was smiling to show she wasn't angry? Wait. "What does my smile normally look like?"

Landar asked out of morbid curiousity.

"Definitely not that one, a sweet demure smile like that completely doesn't fit you," Cato rubbed his shoulders in shivers.

Oh ho. Be like that would he? Mischief warred with irritation in her heart. "I beg your pardon, sir, this little girl understands that nothing about her is sweet," she put on her best smile taught her by her parents when she was younger.

"Stop it! That smile! It's seriously scary!" Cato shook his head in panic, "fine, I'm sorry all right? I'll ask you next time before I let anyone else touch your projects."

"Good," Landar nodded. She would have to remember this tactic next time she wanted a new experiment. Why, she had never expected that she could get her way simply by smiling at him!

"I have a nice present for you," Cato said, still looking at her nervously. He hauled over the bag full of magic and poured out a selection of small crystals onto the table. They radiated magical power.

"Is that the magic crystals you were talking about?!" Landar exclaimed, "they actually found natural magic already?!"

"Yes, that was faster than anyone thought they would. Natural magic must have been very common, I wonder why Inath forgot how to use it?"

Neither of them had any answers. "So according to the twin alchemists from the expedition team," Cato picked up a crystal, "using these is quite difficult. Something about the magic being bonded too tightly to remove without spending so much magic it's almost not worth it. So I thought I'll give you some to see if you can solve the issue."

The crystals disappeared from the tabletop faster than the eye could blink. Landar grinned and held one up to the light, "leave it to me! I'll have the magic out of them and in my wands in no time! And it has so much power! Magic bowguns will never be the same again! Ahahaha!"

"Now that's more like it." She studiously ignored Cato's mutterings.

Cato fed the fire under the machine with a fresh shovelful of charcoal, watching the water in the
pressure gauge climb. At the appropriate moment, he opened the valve through the switch and the boiling hot steam shot down the pipe into the chamber on the other end. The piston inside was driven back, turning a shaft along with a rod that shut off the steam inlet and opened the exhaust. The rotating wheel pushed the piston back and exhausted the steam onto the grassy field. Then the inlet opened again for another cycle.

For now though, the wheel merely pumped the bellows that blew the fire, practically free spinning.

"So that's a steam engine?" Landar asked, "doesn't look like much. Although for it to be moving like this without magic is amazing."

"Yeah, I was thinking of reinventing this," Cato sighed, "the steam engine first allowed deeper mines by serving as water pumps. Then as they got better, they began to be used to drive machinery that waterwheels used to operate, allowing factories to be sited away from rivers. That was how the Industrial Revolution started on my world. In fact, the steam engine was the driver of the known world for nearly a hundred years before electricity was invented."

"It would be amazing if it could move faster," Landar clapped her hands as she examined the makeshift pressure gauge and safety valve, "how does it work?"

Cato pointed at each part of the machine, explaining the flow of steam and pressure that drove the piston. The curious audience of the staff members behind him were quiet, leaving Landar to fire off endless questions.

"There are still a number of problems with this prototype however," Cato pointed out the lack of a way to replenish the water without shutting down the engine and the fact that the safety valve still had to be operated manually by looking at the pressure gauge. When he pointed out the boiler explosions were a common problem in early steam engines, the audience abruptly found better things to do.

Not that it stopped Landar from attempting to heat the boiler with magic.

"No wait, didn't I just say that it could be danger-" Cato got out only a few words before the entire safety valve popped out of its pipe in a cloud of steam, smoke and boiling water. Everyone except Landar dived to the ground.

Landar watched the valve contraption arc through the air to land in a neighbouring field.

"I know what you're thinking and the answer is no," Cato said, "no steam cannons. The steam engine is mostly useless now though."

"What?!" Landar looked at him, with a dismayed face, before clearing her throat awkwardly.

"Instead of using high pressure steam or even gunpowder," Cato said, "you can just use magic to accelerate an arrow or stone to lethal speeds. Or to any speed really, just add more magic. It's almost too simple."

Landar pouted, "but what about your industrial revolution? Won't that be useful for us?"

"You don't need steam engines for an industrial revolution," Cato said simply, pointing at a certain warehouse, "I mainly investigated the possibility of steam engines in case natural magic didn't work out. But since it did, we are much better off just using magic instead. Rather than learning to build steam engines all over again, you already know how to work with magic and don't have to start from scratch."
They were both thinking about Landar's attempts to make a device for standardizing alchemical enchantments.

Cato sighed again and watched the small amount of water remaining in the boiler as the fire died, "magic really makes things far too easy."
Morey stood in the middle of the road, blocking the way with arms spread.

"Out of the way, boy," the man seated at the front wagon of the convoy growled, "I don't care if you're the Hero or not."

"Not unless you leave them here," he nodded at the cages in the wagon.

The man frowned and signaled the guards around him. The six knights quickly came forward and surrounded Morey, weapons ready to draw and spells ready to cast. Almost at once, a motley group of twenty people emerged from the thick wet forest around them, weapons at the ready.

The major difference was that the group's weapons radiated magic. Certainly not the sort of thing a bandit group could afford. And there was strong magic there, spears and arrows that fairly glowed in the unseen. There were even some wands.

What was worse, the weapons and armour only made themselves known when the group approached. Suppression of magical signature was an advanced technique, even worse when considering that it was used on an alchemy enchantment. So not only did they have a powerful alchemist, but one who could also perform complex techniques.

The alchemist appeared from the forest, behind a wall of people carrying magical defensive shields. An alchemist on the battlefield was useless if there were other people to activate enchanted items for her, but here she was anyway. She was carrying a staff, a charged steel staff that was far more complex than any enchantment had a right to be.

The knights gulped. True, the enchanted items wouldn't let one of the ambushers fight a knight, they didn't have enough on them, but there were a lot of ambushers. There was some calculation as they weighed their magical power against the inevitable barrage if they had to fight. They still had the advantage, if small.

They took a step forward to the boy who was surrounded then stopped. A glow of magical power entered their range and rapidly built into the full signature in the characteristic manner of entering the concealment range. Another girl stepped out of the forest behind the convoy, sealing off the route back to the city.

She was flanked by four helpers, each carrying a preposterous three steel staffs, all of which were fully charged.

That was more than enough power to force a way through the guards at a city gate, much less a mere six knights. The titanic well of power alone could squash them like a bug. And the girl had black hair and black eyes. A pure blooded Tsarian, clearly of the summoner clans judging from the fist sized green crystal hanging on an ornate necklace clutched in one hand. If that summoning stone wasn't fake, it was clearly Greater rank at least, possibly even Ritual.

One shot from that stone and the entire convoy would be flattened.

Morey nodded gratefully as they dropped their weapons. The convoy leader frowned, "should the Hero be stooping to robbing travelling merchants? What will the people think?"

"The people I care about aren't people like you," Morey growled, "get off your wagon now and give me the keys or we'll start killing."
The convoy leader sighed and got off his wagon. Morey nodded at the rest of the wagons as well and the drivers gathered at the head of the convoy, made to sit separately from the surrendering knights. As the wagon drivers passed him, Morey and a few followers padded them down and retrieved any key that looked like it belonged to the wagons.

Morey dropped the keys into a rough pile and a single pulse of magic melted them into unusability.

"Cut the slaves out of their cages and toss the cages," Morey gestured the rest towards the wagons, "we'll keep the wagons and Rekis. This lot can walk back."

One month ago

Morey wiped away the sweat rolling down his cheeks and onto his neck with a damp cloth. It didn't do much good.

This country seemed to be hotter than Inath, even if the position of Selna still said they weren't near the equator. Perhaps it was the lack of trees and slightly sandy soil but the rays of the sun continued to beat down on him mercilessly. No kind breeze came along to ease his suffering.

Being a Hero didn't save one from the elements.

"The plantation is just up ahead," Etani pointed at a row of black specs jutting up from the ground a long way down the road.

"Let's stop over there for today," Morey panted, "we need to refill our water and rest. Perhaps we can make better time to this ruin if we can get enough Rekis to ride instead of a just pull a cart."

Etani looked up at the sky, seeing the Little Night about to begin. She got a reluctant look on her face but one glance at Ereli and Nal dissuaded her from pushing further forward. Even if they were just sitting in the cart taking turns driving, Ereli was lying against the folded tents, her limp body with a consistency approaching melted butter. Nal also looked flushed and had spent the last few hours staring into the distance, her small body was more sensitive to the ravages of heat and light and despite consuming the most water out of all of them, it just sweated out of her skin like a wrung cloth.

For all her stoicness, Locoss didn't look too comfortable either.

Reki riders met them some distance away from the plantation when they approached close enough after the Little Night, their incomprehensible shouting and face concealing cloths made Etani ready her hammer. But a revived Ereli began to speak rapidly with them in native Tsarian, which neither Morey nor Etani understood. Locoss seemed as if she understood it too but her normal silence meant that it made no difference.

The riders suddenly looked very interested in Morey and chattered animatedly amongst themselves. Ereli probably just told them he was the Hero.

"This is the domain of Duke Zain, we've crossed over into northern Illastein," Ereli said then paused as one of the riders gestured, "uh, Allawi Zain. Allawi is something like a Duke in Inath. He's a very important person anyway."

"Ah," Morey nodded, "can you ask for permission to stay with them tonight? And if he'll sell us some water."

After some moments, Ereli nodded, "they say that they are Zain's liegemen and can't make the decisions for him, but they are sure the Allawi will welcome the Hero and ask you to proceed with them so we can talk to him directly."

Morey nodded again and their little cart trundled forward, flanked by the six riders.

The cloth spread over the riders heads was apparently just a precaution against the sun, one that Morey and his party hastily adopted. Zain met them under a large brickwork house, one of the few in the large settlement that wasn't stained brown with sand.

His sharp eyes and lean muscular body improved Morey's impression of the Allawi dramatically, he had had enough of the lazy nobles in Inath.

"It is good to see you here," Zain said as the servants dragged out a table into the main hall of his residence and brought out a spread of bowls filled with various strange sauces and creams to go with their bread and strips of meat. And clay pitchers of much welcome boiled water, even if tepid. There were no chairs and they stood around munching and drinking as Zain introduced his wife and three children.

"Rumours of a new Hero in the Inath court have been spreading down here in Illastein," after sending his family away, Zain continued in perfectly understandable Inath language, "although I must confess to find myself surprised by your presence. I would have thought you would be up north fighting the monsters? Your legendary command of the battle for Reyk village has been sung by our minstrels all over the land you know!"

"You grace me too much, I-" Morey tried to bow but Zain held out a hand to stop him.

"It is our custom that those with a higher position should never bow to one lower," Zain said, bowing shallowly to him, "allow my indulgence. A mere Alawi cannot accept bowing from one such as you."

Morey could tell the waiting servants suddenly turn extremely respectful. They had been unsure of whether to treat Morey or Zain with more respect and Zain's nod towards them confirmed that the Alawi was just making the relationship clear for them. Morey settled for a nod and continued, "Your minstrels must have exaggerated my role, Zain, I did nothing but stand at the back and give orders."

"But it was still a glorious victory against a hated enemy," Zain smiled and called for a servant to bring up cups of expensive wine, "this is the least I can do for the defender of our realm. So, I'm still curious what you are doing here."

Morey nodded at the tanned servant girl who served him his cup first then offered the second to Zain before the rest of Morey's companions. "My mission is not actually to hunt the monsters. Queen Amarante charged me to find the Sword of Legend in order to end this war and we are tracing down a Tsarian ruin that we think contains clues towards our quest."

"If you are travelling further south into Illastein, please be careful of bandits," Zain warned him, "they care not for our status and neither will they hesitate to attack the Hero himself. Even if they don't have magic, they use underhanded tricks that have laid low many honest merchants and nobles. If you need a guard, do please ask and I shall see who I can spare."

"It's all right," Morey reassured him, "the four of them are the best in Inath and I doubt the bandits can be much worse than a zombie army."
Zain nodded sagely and was about to reply when there was a squeal from behind Morey. They turned to see Nal gagging in tears, chugging down one cup of water after another. Ereli was patting her back with one hand and munching on a illon wrapped piece of Paka meat that dripped with a dangerous looking red sauce with the other.

Morey had earlier been warned off the sauce by Etani, as it was extremely spicy. Ereli nonchalantly took another bite of the probably-lethal quantities of hot sauce while Nal drained a full pitcher of water held by a grinning servant. Morey chuckled at the rare sight of Ereli getting the one up on someone.

It certainly wasn't the sight expected of Inath's elite adventuring party.

Not that there was any doubt about that given the huge amount of magic radiating from the steel plates at the bottom of their cart. Enough magic to flatten the entire settlement ten times over, built up by Locoss when she discovered how to siphon off magic from Ereli's daily strength training.

The light hearted feast continued for another few minutes as Morey and Zain idly chatted while watching Nal challenge Ereli again after Locoss also managed to stuff down an entire piece of meat with sauce. She barely reacted but the slight flush and beads of sweat on her forehead was her equivalent of a screaming fit. Etani kindly offered her a cup of water.

As Morey drained his cup of light and refreshing wine, he reached out for another piece of paka meat, without sauce. The same tanned servant girl, now holding a pitcher of wine, had come up behind him to refill his cup and Morey accidentally hit the pitcher with his arm.

There was a smashing sound, a wave of cold liquid swept over Morey's feet and into his heavy cloth shoes. He looked down to see the pitcher in pieces on the ground and the wine soaking into his shoes. The servant girl jumped backwards but not before Morey saw the blood dripping from where the sharp clay pieces had cut her when the pitcher shattered in her hands.

"What-" Morey gaped and crouched down, sweeping the clay pieces aside with magic. "You don't have to do this, get up," he said, tugging on her arm.

She only pressed herself down further, blood mixing into the spilled wine. "I am really sorry for this impoliteness, Hero," Zain said, bowing deeply to him, "I will make sure to punish her properly. " He snapped harshly at the girl in Tsarian and she pressed herself flatter.

"It is all right, Zain," Morey tried to interrupt but Zain kicked the girl in the shoulder, snapping at her again. She got up and tried to scurry off but Morey caught her arm. That got Zain's attention.

"It is all right, Alawi," Morey put on a smile, "she's hurt more than I and it was my fault-"

"I said it's all right, Alawi," Morey put on a smile, "she's hurt more than I and it was my fault-"

"No, it can't be your fault," Zain said, bowing frantically, "the fault is mine for not training her properly. I will replace your shoes with my best and punish her severely. "

"Etani, can you get some cloths and bandages, she's bleeding quite badly," Morey held on to the
girl's arms firmly, preventing her from running away. He caught sight of her teary face and thought of something, he looked at Zain sharply, "it may be your custom to blame the servants for honest mistakes but it is mine to recognize our own faults. I will not blame her nor look to you for damages. A small matter of spilt wine and a broken pitcher is surely not cause for such treatment."

Zain's face looked conflicted and the room descended into an awkward silence until Etani came back with two servants carrying rags in a bucket of water. Ereli began to boil the water while Etani and Morey carefully picked out the clay shards from the girl's arms. She was crying all the while, trying to refuse them but Morey sternly held on and did not let go.

As Etani expertly washed and dressed the girl's wounds with the sterilized rags, Morey released her when he was sure she wasn't about to dash off.

"Alawi Zain, I am neither harmed nor bothered. These shoes have seen far worse and will be perfectly serviceable once washed," he paused, "if you are worried about damage to my honour or respect, rest assured I do not mind. In fact in my customs, the grace to forgive such minor matters is expected from one who holds power. If you must insist on a punishment, please let her off with just washing my shoes. Any more would make me uncomfortable."

Zain snarled something at the girl and she nodded, relaxing slightly. "She appreciates your leniency. I will lend you my best pair of shoes and she will have yours clean and dry within the hour."

Morey sighed, wondering if Zain really understood what Morey tried to say. Was this what they called a culture gap? Then Zain glanced at the girl and looked at Morey speculatively, "or perhaps did she catch your eye? I can also send her to your room tonight."

Morey could almost choke, he didn't understand after all! Did Zain really think Morey was acting nice because he was attracted to the servant girl? True, the childish pink tattoos around her neck were a little bit cute, but sleeping with her under the circumstances would be practically rape!

"Surely not, Zain," Morey sighed, "I meant what I said and do not require anything more. Besides, she cannot and should not consent to such an order. It will be beyond cruelty to sleep with an unwilling girl."

Zain frowned in confusion.

"That doesn't matter, Morey," he said, "she's my slave and will do whatever I say. If you want her to be willing, I can order her."

"What does Zain mean by that?!" Morey snarled, pacing up and down the large guest room.

The four girls were sitting on the edge of the row of four cloth mattresses meant for them. Morey's single bed was at the other end of the room separated by a cloth partition, although his bed was more like a double. The meaning of that arrangement was not lost on him and the unflattering implications on his partymates only fed his irritation. But there were more pressing questions.

"Mean by what?" Nal asked.

"He said that girl was his slave, what does that even mean?" Morey said, "he said that if he ordered her to be willing to sleep with me, she would. Is that even possible?"

"Um," Nal frowned in confusion, "slaves are frowned upon and uncommon in Inath but Illastein is far more hierarchical and slavery is very common here. If he tells her to sleep with you, then she will have to do so? I mean, slaves are the property of their master, that's in the definition."
The pit seemed to drop out of Morey's stomach. This world was far more dangerous than he thought! "So if he orders her to kill herself, she will just do it?!" he exclaimed.

"Uh, no?" Nal frowned deeper, "Zain can beat, punish or starve his slaves, or even kill them. But why would she obey that order instead of trying to escape, however unlikely? After all, a disobedient slave is made to behave by punishment and threats."

Oh, whew. "So she's not forced to obey him, except on pain of death or torture," Morey sucked in a breath, "there's no magical compulsion that can force her to sleep with me or even worse, make her want to. The tattoos on her neck is probably just a marking then."

Nal looked sick and shook her head, "how do you even get these ideas? There is no such magic. Magic can cut off your arm or burn you but it's not a living thing. It can't make you want..." she shivered in disgust, "just thinking about it makes my skin crawl. If you could control people with magic..."

Etani spat out the nearby window. Locoss still continued to look like a life sized doll.

Ereli raised a hand timidly, "actually, in the ancient stories from the Tsar, there have been references to mind magic. There are of course no hint that the spells were real and we, the summoner clans, think that these are just legends. But what Morey talked about does exist as a concept. There is even a Tsarian word for it so it was treated as a standalone concept."

Wonderful, to take so long to discover such a dark side to this society. At least they weren't mind magic slaves or Morey would seriously start wondering if he could join the monsters' side. Now he just had to reconcile his morals with normal slavery, bad enough as it was.

"What is the stance of Inath on slavery? You said that it was frowned upon and uncommon, but that doesn't mean they don't exist, do they?" Morey asked.

Nal frowned at his tone, "slaves aren't sold in Inath. Even if there isn't a law against it, it... just isn't done. Most of the slaves in the federation are owned by Illastein nobles and the few in Inath proper were brought in by merchants from the south. No one respectable in Inath would be caught dead with a slave in their household."

"So if you despise slavery that much, why haven't you made Illastein get rid of it?"

They gaped at him. Morey continued, "they're part of the federation right? Can't Amarante force Illastein to free their slaves?"

"That's not feasible," Etani said, "my queen may be powerful but Illastein has less reason than most to contribute to the federation. Their southern and most of their eastern border is an open lifeless desert that not even the monsters roam in and their west is the ocean. Their only contact with the monsters is through Kirita's gap which Calva Principality is defending. Our efforts at Reyk village relieved a huge pressure on Calva's north, which means that Illastein is more secure now than ever."

Nal nodded, "Illastein has only joined the federation because they know that if Inath falls to the monsters, their land is completely indefensible. But their lack of pressure also means we can't push them too hard."

"And I guess that my position as the Hero can't do anything about this?" Morey asked.

"Um, you might be able to get some of them to give you slaves but essentially, your authority comes from Queen Amarante," Nal explained, "so no, you can't do it."
Morey thought for a while then asked them, "what about the four of you? What do you think about the slavery system here?"

"Not good. Very," Locoss replied immediately. They looked at her in surprise, that was quite a lot of emotion in that statement.

Seeing that Ereli nodded too, "I hate how Zain treated her like his possession."

Etani and Nal were less trusting of him though. Nal asked, "why do you ask that? I don't like them enslaving people but this is how it is."

"None of us like the slavery system," Etani said finally, "but Illastein is not Inath and the monsters are the bigger problem."

Morey sighed. "What if I freed the slaves?" Morey asked, "the five of us are the best mages Inath can offer. With that huge pile of magic outside, we can definitely make an impact."

Ereli's starry eyes were painfully naive, she was no doubt thinking of that servant girl and Zain's cruel treatment. In contrast, Nal and Etani were horrified. What made Morey surprised was the reason.

"You can't do that! If the Hero starts attacking Illastein slave dealers, the Inath federation court will..." Etani said incredulously, "you'll be treated like a bandit! And think of what would happen if the status of the Hero!"

"Morey," Nal's arguments were more levelheaded but harder to argue against, "if a symbol like you attacks Illastein, they will very likely treat it as an attack by Inath. The federation could fall apart! And if we start fighting each other again like the wars a hundred years ago, the monsters will definitely kill us all."

"Morey, please, think of the bigger picture," Etani pleaded. It was a rare sight, she was normally so strong headed and reliable. "I know that girl is pitiful but please understand that we cannot always get our way."

There was a flare of magic besides them and they looked at Locoss incredulously. She was charging a wand, the spell looked like a firebolt, possibly. She met their looks with a characteristic blankness.

"Uh, Locoss, Morey didn't mean we are going to break her out now," Etani said, "that's right, yes? Morey?"

Her flat expressionless eyes held an unidentifiable pressure. It felt like a betrayal to look away but that was all Morey could do. After all, he was only one man, no matter how strong. And even if all five of them tried, they couldn't change the society here. Nal and Etani were right.

Morey grimaced and nodded to Etani.

It wouldn't be today, or even this year. But once this war was over, Morey swore to himself, he would come back for the slaves.

One of the girls must have told Zain last night, or perhaps he figured out why Morey had insisted on treating the slave girl nicely. When morning came, the Alawi invited him to talk to the household slaves that brought them a sumptuous breakfast.
They were all invariably cheerful and bright, full of praises for Zain and his provision of a livelihood for them. All the slaves recognized him, probably Morey's description had been circulated among his household. While the claims that he gave them an allowance, fed them well and did not overwork them were almost certainly true, the fact that they were all young beautiful girls with the pink neck tattoo was not lost on Morey. The first man he saw was the cook, and the deliciousness of the food and his leadership of the cooking girls was the clear reason why Zain had not replaced him with a fresher flower.

It made Morey sick to hear it.

"Perhaps he was just nervous the girl might have offended you last night?" Ereli asked as she followed him out of the building. Morey had left to catch a breath of fresh air when he could take no more. "The slaves are very lively and do not seem to mind that they are slaves."

Morey could only sigh. It was statements like this that made him afraid for Ereli. She was far too easily deceived and her cloistered childhood gave her a naive innocent view of the world that saw nothing deeper than what others wanted her to see.

"Come with me," Morey said, walking down the path leading to the plantation, "I'll show you what the slaves are really treated like." The guard at the gate recognized him and stood up hurriedly to bow to him. Morey nodded and got permission to enter.

"This will be where he keeps the slaves he doesn't want to look at." Or worse, Morey added to himself. Even if the female slaves had a chance at a better life if the Alawi ever got them pregnant, indeed a few of them he covertly asked had expressed that very hope, he still could not accept that such could be considered consent.

"His plantations are very big though," Ereli remarked, admiring the seemingly endless rows of fruit trees, "it's also nice and cool under the shade." Morey looked down at the soil, noting how the crisscrossing channels between the rows of trees carried water. They must take a lot of effort to create and maintain, especially in the loose sandy soil of this country.

A trio of young boys, with the characteristic black slave tattoo over their forehead, ran past them carrying armloads of choko fruits. Despite their speed, they expertly bounded over the irrigation channels without dropping a single fruit and disappeared amongst the rows.

Morey and Ereli followed their trail more slowly and after some walking reached the edge of the plantation. A low wall divided it from the road and the gate there was flanked by a collection station. Boys and girls swarmed in with arm loads of fruit while the stronger adult men and women carried basketfuls. It would appear that a section of the plantation was being harvested today and the slaves were frantically trying to gather all the fruit from that section of the plantation before the birds damaged the crop.

The collection station was controlled by six overseers, paid workers who were not slaves, who were themselves overlooked by a pair of guards. They counted off the slaves and made sure the slaves placed their burdens down in the waiting baskets.

What brought Morey up to a halt was the whips on their belts. Ereli, of course, saw nothing but the busy activity and watched the lines of slaves queuing to relieve their loads with interest.

An overseer recognized him and hurried up after choosing a pair of chokos from the baskets.

Ereli translated the Tsarian for Morey. "Welcome to Zain's master plantation, the biggest in the land!" he bowed deeply, trying to be welcoming in his own inexperienced manner, "please do enjoy
a sample of our fruit."

Morey coldly nodded but didn't take it, the lines of slaves that gathered the fruit and tended the plantation was not something he intended to appreciate. With a cramped look on his face, the overseer stood there with a choko in each hand not knowing what to do. Then the overseer turned back to the lines of slaves, mistaking the meaning of Morey's look.

"Faster!" he stuffed a choko into his pocket, drew his whip and cracked it against the ground. The pace of the collection suddenly increased. The other five overseers also drew their own whips...

Morey stopped the overseer and his colleagues with an outstretched arm, "No. Continue as you were."

The overseers relaxed slightly but the one who was still holding a choko dumbly was at a loss of how to handle Morey's bad mood. Ereli was looking a little conflicted now.

"You see, Ereli, this is how the real slaves are treated," Morey said, ignoring the overseer, "those pink tattooed women are Zain's pleasure slaves. And he's not the sort of man who would break his own toys."

"Zain treats his slaves well," the overseer added respectfully, "he understands that slaves must be fed well to do good work. Truly, he makes my job easy."

"And that means that other slaveholders don't even treat their slaves as well as Zain does, not that these are good conditions. Why, they don't even have shoes or clothing!" Morey pointed out to Ereli.

A ripple of astonishment went through the overseers and slave line. Probably at the thought of giving slaves shoes to wear. Judging from the face of overseer in front of him, the man probably thought Morey was just a soft hearted noble who understood nothing. If food sped up the work and improved health, so would shoes, but of course that logic was beyond the overseer.

He was probably just thinking about avoiding the inevitable hostility if the slaves were starved.

"So what happens if a slave disobeys orders?" Morey asked the overseer, "surely not even Zain is well loved by all his slaves."

"The disobedient ones are punished of course," the overseer pointed in a direction through the trees, "the punishment station is next to the gathering ground where the slaves are assigned tasks each morning. Those who fail to meet their targets are punished there as a warning."

"Show me," Morey said, not caring that Ereli was starting to look a bit pale.

"Ah, there appears to be a punishment in progress," the overseer said as they walked through the forest.

There was the faint crack in the distance, the sound of a whip striking flesh. Morey hurried forwards with a sinking feeling.

The punishment station was a simple set of wooden stakes driven into the ground. The current slave being punished was a wiry man, his arms chained to the iron link fastened to the stake. To either side of the stake were two men holding whips and lashing the slave on the back. Each time the whip descended with a earsplitting crack, a bloody mark appeared on the man's arms and thighs.
The streaks of lash marks that tore the slave's skin away were positioned to avoid important areas, and they bit only skin deep. They were not going to risk killing the slave or inflicting permanent injury, and the two slavedrivers were clearly well practiced.

There were no slaves in sight and the few that had to pass the area in their duties studiously avoided looking at the man, scurrying away as quickly as they could.

The overseer walked up to them and they paused to speak with him. Then he came back again.

Ereli didn't translate his words immediately, instead asking a few questions back and forth. The dismay on her face was clear and obvious, she hid behind Morey and refused to look when the two men picked up their whips to continue.

"He was caught stealing," Ereli muttered, clutching Morey's shirt from behind like a frightened child, "he gave a choko to his son, also a slave on this plantation. His punishment is thirty lashes over the three days he will spend chained to the stake."

Ereli sniffled, "his son... his son is punished with his father's share of the work while he recovers from the lashes. His son is only ten and if he doesn't meet the quota, he will also be punished."

Morey gulped as the two slavedrivers continued their lashing, he would not look away. The man was not even crying out, having no energy to do so. Perhaps in this country, this might be considered fitting punishment, but to him and Ereli, this punishment was brutal. And Zain was considered to be one of the nicer slaveowners?! If ever Morey needed a demonstration that human morality could be twisted to accept nearly anything, all he had to do was look at the slightly bored face of the overseer.

Once again, Morey strongly felt that he had stepped into another world. He could already predict what Nal and Etani would say, that such was cruel but the way of Illastein and there was nothing Inath could do about it. And they would be right, damn it all. In a way, Ereli was one out of the four girls who understood his position best. What that said when a naive sheltered Iris lady held the most in common with the sensibility of twenty first century Earth, Morey had no idea.

As Morey stood there watching the punishers as they slowly and painfully meted out the day's lashings, the bell for lunch at noon rang out.

The slaves gathered in the open area next to the stakes, ready to receive their first meal of the day. The overseers followed them in and surrounded the dirt area. The leading person then stepped up in front of the gathered slaves, shouting something in Tsarian.

Ereli burst into tears behind him as two overseers plunged into the crowd to drag out a desolate boy, an empty adult basket strapped to his back. Even without Ereli's explanation, Morey knew the boy had failed to meet the quota. There was little chance of that when the boy himself could fit into the basket.

The slaves looked down and away, avoiding the harsh gazes and shouts admonishing them from the overseers. The boy's father finally stirred at the stake and shouted something only to be silenced by a lash across the face. He wasn't silenced for long.

With a stony face, Morey watched as the slavedrivers dragged the screaming boy over to the stakes and chained him in front of his father and raised their whips, ignoring the father's desperate shouting. The overseer in front of Morey paused them and came up to him, looking at Ereli streaming tears behind him.

In broken Inath language, he said slowly, "Go, leave. Not good for woman see. " He spoke gently in
Tsarian to Ereli but she didn't respond.

Morey patted her hands that dug into his arm painfully, "do you want to go?"

Ereli shook her head mutely. Even as the first whips descended on the boy and she gagged and vomited her breakfast onto the sand, she refused to leave.

Morey looked away politely, focusing on the scene. So what if this was their law? The Inath federation tolerated this travesty for the sake of unity, but did they really know what Illastein was like? The nobles of Inath lived in their own little bubble of convenience, Ereli was an extreme example, or that of a soldier like Etani. They had no time to worry about these smaller matters.

That was just the excuses they gave themselves, so they could avoid facing the reality of the slavery in Illastein. To avoid engaging with it emotionally and write off the lives of thousands or millions of slaves as a necessity for the war of survival.

But right here, right now, the calculus of diplomatic niceties, the weighing of the survival of all against the living sacrifice of the Illastein slaves; the reasons seemed so trivial next to the screams of torture. Morey was a Hero, someone who was supposed to help all people in Inath, and right now, there was someone in front of him shouting for help.

He raised a hand, magic dancing at his fingertips.
"What is the meaning of this, Morey!" Etani said.

The room was empty except for the five of them. All the servants were dismissed and they were fairly sure none of them wanted to listen in to this conversation.

Morey frowned, "I stopped a punishment for the slave."

"Wasn't this precisely what we were talking about? That getting the Hero involved with Illastein could lead to wider repercussions?" Nal chimed in, "how are we going to explain this to the Alawi?"

"I know that," Morey said, "but I think we are getting our priorities the wrong way around."

"Oh, and tell me, how are we misunderstanding this?" Etani said acidly.

"How am I to misunderstand cruelty when it happens in front of me?" Morey shot back, "if you were there you would have helped them too!"

"I would have kept the greater picture in mind!"

Morey frowned at her shout. "I have been wondering," Morey said, "what exactly does the word 'Hero' actually mean? I am asked to save Inath, but who is considered part of Inath?"

They looked at him silently. Nal and Etani with a mixture of fear and confusion. Morey continued, "am I supposed to save criminals? What about slaves? If Illastein starts slaughtering their own people, will Inath just stand aside in the name of political convenience? How far do they have to go before I am supposed to consider them enemies?"

He blocked a retort from Nal with a sharp look, "at what point are we saying 'to keep the Federation stable' as an excuse to discard basic human decency?"

Morey paced around the room, looking for the first time at the furnishings. The tightly woven mattress fabric, the wooden cabinets polished by thousands of hands, even the brick walls. Virtually all of them would have been built or made by slaves.

"Does that mean you are going to free them?" Ereli asked.

Morey shrugged, "I never really thought about what it meant to be a Hero. Finding the Sword or fighting the monsters. They were just things I did because we are trying to protect everyone. But if being a Hero means protecting everyone, that includes the slaves. So yes, I am going to try."

"Can it not wait until the war is over?" Nal said gently. That she didn't appear angry anymore was a plus, but Morey could tell that she was just thinking of how to persuade him. "Once you find the Sword and destroyed the enemy, you can come back to Illastein."

"And for every year that passes, so many more will die and suffer," Morey shook his head, "I am not going to wait."

Morey continued, "besides, Illastein's not very useful. I've done my homework you know. They provide weapons and armour and adventurers out seeking fortune. But these need not stop even if we free the slaves. In fact, those slaves who know how to make bows or cure leather can contribute
to the war effort. Prior slaves can be convinced to fight in an army if it means their freedom."

They weren't convinced of course. Etani had an unhappy look, but Nal's calm calculation was more worrying. She wasn't trying to appeal to him anymore but instead treating Morey as an outside factor to be taken into account. Well, that much was expected.

"If you help not," Locoss said to Etani, "I will."

Etani frowned and looked at Ereli.

Morey nodded at Ereli, "if it's not possible to do this as the Hero of Inath, then I will do it by myself. I won't ask you to come with me."

Ereli looked conflicted but nodded anyway, "I... I will go with Morey."

"I will not," Nal said firmly, "and if Morey attacks Illastein, I will be in opposition."

"Eh?" Ereli looked a little shocked, "you're going to leave?"

"So will I," Etani said, "if you will not turn from this path, I will have to report this to my queen."

Morey sighed and nodded. It was sad to part with the two of them but he would just have to do his best. Perhaps they might see each other again after he got back to finding the Sword.

The girl clung to her father's leg, tears and snot streaming down her face as the debt collector shouted at her father.

Her father was holding her shoulder, fingers digging in painfully but she didn't care, right now she didn't want him to let go.

Satis was too young to understand the intricacies of a debt contract but she was old enough to understand that the slaver was here for her. And her father was desperately trying to stop him from taking her.

But the four burly men accompanying the slaver were bigger than her father and one of them even knew magic. They had disgusting grins on their faces as they loomed menacingly at her father.

"Just give me a few more days! I just need to sell a few more bolts of cloth and I will have your money!"

"You misunderstand me," the debt collector grinned, "your daughter is worth more than your debt. The contract is clear, you must pay today. If you can't, we will take one of your family."

"Then why her!" her father shouted. Satis was too young to understand why she was worth more than her older brother or father.

"You know very well why," the debt collector leered at her, "looks like he's not cooperative. Guys, persuade him. No matter what, do not harm the girl."

At his cue, the four men stepped forwards, magic building up around the leader's fists.

There was a loud crack like a whip and the leader's head abruptly exploded. Blood rained down from the sky and bits of bone splattered in a red streak on the ground. A misshapen eyeball slipped off her shoulder onto the floor.
They all stared at the collapsing body in shock when there was another crack and the debt collector's shoulder erupted into a fountain of blood, bits of arm and bone scattering across the sandy road. Then Satis's vision went dark as her father pulled her into his chest protectively.

There was scrabbling and panicked shouting around her, a few more of those whiplike cracking sounds, then her father dragged her back into their house calling for mother and brother.

They crouched in their meager kitchen, shivering in fear as her father stood by the doorway with their biggest knife in his hands.

But the debt collector didn't come back. A few hours later, her father told them to pack up everything precious they owned and by evening they were heading out of town on a hired cart.

Morey handed the metal stick back to Locoss who immediately and silently started tweaking it. As if he hadn't just killed five people with no more than a wave of a hand.

"The accuracy is good, I think that conclusively proves decreasing the weight works," Morey said, "your combination enchantment really multiplies the power."

Locoss nodded without looking up. She examined the scratches on the twin guide rails left by the shots.

The weapon was a simple concept. Physical projectiles like arrows were always limited by the fact that they could only carry so much power for their volume without degrading. That put an upper limit on the maximum speed that could be achieved even with lightweight wood. And lightweight projectiles fared badly at long range.

But if the weapon itself accelerated the projectile, it didn't need to carry it's own power and the projectile could be made as small and dense as it needed to be. Added to the fact the magic exerted a constant force, not an acceleration, lighter objects were driven to higher speeds than heavier ones. A small resist enchantment powered by the bullets after their acceleration then increased their effective weight. The acceleration and weight increase enchantments worked together and multiplied the killing power into instantly lethal levels.

Altogether, the magic equivalent of a gun or crossbow killed instantly and without mercy. It could strike from outside magic sensing range and if Morey was right that those cracks were sonic booms, those small stones he just fired flew faster than sound.

All for the cost of having to lug around the steel staffs needed to power the thing. And a master alchemist to make it.

Ereli fretted on the roof behind him. After Morey had gone back and broke free all of Zain's slaves, they were quite sure that his name was on the wanted list now. Or at least assassination list if the Illastein nobles weren't sure of Inath's stance.

The forty or so slaves working on the plantation and ten in the mansion who wanted to leave were getting hard to take care of. While Morey could buy enough food and the huge stock of wands he had left with them were sufficient for defence, he needed to have them become independent. And quickly. They couldn't camp out in the nearby forest forever.

The three of them left the rooftop when it was clear the debt collector didn't have any goons who were willing to approach the cloth merchant's house.
This world didn't have the concept of a gun yet and it would be some time before they could understand a weapon that could kill faster than the eye could see. For now, the rumours said that Zain had somehow pissed off the Hero and gotten his entire estate burned down, exaggerated as they were. But after today, Morey was determined to make the rumours say something else. Something that would make any slaver think twice about continuing his business.

"How is the wear and tear?" Morey asked Locoss.

She simply nodded, "good. Failure not likely."

"And how are you for magic?" he asked Ereli.

She nodded, "we have enough. There's still two charged steel staves and I'm at full power. I still can't believe that all those people out on the streets can't feel it."

"Barrier block. Special," Locoss smiled.

"Good, then I think we're ready to take on the slave market," Morey said, "three days is far too long to leave them alone."

The two girls nodded at him.

The market was busy as usual. Humans milled around the market area, browsing through wares and generally chatting noisily. The central area was where the slavers displayed their goods, with tattooed and chained slaves on pedestals for display, not all of them adults. There were even a few Fukas and the special centerpiece was taken up by an Elka woman.

Her wings were fully stretched out and it was clear from the way they bent that the wingtips had been broken. Despite the beauty of her white feathers, she could no more fly than a standard human. That was more than enough to condemn them in Morey's eyes.

Morey frowned at the sight. A number of knights and mercenaries were standing around, keeping passersby from getting too close to the slaves. It might be difficult to take them all on and still win before the order of knights got wind of the attack and sent help. He had no illusions that the Order in Illastein would share his dislike of slavery.

Of course, Ereli could kill everyone in the market with a single summon of Grand Cross but that was defeating the point.

So even though these mercenaries weren't directly related, he would have to start by killing them first. He pulled down the louvers of the window in the empty inn. When Morey had offered to book the entire building and asked the innkeeper to close up for the day and leave the building to him, the knowing gaze of the innkeeper towards the two girls was slightly painful.

The inn slightly down the street was in a perfect position to overlook the square, sited at a bend in the street that gave Morey a clear view of everything that went on in the square. And Locoss's low powered barrier around the room that shaded the magical signature meant that only those who passed right outside the inn would even know there was any magic around.

He took aim at the big mercenary who appeared to be the leader of the big slaver group in the middle. Then with a thought, he triggered the gun.

The magical charge sent the finger sized piece of carved stone screaming out of the guide groove at
over twice the speed of sound. Then the stone itself activated its own enchantment to increase its weight to nearly half a kilogram. It wouldn't have to do it for long, the bullet covered the length of the market square in a fraction of a second and plowed into the mercenary woman's chest and shattering on bone.

The characteristic crack of a sonic boom accompanied her sudden collapse, a large chunk of her chest and left shoulder missing.

Without mercy, Morey adjusted the manually calibrated iron sights, loaded another round and fired. Another mercenary's head exploded, and a third lost his arm before panic started to set in and the screams started. Shoppers scrambled to get out of the way and merchants abandoned their goods and ran, carrying only cash with them. The slavers panicked but the slaves could not be loosed from their chains quickly.

The mercenaries were still putting up barriers as the bullets continued the slaughter. Even when they started to put up slowing fields or hide behind carts, the bullets were too fast and too powerful to be stopped by half measures. Morey aimed at a spellstorm and the weight enchantment stripped off as it flew through the disruption shield. Her stomach didn't explode but she still went down screaming, the first survivor.

There were no more mercenaries that he could reach without risking hitting a slave, so Morey started killing the slavers. He fired again and noted how precisely the bullet flew, he really had to thank Locoss and the master smith who made the barrel, the weapon was far more accurate than he had any right to expect from a new idea.

Or perhaps the speed was just so fast and the range so short that the bullet didn't have much time to deviate. This wasn't Earth after all, a distance of approximately fifty meters was considered long range here. And he only needed to hit somewhere on the body for these inertia enchanted bullets to generate a sure kill.

The tenth shot went wild and shattered on the cobblestoned ground, fragments demolishing the support of a nearby fruit stall. Fallen chokos and braid stalks scattered over the ground.

And by then, there was no one but the terrified slaves left in sight. The surviving mercenaries and slavers were all hiding under cover.

So now came the hard part. He had to get the slaves out of there while minding the mercenaries and that Elka was going to be a problem.

"Locoss, you take the gun," Morey said, "Ereli, come with me. We're going to put on a play. "

The slaver huddled behind the overturned cloth stand, not caring that he was squatting on the expensive fabric. Only one knight he hired was left alive and that man was behind the cart with him.

"What under Selna is that weapon?" he asked the knight.

The knight shrugged, "An extremely powerful arrow launcher. Maybe. "

"I don't see arrows. "

"In any case, we only know it's coming from that direction," the knight waved vaguely towards the opposite side of the cart, "if we stay out of sight here, we won't get shot. "
"That doesn't help us get away!" he said.

The knight sighed and peeped around the corner of the cart. The mysterious shooter had stopped firing once there wasn't anyone left in sight. He had an idea which organization was responsible, given that the only targets had been slave merchants and their guards, but this weapon could only have been magic powered. Who in their right minds would help them anyway? And why couldn't he feel the magic if there was such a powerful enchantment?

A pair of knights approached at a jog from the side. Help at last! The knight beside him cursed instead. "Stop!" the knight shouted at the two idiots, "don't enter the square! There's a sniper!"

The man and woman paused hurriedly and stuck behind the building. She shrugged at the man's question but they nodded and walked out anyway. Argh, that's right, the arriving knights wouldn't know about the threat and they would be...

The woman stepped out from behind the shadow of the building and his breath caught in his throat. Black hair, that heavy cloth robe, the characteristic facial features. A full blood Iris. She spun around as if warned and a ghostly green plane of light popped out from a stone around her neck, revolving around her to place itself between her and the direction of attack. Then another appeared between her and the shooter.

There was a crack while the third plane was forming. The woman didn't fall, the crack was deeper and louder and it accompanied a spraying of stone shards around the woman. Her shield could survive the bullets!

"Come, while they're reloading!" the man urged the two of them, crouching behind the building wall of shields.

The slaver and the knight looked at each other then nodded. After the next crack and bullet shattering, the knight and slaver dashed out from behind their cover to the woman and then to the side street.

The slaver ran as fast as his legs could carry him, not even wondering how the man knew the shooter's firing speed.

Nal examined the rock fragments that the Order of Pastora doctor had dug out of the body. She never really appreciated what Morey's ideas could do but now she understood what it was like to be on the other side of Morey and his ideas. Just how had he packed so much magic into a tiny bullet like those?

It was terrifying, that he thought of- no, he couldn't have invented a new weapon in a mere three days. Morey must have had this idea for months now. But why didn't he use it against the zombies then?

She looked at the corpse of the only survivor of the attack. A survivor for a few painful hours that is. The spellstorm had a hole blasted clear through her body but this woman wasn't displaying the same sort of injuries that the others had.

Etani came into the room and looked at Nal expectantly.

"A projectile weapon definitely," Nal said, holding up the bloody fragments, "firing small stone bullets. They looked shaped, we should investigate if any stone workers had odd requests in the last few days. I wonder if he was holding back against the zombies."
"This weapon," Nal indicated the massive injuries on the bodies. Many of them were missing limbs and even blasted practically in two. "It's so powerful, why didn't he tell us about this idea to use against the zombies?"

"Perhaps it won't work well against the zombies?" Etani shrugged, "or it wasn't possible without Locoss around."

They both knew that working out how Locoss could contribute beyond improving their wands was something Morey was still working on. But that wouldn't explain it if Morey had had this idea before he even knew about slaves.

"I wonder why this woman didn't have the same injury as the rest," Nal asked aloud, "was there a different weapon there?"

"The witnesses said that an Iris girl could block the shots with bladewall, perhaps it just redirected the shot to this woman? On hindsight, that was probably Ereli. The man accompanying her was likely Morey, so that means Locoss was the one firing this weapon."

"Bladewall blocks it?!" Nal latched on to the earlier part, "what did that look like?"

Etani smiled, "that's Morey style, you know? To want that much detail. I asked already, the bullets shatter when they hit the shield. They say it sounded different, like stone breaking."

"I see," Nal nodded, "I see! The bullets must be Resist enchanted after firing! With the bullets travelling so fast they're invisible, even a small enchantment will increase the damage massively! If this woman had put up a disruption shield, it would have destroyed the enchantment and that's why her injuries are so light."

"Like Resist arrows huh?" Etani muttered. The older style magical arrows were famed for their penetration power and damage but were notoriously hard to use. If one activated the enchantment before firing, it prevented the arrow from flying at all. And of course, once fired, the arrow was too far away or moving too fast to do anything with.

"That's probably Locoss's work," Nal dismissed her concern, "the weapon must activate a tiny timer on the bullet. Somehow. But this also explains why Morey didn't suggest this weapon against the zombies."

She poked at the small hole drilled clear through the woman and continued, "the dark aura of the zombies will kill any Resist enchantment and while something like this hole is deadly to us, it's no better than any normal arrow against the zombies. It's a weapon that's only good against humans."

Etani nodded, "but that doesn't help us defend against it. No one can duplicate bladewall with normal magic and not even Ereli can keep one up all day. Do you realize how dangerous Morey is now? No one saw even the direction of the attack until after a few shots, no one saw or heard Locoss with this weapon. No one even felt the magic!"

The prospect of Locoss finding a way to make the enchantment that anyone could use, something none of them would put beyond her, was terrifying. With Ereli for power, a party of slaves all armed with a weapon that could kill from beyond visual range or magic sense spelled doom for Illastien. It made Etani consider giving up on the quest and returning to Inath.

But Nal crinkled her nose and shook her head, "the weapon is not unstoppable. Bladewall can stop it and we know bladewall works like sword. But I have no idea why would a stopping field shatter the
Bladewall wasn’t precisely a stopping field, it utilized both acceleration and diversion magic to actively repel objects inside it’s volume.

"If you layered the shields, disruption in front and stopping behind, would that stop the bullets?" Etani asked. That was a common method of protection from arrows, with a disruption field to strip resist enchantments, but Nal shook her head.

"The bullet travels too fast, you know how stopping fields only slow down movement? The bullet will just slow down a bit and punch right through. You will need to use a huge bubble to actually survive a shot."

"But shield and bladewall both work that way, so why would those break the bullet when a normal field can't even catch one?"

Nal frowned and thought for a while, then she folded a piece of paper with an air of experimentation. She created a thin and dense stopping field in the air, packing a lot of magic into it, and then pushed the paper against the field.

It bent as it met with resistance from the field.

"Perhaps... this is just my guess, but just perhaps, the bullets are undergoing the same process?" Nal said, pointing at the bent paper slowly pushing its way through the field. "See how the paper bends as the field pushes against it? If I take two ends of a piece of paper and push it against each other, it'll bend for sure. This is just the same thing. Now, you can't bend rock, but you can crush it, with enough magic."

She took the paper out and threw it at the field. The paper stuck through it, bending and flapping slowly until it dropped out. "The bullets are moving so fast that when the front part enters the field, the back parts that are still moving crushes the stone. If you throw a stone fast enough and hit a stopping field strong enough, hitting will be like smashing the rock against a wall. Whatever shards come out the other end will be slower and much less dangerous. With multiple shield layers, the bullet won't get through at all."

Etani narrowed her eyes, "how sure are you? A field this strong will cost a lot of magic to put up. And do you even know how? No one is going to even try standing up to Morey until we have a chance of surviving that weapon."

"So we'll test it," Nal shrugged, "I just need to shoot you a few times."

The slaves entered the camp to a jingle and clanking of metal chains. Morey's hasty detachment of the chains had damaged many of their locks and the slaves were busy filing away at their restraints. It was a symbolic act that made them realize they were really freeing themselves and even though Morey could use a Sword stone to simply cut away the cuffs, he left the slaves to it.

The forty men originally Zain's estate had already put up a temporary camp from whatever materials they could find. The looted knives and cleavers used on the plantation were now busy felling trees for wood and making boards for light walls.

"We can rest here for today," Morey said, the father he had saved from the punishment was still unfit for work and had become the defacto organizer of this bunch. He introduced himself as Omal. "How are we doing for food?"
"Enough for ten days, if we stretch it," Omal nodded gratefully.

Morey raised an eyebrow, that pile did not look good for ten days but he supposed slaves were used to less. He better obtain more soon.

"What are we going to do now?" Ereli asked.

Morey looked at Omal and Locoss and gestured for all of them to sit down.

"We cannot stay here and we cannot attack the town. Not unless you're willing to use Grand Cross and demolish it, but there's no point in doing that," Morey began.

"It also depends on your resolve," he nodded at Omal, "I want a country where no one is a slave, where all of you can be accepted as human beings and not objects to be owned."

"That sounds like an impossible dream, sir Hero," Omal smiled gently.

"No, it's not impossible, not if you topple the existing government," Morey said, "revolutions happen in my world. I have read stories and news of how they happen, how they succeed and fail. It can be done, especially since debt slavery exists. Most people would be worried about becoming slaves themselves instead of dreaming of owning slaves."


"It's not easy of course. I killed nearly twenty people today and more will have to die. And not all casualties will be the enemy or even those slaves willing to fight for their freedom. Revolutions are inherently bloody affairs," Morey nodded.

He counted off the points on his fingers, "these are the things we need to start. First, we need more people, more weapons and more magic. Not just that, we also need to become known. There will be those who dislike the existence of slavery, relatives of slaves for sure and those at risk. Spread the fact that we exist, what we stand for. We also need to decide if we are going to try to capture villagers and hold land."

"Right now," Morey continued, "we are small and weak. The weapon Locoss made for me requires good steel to shoot properly, so we won't have many of it or good ones. Until the movement grows, we need to canvass the villages for support."

"I have a cousin in a village six days to the south," Omal said, "she might be willing to pass on some rumours or information."

"That's good, thanks for sharing. Ask the others if anyone else has relatives or friends who would be willing to help. Especially in this town, I would like to keep an eye on Nal and Etani. Until the movement grows, all we can do is ask for support and raid slaver caravans," Morey looked at Omal sternly, "but I don't want us to turn into mere bandits. Our legitimacy with the people of Illastein depends on it."

Omal nodded. Locoss had returned to her normal passivity, so Morey supposed she was satisfied too.

Morey looked down from the small patch of stars. The crunching of someone approaching over the undergrowth was not the sound of someone trying to be stealthy.

Locoss emerged into the clearing, her form lit only by the red moonlight of Selna. She sat down
beside Morey on the freshly cut tree stump. Nal must have told her about that night time talk so long ago.

"Why are you here?" Morey asked after a while. If he waited for her to speak first, he'd be waiting all night.

"Question, intention," Locoss replied softly.

"Are you talking about the slave market?" he asked and got a nod. "I'm just trying to help the slaves. It's funny how I don't really feel all that bad about killing those people. Even if those deaths were rather gruesome."

"Question. You, slaves, will free?" she asked.

It was Morey's turn to nod, "I will."

"Mmm," she seemed satisfied and turned to look up at Selna.

They stared up at the night sky in silence, the tranquil forest around them whispering with night time animals. The nights here on Inath were never really dark, not with a huge glowing red moon hanging above, and the wildlife was correspondingly more active. Morey could even spot the occasional bird or ground animal hurriedly hiding after spotting them.

Locoss leaned against his back suddenly but she was clearly still awake. Morey looked at her to find her staring at him.

Come to think of it, he never knew what she was thinking about. Locoss never talked much and anything she said was always broken and short words. That and her lack of expressions made her fade into the background easily, people just ignored her in conversations.

Perhaps he should ask.

"Locoss," Morey said, facing her properly on the wide stump, "I only understand Ereli, Etani and Nal. I know why they want to fight for or against freeing the slaves, but what about you? Your skills are great but I realize I don't know anything about you."

"You want me?" Locoss said, inclining her head questioningly, "my story?"

He nodded.

"Story long," she warned but he nodded anyway. Locoss sighed and began to speak brokenly, "Father choko, merchant. In Illas. Travel often. Six years old. Learned magic, little. Brought along."

She was from Illastein?! This was news to Morey.


She coughed again and rubbed her throat a little to emphasize it. Then pointed at her body. "Sold as slave."

Morey gulped. He had not expected such a painful story when he first asked for it.


Morey let out a ragged breath. The tale had grown lighter towards the present, as her fortunes improved. But her dark past gave him the answer to what he had been suspecting but too afraid to ask, why Locoss seemed to behave far older than her apparent age. Her unflappable calmness was born of experience.

He resolved not to pity her or treat her any differently, she had implied that she didn't want that.

This was also the first time anyone had outright confirmed that Amarante was using the girls to seduce Morey although he had long suspected that. Right now though, he ought not to mind it. Locoss's uncooperative attitude at least indicated that she was more on his side than the queen's.

And who knew if the queen would be his ally in this matter of Illastein slaves?

"Thank you for telling me that," Morey said softly, "it must have been hard for you."

Locoss just nodded.

"I suppose that's also why you want to free the slaves?"

She nodded again. "Me alone, cannot. You Hero, maybe."

They sat there again in silence for a long moment.

"I promise you that I will see this through," Morey said solemnly, "I will never understand how traumatic your childhood must have been, and I understand I cannot do anything for you. But I have decided to take this path so I'll see it to the end. Even if it means I have to remove the Illastein rulers."

Locoss put on a tiny smile, "I need no help. Not now. But slaves yes. Thank you."

Morey was about to go back to the camp when he noticed a patch of darkness in the forest. Shadows were everywhere of course, but this patch... seemed to be magical? He wished he could rub his magic eyes, if there were any such thing.

He took a few steps toward the shadow and blinked at the clear signature of magic. Someone was concealing themselves.

With a sudden burst of violence, Morey sent a blast of magic down into the Sword stone at his wrist. Even before the startled yelp could get out, the green blade had already sliced the nearby tree in half.
Morey bit down the fire all over his body that meant he had spent his magic too quickly. He had tried to improve his power limit but progress was once again difficult after the initial gains. It looked like he still had some ways left before he could perform instant Sword summons.

Locoss beside him reacted quickly as well. After the first initial shock, she had already drawn a firebolt wand and was aiming towards the faintly glowing Sword.

"Come out," Morey snapped, inching the Sword closer.

With both hands raised, the shadow stepped out from under the trees into the clearing.

A Fuka. Her scruffy outfit was clearly not a knight. And Morey had never seen a Fuka knight before, come to think of it.

"Who are you?" Morey demanded.

"You can call me Harlos," she said, "I was tracking down the escaped slaves."

"You're with the knights then?" Morey asked again.

"No, I'm just a baker's adopted daughter, or so they think. We've been very interested in Zain's slaves," she said hurriedly, "I was sent to find out how they broke out and where they went to."

Morey raised an eyebrow, "who's the 'we' you're referring to?"

"We're a group of runaway slaves. And there are a few of us who try to help those who manage to do so," she explained, "smuggle them elsewhere and try to hide them in the towns and villages."

She paused, "do you want to join us? I can introduce you to our network. Most towns have one or two people who are sympathetic. We could really use someone of your skill, and hers too."

Harlos nodded at the silent expressionless Locoss.

"That depends," Morey said, "this camp has nearly seventy slaves, including ten Fukas and an injured Elka. I don't think a few people can possibly hide all of them."

"Seventy..." Harlos shook her head, "Zain doesn't have Elkas. Or Fukas either. Where did you get them? Raiding a slaver convoy?"

"You haven't heard?" he got another shake of her head, "I shot and killed fifteen mercenaries and slavers at the market square just before Little Night today. The extra twenty were from there."

The look on her face shifted between incredulous and disbelief. "How... what..." she sighed and shook her head, "the nobles and slavers are going to be furious! We have to leave, immediately, the knights are going to come down on us like landslide!"

He held up a hand to stop her, "if you've been listening, you know that I'm serious about ending the slavery. I don't want to just free a few slaves and call it a day. Raiding slaver convoys is only the first step. If need be, I'll even fight the knights. We'll have to, in the end."

"You're strong, so you don't know what the knights can be like!" Harlos pleaded desperately, "how many spellstorms can you fight off? They really will all attack you!"

"I have plans and weapons," Morey gestured at Locoss behind him, "she is one of the best alchemists in all of Inath. And we are going to free the slaves. Not just free them, but make them independent. Teach them magic."
She gaped at him like a fish out of water. He continued, "perhaps I should be asking if you want to join me?"

The Sword floating behind her waved back and forth meaningfully.

"Let me go back and ask," Harlos said slowly but Morey shook his head.

"But how can I trust you?" he shrugged, "if you're just here to track me down for the knights after all, you could indeed fake everything you just said."

Harlos frowned and looked down. Clearly she hadn't thought that far. It was a wonder they hadn't already been penetrated and taken down. Or perhaps the knights just weren't sophisticated or organized enough to do something like this?

"I'll go back with you," Morey said, "bring me to your leader. As they say."

"As who says?" Harlos asked, confused.

Morey grinned, "never mind."
Bang!

The sharp cracks and explosions had been keeping the entire neighbourhood on their toes for the last day but no one dared to interfere. The knights had gathered to watch and if they weren't doing anything, who could raise a complaint?

Another crackling bolt zoomed down the range, disturbingly invisible. The rock smashed into Etani's screen and with an earsplitting crack smashed into a shower of fine dust and chips that bounced off the inner screen.

Beside Etani was a large iron plate. The thick plate of iron had numerous holes and dents pounded into it as Nal tried shooting the rocks with different power.

"Something that tiny can actually punch through iron plate," Nal shook her head and muttered in disbelief, hefting another tiny rock in her palm. It was so tiny but when the rock went that fast, it became extremely deadly. "Morey, what could you be thinking, to make something like this?"

She concentrated and the rock flew downrange at Etani again. Once again, the sharp snapping sound told Nal that she had got the speed and weight correct, the eyewitnesses had all agreed that the weapon was like an invisible thunderbolt.

What exactly happened to objects moving that fast to make that sound, Nal had no idea. But she didn't need to understand Morey's weapon to try to figure out how to block it. She still couldn't replicate his accuracy though.

To think that Morey could make an original invention so quickly after arrival. And without an Academy education too! Small objects being easier to push than big ones was something that every mage knew, but every mage also 'knew' that small and light objects wouldn't get through shields and armour. Well, they thought wrong.

At least they had a defence now.

She nodded at Etani and dropped the fistful of rocks onto the ground.

"The shield works this time," Etani nodded, satisfied, "double screens work very well. An Academy training really does turn you into a genius, it seems."

Nal just smiled and shook her head. The idea of multi-layered shields was something she had always been toying with. Two or even more layers of shields weren't impossible, just that you had to layer them properly since a disruption shield would block your control of the shield layers on the other side. Making all of the layers part of a single spell was Nal's innovation.

It had been scoffed at. Simple shields were fast and easy to cast, barely even considered spells. Multiple layered shields required proper design and practice of the spell. And there existed a simple shield for every type of attack, so multiple layers were needlessly making things difficult for yourself. Simple shields were fast enough to be casted in reaction to almost all attacks, with only a few exceptions.

Well, Morey just overturned all of that. Even this inferior rock-throwing spell she was trying to mimic his attacks with had been completely unblockable by simple shields. The dents and holes in the iron plate where the knights had tried to defend was testament to that. A deflection or
deceleration shield were simply punched right through, a pure disruption shield didn't stop the rock even if it stripped off the weight increasing spell.

And no one could put up a shield in reaction to an attack that quick.

Nal's idea for making the shield turned out to be correct. A strong deceleration field would indeed shatter the rock, if it didn't have it's weight increasing spell.

The knights nodded and whispered among themselves as Etani and Nal began to sweep up the rock fragments from the training ground. One of the knights approached them, a young spellstorm who was probably fresh out of the Academy.

"Um, can you teach me that shield?" she asked.

Nal suppressed the urge to pat her on the head, that would only open the floodgates to getting her own head rubbed and she still had traumas about her time in the Academy. "Sure, that was my intention," Nal said.

The rest of the knights crowded forwards, eager to learn. This shield would likely save their life after all.

"I'll train the battlemages, and you can take the spellstorms," Etani said, generating nods all round.

Nal just sighed instead. She had been spoiled by the way all the different disciplines had come together in Morey's party.

"I just hope we can stop Morey before he does something unrecoverable," Etani muttered.

Nal tacitly pretended not to hear it.

Morey looked over the gathered slaves in front of him. There were a few of the sympathizers sitting there with them on the forest floor but most were slaves. The last of the slaver caravans heading to the town of Narul had returned to town empty handed and no more would be coming now that the word had got out.

Morey stood on the rock and looked at the crowd again. Over a hundred and fifty slaves.

"I understand your anxiety," he began, "escaped slaves are never welcome in Illastein."

A wave of mutterings went through the crowd and he raised a hand to quell it. "But Inath does not condone slavery, even if it does tolerate it. You have the option to leave Illastein to go north. With my name and my position, you should have no problem settling a village of your own."

The muttering had a different tone this time. Morey continued, "but Illastein remains a problem. Slavery is not solved just because I have emptied Narul. Many more of your fellow people are shackled by the greed and evil of others. This evil is something that I will not tolerate. I say this now as someone who is ally of all humans. All people deserve to be free! To make their lives their own!"

He looked around and caught the eye of Ereli and Locoss standing to one side. Ereli's eyes were starry and Locoss was expressionless. The crowd was listening, although Morey had hoped for more excitement. So much for inspirational speeches.

"I have weapons, I have magic. I am willing to teach how to use and make them to anyone who can
commit to freeing the other slaves in Illastein. I cannot free the entire country by myself. " Morey pointed in a direction vaguely north, "I will not stop you from crossing the border to a life of your own. You deserve that more than anyone else. But I still ask if you are willing to help me free your fellow slaves. Who is willing to help, raise your hand!"

The slaves looked at each other worriedly, no doubt they were thinking the task was impossible. The one hand went up near the back.

An old greying man stood up as Morey's beckoning. One of the escaped slave network's. If he recalled correctly, this man was the coordinator for the network here in Harul.

"Are you certain you can do this?" the old man asked him.

"Nothing is certain, I cannot say for sure when or how I will free the slaves," Morey said, "but I promise you that this is my goal and even if none of you here decide to help me, I will proceed by myself."

The man nodded then bowed, "I may not be much but I'll help you."

"Father! Er... Ahed!" A familiar girl sprang up, incredulity written over her face and raised tail. "You're old and can't fight anymore! Hiding slaves is one thing, but you can't just reveal yourself like that! What if the knights come after you!"

"My mother was a slave," the man said simply. There was no need for explanation, everyone present understood the frustration and anger of having a family member enslaved. "Besides, by freeing all of you, Morey has proven his ability to keep his word. He can strike without fear of the knights, even killing some of them! I have hopes that he can change things."

Another voice joined the conversation, one of the pink tattooed women from Zain's estate. "You're the one they call the Hero of Inath, aren't you?"

He nodded, "Ereli and Locoss over there are my companions in the search for the Sword. To end this war with the monsters."

That sent a wave of murmurs around the crowd and Morey could see the faces look more hopeful now. He could only sigh. All his accomplishments and work was completely overshadowed by the title of Hero. He could almost read their thoughts. The Hero was freeing the slaves. With the Hero they would surely win.

The thirty ex-slaves who finally agreed was far less than Morey needed but more than he hoped. He had no expectations that the children or those too old to run would agree to join his cause. Add in those who had to take care of them and he couldn't expect much more than he got. Amazingly though, all the Fukas had joined.

The non-participants would journey north to find a place they could settle a village. Hopefully the name of the Hero was enough, otherwise they might have to use the wands he gave them.

"All right," Morey said to the much smaller remaining circle, "our task here is not just to free Narul but all of Illastein's slaves. For that we will need resources. And legitimacy. And without a doubt, we will need to fight. All of you, yes, even you Ahed, will have to learn magic and undergo training."

He looked at each of them in turn and got a grim nod back. Good, no delusions here. "Since Ahed already has a place in Narul, I would like you to collect information and spread rumours," Morey
"Why? What do you mean?" Ahed asked.

"We need to know what's going in Narul, what the knights are planning to do about us, that sort of thing. I'm sure you have connections there, I would like you to use them," Morey got a nod from him. "Good, then there is one other thing I need you to do," he said, holding up a few pieces of paper, "I need you to put up posters."

Posters? He saw the looks going around.

"We need to have people know who we are and what we are doing," Morey said, "we need to show people what it means to be a slave and why they should oppose it. Rumours and talk in the streets are not enough. We are going bigger. I want you to use this to make posters, hundreds of them. Hang them on the walls, let everyone see them."

The paper contained drawings describing a rudimentary printing press. He needed it quickly so Morey was settling for wood cut prints but the idea was there. With one block cut, old Ahed could run off a few dozen posters a day with no one the wiser. No need for expensive scribes who would talk.

"We also need funding and recruits," Morey looked over the ex-slaves, "we can ask for support but under no circumstances will we stoop to robbery or looting. Other than to free slaves."

Once they all indicated they understood, Morey added the last part, "and while I'm taking responsibility for this movement, I ask that you don't treat me like a Hero. My commands are not absolute, if you have a problem, please speak up. If you thought of a suggestion, discuss it. I am only one person, to free the slaves of Illastein requires all your efforts."

Etani stormed into the makeshift headquarters and planted herself into the front seat with a huff.

Nal looked up from practicing the barrier spell. She wasn't getting much progress in improving the casting time anyway, it was simply too complicated.

"What did they say?" she asked, already knowing the answer.

Etani jumped out of her seat as if she was waiting for that question. She paced around the main hall, ranting without caring who was listening, "The nobles want us to attack him! Now, they said!"

Nal sighed, "it's the posters aren't they? Illastein Slave Liberation. ISL, huh?"

This was the first time she had heard an acronym used. Despite her skepticism when Morey described them in his stories of Earth, Nal had to admit it rolled off the tongue easily. The ISL name was already spreading among the knights and townsfolk.

The poster asking the town to rise up against slavery was an inflammatory appeal. The inked figure of a young girl tied down with chains that were pinned to the ground with swords was a sharp reminder of the force underlying the slavery system. Where Morey had got the idea from, or the artist willing to paint so many posters was beyond any of the knights.

The more disturbing posters were the ones that reminded the townsfolk that they could be the next slave.
"What do you think of the slavery system?" Nal asked.

Etani paused in her cursing of the nobles and raised a questioning eyebrow.

"The nobles here control the rights to do business," Nal elaborated, "everyone else has to take on debt to earn money at all. There are even cases where the nobles boycott stores that refuse to take on the crushing payments. And those that slip or fail, they get sold into slavery."

"Are you having doubts?" Etani asked her, "I get it, the fact that the children of slaves are also slaves is terrible. It is an evil system that should not exist. But the monsters are even worse. As bad as slavery is, it is better than being dead."

Nal nodded. Indeed she was right, the Sword was more important and Morey was forgetting his role as the Hero. And yes, she was still angry at Morey, but she did understand why he was doing this. He came from a gentler world, it was understandable that he found it hard to tolerate injustices.

She had to understand Morey in order to convince him. Etani's straightlaced direct approach was just going to push him away.

"The nobles have made their request," Nal said, "we have the shield spell and the knights are gathered. The longer we wait, the more Morey digs himself into a pit. Let's go convince him to give this up, shall we?"

Etani looked unhappy but she nodded anyway. Nal sighed in her thoughts, Etani always looked unhappy ever since they had the disagreement with Morey.

Morey nodded as the man finished his report. "The full force of knights then. Nal and Etani have learned my lesson and are leading, not just commanding."

He sighed heavily. Would it that the situation would come to this, where he had to fight against them. But this was what it was.

Fifty knights of varying combat styles were heading out of town in search of Morey and the escaped slaves. With a mission to capture or kill all of them, issued by the nobles. Nal and Etani would do their best to make sure Morey, Ereli and Locoss weren't killed, but they could spare no thought for the slaves.

And who knew what might happen in the chaos of combat?

So Morey had to win, and win fast. He signalled the ex-slaves to ready themselves and the group formed up as they had drilled. It was time to leave. Ereli and Locoss checked their weapons silently. After the week of practice, there was not much they needed to talk about.

The knights entered view, heading up the tiny forest path, Etani at the lead with her ridiculous looking door hanging by the side of her Reki. The mounted knights were intimidating and powerful but Morey was prepared.

With a signal, there was a series of cracks. The four guns he had made since that time were of inferior iron and could not guide as well as the first steel gun, but it was enough to hit the knights.

"Reload!" Morey shouted, they were far enough to be unheard and hidden behind clever dugouts. Locoss was already popping the next carved rock into the barrel.
The knights milled in confusion as the attacks hit home. Five knights went down, two unarmoured spellstorms surviving when the bullet went through their soft stomachs without shattering. Morey shook his head as the knights seemed to do nothing, probably putting up shields.

The next volley met with a surprise. One of the bullets exploded beside Etani. Oh, so they had a shield already? Three others still found their mark and smashed the battlemages' armour like cracking an eggs. The last never seemed to hit.

The knights seemed to gather into some sort of formation, looking about worryingly. Then the third volley splashed futilely against the screens, puffing in misleading calmness.

Morey scowled, the puffs made it clear where the shots were coming from. Etani was pointing in their direction and the knights formed up into triangles, ready to charge forwards with their shields held front. He almost wished he hadn't talked about cavalry formations to Nal. Worse still, Rekis were far more maneuverable than horses, being inherently dog-like. They didn't have problems charging over the uneven path.

"Aim for the Rekis, if they get close, use the firebolts," Morey said, not looking back.

There was a purposeful scrabbling behind him as the shooters adjusted their aim and the fourth volley rang out. Rekis went down, only two shots were intercepted.

Not enough. It wasn't enough to stop them. The knights would adjust their shields for the next volley.

Morey sighed, he had hoped he wouldn't have to use this card now, but he guessed he would just have to think of how they would try to counter it.

"Firebolt launchers, aim and set timer for launch. Ereli! Fire Grand Cross!"

"What?!" Ereli exclaimed in shock. She pointed down at the knights, "Etani and Nal are down there!"

"They won't let Grand Cross hit," Morey explained, "it's just to delay them and make them spend their magic. We're getting out while they're dealing with it."

Ereli looked troubled for a moment then nodded.

The knights went into a panic the moment Grand Cross appeared but Nal took charge immediately.

Before the magic had finished forming, the spellstorms were already hurling disruption blasts at it. Simple magic like disruption could be casted fast and furious and if one had enough magic, could counter just about any spell. Ereli was powerful, but fifty knights was more than enough to ritual cast Grand Cross twice over.

When the specks of magic began to rise towards the huge intimidation green blob in the sky, the second danger appeared. A tidal wave of firebolts entered magic sensing range, zooming towards them like a swarm of angry bees. No, not a swarm, the lockstep rows of firebolts was organized, meant to hammer through shields.

Row after row appeared in their magic sense. There were so many of them! The power was almost the same as Grand Cross itself! Etani rallied the battlemages and everyone else who could cast a shield and wasn't busy with the Ritual summon. The rain of fire devastated the forest around them,
bouncing and splattering into hot flaming gas on disruption shields. The heat radiating from the searing air mere meters in front of them sent rivers of sweat pouring down Nal's back. The detonation on contact was similar to Nal's original attack on the Crab thing.

In a blink of an eye, the rain of fire was over, leaving only blackened trees and ash in an arc in front of them. Grand Cross above sputtered and failed as it was pierced by concentrated salvoes from the spellstorm parties.

"Advance and return fire!" Nal shouted, "Don't forget the shields!"

The knights remembered the deadly bullets and hastily reformed their screening spells. Funny that they hadn't come under fire from those things, the storm of fire just now would have been perfect.

A stream of firebolts flew out over their heads towards where the attack had come from, disappearing out of sensing range. Three times larger than the attack on them. Nal frowned as they landed in a storm of flames. The knights cheered as the fire tore into Morey's position. There was something wrong with the flames.

She thought hard as another salvo flew out, the battlemages joining in the bombardment with their own oversized bolts. More flames appeared.

"Hold fire!" Nal shouted suddenly. She gritted her teeth, that was what she found wrong. Their return fire hadn't collapsed any shields; of course, because they hadn't hit any shields at all! "He's gone," Nal said.

The knights looked around uncertainly but no further attacks occurred. They still took over an hour to finally relax their guard and be relieved that the enemy had retreated. It was only then that Nal had fully realized that she was truly treating Morey as their enemy.

That thought was more disturbing than Nal wanted it to be.

That night, the knights had turned in for camping after a fruitless day of searching. The return fire had ruined whatever Morey had been using to launch firebolts at them but twisted melted pieces of metal meant it was an alchemy item.

No clues were found as to where Morey was hiding out, other than the trail leading deeper into the hilly forest. The rising elevation as it sloped upwards into mountainous terrain was full of nooks and crannies that made searching nigh impossible. No doubt this was the very reason why Morey had chosen this region to hide out in.

Nal was walking in circles around the main campfire, thinking about Morey's new idea. She was sure that firebolt swarm was timed delayed wands but no one, not even Locoss, could make timers accurate enough to send entire blocks of bolts flying their way simultaneously. Individual bolts hadn't a chance at breaking through, the knights could patch up their section of wall or lend some power easily enough, but concurrent impacts had brought the patchwork shield wall to near breaking point. One swarm getting through and they would have mass casualties, firebolts were dangerous after all.

A sentry changing shifts nodded politely at her, pouring a cup of tea for himself from the kettle next to the fire. She nodded back politely.

The problem wasn't as dangerous as the super-fast bullets. She was just worrying over nothing. Nal sighed, not sure if she should trust her impulse to simply forget the problems and go to sleep. Surely the knights could pull through, firebolt swarms weren't something completely unblockable. But what if Morey had found a way to synchronize all the swarms. But that was impossible.
Nal sighed again. Her thoughts were running in circles, that was never a good sign.

She looked at the sentry sipping his tea, still staring at the fire in his armour. A battlemage, if she remembered correctly, one of the few who was attached to a spellstorm party, apparently he was there because his sister was a spellstorm.

There was a sudden crack and his head disappeared in a spray of blood.

Nal blinked in shock at the body toppling forwards into the fire. It only lasted a moment before she flung herself to the ground and shouted, "Alarm! We're under attack!"

Her magic flew out, settling into the familiar triple layer of the anti-bullet screen. She shouted the alarm again.

The knights roused out of their tents and screens began appearing all around the camp. There were a few more cracks and choked cries of lives lost then the bolts from the darkness stopped as suddenly as they started.

Parties ventured forth to find the attackers but they turned up nothing. They could only tell that the attackers had left already.

There was nothing to say that they wouldn't come back. Nal put out the fire herself and they huddled in their tents. The screens couldn't be raised all night, the magic consumption was too great for anyone to bear, and one never knew when the next person was going to die.

It was only just before dawn when Nal realized that her worry was indeed justified. She did need to worry, only she was worrying about all the wrong things. The knights had been treating this expedition like an oversized monster hunt. But of course, monsters couldn't shoot back, and weren't intelligent enemies. They were fighting Morey, and Ereli and Locoss. This was completely different. Morey had talked about this in his stories of Earth after all.

This was war.

The knights trudged back into town, weary and defeated. The constant harassments and poking attacks that killed one here and injured Rekis there wore them down. They had only managed to determine that one of the ex-slaves was responsible for all the night attacks, probably an experienced hunter.

The light forest was just thick enough to conceal Morey's constant retreat but not thick enough to seriously obstruct lines of fire. Ideal terrain for the strange snipe and run attacks that Morey was pulling on them. And they couldn't even find Morey, the few trackers that caught onto their trail had mysteriously disappeared.

No one thought it was really very mysterious after finding a burnt out crater where the last tracker party who found Morey's location had burned. Morey was obviously no longer there. As to how Morey was tracking them, that was no big secret. The knights and their Reki laid a trail through the forest that a child could follow. Morey's scattered groups of three or four were nigh impossible.

By the third day, no one had dared to light a fire and they slept in dug out holes for fear of missiles flying at random. The tents were all broken on the second night as salvoes of forcebolts ripped away most of the camp. The battle on the fourth day when they finally found the main camp had turned into firefight but Nal's mimicry of the rock throwing spell was futile when pitted against the shallow trenches Morey had got the slaves to dig out.
Spell battles were not supposed to turn into long range firefights! No one could aim and kill at such a distance and indeed the casualties were light compared to the sheer magnitude of magical forces they were throwing around. They had found, to no one's surprise, that the trenches were empty by the time they got there and defused the nasty rock bomb Morey had left behind.

It was a sheer miracle that more than half of them made it back to Narul. Even if the stinging attacks and defeats cost little other than spent magic and weary bodies, the death toll added up and morale disappeared faster than any encouraging bonuses.

Nal looked up at Etani storming in, freshly back from the Order's meeting.

"And what is it this time?" Nal let the wet cloth flop from her tired eyes.

Amazingly, Etani did not spit fire. She seemed to deflate and tossed a set of poorly bound books onto the table. Then she laid a opened letter on top.

"From the baron Jinat," Etani explained, "knights found slaves building a village near his territory. They were heavily armed with magical weapons. With unknown magical weapons."

Nal raised an eyebrow. She had always wondered what happened to all the other escaped slaves who didn't want to fight. It hadn't seemed as if the knights were fighting a large force. She picked up one of the books.

A moment later, she was sitting on the floor in shock, flicking rapidly through all of them.

"Did Morey write these?" she asked incredulously. This... this was incredible knowledge! The sort of knowledge that she had expected to come from Morey's stories of Earth.

"I doubt it. Those were confiscated by Narul militia at the gates from an Inath merchant," Etani said, "they were being replicated by a local printer. Bootleg copies are almost certainly circulating in the criminal underground and definitely beyond Narul."

"What's a printer?" Nal asked and Etani just pointed at one of the folded pages in the thinnest volume.

She put down the bound papers gingerly as the implications sunk in. Easy replication of books? When said books came with diagrams of how to train magical power?

"The Illastein nobles have already banned it," Etani said, "on pain of death."

Nal sighed. Someone had added some pages at the end of the magical training methods book. The change in writing style to a pedantic lecturing tone favoured among Academy scholars was too obviously different from the original author's clipped notes and observations. Probably some alchemist added that into the text without thinking too hard about the consequences of detailing how to enchant firebolt wands.

She still had her doubts as to whether it was possible to learn magic without a teacher but if even one in a hundred people managed to learn, chaos was inevitable. They would be stamping out rogue criminal mages until the monsters killed everyone. Worse still, there was no way to tell if someone had practiced magic if they didn't use it, rebellious peasants learning magic could just pretend to be law abiding until they were ready to revolt.

The hardest part would be the first few steps, learning how to properly sense and manipulate magic. But Nal was certain that practically any commoner was willing to try, who had not dreamed of learning magic and becoming one of the knights when she was younger?
"Are you listening to me?" Etani snapped her out of her thoughts, "really, ever since Morey left, you've always been staring off into space all the time."

Nal blinked. Had she? She didn't feel like she had been thinking any more deeply. "I'm sorry, what were you saying?"

"I was saying that the Illastein nobles have no chance of controlling it," Etani resumed, "no one is stupid enough to overlook the fact that these books detail the secret knowledge of the Inath guilds. Knowledge that Illastein nobles control in order to maintain their advantage. Even now, I expect village blacksmiths to be building their own presses."

Nal also doubted that printing presses would be that easy to make, or easy to use. But the point was fair, every man and their piyo would be trying out the things written in the books. Especially when most of them looked like they should work.

"We can persuade Morey to give up this diversion of freeing slaves," Etani said, "with something like this happening, it wouldn't be surprising if the commoners decide to revolt against the nobles all on their own. For that matter, I wouldn't be too confident of Inath's stability either."

Nal nodded, Etani's grasp of noble attitudes matched her own assessment. But Morey... "He won't listen," Nal said, "the slaves are something that matters very much to him and leaving it to the commoners of Illastein to fight for freedom is not something Morey would do. He will want to help. He can be stupid that way. But I guess that attitude is also a bit cool."

Etani looked down at the pile of books for a moment. "Then shall we help him?"

Nal almost fell over in shock. What... what was Etani saying! Help Morey free slaves?!

"I haven't gone crazy," Etani smiled, "but you might want to remember that I'm not as straight and law abiding as all of you seem to think I am. Illastein does not have my loyalty. That lies with Queen Amarante and Morey."

"So what makes you want to support Morey now?" Nal asked.

"Illastein is too big to fight," Etani said, "we would lose far too many knights even if Inath would eventually win. But doing so will certainly allow the monsters to kill us all and that really will be the end. And while Illastein is not a very active participant in the war, it's provision of arms and food do come in useful in the southern states, especially in the Passage of Kirita. Selna knows that the Calva Principality would have been long overrun without Illastein's help."

Illastein comes with its own costs. The frontline states dislike Inath and Illastein precisely because we are not on the front. We do not pay for the defence in blood, merely in coin. Inath aside, Illastein is resented and their presence makes the Federation unstable. Not to mention that their slavery practices makes them few friends. All in all, a revolution in Illastein would improve matters in the long run, however painful it is at present. That much Morey understood. But a revolution that fails, and especially one that the Hero of the Inath Federation is supporting, would be disastrous for Queen Amarante. Illastein may well withdraw their support entirely!"

She paused and continued, "I admit, I was wrong when I first opposed him out of reflex, but then I didn't think his slave rebellion was even possible. It seems like Morey has a chance and if your assessment of him is right, we cannot persuade him otherwise. Now, we have two choices. One, we continue to oppose Morey and perhaps die fighting him. Even if we live, we will be so busy trying to help stop the civil war that we could be in Illastein for years. Amarante will appreciate the stability and help in appeasing the Illasteins angry at the Hero. Queen Amarante will have to disavow his
actions and that will be as good as saying he is no longer the Hero.

Two, we help Morey and destabilize Illastein as quickly as possible. The Federation might be risky for a year or two but it's a short sharp pain compared to a long drawn out agony. If we win, Amarante won't have to worry about Illastein any more and instead gain a strong ally already trained in Morey's effective war fighting methods. The civil war will probably happen anyway, the silencing of these books could be the last straw for the discontented commoners in this country. With commoners learning magic all over Illastein? There won't be a King of Illastein for very long if an uprising occurs and I don't think we can do anything about it.

If we lose though..." she trailed off. The consequences of that was horrible to contemplate.

"So if you can't stop him from the front, you'll just get behind him and push?" Nal shook her head, "so that he can win faster and get back to what really matters? You really don't care about Illastein, do you?"

Etani raised an eyebrow, "I don't think you do either. They do practice slavery after all."

They shared a grim smile.

Then Nal grinned, "come on, admit it, you just giving up because you don't think we can actually stop Morey. The last week made that clear to me."

Etani sighed and raised her hands in surrender.

Morey nodded at the two girls sitting on the rock, watched over by the wary group of slaves. Nal didn't seem to mind that at least two of the guns were aimed at them from concealed locations.

"So you decided that I've already won and gave up?" Morey asked.

Etani looked a little troubled then shook her head, "circumstances have changed. I think if it wasn't for these, I would still try to stop you."

She took out a series of books from her backpack and Morey idly flipped through it.

Nal laughed as he fell off his rock, "that's nearly the same reaction I had!"

"Isn't this from Earth?!" Morey exclaimed, "that thing here, that's a printing press! And this periodic table... someone wrote these books using knowledge from my world! The names are all the same even!"

Nal frowned, "couldn't the books just have come from your world? Maybe Amarante has heard some your stories and decided to see if she could summon a book?"

Morey bounced up from the soil, reading the books again. "There's too much detail," he said eventually, "while maybe this is a First artifact like I'm sure they're saying, the detail placed into the diagrams and machines make it too easy to build them. A textbook would have more theory and less practical detail. Someone wrote this with Inath in mind, to make it easy for you to build these."

"Well, don't you want to meet the person who wrote this?" Nal asked sweetly. Too sweetly.

"I'm not giving up the slaves that easily," Morey said, "I can't know if there is someone else from Earth here in this world for sure, after all there is the always the First to explain rediscovered
knowledge like this book."

He paused, but it really was so similar to an Inath guidebook to kickstart an industrial society. Even if most people in Inath would not understand the full potential, the history of the industrial revolution was ingrained throughout western culture, Morey perceived the cultural experience behind the books and known it to be familiar.

"I'll write the author a letter, one that a person from Earth will definitely recognize," Morey said, "I need to find out who and where that person is first though."

"Then the first step will be to write a letter to Queen Amarante, I'm sure she already knows who is responsible," Etani said.

The Lesser Council talked in hushed tones, their voices bouncing around the vast hall, empty and dark save for the circle of light around the marble table. The table of Kings and Queens was covered with a mass of reports, hasty messages and stained cups. The Greater Council would never see such a sight, the less-than-regal looks of the harried leaders of Inath.

"... but how shall we respond to this?"

"I'm also getting reports on discontent all over my lands..."

"... knights are not enough to keep order..."

"The increasing party size is worrying... I suspect they're cheating the limit..."

The mutters of the Lesser Council washed over Vorril like a calming wave, pricking up the corners of his mouth with little sticks of irony.

The King of Illastein glared at him but quickly looked away when met with a scornful pair of eyes. The General had been summoned to the Council and now he sat in his chair, leaning back with one huge muscled arm irreverently draped over the backrest. To the General's eyes, the King of Illastein looked like a man out of touch with reality, for once seeing his blustering threats as nothing more than the whining of a desperate loser. How was he to round up all the escaped slaves and execute them when Morey was in charge of the slaves?

The result of the disastrous attack on the slave village was a forbidden topic in these chambers.

The King looked up again, an accusing fire in his eyes. In so many ways, the disagreeable, might makes right, ruler of Illastein mirrored the General. Both were formidable men, who could best most other knights, and both ruled their domains by reputation and force. But mostly by force. The General knew that the King reflected the worst parts of his own self, the reason why Vorril had never tried to become King Vorril.

As much as he respected the man, he would never allow a brute like himself to take the Inath throne. Flowery and honourless Amarante was lacking in the respect Vorril afforded to men and women of strength but she was the legitimate Queen by birthright. And Vorril was the Sword that kept the tide of darkness at bay, and the Sword must not turn on its wielders.

It would be sad to lose his mirror, Vorril mused, but not too sad. He never liked that bandit anyway, and the irony it brought to the humourless chambers of the Council was much welcome. So much for all that scrabbling to avoid looking like they wanted power. Real men and women reached out and grabbed it, like Morey was doing.
The Lesser Council adjourned once again without a conclusion. As it had for the last three days.

"Walk with me," Amarante said and Vorril followed her dainty footsteps.

When they were finally alone and heading towards the palatial residences, she continued, "What do you think are the chances of Illastein surviving this?"

"None," Vorril said instantly, "Without Morey to lead the slaves? Maybe one in four. "

"What makes you so sure of that?" Amarante asked.

"Morey is building an army," Vorril said, "if he survives the next month, there will be no force in Illastein who can stop him. With Etani, Nal and Locoss by his side? He will survive the next month. Without Morey, the revolution will be bloodier and more desperate, but however much force King Alrain brings, I doubt it will be enough. There are a lot of commoners in Illastein."

"That was what I was afraid of," Amarante sighed, "can we stop Morey?"

Vorril knew what the question was really about. "Without an army? No. If he decides to be the next King of Inath and the slaves are willing to fight, which they will if he promises to give them Inath land, we lose. By the time the revolution in Illastein is over, Morey will have turned the slaves into an army like that of the old days."

Amarante whispered, trembling in the night wind, "but wasn't that what brought us to this end? The War of the First and Tsar, destroying the world and awakening the spirits of old. The monsters that assault us now."

She looked down and Vorril frowned, realizing that she was actually crying. Amarante futilely tried to choke back her tears, "I've worked all my life, ever since I was old enough to understand how the First destroyed themselves. I followed the stories, I learned from them. A world without war, a federation of all people, I help build them both. I brought all the leaders of the known world together and made them renounce their violent ways. No one wants an army now. I summoned the Hero like the stories said."

He steadied her hand as Amarante climbed the steps to their royal bedroom. What could the General say to that?

"So where did I go wrong?" she was crying for real now, "the Queens and Princes are fighting with words in the Council chambers. The Hero is building an army to take a throne by spell and sword. The monsters are at our gates, strangling us slowly. Where are the answers I need? What more can I do?"

"You should worry more about Inath itself," Vorril guided her to a large fluffy chair and squatted in front of her to bring match her eye level, "the books threaten the foundation of our nobility. If you're not careful, Inath might suffer a revolution too. We'll need an army then."

Amarante quivered, not saying anything. That blow had struck home.

"Listen Queen Amarante, know that I speak this in the best interests of Inath as I know it," Vorril said solemnly, her lost and confused eyes staring into his, "our country is in mortal peril, you yourself know this best. But if you bind our legs, how shall we move? If you seal our lips, how shall we speak? If you chain our hands, how shall we fight? Lift the restrictions on the adventuring parties, give us back the power to raise armies. There is no other choice now."

Amarante wavered but said nothing. She shrunk into her chair, pulling a stuffed pillow from the bed.
into a hug.

There would be no answer tonight, but this was the first time he did not get an unequivocal no from her about raising armies. "The world does not run on stories, Queen," Vorril said, rising from his kneeling position and leaving her alone in the royal bedchamber.

He got back to the barracks and rung the bell. Vorril was barely out of the parade armour when Jared appeared.

"You called?" his right hand man asked.

"Pass on this message to River of Light, Flowers of Arcia and Vesant Ball. Tell the party leaders to meet me at the War Room by next week," Vorril said. Jared repeated the order back to him and he nodded. "Also put out the word for Silent Night and First Staff, I would like to talk to them if those two can be found."

Jared's eyes had been growing wider and wider. Those were big names, the biggest names in the Order of Knights. The three most successful and largest parties, all at the legal limit of party members, and the two eccentric adventurer alchemists. For what purpose could the General be calling them and so urgently too?

"What is happening, sir?" he asked, "are the rumours that Illastein slaves are coming to attack us true?"

"No Jared, if you just thought for a moment, you would know that cannot be true," the General grimaced, "I cannot wait for the Queen any longer. In order for Inath to survive, I have to act now."

"But why now? The war is going well after the Hero joined us, is it not?" Jared asked again.

The answer he got was no more reassuring.

"I am preparing for the worst."
"It's good to see you too," Aleas patted the old woman on the back. The patchy fur on the woman's tail was a sorry sight to see, even more so when it was clearly luxurious and beautiful when she had been younger.

"Don't be," the old crone snapped back, "if it wasn't for you people, my home wouldn't have been burned down."

Aleas could only press her lips tightly. There was nothing she could refute of course, even though she knew the fault lay with the thugs.

"We are doing the right thing," Ryulo reassured her with a pat on the shoulder. The woman shifted a small wooden table into the dormitory building with the help of some of the children.

The Fukas all over Corbin were gathering together, mostly in response to the increasing aggression from Red Water. What started as simple harassment and theft, escalated into assault, robbery and rape in broad daylight.

The gang seemed to have a grudge against Fukas now, and despite Ryulo giving as good as he got, the Red Water was showing no signs of backing down. Ryulo had bought over a number of rundown houses on an outskirt street on the cheap by using Cato's connections with Kalny and some money that Cato had sent as apology for 'running away'.

"The Tyu are moving in next week," Danine said as she ran up the street to report to Ryulo.

"Thank you. That's the last family," Ryulo nodded. There had been no deaths so far, on either side, but the situation was increasingly perilous. Ryulo did not want to be the person who started the killing but his hand might be forced, and when that happened, the knights would inevitably move.

Danine nodded back at him and was about to run away.

Ryulo snaked out a hand and caught her by the collar, "and where do you think you're going, madam?"

"Er," Danine's eyes shifted hesitantly, "the toilet?"

"I recall you went just before leaving to see the Tyu family," Ryulo said, "Master Quol is waiting to start his lesson, are you trying to sneak out again?"

"But his lessons are so boring! I can't even use any of it!" Danine whined, "what's the point of learning how to channel magic when we use Ems?"

"Because you might be the first one to figure out how us Fukas can do what Cato needs," Ryulo sighed. As much as it was frustrating, Ryulo had to admit that Danine was actually stronger than him in magic. She had begun learning earlier and to date, only her gang of six children were at all proficient in using the traditional form of magic.

On the other hand, the Fukas took to Ems naturally and easily. Danine had described it as learning to walk with extra legs and Ryulo had to agree. Master Quol from the Academy had been passing through Minmay and heard from Cato about Amra's independent discovery of Ems. His chosen field of study was Ems and Cato's claim that all the Fukas could use it at a novice level stretched believability to breaking point. Now he was trying to find out why Fukas learnt it easier than humans
in exchange for being a teacher to the Fukas here in Corbin.

Apparently humans didn't learn Ems easily, which was a surprise. Ems were easy enough that even after short two months Ryulo already had no difficulty in strengthening his arm enough to lift Danine off the ground with one hand.

Her legs kicked the air futilely. "Aw, but I'd rather just practice Ems," Danine begged him, "I'll even work hard on it! Can't you let me off for one lecture from Quol?"

"You just want to run across town," Ryulo scolded, "the last time you did that, the Red Water started calling us monsters."

"It was just a little chase over the rooftops, like Cato's hide and seek?" Danine explained.

"A little chase does not involve running all over Corbin, climbing the city wall and flying across streets," Ryulo sighed, "honestly, I was hoping to keep our Ems as a trump card but you just had to let out the secret."

Ryulo hefted her under his arm and walked towards the small hut that was doubling as the schoolroom.

"Do that again," Quol said.

Danine levitated the ball of magic up and down, spinning it as she was told. She was always asked to be last.

"Hm," Quol nodded to himself, "all right, after certain complaints," he looked at Danine pointedly, "I'll try to make my lessons more practical. The topic is magical effects in spells. Can anyone tell me how you make an effect happen?"

Tim raised a hand behind Danine, "we change the colour of the magic."

"We humans see it as structure, but I suppose it's the same thing," Quol levitated a ball of red in front of him, "I have seen you do this before, but can you tell me another way to make magical effects happen?"

What. "But you said last time that without the red, there will no heat," Danine promptly spoke up, "so how can we get heat without making the red colour?"

Quol nodded and thought for a moment, "I phrased my question badly. Yes, you need the red colour to get fire, but the red colour burns magic very quickly."

Indeed, while the basic disruptive magical effects dissipated over a period of minutes, any of the coloured effects that actually did things all vanished in seconds. You had to constantly supply power to them to keep the ball around.

"So imagine you fire this red ball at a target, by the time the ball gets there, much of it's magic is already gone," Quol shot his ball of red at the large rock they were using as target practice. The stone reacted not at all. "Observe that without supply of magic, the ball is already visibly smaller by the time it hits."

Quol conjured another ball in his hand, it was only faintly red this time, with mysterious silver streaks spread throughout the inside. And there was no radiating heat from it. He let it hang in the air without
supplying it magic. The ball stayed in existence, slowly evapourating. "What if you didn't make the red appear, wouldn't that let you keep the ball without having it lose magic until you needed it to make heat?" Quol fired the ball at the rock and it flared an intense red for a short moment when it hit. The burst of heat was much bigger that the first ball.

"And that," Quol concluded, "is the basic firebolt. A magical effect of pure fire is inefficient and useless at range, it simply costs too much magic to deliver it to the target. You have to make the spell create the fire only after it hits."

Danine raised an eyebrow, that was easy to understand for once.

Quol snapped back to the blackboard behind him. "There are two considerations for such a firebolt," Quol switched back to lecture mode, "one is how to make the firebolt detect that it has hit the target, the other is how to create the fire. I will talk about detection another time, today we will focus on how a spell can create fire after a trigger."

Danine sighed and steeled herself for the upcoming battle against sleepiness.

"The structure you see as red is the structure of magic that creates fire," Quol said, "the spell must have a structure that then creates the red colour upon the trigger. There are two primary ways this is achieved.

The first way is simply to create a converter that structures magic for creation of fire and supply it with a pool of power. Like so."

Danine tried to sit up a little straighter as a ball of magic appeared. It wasn't as complex as the first time Quol did it but there was a ring of silver inside. No, not silver, there were flecks of red in it. He flicked a finger and the ball... seemed to squeeze itself through the ring, turning red as it went. The ball folded in on itself, burning merrily in the air.

"What you saw is the structure for making the magic that makes fire," Quol dictated, "this method is more stable and simpler than the second. However, the conversion rate is limited so you won't get a concentrated blast of fire. The magic you use for the converter cannot be converted so building a larger converter to make it faster causes you to lose more magic."

Quol held out his hand and created yet another ball. This one was light red, similar to the first ball he fired, but without the silver streaks. He took a step back and prodded it with magic. The entire ball flashed bright red and disappeared in a blast of heat.

"The other method is to create the fire magic structures in almost complete form. They are merely short one signal before they begin creating fire, by supplying the signal manually or by spreading it from the trigger," Quol demonstrated the silver streaks again, "the signal then instantly converts all the magic power you have reserved in the incomplete fire magic structure into fire magic..."

Clap!

Danine jerked awake and looked around frantically.

"Class is over," Tim smiled, "you were sleeping again."

"Ahem, you might want to let Ashild go," Amra coughed awkwardly.

Danine looked back to find her tail coiled around Ashild's neck. The small girl liked to sit beside her, even though little accidents like this tended to happen.
"Honestly, can you not keep your tail to yourself?" Ikine glared at the boys who were eyeing them speculatively.

She sighed, "I can't help it, I'm sleeping!"

"It's all right," Ashild said quietly, unwrapping Danine's tail, "I don't mind. It's nice and warm."

She stroked the fur but Danine whipped away in shock. The boys looked away and Danine felt the heat rush to her face.

"Ashild!" Ikine hissed urgently, "what are you doing!"

She looked a little confused and hurt, "I just... I'm just envious she has a tail like that. Mine is so..."

It was their turn to look awkward. Ashild's left ear and slightly charred tail was a hard topic to bring up after all.

"It's all right," Danine stroked the small girl's head, "you can admire it all you want."

Ashild brightened up and patted her tail again. The boys stared at them until Ikine chased them out of the room.

"Is that really all right?" Ikine whispered, eyeing Ashild playing happily with the furry tip, "I don't think she understands."

Danine tried to keep the heat in her cheeks down but nodded anyway, "she's just a kid. She'll find out sooner or later and then she'll stop. I... don't want to take away her fun. Not after 'that'."

"What are you two whispering about?" Ashild asked curiously.

"It's nothing important," Ikine smiled sweetly at her.

Ashild looked unsatisfied with that explanation but let it go.

Or not. Despite their attempts at aversion, or perhaps because of it, Ashild asked her mother anyway. She came back the next day red faced and couldn't meet Danine's eyes for the rest of the week.

Ryulo woke up suddenly. The night was quiet and still with only Aleas's gentle breathing beside him. Her ears twitched and she stirred on the bed.

Ryulo smiled at her sleeping face, relaxed and untroubled as a simple child. Returning to sleep with that face in front of him was like the best dream he had, but there was a duty they had to perform.

"Wake up Aleas," Ryulo shook her shoulder. She didn't stir. "There's intruders in the street again," he sighed.

Fine, if she wasn't going to wake up, he would have to resort to harsher measures.

"Uah!" Aleas shot out of the blankets like an arrow, hands holding her bristling tail.

"Oh, that was a weird sound," Ryulo laughed.

"The base of the tail is forbidden!" Aleas pouted, "I already told you I'm weak there!"
"It did wake you up quickly," Ryulo winked.

"At least give me some warning," she muttered then her ears twitched towards the window, and the offended look disappeared in a puff of seriousness, "is that...?"

"Yes, metal armour. A breastplate I think," Ryulo was already shrugging on the cured leather and stringing his bow, "I wonder where they got it from. Someone rich doesn't like us."

Aleas sighed and got up to prepare as well.

A short while later, two tails disappeared out the window into the night, leaving the room empty.

"A little late for an evening stroll, don't you think?" Ryulo said mildly.

The nocked arrow in his bow was not at all mild however. The gang of ruffians and thieves had to be chased away regularly, even if Danine's gang split up between the houses made thievery quite unprofitable.

The leader of the Red Water ruffians looked a little too big for the armour he wore, probably a donated set. And the malicious grins around him were visible under the red light of Selna, improvised weapons like chains and knives clutched in cruel hands. Perhaps twenty, more than the last time.

"You sure took care of my people last week," the leader said, "come on, that was just a little friendly extortion. " The crude laughter echoed his words. Pitiful people, Ryulo thought, they barely qualified as fighters. That man couldn't even crack a joke to save his own life! "I'll have you pay me back for that, what do you say?"

Aleas behind him stepped forwards, drawing an old short sword amid catcalls and jeers. Ryulo was tempted to shoot their eyes out but stayed his hand. He would not be the first to start the bloodbath.

"Go home to your beds, the streets are dangerous at night in Corbin," Ryulo warned them. They were clearly not going to listen though.

"If you leave that woman here to play with us, sure we will," the man growled, to more raucous laughter, "our beds are empty and cold, you know?"

Fools. They outnumbered Ryulo and Aleas ten to one and still had to psyche themselves up. Trash, all of them. "You know this is futile," Ryulo said, "how many times do we have to do this until you're satisfied?"

"Until we've burnt every last trace of you furry tailed monsters out of our city," a shout from the crowd sent a ripple of nods.

Ryulo sighed. Fine, bring it on then. Ever since they learnt Ems, Ryulo was finding that they could take on any number of street trash. Well, twenty might start to get a little risky, he might run out of power after all.

No matter what, he didn't want to end up letting Danine and her gang of children fight them, even if they had more magic than he.

"You six, follow me and get the girl!" the leader shouted, "the rest of you go loot their houses!"
Oh shit!

Ryulo drew the wound iron string and fired an arrow at the scattering ruffians, sending one man tumbling to the ground screaming. His small metal bow was far too powerful to draw normally but that meant he didn't have to move very far to shoot a decent speed. And with movement and resist Ems, Ryulo could fire arrows nearly as fast as he could draw them from his quiver.

Aleas clashed with the armoured leader, her sword hitting arms and legs. Men tumbled and staggered away from her, clutching painful slashes and cuts, but clearly non-fatal wounds. She was a whirlwind of iron that moved fast and brutally, letting none approach Ryulo. A faint glow of magic rose from her skin, from which their chains and knives bounced off futilely.

Even knowing that they couldn't hurt her, Ryulo still wasn't happy about it. What if she made a mistake or they damaged her tail? That would be unforgivable!

But he was a better archer and they needed every edge they could get. Besides, Aleas's form under the red Selna glow amid the red bloodstains was beautiful, in the same way a wild Reki was dangerous. He wondered if these people had any husbands or wives waiting for them to come home and tend to their injuries.

Nah, probably not.

He drew and fired mechanically, the interplay of magic over his fingers as he went through the motions of drawing and firing became second nature terrifyingly fast. As if all his experience with the bow was just practice for when he learnt how to make Ems work. Quol had commented that all of the Fukas easily learned how to use Ems in their normal movement, as if they were fish learning to swim. That is, they didn't have to learn it at all.

It still wasn't enough, a few of the ruffians made it to a house and kicked down the door, torch light flooding into the interior.

There was a high pitched scream from inside. Oh, darn. Then a flash of magic and a ruffian came sailing out of the doorway to collapse on the ground, blood frothing from his mouth. His right chest had a caved in look, probably a few broken bones there.

The fighting stopped for a moment as the ruffians at the door looked skeptically at the tiny girl who barely came up to their chest. She was awkwardly holding a stick of wood nearly as tall as herself and her frightened crying face was clearly that of a young immature child. But still, that man was lying back there with broken ribs.

"And they just had to pick Ashild's house too," Ryulo muttered. Well, bad luck was less than they deserved.

Then the closest one to her raised a fistful of chain.

Oh no, you don't. Ashild was magically strong but lacked control enough to defend herself properly. One hit from that chain and... Ryulo aimed and fired by reflex.

The man twitched and dropped to the ground, the iron arrow smashing his neck bones.

Ryulo paused in shock, he hadn't meant to kill the man. But that wouldn't matter to the rest of them. He forced himself to act. "Aleas!" he shouted a warning.

The gang had paused as well and he followed up the advantage by shooting the rest of the ruffians surrounding Ashild in the arm or hands. Aleas took the chance to ram the leader in the chin with the
The hilt of her sword, putting him down, then stabbed the rare female Red Water gang member to her left through the thigh. No blood spraying, she had expertly avoided the main vein.

The rest of the gang not disabled or unconscious were now left in a huddle, bloody wounds all over them. Their eyes bloodshot, anger clear as daylight. One of them had died, everyone knew that now. Ryulo sighed, they were going to fight even harder and he might even have to kill a few now.

A pulse of magic from the somewhere behind him made him look around. Danine was sitting on the roof, gathering her magic into a ball in front of her.

"Magic!" the ruffians screamed and charged forwards desperately. Aleas stepped forwards to meet them.

"Don't do it!" Ryulo shouted but it was too late. A red streak shot out from her nest on the roof and it hit the crowd in a shower of burning hot heat. A true firebolt! Men went down screaming and rolling, the suddenly superheated air causing clothes and hair to flash into flames. Many coughed and screamed as their lungs seared with boiling hot air.

He aimed and shot another ruffian in the lower leg. Aleas hopped away from him and knocked another man to the ground.

Another firebolt flew out and burst just above their heads. The heat spray above them caused more distress with scorching air. Then the gang had had enough, slowly and with increasing speed, they began to run away. Only the few unconscious or too badly injured were left groaning on the cobblestones.

"Tch!" Over the screams, Ryulo's ears picked out a definite tongue click from Danine.

He would have to talk with her later about not escalating. But for now, it was time to clean up until the knights got here to take care of the mess.

Ryulo had no expectations that the knights were going to do anything about two gangs killing each other.

"My my! What a mess," a certain unwelcome voice jerked Ryulo up from his tending to the fallen man.

"You," Ryulo hissed. In one swift motion, he drew an arrow, nocked it and pulled it back to full draw. After all, a bow optimized for Em enhanced drawing strength, courtesy of Cato, was far stronger and more accurate than any bowgun.

"Woah there," the man held up a hand holding his cane, "please don't do that, it could kill me."

"Then tell me why I shouldn't just shoot you right here and now, Klaas?" Ryulo growled. He glanced at Aleas, she was already taking up a flanking position, out of his firing line.

"I understand that we have a little history," Klaas said, still with that irritating smile on his face, "but can't you just let it go? I have a proposal you may be interested in."

"Speak quickly, before my fingers get tired," Ryulo said, although he could keep the bow at full draw for minutes if necessary.

"Firstly, let me reassure you that despite my past dealings, I have had nothing to do with torments
these people are putting you through," Klaas indicated the unconscious ruffians with his cane, "the Ironworkers have already washed their hands of the Red Water gang."

Ryulo raised an eyebrow, so who was their backer? He let Klaas continue, "however, we find ourselves in need of a strong fighting force. Since the Red Water have proven themselves incompetent in the last few weeks, the position is available. I've watched you over the last few days and I'd say you could be a match for a knight. So I'm here to extend our offer to you."

Ryulo narrowed his eyes, still aiming at the man's heart.

"We pay well," Klaas looked around, "we can also pay in other ways, like keeping the Red Water busy. Or perhaps you would prefer them destroyed? Or how do you like the sound of a Fuka apprentice Ironworker?"

"Who is the target?" Ryulo asked.

"You can't be considering it!" Aleas exclaimed, "they can't be trusted!"

"You wound me, fair lady," Klaas swept an apologetic hand to his waist, bowing shallowly, "trust is the most important commodity in business. The Ironworkers will never break a promise. The target is Mayor Corbin."

He chuckled at the frozen looks of surprise on their faces, "or more precisely, the iron furnaces she's trying to build. Cato's leak of the books has been very damaging to us and we would like to at least soften the blow here. Not to mention that Corbin is a little too power hungry for our liking."

Ryulo stared at the man in silence and then pointed at the street further down. "We will consider it, but for now, please leave," he said.

Klaas's smile grew wider and he bowed once before backing away warily.

"Really?" Aleas walked up to him, "or was that just a lie to get him to go?"

Ryulo sighed and looked down at the Red Water gang members spread out on the ground. He wanted to reject the offer, his heart said that the oily Em master could never be trusted. But looking at the attacks and knowing that it would only escalate still further after one death, the offer to simply get rid of Red Water was tempting.

"I don't know," Ryulo said, "I really don't know."
Chapter Notes

A/N: Skip to bottom if you're only interested in Cato's magic application ideas.

Chapter was also delayed due to immigration issues.

It has been six months since I've arrived in Inath, plus or minus a week. I lost my counting pad in the journey from the Fuka village and a few days might be miscounted. Six months is a long time.

In the five months or so that I have been here in the country Ektal, Minmay city has begun to develop the ideas I have brought much quicker than I thought. The Industrial Revolution on Earth took a considerable time to get started, but I suppose having me as someone who knows the end product, re-inventing many of Earth's technologies is less difficult than doing it the first time.

From being dependent on charity, I have now essentially become financially independent, with more than enough money to ensure a comfortable lifestyle. As well as to help others, as my personal interest in the Fukas in Corbin is turning out to be.

While I have done my best to maintain my health with cleaning practices, the same cannot be said for anyone other than Landar. The germ theory of disease has not been widely accepted despite the demonstration of boiling sterilization that I had Kalny give, many people seem to regard illness as the work of invisible monsters. I fear it may take a proper epidemic to get a sufficiently convincing demonstration case.

Apparently, boiling water for the purpose of washing hands and drinking is considered a waste of good fuel and my insistence that visitors to my house remove their shoes, wash their hands with lye and rinse their feet is a famous eccentricity. But sanitation is poor and I simply will not allow visitors, who sometimes have been walking through streets streaked with human waste, into my house without first being washed. I can afford it in any case. The look on the mason's face when I gave him layout drawings for the house with essentially a bathroom right after the front door... made for an interesting dinner table topic.

I have noticed a few personal issues. Despite my attention to health, I have still developed minor skin rashes, chapped lips and the occasional pimple. Some sort of moisturizing oil would be useful. And I suspect the cosmetics industry, currently just an extremely limited set of powders, will welcome a useful stabilizing agent for creams and oils.

On gender roles
I have noted that Inath has considerably more gender equality than the same historical development era on Earth. While obviously their society is strained by the existence of the monsters, and a low-key war that burns continuously in the background, I suspect gender roles have been eroded by the existence of magic. Magic is an equalizer between the genders much in the same way the gun was an equalizer between people of different physical strengths. The power of magic is sufficiently large that differences in magical power tend to dominate conflict in Inath.

And as far as they can tell, there is no difference in the amount of magical power each gender can
achieve. Nor do there seem to be any tendencies towards the various 'branches' of magical study. I did attempt to perform an IQ test with questions requiring spatial manipulation and spatial memory, gender-biased topics which I remembered reading about, but my small sample size and lack of the formula for T-testing means no conclusive results could be observed. I fear though, the attempt has introduced the concept of a written test into Inath society.

In any case, the equal opportunity violence that is prevalent around here results in sights unseen on Earth. The famous Order of the Knights of Inath is essentially gender neutral, anyone who can perform a useful duty to the adventuring parties can be recruited and ultimately learn magic from their peers and formally join. Nobility, positions of power and social roles are far more equal too, with a significant number of house husbands and working wives. Socially and culturally, women are equally aggressive negotiators compared to men, although of course this is affected by personal temperament.

Marriage also has no expectations of being permanent, it is an informal institution not enforced by any special mention in laws. A cultural construct, with underlying human impulses like pair bonding. Divorces, as the concept exists here, is primarily of importance to nobility when considering the right of succession, which can flow as easily from father to daughter as it can from mother to son. On the other hand, while the social value of virginal status is clearly devalued, the obsession with appearing young and healthy appears to be the same as on Earth.

Despite all these differences, it did not escape my attention that courtship rituals and sexual/romantic displays are in fact similar enough to western culture that I can understand most of it. A less ritualized form of dating is even recognizable, they call it an engagement period. Aleas and Ryulo are one such pair. Am I lucky that female breasts are considered sexual displays while hair isn't? How can one talk of luck when travelling between cultures or even entire universes? I doubt it could be mere coincidence that our cultural norms are sufficiently similar for me to understand it with only occasional misunderstandings.

The major differences are found with the Fukas and Elkas, who attach sexual and romantic significance to their tails and wings respectively. That, and the fact that the equalization of gender roles seems to have resulted in both genders making romantic advances. It is apparently considered normal to have a woman doing the 'chasing' in a developing relationship.

This effect trickles down from the ruling and wealthy classes to the commoners and peasants, albeit imperfectly. Danine mentions that far from being an anomaly, the ruffians attacking them in Corbin have been a little more than a third female! And although instances are much rarer, Danine did not consider male Fukas being raped to be a surprising fact worth special mention. I was a little shocked and sad to find that Danine seems to be emotionally inured to such atrocities. Or perhaps that such is not considered by as criminal as on Earth?

I am tempted to describe this as barbaric but I shall give Inath the benefit of the doubt and chalk it up to enforcement difficulties. When the adventurer parties and mercenary guards have constant sexual tension because gender segregation is too advanced an organizational principle, I doubt much policing gets done other than for criminal cases that are serious enough to generate bounties.

Food

The first thing I noticed about the food here was the lack of taste. Oh, it's not that they don't have spices or flavours, but that all of it comes from the addition of simple leaves or the oil from paka fat. I tried to introduce the concept of deep frying using paka oil but the cost in fuel is prohibitive to anyone other than the most wealthy merchants, or a noble.

This lack of cheap good tasting food, fast food even, is due to the rarity and cost of basic sugar and salt. Cooking oil and monosodium glutamate are completely unheard of; although Kalny has been
trying unsuccessfully to remove the bitter aftertaste from the oily fruits of the Esquire tree. It is an excellent plantation crop, with continuous year round flowering and fruiting, but that bitter taste is unpopular.

Sugar is boiled out of the root of a plant called yama, which the Fukas used to make jam with. Yama is poor for a root crop, with tiny nodules that are hard to peel and wash, and needing to be laboriously mashed. Furthermore, only the Fuka village were able to grow them in large quantity by planting them individually, a highly laborious task. Although with the freeing up of manpower required for planting and tilling the soil, more peasants are starting to copy the same. Yama is a good cash crop in this sugar starved world.

Salt is the hard one. The majority of salt production comes from the port cities, where workers obtain sea salt by evaporation of sea water. They then wash the salt to remove impurities, unwashed salt is known to be bad for health but washed salt is not much better. I hope to improve the process once the mana tax begins to yield useful amounts of power.

Kalny has still made a killing by being first to market a noodle, along with the concept of a fork. His profit margins with tinned wind eye gruel packed with paka or piyo meat and some vegetables has been atrociously high. Prepacked durable meals are extremely popular amongst adventurers, all they have to do is poke a hole and heat up the can to get an instant meal ready to eat without the fuss of packing foodstuffs. Additionally, Kalny has introduced the concept of noodles made from wind eye flour, also well received by adventurers.

Both the tinned food and the noodles have been extensively copied by other food merchants, despite Kalny's attempts at maintaining control. With all the demand for cheap tins, the Ironworkers have also opened Inath's first tinned food factory, copying the same production line organization from Razzi's paper mill.

I wonder how long it will before the first contaminated food panic occurs.

**Geography**

I have obtained descriptions and rough maps of the territories of Inath. Judging by the length of time it takes to travel, it would appear that the entire Inath Federation, minus the vast southern country known as Illastein, is only about the size of France. At least if I'm remembering my geography correctly. Inath might be a bit bigger but the error in my estimates should only be in the range of a hundred kilometers or so. Illastein is perhaps half the size of the rest of the Inath countries but the poor soil there means a much lower population density.

Currently, the Inath Federation consists of four major powers. That being Illastein, Ektal, Ranra and Inath, in order of increasing political importance. Other areas like the Calva principality and the Erushen special region are all that remains of larger countries after the past wars or monster attacks have reduced them to their current state.

The major countries of Inath have been in a state of low key war ever since they were settled. Their history speaks of growing monster attacks that have slowly shrunk the domain of humanity until the present day Federation. Currently, the situation is stable as the Snow Wall to the north and the Calva Ranges to the east funnel the monsters into a battlefield known as Algami plains somewhere to the east of Ranra. Most of the fighting occurs there with regular armies of adventurer-knights seeking their fortune in bounties.

**Magic Theory**
**Summoning Stones**

I have investigated summoning stones further with the cooperation of Landar and I am almost certain that their names are a misnomer. They are magical items that assist in creating effects and do not summon anything at all.

Summoning stones have a short delay during which most of the parameters of the 'summon' is set. Simpler stones like Dancing Lights or Sword have nearly no such parameters, with variables like length and size being adjustable by the caster on the fly. More complicated stones like Tempest Bolt have almost no parameters that can be changed on the fly other than attack type and target. Stones in the middle, like Shield Wall, have some parameters fixed at casting time, the determination of the direction 'up', but others adjustable, like the position or speed of rotation.

A second piece of evidence is that summoning stones are actually inefficient. This claim is controversial and no one other than Landar will even entertain the idea, but crude calorimetric testing of power output indicates that Tempest Bolt outputs only thirty to forty percent of the heat generated by raw fire spells. I suspect that the simpler stones are actually more efficient than the flashier ones! Of course, using a large pond as a target suffers from inaccuracy but such a large difference can hardly be explained.

**Spellcasting Methods**

Spells cast do not have to originate from a fixed point, even though most mages will choose to create their spells in a zone in front of them where they can see it, or over their hands. This preference is just a convenience and a concentration tool, a spell can be created and fired from any body part in any direction. One of the alchemists demonstrated shooting a firebolt out the back of his head, although for obvious reasons, it was badly aimed.

What was interesting to note is that there are two major methods for learning magic. The First style that Tori tried to teach Danine and I in Wendy's Fort, and indeed how the majority of the knights learn magic, is described as "pushing magic out from the hands". The Tsarian style that Landar learnt involves extending the lifeforce out of the body and creating the effect there. The differences between these are limited, although the Tsarian style spends more magic to cast at long range and less to cast at short range. The backlash from overspending magic is also lesser for those of the Tsarian style, which is not necessarily a good thing since it is easier for them to drain themselves to a dangerous level.

It has been observed that the Tsarian style taught by all the summoner clans are more effective on people born with direct maternal descent from the Tsar. Such people are also known for learning Ems more easily. Tsarian descent is also not linked with any disadvantage in other fields other than the traditional casting method.

Why this should be so is unknown. Among the nobles, those few cases where the maternal line is of First origin, the person does not learn the Tsarian style of casting easily, nor displays the affinity for Em magic. Even in one case where only the maternal grandmother was of First origin, the children all displayed First style casting. I suspect that this effect is either linked to the mitochondrial genome or non-genetic. Probably non-genetic.

Given that the Fukas seem to pick up Em magic so easily, I suspect the Fukas are linked to the phenomenon behind this difference, although their ability to learn Ems is beyond any human. I asked Landar to provide Danine with some training materials to see if she can learn to cast magic more easily with the Tsarian style of casting but there was no miraculous progress there.

I have asked Minmay to invite the two Elka families over from Wendy's Fort. They are interested in the reports of Elkas at the fort in The Great Yang past the Central Territories to the east. Ka will lead
them to stop over at Minmay for a while. I look forward to trying to teach them magic and observing any differences there.

Alchemy
One often thinks of magical items in terms of things like rings of power and monster-spawning television sets. But the Inaths have never heard of such a thing. Apart from the Alchemy spell spending magic on the Resist function,

Simply put, Alchemy is just another method of casting spells. In the same way that normal spells form a rigid boundary to contain the magic, alchemy contains the magic by binding it to physical matter. The difference between Alchemy and a normal spell is that the magic in normal spells slowly leak away over time. This difference is crucial. Alchemy allows the storage of magical power which forms the basis of making magic more controllable than relying on fallible human casters.

Alchemy enchantments also cost much more magic to achieve the same effect. A good alchemist still requires three times more magic to make a single shot firebolt wand than it takes a battlemage to create a firebolt, empirically determined by counting the number of firebolts Landar can make from full power. This so called alchemy penalty is not recovered even when the alchemy enchantment is reworked into a normal spell.

Magic Tools
Key to this control are what I will call magic tools. Rather than using alchemy to store single shot magical spells like the wands or wall enchantments, alchemy should allow far more complex spells simply because they allow the caster time to work on the spell instead of fighting constant magical attrition.

To this end I have categorized the various functions of magic and included a few notes on what applications might be possible.

The six basic functions introduced to me were heat, cool, accelerate, decelerate, resist and deflect.

The questions are accelerate and decelerate, which apparently increase or decrease the speed in the direction of movement. The question is, which frame of movement applies? A moving cart will accelerate over the ground, the same applies to a moving boat. More interestingly, apples inside a cart are apparently also considered moving, even if the cart is enclosed. Apples inside a constantly moving cart behave differently from apples sitting on the ground, which poses some difficult questions for relativity.

More to point, we are presumably on a rotating planet that is orbiting the sun. What about that movement? If apples on a cart are considered moving, then why not the mountain on a moving planet? But accelerate does nothing to stationary objects, for some value of stationary.

I haven't quite understood how that is supposed to work. To say nothing of the weight increasing Resist function and the direction changing Deflect. Heat and cool also present their own problems, the differentiation of macro scale and micro scale movement.

Another group of functions are the creation of elemental magic, also called magical materials. So far, Inath is aware of the creation of materials called Water, Fire, Heat, Ice, Crystal, Mist, Light and Darkness. These materials are mostly named after their functions and properties, which should need little explanation.

The third and most important group of functions are what I consider sensors. Such functions are portions of spells that change state depending on the conditions experienced at the point they exist at. In particular, the sensors known to Landar are for detection of magical power, light level, force exerted and overlap with solid or liquid objects. Timers are somewhat related. Sensors themselves
can communicate with other functions through the use of logical linkers that propagate the change of state in the direction decided when created. I have a hunch, given how flexible the logic functions are, that the three And, Or and Not functions are all possible.

The last group of functions are meta functions. The alchemists and Academy mages have long known that the structures their own lifeforce uses to cast spells can be partially mimicked in a spell. This is the origin of the functions that convert raw magical power, that only has a disruptive effect, into something useful like the six basic functions or the magical material creation functions. Meta functions are currently the only functions being triggered by logical linkers although of academic interest is the fact that sensors can also be toggled on and off by the linkers.

Landar has made significant strides into building standardized magical functions. The thread and board setup she has is a good start into standardizing magic.

**Magic Applications**

With this, I can start speculating on the possible magical applications. Composite materials and fortification weaponry would obviously benefit greatly from the mana tax, but I've covered those before. The air conditioner concept could be used for climate control, with both heat and cool functions as well as using force functions to scatter water.

Movement engines using Accelerate and Decelerate are probably inefficient uses of magic since I estimate the energy content of such functions are far less than the equivalent generated by direct heating or Fire magical material. On the other hand, they don't require complex heat engines to convert the work done. I have plans to experiment with the generation of vacuum using magic, which could have applications in freeze drying and chemical preparation methods.

Besides these, magic can possibly be used in alarm and sensor systems, even more varied than those present on Earth. Heat, light and force sensors can all be used as tripwires and alarm panels. The enchanted house concept pioneered by Landar is probably the most feasible method for implementation. Logic functions could be used to reinvent a Turing machine and possibly employ magic for computation.

The house and ground enchantment concept that will replace Landar's magical threads could be used to move magic over long distances without suffering huge losses by shooting spells across. Indeed, this is similar to an electrical grid back on Earth, and with a large enough income of magic, could be feasible even. Such a grid could also be combined with magical computing idea to transmit information. Further afield, the Light magical material combined with light detectors and good mirrors could be used as a system for long range communication much like a semaphore, without requiring expensive enchantment of long stretches of ground in order to lay a logic linker line.
"Isn't that a little overkill for turning a light on and off?"

Cato raised an eyebrow. Now that was something one never expected to hear from Landar. She pointed at the mess of lines over the summary paper, sets of eight lines running everywhere. She partially understood what Cato was doing, but the whole setup was so complex and foreign that it made the most devious of spells look like an apprentice's practice exercise.

To Cato though, it was a diagram that reminded him of a particular piece of technology.

"We can do simple triggers with this, yes," Cato explained, "but it can do so much more than simple things. I had been thinking of this ever since I saw your magical circuit creator, it's not quite the same as electrical circuits on Earth but it should be possible. A general logic engine we called a computer."

"That isn't always possible," Cato said, "take your robot as an example. The mechanism you made to make it take step only works if the ground is flat. And solid. The way you build the logic means that the logic can't be changed easily, it'll take a complete re-enchantment every time."

"How does having a general logic engine help?" Landar asked, "whatever you put in the registers is still fixed."

"You can use it to interpret external input and perform calculations before it changes the spell's behaviour," Cato said. He continued when she started looking skeptical, "sometimes you don't just want the spell to do only one thing and when the logic gets really complex, having the ability to write abstracted logic in terms of commands will reduce mistakes made. A bit like how your circuit creator helps you build your spells. Back on Earth, we used the instruction code to further make an abstracted language for describing the logic. I think we're onto the third or fourth layer now."

Landar snorted. "I can't imagine what sort of thing you used it for. What hideous problems were you people working on that were so complex you can't just write it down?"

Cato grinned, "actually, many computers on Earth are mostly used to play games and watch moving pictures."

The look on her face was priceless, but it would be just too cruel to leave her with that. "Just kidding, we use it a lot for work too."

The roar of flame around the rim of the furnace made talking impossible but the practiced signals of the master and the scurrying mass of apprentices coordinated them easily. The team of pakas lurched against the beams and with a groan, the furnace tipped over and the yellow glowing liquid steel poured out into the tranches carved across the pouring floor.

Once the roar had died down and the slag emptied out of the furnace, the waiting masters walked among the slowly cooling steel ingots, tapping them and shaving them to test quality.
"An impressive sight," Klaas said.

"The steel is third rate though," Elma said, inspecting a few nuggets of steel that were brought up to him by the masters. He held up a piece and concentrated on it. The glow of magic flared up and slowly dimmed to a constant level. "And it won't hold magic as well as steel should."

Klaas pointed at the end nearest the furnace, where four masters and their apprentices were busy reforging a length of steel. "The hardness is still better than iron," he said, then he swung a hand across the rows of ingots laid out across the floor, "and look at the amount! The old method of baking the iron to form steel is gone!"

Elma nodded, "indeed, the quality should improve once we learn how to control the burn better. And with our secret folding process, we can still improve the quality of the steel, for far less total cost. The only problem is the high cost of the furnace. Thank Selna Cato didn't including folding in the book."

They looked at the towering structure nearly twice as tall as a house. It had been rebuilt three times and reworked far more, perfecting the process of blowing hot air through the molten iron. This sort of large scale project was something that only the Ironworkers guild itself could afford to do, and even then it was not easy. The smaller and easier crucible method described in Cato's documents could be employed by the independent Ironworker smithies. It was somewhat of a race between the Ektal branches to see who could perfect the process first.

Elma didn't win, but he didn't stand much of a chance next to the large Minmay branch which had decided to setup an experimental steel furnace right next to Cato's so called university. Elma almost pitied Corbin who was still trying to make blast furnaces work. Their little agent should be paying her a visit right about now.

Indeed, many local unaffiliated blacksmiths in villages were known to be experimenting with making crucibles, but small local operations could never compare with the massive output of steel that the Bessemer process could create. The Ironworkers could suppress them with sheer market size.

"Why call it Bessemer though?" Elma muttered to himself.

Klaas shrugged, "that was what the book said."

Dear Tulore,

Your samples of the curse breaker have been very interesting. I have experimental evidence that the curse breaker is able to cure certain kinds of sickness, primarily those related to infected wounds and what you call bad blood, the notes regarding my experiments with deliberately infecting piyos and curing them.

I suspect that your curse breaker is related to what, in my world, we call a sulfa drug. Using the chromatographic process I mentioned last letter, I have managed to isolate the active ingredient at a specific retention time. With concentration by slowly drying the fraction, the drug’s effect can be enhanced many times and the dose made far higher.

In fact, I have managed to sufficiently concentrate it that high doses begin to cause adverse effects in the piyos. Toxic effects are included in my notes, including potential allergy reactions and other complications. On the other hand, the higher dose is able to treat a wider range of infections and is thus more useful.

I have had some ideas on how to scale up your process as well as possible chemical derivatives, do
please review them, I would appreciate your experience in its manufacture. If you are interested in a partnership, I am sure I can work out a deal with some of the local Minmay merchants to share profits with the Fukas in exchange for your recipe and input.

Yours, Cato

Dear Cato,

Your distillation column works amazingly! The simple alcohol boilers simply cannot compare in the purity of alcohol produced, indeed your process is so precise that they become completely stripped of the odour from their source ferment. I have sent samples of various alcohols purified from a fermentation. You will note that I have labeled them in order of increasing boiling point, with smells and taste observations included. Piyo testing indicates that all but the second and largest fraction is toxic at high doses, thereby identifying it as ethanol. The only lower boiling fraction must be methanol. However, there are three remaining fractions boiling below the temperature of the water residue instead of two fractions like you predicted, the mystery third fraction is very low volume and seems to exist in a mix of solid and liquid form at room temperature. Any idea what that is?

The removal of these light alcohols should make reconstituted alcoholic drinks much safer to consume, and open up a wide range of high proof drinks.

The dry fractionation process for oil is extremely sensitive to temperature. The fat does not crystallize uniformly and a slight deviation in temperature or mixing will result in losing efficiency or failing to purify well. To date, I have only succeeded in two perfect runs, that with the cooler/heater magical device you sent me, the room temperature is simply impossible to control otherwise. The bad tasting residues made up of the solid fats can be used to supplement piyo feed.

The clarity and purity of the esquire seed oil produced is also beyond compare. Even when failing batches, so called 'B' grade oil, multiple rounds of cheap inaccurate fractionation will still result in tolerable quality, with barely any of the bad smell and bitter taste remaining. Indeed, using the 'B' grade as cooking oil is still cheaper and less prone to sticking the pan than paka fat. Mostly, I have been adding it to tins to boost the energy content of the food as well as prevent settling of the contents.

The 'A' grade, the perfect runs, I am dedicating to a new cosmetics branch. The clear oil is a perfect stabilizer for all sorts of creams, oils and anything that requires a thick medium that prevents settling. This ranges from toothpaste to gentle liquid soaps to near transparent cosmetic cream. The women and housekeepers of Ektal will worship your name, Cato, you must have had some idea of how useful the 'A' grade is. Once the first batches go on sale, I should have to consider building you a house made out of money as a present.

I have tried to recreate your margarine by crystallizing 'B' grade oil and adding paka milk but it remains too liquid to spread, and 'A' grade non-bitter semi-solids are too expensive to eat. I shall try mixing it with paka fat tomorrow, results follow next letter.

To good food and good profit!
Kalny

Dear Cato, you are aware of the Ironworker's new steel. I am heading to Minmay personally to discuss a prototype steel framed building. Signed, Muller.
PS: Estimated price of steel Tine bridge, 400 Rimes and dropping
Landar hunched over the pot, supplying the magic that kept the elemental Water from simply disappearing into thin air. Sitting here watching the column of water slowly drip down into the elemental Crystal pot with nothing to do other than watch some crystals grow was supremely boring. And because Landar was the person who was sustaining the elemental Water, she couldn't even sleep!

She hadn't realized just how long a half hour was until she had nothing to do while waiting. Reading was inconvenient when one had to keep an eye on the apparatus. More like impossible if she didn't want to screw this up for the tenth time.

Landar was the dean of magical research in Cato's university! Why couldn't she just order some unlucky alchemist to do this job? But Landar knew that she had kept what she was doing a secret from almost everyone else and anyone other than her would almost certainly not do this experiment correctly.

Sometimes she thought that Cato's Earth knowledge was cheating. She had racked her brains for days trying to think of a way to make a device that would add liquid slowly to the pot. Landar's final idea of using some paper to block the end of a spout had been overturned in ten seconds when Cato described a tap device at the bottom of a hollow glass cylinder. Something he called a burette.

He had even dared to say that they would need to perfect the tap construction anyway since they would need it for 'proper chemistry'!

True, it worked better than anything she could come up with, but that was just unfair. That was why she stuck to studying magic.

She peeked into the pot and saw the grey crystals lining it. Oops, she had missed the crystals' appearance. Landar marked down the water level and opened the tap in a quick burst. There were no more crystals appearing or growing.

Gingerly, Landar placed the strainer over the mouth and poured out the mixture of water and elemental Water into the waste. Then she pointed the heat dryer at the pot and waited.

After the crystals were dry, Landar simply evapourated the pot with a field of disruption magic and placed the crystals on a scale. The other pan was already setup and as Landar placed the last piece onto the receiving pan, the weight pan was slowly lifted off the table. Then it just as slowly settled back down.

Almost equal. And the iron was weighed to be equal before she recrystallized it!

Landar grinned and went to go find Cato.

Elemental Water could be saturated and feeding most liquids into it could cause dissolved iron to crystallize out. Let's see Cato beat that one.

It didn't take him long.

"Of course, the dissolution speed is governed by particle size while the preference order of dissolved material is governed by the entropy of solution!" Cato wrote down a set of squiggles at the bottom of the large board. The top sheet of paper was covered with little drawings that Cato claimed was representing the diagrams of the various materials they had tried to dissolve in elemental Water.
Landar sighed at the line of drawings. Just ten experiments, in which Cato took her observation and displaced one material with another, or failed to. In just ten experiments he had determined that which substances displaced with others could be represented as a single line, from small to big molecules. Whatever molecules were, those things were supposedly too small to see.

"Don't you see, it's just chemistry!" Cato said to her, waving one energetic hand over the paper summarizing their observations and the theory, "Water must be a small molecule or single atom that sticks to non-magical molecules very well! The materials made of smaller atoms, like metals, dissolve fast while long chains like wood and cloth can last for a long time. But because the dissolved materials exist in an equilibrium, elemental Water never completely releases the long chained molecules, making it impossible to displace!"

It was an elegant theory, Landar agreed. But there were so many things she didn't understand of his theory that she barely understood what question to ask first.

"You're assuming that everything," she pointed at the table, the air and a tub of water, "everything is made of atoms so tiny they can't be seen? And different materials have different looking atoms."

Cato blinked at her for a moment, "oh. Yes. Yes, I am. " He rubbed his forehead, "there's no atomic theory in Inath? So that's why the chemistry book didn't spawn as many ideas. No one understood it."

"And I'm the one who is supposed to have sparkling eyes," she grumbled.

"What?" Cato asked.

"Nothing," Landar sighed, "weren't you excited about the establishment of universal standard measurements this morning? What happened to that?"

Seeing his deflating mood felt like she was kicking a baby piyo. "The Ironworkers and Masons are disagreeing over how to make a standard measure for length," Cato scowled, "it turned into this vicious fight between the two guild masters. We could end up with two competing standards and goodness help us if the Recordkeepers want their own too! That defeats the point of having standard units! It's becoming political!"

"Ah," Landar nodded, "so you left Minmay to handle the discussion and came here?"

"Good thing I did too, I wouldn't have wanted to miss this discovery," Cato rubbed his hands, the grin coming back to his face.

Landar pointed back at the board full of squiggles, "so why are you so excited about this?"

"It's the missing piece of knowledge we need to make the composite crystallization work!" Cato said excitedly, "you need to make the materials co-crystallize and that means we need to control their concentrations! We have a clue of how to make it work now!"

She could feel his grin transferring itself to her face. They were going after the grand prize then. It was annoying the way he simply pulled all her ideas into his own orbit, but she had to agree that impressing Cato came with benefits.

The clatter of wagons entering Minmay was nothing unusual. Hundreds of carts, wagons and travellers entered and left the city daily. But the large cage on the center wagon was what drew stares and gasps of shock. Inside the cage, six zombies sat or crawled over each other, futilely rattling the
iron bars at the gawking onlookers. The third wagon also drew stares, it was radiating magic even though it looked like nothing more than travelling provisions.

"Six zombies," Mari said, as Cato and Minmay met them when they entered the university grounds. Arisacrota was there too, watching curiously from the side and having two burly knights in full enchanted plate armour to guard her from either side.

"How did you capture them?" Cato asked.

"We found a small group and ambushed them," Zaraan explained from the side. The adventurers who actually did the fighting were not here anymore, having collected their bounties at the Order branch, so it fell to the three alchemists to explain what happened. "These were the survivors."

"They don't look very damaged though," Minmay remarked. General injuries and damaged flesh was expected of zombies but none of them were missing limbs or heads.

"There were seven," Mari explained by way of pointing at the remains in the corner of the cage, "they cannibalize each other."

"We saw that happen in Wendy's Fort yes," Cato said, "so any sign of the black mist?"

They all shook their heads.

"Well, get them off the wagon," Cato waved the team of hirelings forward but they stared back at him incredulously. He sighed, "Landar? Do you mind immobilizing the zombies?"

Landar nodded and casted a spell over the cage that slammed all the zombies to the floor. The wagon creaked under the load and the hirelings rushed forward to drag the cage down.

"Besides the zombies," Landar pointed at the covered wagon behind. It was radiating magic. "Is that more mana crystal?"

Zaraan's face lit up cheerfully, "yes, we found a second mine. Without tremors. It's smaller and there is less mana there but it seems like these mines aren't that uncommon. We should be able to find many more throughout the Snow Wall."

"I still find it strange that the First should leave behind mana crystal," Cato said, "I know you mentioned it in your report but whatever reasons I could come up all sound ridiculous."

"If we can discover why the mines are where they are, the same way iron ore tends to appear in horizontal bands, there might be clues," Zaraan ventured.

They shared a sigh, why the mana crystals were where the mines were was not a simple question to answer.

"You know, it's strange that they're wearing these furs," Landar said, pulling out a tattered scrap of clothing from one of the zombies as the cage dragged past her, "It might be some sort of clothing?"

Cato looked at Minmay for confirmation and got a noncommittal shrug. "It's not piyo fur," Cato commented, the fur was far too thick and long, even after the wear and tear it had no doubt gone through.

"It may not be clothing that came from Inath," Landar ventured, "no one would wear such heavy furs. You'll be far too hot." Mari and Zaraan nodded too.
Cato gulped, "if it's not from Inath, then where is it from?"

They looked at each other.

"We'll retrieve their clothing and ask if anyone has information on them," Minmay said, "let's not jump to conclusions."

The bolts zipped downrange to a clatter of wires snapping against barrels. The impacts against scrap shields and wooden targets at the end was quickly followed by the squeaking of metal cranks. Then after some time, another clatter sent another wave of bolts at the targets.

"Not very impressive," Minmay said, as the row of peasants struggling to reload their crossbows took at least half a minute to do so. "The shields work too well against them and Reki mounted knights will have ridden them down by now."

"They require almost no training, you can't expect much," Cato said, "but with the Ironworkers' steel, you can make sufficient crossbows for large formations to pose a threat. In fact, you should note that the shields on the targets are normally considered quite strong and most of them are actually drained by now."

Minmay peered at the targets, "but not many are hit. In the time between reloads, any knights down there would have patched up the shields already."

"There's only so much you can do without magic, sir," Cato explained, "the upside is that they are cheap and they force the targets to use magic to defend themselves."

He raised a flag and the recruited trainees pointed their crossbows down at a different set of targets. With a clatter, the bolts smashed into the soil and through the armour. Unshielded, not even steel armour couldn't stand up against crossbows.

"And of course, if you add magic, they turn into a bowgun," Cato waved a different flag and the trainees swapped out their bolts for the special set. The accuracy was much much better than the Wendy's Fort version, being made with steel and all the expertise of the Ironworkers. Even better, the metal shafts of the bolts carried enough power to aid loading, the new bowgun design could work with any non-magical crossbow and still draw and fire nearly as fast as a normal bow. With far less training required.

"On a battlefield, massed crossbows can pose a threat, even more so if they are in a defensive position," Cato indicated the rough earthen berms and trenches to the side, "and if it comes from a direction you didn't defend against, well, crossbow bolts are fast and hard to see in flight. There is a good chance of catching knights unawares and without defenses."

"Doesn't this go against the limit on raising armies?" Minmay asked, it was quite without question that the line of recruited peasants was far far beyond any sane limit on adventuring parties.

Cato shrugged, "to pose a credible threat to Ektal, you will need new tactics. One that exploits the advantages you have, such as the mana tax and cheap steel. Besides, they're not adventurers, they hardly know any magic!"

Minmay snorted, "I doubt Ektal will accept that excuse."
"Min! What is this I'm hearing about rebellion!?"

The woman's voice caused Minmay jumped up from the table with a complicated look on his face. Cato paused in his explanation of the proposed sewerage system.

"Aesin! You're back earlier than I expected!" Minmay exclaimed as the servants pushed the dining room doors open.

A busty housewife pushed past into the room. With her hair tied up in a bun and wearing a casual loose fitting apron over her simple clothes, she was Cato's very image of a housewife. Slightly thinner than Minmay with a rounded cheeks, her looks were nothing to write home about either. Her pure golden hair was the only thing vaguely aristocratic, and it was clear whose eyes had given Arisacrota's their blue colour.

"Aes, this is Cato, my new advisor. He's an expert in many new exciting technologies that he has been working to bring to Minmay," the Chancellor said, "Cato, this is my wife, Aesin. Aes, you've just returned from a long trip, why not get a bath and a nap to recover before we explain what has been going on at home? I'll have Arthur arrange a meal while you wait."

Aesin narrowed her eyes at Cato. "Min, I've never known you to be an ambitious person, Minmay is nowhere near the center of the world. Imagine my shock when a messenger from the King himself barges into my meeting with the Iris to report that you've refused a summons! Maybe I should get an explanation before you manage to hide the evidence."

"Forgive me for not knowing you, madam," Cato bowed, doing his best to appear polite, "may I know what your concerns are?"

"My husband refuses a summons from King Ektal to explain the mess he's caused, saying that he's too busy! During a time when those books are causing unrest everywhere, peasants are learning magic!" Aesin walked over to Minmay and pushed her husband back into his chair, "I go away for three months to visit our neighbours. I didn't expect Minmay to be burning down and the first I hear of it to be from the King and not my husband!"

"Actually, those books are our fault," Cato admitted.

She stared at him for a moment. "I think you ought to explain all this from the beginning."

The sun had passed its peak and lunch had come and gone before they were done. Cato sighed in exhaustion. Aesin had not been anything at all like a housewife. Her sharp questions cut straight to the core of any topic, ignoring any attempts to divert her. Indeed, her intuition into when either of them were trying to distract her was impeccable.

"And you really think this is the best path for the Minmay region?" she asked her husband finally, "opposing King Ektal, violating the Rule of Arms, maybe making enemies of everyone else in Ektal? Truly?"

"Yes," Minmay said firmly, "the first harvests using the new technique are already coming in. The peasants are celebrating the first year in living memory where there is enough to eat for everyone. In fact, they have so much food that we have to rush out new granaries in every village or there will be..."
no space to store it by the end of the year. I have respected our agreement too, a new tax levy is already in place to feed orphans and beggars."

She raised an eyebrow, "but your new riches will only invite new enemies. Duport will be more aggressive than ever, especially since he will also gain the same improvements."

"Which is why we are doing away with the Rule of Arms," Cato said, "we're not just working on peaceful quality of life developments like soap and umbrellas, there is a very talented alchemist working on new magical weapons. The occasional windfalls of mana crystals from the old First mines are building our stockpile of magic and we are working on ways to refine it into useable form. The education for the future Mana Tax will create a store of magical power and a trained population from which to draft mages and conduct a war. If it comes down to a fight and they try attacking with just knights, it won't even be a battle."

Not to mention the effect it would have on the economic side. All the major industry players were already chomping at the bit for access to the stockpile, although Minmay was still hesitant about selling it given the rising political tension.

"And that explains why my husband has refused the King's summons?" Aesin asked.

"That was a different matter," Minmay said, "Cato wrote those books and gave it to the guilds, knowing that it would spread beyond control. Obviously, not all the nobles are very happy about giving the peasants knowledge of how to learn magic. And the means to print more books cheaply. I... wasn't very confident I'd ever come back to Minmay if I answered Ektal's summons."

"I'm not happy about that either, sounds like a recipe for rebellion," Aesin shook her head, "Selna, the guilds. How did you manage to control the guilds here? I've heard the Ironworkers in Ektal are already getting belligerent."

"They're too busy sucking up to Cato here to fight," Minmay said, "we've agreed, and forced the guilds to agree, that those who misbehave will lose access to the university. But it's just a matter of time before they start bucking too."

"If you want to improve life here, we cannot rely on advancements in production along," Cato sighed. "There has to be political change as well as economic. I've said it before, the trouble you're going to face isn't the guilds, it's the common peasantry. For a while, the economic bounty will keep people happy. They have new clothing, more and better food, life is good. But they'll want more, a pretty lady will catch the eye of a baron or some other event will spark anger. And then the peasants will realize that they know magic, and they don't have to be afraid of the knights. You need to reform the structure of government and soon."

This was perhaps the most difficult bit, no one in Inath ever seemed to realize the possibility of a peasant rebellion. No wonder, with magical power in the hands of the nobility and their knights, any such rebellion was doomed to fail and the peasants knew it. But the playing field was leveling fast, with the spreading of education in magic as well as the research into magical weapons. The idea of a dangerous peasantry was still not gaining traction with the nobles however.

Aesin frowned at him for a long moment then nodded cautiously.

"I'm glad we have treated the peasants well," Aesin said, "so it turns out my 'bleeding hearted' ideas are going to save us all."

"Yes, now they will," Minmay shrugged, "before, they were just a waste of money that we couldn't spare."
"And you'll only help the peasants because you want to save your hide."

"That's still a valid reason," Minmay pointed out, "apart from that, I don't see a reason why I should spend my taxes on feeding homeless beggars when there are more important things I can do with it. Like upgrading our roads or this new sewer system."

"Ahem, pardon me for intruding into this discussion," Cato asked, "perhaps you can think of it as good public relations? After all, the better liked you are among the general peasantry, the more support you can get for the development projects. You may even be able to raise some additional taxes to pay for the charity."

"That I can agree with. Just don't think I'm doing it out of the goodness of my heart and we have an understanding."

Aesin smiled as her husband bent over the plans for the sewer system again. She nodded appreciatively at Cato behind his back.

"Mama! You're back!" Arisacrota appeared in the doorway then dived into her mother's arms.

"Oh, little Ari, you've really grown big now!" Aesin patted her on the head, "and a little rounder too! What have you been eating?"

"A little too many fried yama fritters," Minmay growled, "she sneaks them out of the kitchen when I'm not looking and the cookboys are all sweet on her."

"Fried?" Aesin asked her daughter.

"Mhm! They fry the yama slices in esquire oil and salt! It turns out crunchy and a bit sweet and salty. It's really good!" Arisacrota said.

"Esquire oil? My little Ari can eat that now?"

"Don't be surprised, Cato found a way to remove the bitter taste," Minmay said.

"I'm working with a number of food merchants to create new products," Cato said, "deep frying has never been economical until now, and oil frying is a good way to sterilize food for long term storage in tins. The same tins that we've told you about that can keep food unspoilt for years. It's very high calorie so it's best not to eat too much, you'll get fat."

Aesin raised an eyebrow. "You've really worked on food security, haven't you?" she laughed lightly, "and I think getting fat is the least of our worries."

Cato nodded, "you'll be regretting saying that once we have an obesity problem. In my world, many people have problems because they eat too much."

"I'll take that over starving," Aesin quipped, "and so will everyone else."

"Come in Chancellor."

The man outside the room jerked in surprise but covered up his shock quickly. Then he pushed open the door to the office of King Ektal. The office where the King held his meetings was not flashy and grand like the throne room. But this was where business got done. The gaudy official display was used for announcements whose conclusions were forgone.
"King Ektal, I must register a formal complaint against Chancellor Minmay," Duport said.

"Duport, hardly a week goes by without a complaint from you about him," the king remarked, putting down his quill, "what is it this time?"

"He is fomenting unrest in my territory, bribing my citizens and sabotaging my businesses!" Duport stated. The man's hair might be curling from the anger radiating off him but such expressions were not uncommon for this person.

"He has also refused a direct summons from me, citing work and stability issues in his own territory," the king said, "quite bold of him to do so."

Duport paused for a moment, the lack of the usual dismissiveness took him aback. "Exactly! He must be plotting rebellion!" Duport capitalized on it immediately.

"Your own eagerness gives you away, Chancellor," Ektal sighed, "nevertheless, it is true that I am worried about what Minmay is doing. This is very unlike him."

"It is the work of that foreigner, the false hero, who is whispering poison into his ears, your majesty. I have it on good faith that that man, Cato, is responsible for the current plague of seditious works spreading across our lands."

"It may be," Ektal nodded.

Duport gritted his teeth, "Then why have you not acted? Surely you can see the necessity of punishing Minmay before he causes more damage!"

"Perhaps, he certainly hasn't followed my strict instructions to not create another Nurren Agreement," Ektal sighed, "but I believe I should take care of matters at home in Ektal first before contemplating outside adventures."

"Isn't that just letting him get away with it?!"

King Ektal suppressed a smile as Duport nearly exploded. "There are greater issues occupying my attention at the moment," he added before Duport could protest, "and no, you're not privy to them."

"What issues... Never mind. Then I shall take matters into my own hands, for the good of the kingdom," Duport growled.

"Excellent!" Ektal smiled finally. It was a thin bare smile without a hint of mirth. "Then I shall leave this onerous duty in your capable hands."

Duport blinked. The king had never been this supportive of his well-known ambitions to Minmay's land before. He should be suspecting a trap, but Duport was too blinded by greed.

"Here," Ektal wrote a short but official note then took out the royal seal from his necklace to burn directly into the paper, "I charge you with the duty of reigning in Minmay's excesses. His gamble has failed and the crown will have him pay the price. Chancellor Duport!"

The official tone made the man freeze.

"Do you accept this duty?"

Duport licked his lips. It was what the man wanted for so long that Ektal knew he was tempted to just say yes immediately. "The spoils of the victory will be mine too," Duport said finally.
"Of course, as is natural," Ektal nodded.

Duport's face broke into a triumphal grin then bowed deeply and formally. "Then your loyal subject gratefully accepts this duty. I shall not fail you."

Ektal nodded and gestured at the door. Duport could hardly avoid skipping on the way out.

The man got out of the room before his suspicious nature caught up with his greed. He stopped to think. If King Ektal was so eager to see Minmay punished, why wouldn't he hire adventurers to do it himself? Surely the unrest in Ektal couldn't be that bad...

"Chancellor," the voice from behind the closed doors made him jump. "I would appreciate it if you didn't loiter in front of my door trying to eavesdrop on me. Don't you have better things to do?"

The man scurried away.

King Ektal leaned back against his chair with a laugh. "He took it," Ektal laughed, "jumped right at it, more like."

"Sir, I don't understand why you let Duport deal with Minmay, it will only strengthen him and we can spare the coin," said the man standing in the alcove overlooking the corridor outside. He came out and sat down in the chair opposite the king.

"I don't know what Minmay is up to," Ektal said, "his actions have been very unusual and these new inventions cannot be all peaceful. I do not wish to be the first person to find out what Minmay has in store for whoever tries to attack him."

The man nodded slowly, "but if Duport wins..."

"There will be still time to join in and have a piece if Minmay turns out to be toothless," Ektal smiled, "a king can help his subjects in their duties after all, minister."

The woman trotted down the road beside the wagon, humming a cheerful tune.

It was a good day, bright sun and clear skies. The rekis would love it, especially after applying her poultice on the sores under their reins.

"Kupo, Don't you want to come back up?" the caravan leader asked her.

"A walk every day is good for your health, mister Sale," the woman replied, "you should get down and walk instead of sitting up on that cart all the time."

"My cart is my life, madam," Sale smiled, "and so are these rekis. Thank you again for helping me with them, I had no idea those reins were chafing their skin."

"Their skin is dark, it can get hard to see bruises. Are you really sure you don't want to walk?" Kupo wheedled him, "it'll do wonders for your back."

"Haha, as expected of a Pastora, you sure like to nag," Sale laughed, "it's all right. Your medicine helped a lot."

"I'm an ex-member," Kupo corrected him with a huff, "And the potions won't last forever, the best cure for your gout is to exercise and lose some of that fat."
"Ouch," Sale winced dramatically and Kupo stuck out her tongue at him.

"It's only painful if it's true," Kupo grinned and without waiting for his reply, ran backwards to the trailing wagons. "I'm off to play with the kids again!"

"That rascal," Sale muttered ruefully, "I guess our Minmay University is getting famous enough that even the Pastora are breaking their embargo."

Kupo stared up at the buildings from the university gate. A few short and wide wood and brick buildings arranged in a circle around a central speaking area, the so-called university was not impressive. The collection of buildings sporting crests and signs of various guilds and workshops of independent traders added to the chaos of the surrounding streets. It seemed like every type of building was crammed into a tiny space, with only a clear distinction between the wooden flammable shops divided from the fire-proof brick and stone furnaces and hearths.

Despite the constant patrols by hired guards and even the occasional party of knights, the atmosphere was one of frenetic energy. Masters and apprentices hurried past her on errands unknown and carts of strange and terribly curious objects were constantly moving up and down the street and junction. Shouts, weird smells and the clangs and bangs of industry drifted over the town like a haze.

Someone had painted two white lines in the middle of the street, cleanly dividing the carts into two lanes going in opposite directions. Kupo nodded in approval, it was such a simple innovation but made the carts moving along the street so orderly despite the volume of traffic and chaos of the surroundings. Every thing that reduced the all too common accidents was a good thing.

Then a rider practically flew past her, sitting on top of a strange contraption. Her back was emblazoned with the crest of Minmay and a pair of white wings, marking her as an official messenger of the chancellor. But the two wheeled metal thing below her was what drew Kupo's eyes. The rider disappeared through the gates round the corner of a university building.

"Never seen a bicycle before?" a voice asked her.

Kupo turned around to find a guard at the gate winking at her.

"That was a bicycle? I've never seen anything like it before," Kupo remarked.

"Lots of things here you've never seen before, miss, if you're new," the guard nodded sagely, as if he had seen it all himself. Which he probably had. "This place here at University Street? It's like a different world altogether."

Kupo grinned, "sounds interesting."

"You get used to it," the guard nodded again.

Kupo left him at the gate and went into the university. Her letter ought to have arrived ahead of her and she tried to look around to find where someone new should go.

"Hey there, new here?" a man sitting behind a desk under a shaded booth at the side waved to her. She went over to him. "I'm Kupo. Has the university received my letter?"

"Letter?" he blinked, "we receive a hundred letters a week. Which letter are you talking about?"
She paused. This was the first time her pulling rank as a prior Pastora member hadn't worked. Didn't these people know who the Pastora were?! Then her mind caught up with what he said.

"A hundred a week?!" she squeaked. Then realized from the scene outside that that number wasn't unusual. She decided to just ask him directly. "I heard this university accepts all sort of students and working partners. Do you have any idea how I can be one?"

"Well, this is why you come to reception first," the man explained, "if you're looking to be a student, we have contacts with various guilds who are offering teaching and apprenticeships. We also offer a magical training program which will teach the basics of how to use magic and create a simple item, this course is free courtesy of Minmay's endowment."

"I'm looking to be a partner," Kupo said.

The receptionist nodded, "then do you have some sort of special skill you can teach others or are you looking for an apprentice?"

"I was a member of the Order of Pastora," she took out the signet ring with the teardrop symbol.

The man blinked for a moment then nodded slowly, "I'll pass this upwards. Our leader Cato is looking for a Pastora member, perhaps you'll do."

Dear Cato,

The experiment is a success. The sealed bottles show no sign of contamination after three weeks, I am certain now that the sterilization procedure works. I am experimenting with reducing the power of the disruption field but the concept of using magical disruption to sterilize containers is feasible.

A supply of magical power for this purpose would be required however, mages are far too expensive to hire for this sort of product. I shall be sincerely hoping for your success with the mana tax. If events haven't surpassed me, this is the first peaceful use of stockpiled magical power, which will go a long way to creating a market for mana like you intended.

In other areas, I still have problems trying to break down wind eye starch like you suggested. One of the chromatographic fractions from common yeast does create a sugary mixture but the amount is far too low to be useful. I am conducting a survey of my plant and animal product sources for a cheaper method to create sugar from starch.

Kalny
Rising Flames

Kupo hummed to herself as she wrapped the man's leg with the splint. "There we go, all set," she said, clapping him on the shoulder, "you're very brave, to not need wine with that."

The wagon driver huffed himself onto the crutches with a grunt, "you'll have to be tough in this business."

"Well, you're certainly tougher than I am," Kupo said.

"I wouldn't say that, madam," the man drew out a small money pouch and counted out some coins, "you're pretty tough yourself. All that blood and you don't even flinch."

Kupo glanced down at the bloody floor with the flakes of tissue she had cut away in the earlier operation. "I've seen worse," she shrugged.

"Good for me," the man said with a thin smile then left.

"Disagreeable person, isn't he?" said the old grandmother as she tottered into Kupo's little shop.

Kupo grinned, "Heh, I think it's cute he thinks pretending to be all rough and tough will get girls to like him."

"Ha, that's not something you should be looking for in a man," the old woman said.

She shared a laugh with the woman. "Same again?" Kupo asked and got a nod. She dug into the cupboards behind her and withdrew the prepared pouch of medicines. "You're doing fine," she said, after a cursory inspection of the lady's condition, "once in the morning like usual."

The medicine was nothing more than a calming tea. The lady didn't need medicine of course, she was just old and her joints were creaky. Nothing Kupo could do about that.

"Next!" she said and looked out when no one came in for a few moments.

Ever since Kupo had put up her affiliate teardrop sign, a sign for Pastora training but not membership, she had been flooded with patients constantly. The first few patients weren't sure if she was another quack or medicine peddler but they were desperate and her skills had proven true. The news spread and now she was flooded with patients of all stripes.

So when there was a sudden lull, she was curious as to why.

A thin lanky man walked into the shop accompanied with a young woman. Tsarians both of them, although something was off about the man. Now that she looked, the rest of her patients outside were being kept from entering by two guards wearing the Minmay crest. Were they favoured clients of the chancellor? But his clothing was a little too casual for that too, nobles being what they were.

"How can I help you?" Kupo asked.

"I'm Cato Lois," the man introduced himself, "this is Landar Iris. I heard you studied with the Pastora?"

Kupo smiled and nodded, "I used to be one of them. So, what's wrong with you today?"

"I have interesting condition and would like your opinion as a person with knowledge of medicine,"
Cato said, holding out his hand, "there is a problem with my lifeforce, I can't use magic."

"You look perfectly fine to me," Kupo said, inspecting the man's hand, "any particular observations?"

"A knight told me that my lifeforce is not solid, unlike a normal person's," Cato said, "also I don't feel anything if I'm hit with magical disruption."

Kupo raised an eyebrow and channeled a tiny needle of magic. The man didn't react at all. "Also poor magic sense," she smiled, "interesting."

"She used magic disruption on your hand just now," Landar explained. Cato merely raised an eyebrow.

Kupo grinned, "alright, take a seat and let me work."

"..."

Kupo frowned and ran a hand through her hair.

"This is like nothing I've ever seen," she concluded finally, "I don't think you even need lifeforce to survive! See, your skin is still alive!" She had isolated a shallow patch of skin from his lifeforce, but Cato still hadn't felt anything and could still feel from that patch on his arm.

She released the disruption barrier and his lifeforce oozed back. They watched it curiously but Kupo shook her head.

"It's not supposed to do that either. It's like your lifeforce isn't even attached to you, just contained. Maybe," she shook her head, "I can't be sure."

Cato winced, "so no clues here either?"

"We simply don't know enough to say," Kupo shrugged, "maybe the old Tsarians might be able to help you, they had knowledge of life and magic that we have long lost."

It went without saying that finding one of them was nigh impossible.

Cato sighed. "Then let's talk about a different topic," he said, taking out a small vial from his pouch and putting it on the table.

The clear liquid inside looked like water but when he explained what it did...

"What did you say?!" Kupo leapt out of her chair. Another first! "This curse breaker can really cure the death heat?! You're not trying to cheat me are you?"

"I've given to Minmay's daughter," Cato explained, "although that was a preventive dose when she fell and scraped her leg badly."

Minmay's daughter hm? If even the Chancellor was believing in its reliability, there was a good chance this was real.

"It only works for some infections," Cato explained, "it depends on what the cause of the fever is. Tulore's curse breaker is probably an antibiotic, and what I call a sulfa drug. It'll only work on bacterial infections, and not something viral like a cold."

"Antibiotic... infection..." Kupo muttered. These new words meant something important, that much
she could tell, but the underlying meaning could not be grasped. "I am not familiar with those concepts," Kupo asked.

Cato smacked his forehead, "right, I've been around the university too much. Allow me to explain what I have discovered.

He then proceeded to blow her mind. A parade of experiments down to the most minute detail had been conducted on this potion. Drunk by a patient, it greatly reduced the chance of infection and could cure them outright nearly half of them. With such a miracle in front of her, Kupo had no idea where to even start investigating how it did what it did.

This man, not only had he done that with piyos, he had even created a theory to explain all of it! And it made sense. Far too much sense to be a theory created in just the few months he had been here in Minmay, when the Pastora existing for before Inath didn't have any clear idea on how humans worked. And Kupo had the weird sense that there was more he wasn't explaining.

"It's a fascinating theory but I'm curious as to how you're going to explain magic with this," Kupo said, "the idea that all of us are made up of tiny living cells doesn't sound anything at all like lifeforce. But we do know that we have lifeforce and your sterilization procedure seems to be well established. Individually, they make sense, but not together."

Cato grinned, "that's what I'm proposing. Would you like to work with the university? You can start a biological science department. I'd very much like to know the answers to those questions too."

Kupo looked at the miracle curse breaker still lying on her table. Cato followed her look and added a clinking bag and a book. More of the potions were inside. "I'd ask you to work on this, of course you'd get some for your own use. I'd like you to work together with a Fuka wise woman and me to improve the production rate, purity and assess its side effects. You don't mind working with Fukas, right?"

Kupo shook her head, still in a daze. Then what she heard finally got through her head, "the Fukas made this... this wonder potion?"

"Indeed," Cato nodded, "Do the Pastora have issues with them? I'm sorry to keep asking but too many people outright refuse to work with Fukas."

"I don't see why not," Kupo sighed, "Pastora's mission to heal the sick and injured. The demihumans are people and we treat them that way. Or at least we're supposed to. Still, to think that such a gem was hiding among the Fukas."

"Then we have an understanding? Minmay says that his officials have to negotiate any agreements with me but I hope that formality won't pose too much trouble," Cato nodded then stuck out his hand.

Kupo stared at it, feeling like she was missing something.

"Right, forgetting the culture gap again," Cato sighed and bowed. Kupo, still feeling bewildered, bowed back in informal agreement.

Then, leaving ten potions behind her counter, Cato and Landar left her shop together with the two guards accompanying them.

She looked at the clear glass vials again. To think that there was such a miracle potion and she could get the chance to work on it? Such a thing deserved more attention than it was getting, why she had heard hardly anything medicine related from this university! Perhaps Kupo could change that.
She flipped her sign to closed and pulled a large stack of cheap letter paper. Despite the political issues, the Pastora might not want to overlook such a discovery and it would go a long way towards recovering her reputation for unreliability that got her expelled in the first place. Kupo looked again at the vials, only just now noticing the clarity of the glass, its seal and the markings proclaiming its sterility. Hm, perhaps she could write about more than just a miracle potion. The idea of having sterile containers free from infection presented the possibility of studying how infections themselves worked.

It was only after she was done that she realized just how her world had suddenly been overturned. For the first time, she was thinking about the idea of studying living things from the basic theory. Even if they agreed to cooperate, the Pastora might be the minor partners in this relationship.

Cato's proposal was starting to sound like hard work.

The investigation of ideas, explanations and observations is science. The practice of designing and conducting a test for your ideas of how the world works is an experiment. It is important to conduct experiments in order to be sure that your explanation is correct.

An experiment is only as powerful as what it can falsify. The best way to confirm your explanation is to design an experiment that will create a scenario that your theory can predict. If your theory predicts the results successfully, it is additional evidence that your explanation is correct. Your explanations do not gain weight if no result of the experiment will falsify your theory. The power of an experiment is therefore related to how well it can differentiate between a world where your explanation is true and a world where it is not.

Attached in this book is a number of simple theories as explained in prior books and simple experiments meant to test them, as well as the logic behind the design of the experiments. Which theories are correct and which are not will be revealed if you perform the experiment.

Foreword of book six - The Scientific Method - Cato

"How's it looking?"

"Signal is clear."

The small glow from the pulsing light lit up the room dimly, seeming to pulse in time with their baited breath.

"Testing now."

A tiny spark of magic appeared in front of the light and the light flared brighter, matching the intensity of the magic.

"Works. Response is good."

Cato nodded sagely. "A very good first step," he said, "I'm completely regretting not being able to use magic."

Landar grinned and waved the board stuck full of threads at him, "a magical sensor just like you asked. So mind telling me why we're building one? We can already sense magic naturally and this thing isn't even as good."
"It can be made better, right?" Cato asked.

Landar shrugged, "already have ideas how. The magical signal can be amplified or captured. Your hunch that magical signals are just another form of magic was very helpful. I still can't think of any other uses aside from traps."

"I'm just building a general set of magical tools," Cato said, "if we can make the sensor more sensitive than humans, then it'll be much more useful. Think you can do that?"

"Oh yes, of course."

The three knights laughed noisily as they trotted into the village on their Rekis. Armour glinted under the morning sunlight and swords clinked threateningly in their scabbards. A whiff of laughter rose again as one of them cracked another joke.

"Alright, listen up!" the leader of the trio said as they entered the central square, to the curiosity of the villagers, "by the order of Chancellor Duport and King Ektal, the Chancellor Minmay is stripped of his titles and rights as a noble. So as the messengers of Duport, we are here to claim this village for the Duport region. If there are any objectors, step forward now!"

There was a murmur among the villagers then the person in charge, the mayor of the tiny village, stepped forward timidly. "What is the arrangement under Duport? Who will be our baron to pay taxes to?" he asked.

"Duport will arrange that, not us," the knight shrugged.

The mayor looked unsatisfied but he backed down anyway. There was nothing he could do to three battlemages after all. The entire village together couldn't possibly resist them.

"An lax assignment indeed," said one of the knights, "no fighting, easy money."

"Although not much money," complained the other. She flicked her braid over her shoulder and gestured towards one of the houses, "come on, we can at least get them to give us a house."

The leader nodded. "Mayor!" the leader shouted, bringing the man scurrying back, "we will be staying here for a time until our commission is up. You will provide a house and food to us."

The mayor bowed down, still looking dissatisfied, "we do not have much. Please take your pick."

"Now aren't you being disrespectful-" the mayor trembled fearfully as the hot-headed knight beside the leader raised a mailed fist.

The leader of the knights cut him off, "stop it, Oren. We're not to harm anyone who doesn't resist."

The knight grumbled but didn't pursue the matter. The mayor scurried away towards the houses.

"Mmm!" Oren sighed in satisfaction as he chugged down the last of the alcohol in the mugs, "I never thought they'd have such nice drink! Hey, woman!" he shouted towards the woman cowering behind them, "get me another one!"

"Aren't you drinking a bit too much?" the leader warned him, "don't blame me if you fall and break your neck if we need to ride."
"I don't see why you keep him around, Adam," the woman knight asked with a disapproving frown.

"Silvia, he may be crass and rough but he is my friend," the leader replied, "also he's better at fighting than you or I."

"Still..." she trailed off, looking at Oren gulp down more of the strong alcohol without a care in the world. The drink in this village a pleasant surprise, with a strength and flavour that could compete with the best in Duport's twin port cities. Perhaps it was their specialty.

"Oren, that's enough," Adam snapped as he called for yet another refill, "we are on a commission. You may go, madam." The woman serving them scurried off without a word.

"Hey, why are you so stuck up?" Oren scowled, red faced, "there's nothing to be worried about here! Let's just all have a drink and relax on this cozy mission."

"Are you drunk already? This alcohol must be really strong." Adam swilled his own mug thoughtfully, "Oren, get this through your booze head, we're here to work, not to play. Don't get too drunk, okay?"

The man grumbled and looked away but didn't protest strongly.

Adam eyed him doubtfully but shrugged, "well, I'm going to go rest now."

"I'll go clean myself," Silvia said.

They looked at Oren together, who hunched his shoulders. "I'll behave," he mumbled.

"Attack!" Silvia's shout had Adam out of his bed and sword in hand before it had even finished echoing off the walls.

Acting almost completely on instinct, Adam dived aside as a trio of disruption bolts hurtled through the room from outside. Someone had fired on him, guessing that he was still sleeping in the bed!

He shot a disruption bolt back along the same direction while running out of the room, tracking its motion with magic sense as it disappeared through the walls. Then a flare of magic outside the house drew his attention and he ran out to find Oren channelling a wide shield around them.

"Silvia! Isn't he up yet?" Oren shouted. The other side of his disruption shield burst into clouds of flaming gas from self-destructing firebolts. Firebolts!

"Who's attacking us?" Adam shouted back.

Silvia glanced back and pointed at the houses across the square, "the villagers are! They have wands!"

"You're up!" Oren heaved a sigh of relief and pulled back his shield cover only himself. Silvia and Adam raised their own to the back of Oren, letting the stronger fighter take point. It required no communication by now.

"What?! The villagers have magic?!" Adam shouted as another salvo of fire blossomed over their shields, "it must just be a few wands! Shoot back! Burn them!"

Oren stepped back, letting Silvia and Adam take the pressure. He channeled a single large firebolt and sent it over their heads at their attackers cowering inside the village buildings.
The house went up in a ball of flame, screams filling the air with desperate cries. The shooting didn't stop however and Silvia's shield wavered dangerously for a moment as six invisible disruption bolts hit it at the same time.

"Kill them!" Adam shouted over the din, "they're only using wands! We can't just sit here waiting for them to take shots!"

Silvia nodded and they split up, three knights with risen magic on their blades.

The village continued to burn long after midday.

"It's terrible," Minmay said, leaning back with a wet cloth over his tired eyes, "villages are burning all across the southern border. Peasants are fighting the knights with homemade wands and even the occasional badly trained mage. The Greenspring towns have tried to defect to Duport but their peasants declared for me and took over the towns by force."

"That was certainly faster than I expected," Cato said, still moving markers across the map, "Duport must be attacking with almost no preparation."

"What preparation does he need?" Minmay frowned, "he just posts bounties with that declaration from Ektal and the knights will act."

"What of food and supplies?" Cato asked, "weapons and armour? Magic? Surely the knights can't be fighting on empty stomachs."

"You saw the report on Yui village, three knights burned it to the ground after the peasants tried to attack them," Minmay waved a hand at the reports adding to the mess in the dining room, "they can just take it from the villages. Three knights don't need much food."

"That won't go on for long. Of all the attacks, more than half failed with the knights retreating or killed. The peasants are still learning magic but they're already striking back for you."

"They're also dying," Minmay sighed, "I don't understand why they would fight so hard to remain a part of Minmay. I'm their noble, they're not supposed to like me. That's how it's always been."

"You underestimate how much the peasants love you," Aesin smiled, "the food security has been doing wonders. There has been no starvation despite higher taxes. Food prices in Duport's land is already rising because of the knights moving in, and crime is rising with it. Of course they don't want to be with Duport."

There was a round of nodding, she continued, "the new Minmay newspaper Cato helped me set up together with towncriers to read it have made the peasants aware of the affairs of Minmay. It's done wonders for the loyalty of the peasants, they know full well where the inventions are coming from. And who will suffer if Duport takes over this land."

"Newspaper?" Minmay rocked forwards to look at Cato, "you said it wasn't ready to launch two months ago! The peasants can't possibly learn to read that quickly."

"But some people have already done so, your wife told me that those people could be paid to read a weekly newspaper," Cato shrugged, "I just assumed she told you about it. You did give her partial control after all."

"You've been mostly using it to run advertisements for the latest tools and trinkets," Aesin shook her
disapprovingly, "tomorrow's issue is going to be quite spicy though."

"I've already instructed them to print a special early run, considering the war," Cato said, "we're publishing one broadsheet every day until the war is over."

"How did the peasants learn magic so quickly anyway?" Minmay asked again.

"Most of them still can't," Landar explained, "but Kupo is saying she meets a new mage almost every day. They're learning, some just learn faster than others."

Cato nodded, "and all it takes is one person who can make firebolt wands to start a village stockpile."

"Which only encourages them to try attacking the knights, those who aren't escaping towards here," Aesin said.

There was a collective sigh around the table.

"So, if there's nothing else to add, I think we have a fair understanding of what is happening," Minmay said, "the question is what our responses will be."

"I say we go all in," Cato said, "screw this Rule of Armies, we build one. Draft the peasants, use the stockpile to build magical weapons, make it compulsory for everyone to learn magic. Show Ektal that you don't need knights to fight a war."

Everyone else at the table looked at him. Only Landar had a knowing look.

"Polankal, how was the progress on extracting magic from the crystals?" Cato asked her.

The sometime-prisoner who had continued to be his secretary stepped forward from her place at the door, "Mari says she has a new isolation technique to let the magic boil off from the crystals. She says with confidence that she can convert nearly a third of the stored power inside into an alchemical enchantment."

"And how much magic are we talking about?" Cato asked.

"At last estimate of the university warehouse, not including the recent find under the Selabia mines," Polankal lifted up her clipboard, "a little over a hundred thousand magical power units."

One power unit had been finally standardized as the amount of magic a skilled mage would use to lift a single kilogram weight upwards one meter. Testing had concluded that mages varied very little in the actual amount of magic used, more powerful mages really had more magic. The weights and lengths themselves were probably slightly different from Earth units but the names Cato had dropped were already beginning to circulate, as were weights standardized against the university's master set.

Of course, being magic, the various functions had different efficiencies. Cato had estimated that heating spells created roughly eighty to a hundred times more physical energy than the movement magic. By some trial and error, the minimum limit for using a Sword summon was around nine or ten units, putting the minimum for Tempest Bolt somewhere in the region of two thousand. Which meant that the stockpile of magical crystal could be converted into alchemical enchantments enough to burn Minmay city into a smoking crater ten times over. Enough for a hundred ritual summons and change.

Minmay shook his head, "that would just make the situation spiral out of control. I don't want to be known as the person who started a revolution."
"In case, you haven't noticed," Cato said, "the revolution has already started."

There was a long long pause where they stared at each other.

Minmay sighed, "you know, back when I agreed to the Mana Tax plan, I did not think it would come to this. I was excited, can you believe that, at a chance to change the world for the better. I did not plan to use the magic for war and killing. " He waved a hand to cut off Cato from saying something, "but now that is in the past. I have an axe waiting for my neck on Ektal's wall and a greedy neighbour wishing for my riches."

Cato gulped as the chancellor looked at him with pained eyes.

"So indeed, you will get your war, Cato. Just remember that it is not us who will pay the price."

Cato,

The material is not Paka fur or any fur that we are aware of. It might be from a furry relative of a Reki, ancient records of the First do indicate such creatures existed in the past but Inath is clearly too hot for them. Where did you obtain such a sample and why was it in such bad condition?

Also, we are facing problems with the flying shuttle loom. The shuttle itself does not stay on track unless allowed to be thrown at high speed. Doing that causes the warp threads to bend inwards, creating a deformed piece of cloth. We expect a speedy resolution, given how much this arrangement is costing us.

Tailor's Guild Branch Leader

The men and women gathered around the table were a who's who of Minmay city. The guild leader and vice leader of the Recordkeepers, as well as a small army of scribes taking notes for each participant, were prominent players but the rest of the representatives, from the Ironworkers' guild to the three representatives of the associated food merchants to the head of the local knight's guild. Plus the non-speaking crowd of minor nobles and wealthy shop owners. The mayors Selabia and Corbin hadn't been invited.

At the head of the table was Minmay and Cato.

"And so, we are finally in agreement?" Cato asked, waiting for a round of nods.

A hand went up at the end of the table. He groaned inwardly but put on a smile anyway. They had been meeting for the last three days! Even considering that this issue was more political than the usual university business, this was taking far too long.

"Yes, Kalny? What concerns you about this?" Cato asked.

The food merchant looked around the table, full of tired faces that only wanted this discussion to end. He grinned, "so, when do you open?"

Cato gritted his teeth and tried to avoid leaping out of his chair to strangle the fat man, business partner or no. "We'll can be operating out of a warehouse opposite the University starting in three days," Cato said.
"Give us a bit more time will you?" the Recordkeeper guild leader asked wryly, "I know you're eager but the scribes still have to get used this double entry counting system."

"Fine, four days then," Cato said. The man grumbled but no further complaints came.

"Can I get a special arrangement to start earlier?" Kalny spoke up again.

That provoked a number of the other guild leaders to start talking too but Minmay slammed the table, "enough! Any more of this and we'll still be here on opening day!" The business leaders laughed nervously. "No more special arrangements," the chancellor kneaded his temples, "in four days time, the Bank of Minmay will open for business and that will be that."
Capture and hold the village of Tamara until a baron can be assigned to the territory. Estimated patrol length, 10 days. Contract period, 15 days. Payment: 10 Rimes on acceptance, 30 Rimes on completion, the usual penalties apply.

A commission in the Duport Order of Knights branch

Open Commission, kill or capture those who have accepted Chancellor Duport's commission to capture villages or towns in the Minmay region. Bounty: 10 Rimes per head delivered, only with proof of acceptance intact.

A commission in the Minmay Order of Knights branch

"It's not very impressive," said the battlemage in shiny armour.

Cato smiled and nodded like a good boy. He heard that a lot about the new winch powered crossbows but for once he was glad that was the impression of the observers.

"Well, it is very accurate for how little training they have," said another man, a less armoured spellstorm, "good for controlling the peasants."

The local Order of Knights in Minmay had sent three representatives to investigate rumours that Minmay was breaking the Rule of Armies. Cato had put on a demonstration by the group of recruits in the middle of their basic training. The ragged uncoordinated firing and general disorganization made them seem less threatening.

"The bowguns they have aren't very strong either," noted the woman, who was also the guild leader. Her attire wasn't made to impress but it was clear who the other two listened to. "And carrying around a source of magic like a staff will cost far too much. I still have to ask however, what exactly is Minmay planning to train them for?"

"I'm sure you're aware of the unrest sweeping through the lands," Cato explained. They nodded back, not knowing that the culprit was right in front of them. "With the presence of rogue mages causing trouble to the sudden expansion of Minmay city, we face increasing demands for security. We're not intending to face knights with peasants of course, but surely the knights can't be everywhere. For things like thief catching, patrolling the streets and other small annoying jobs, that's what we're intending to fill with these men and women," Cato continued, "we'll continue to leave the bigger problems in your capable hands. Like the new trouble to the south."

That got some knowing looks. Duport was not well liked, even in his own lands, much less in Minmay. There was a traditional rivalry between their Knight Order branches, and not a few incidents of bad blood in the past. Disagreements over splitting commissions and debts, the usual problems of adventurers.

"That's the mission of the Minmay Guards," Cato said. Which was true, officially anyway. "It's just an expansion of the non-Knight mercenaries for hire. Only that the Guards answer to Minmay because they're on permanent retainer."

"Hmm?" the guild leader raised an eyebrow, "and would you be putting commissions for the
Knights to join your Guards, if temporarily?"

"Well, there may be circumstances which require the intervention of the Knights," Cato said, "in those cases, the Guards will post a commission directly."

The three knights looked at each other. "Isn't this still violating the Rule of Armies?" said the battlemage, "true, the low mercenaries shouldn't count towards the party limit if we hire them for additional blades and these barely trained peasants don't even own their own weapons. But still, mixing the Knights and low mercenaries just isn't done. You're treading the line."

Cato smiled and shook his head, "come on, look at that and tell me that this is going to work out like Emperor Mumpy's death squads."

He gestured towards the line of peasants struggling to dress a line formation. They chuckled and shook their heads.

"And even if it does, you'll be around to stop that," Cato added, "right?"

The merchant wandered into the workshop, head swivelling around the walls and pieces on display. Like so many other first timers, he had that look of incredulity that crept ever higher as he saw the prices. The fine quality of his coat and the jewelry on his fingers marked him as a sizeable customer however.

"This wagon axle. Cast iron axles?" the merchant pointed at the mockup of one of the newer products, "is that price right?"

The woman behind the counter smiled and nodded at him, "yes it is. Half a rime. Throw in another half Rime and we can add the new steel spring suspension modification too. Are you looking to upgrade a wagon?"

The merchant shook his head, "no, that just caught my eye. I'm here to buy some steel actually, just plain bars. How many have you got?"

"What grade would you like?" she asked, then gestured at the cabinet beside the counter when he looked perplexed, "if you're looking for raw metal, the Ironworkers sells a number of types of steel and iron, even bronze despite our name. What do you plan to use the steel for?"

The cabinet held five prominent pieces of metal, with their names listed below. Wrought iron, a solid black, was far to the left and bent in half to show its flexibility. Far to the right was the cast iron, the new craze sweeping through the land, the rod polished to a clear silver. In between was three rods of steel.

"For steel, we have three grades, from first to third rate," the woman explained, "first rate steel has been made and refined by our smiths to a high quality. It takes the skills of another Ironworker to work it without lowering the grade but if you want the best, the first rate is what you want. We use this for weapons, armour and fine work. Of course, if you're looking for the very best weapon or armour, then you might want to commission a custom piece made of multiple types of steel. Even first rate isn't the best for everything."

The merchant raised an eyebrow and nodded.

"Third rate steel is brittle and weaker than first rate, it suffers a number of flaws that are hard to remove. Nevertheless, it is harder than wrought iron but won't shatter like cast iron. It's a good raw
material, and if you're only looking for a wagon axle, it is more than sufficient. " She pointed at the middle bar, "the second rate steel is almost as good as first rate but is a little weaker. Second rate steel also has varying quality from batch to batch but if you're considering value for money, second rate is the choice you want. Masons and most industrial merchants are looking for second rate steel."

"Things have changed greatly since I last came six months ago," the merchant nodded again, "how much steel can you sell?"

"How much do you want?" the woman asked back at him.

The merchant drew up to his full height, emphasizing the bronze buttons on his expensive embroidered shirt. "All of it, for all types," he said, confidently.

"I'm sorry, sir, but are you sure?" the woman smiled knowingly, "except for the first rate steel, I'm sure we can meet whatever needs you require. And frankly, do you have enough money? Or enough transport?"

"Pah! I have more than enough to clear out the stock of this store. I'm not some small Minmay merchant, I come from Inath itself! I'll be clearing out more than just one store too!" the man puffed. Then he frowned as the woman just smiled back, "er, how much are we talking about?"

"The Ironworkers are running this store directly, sir, we changed our business some time ago and there are very few independent Ironworker blacksmiths remaining. If you're proposing to buy all of the stock of the Ironworkers..." she pulled over a clipboard, the simple spring clip at the top holding down the paper drew his eyes immediately, and began to calculate, "our current stock of third rate steel is six hundred kilograms, second rate is three hundred and thirty odd, first rate is about twenty. Depending on how long sir is willing to wait, we can produce almost three thousand kilograms a day of third rate. If sir is willing to wait for two weeks, I can arrange a meeting with our branch leader for a dedicated furnace to produce the steel you want. But sir, I have to ask, can you outspend Minmay?"

The man's eyes twitched, "how much is a kilogram and how much does it cost?"

The woman unwrapped the weight block used for transactions on the table. "That's a kilogram, it's even made of steel so you can see how much it is," the woman said, "a Rime will buy you one and one tenth of a kilogram of first rate steel, seventeen and four tenths of a kilogram of second rate and twenty five and seven tenths a kilogram of third rate. Our current stock alone is worth more than fifty Rimes. And if you want to buy all our production, you'll be paying more than a hundred Rimes every week just for the third rate steel." And given that much money, the Ironworkers would surely increase their production rapidly.

She smiled sweetly, "so, dear sir, do you have enough money? And enough wagons? Perhaps I might suggest you buy some axles with them too?"

Of course, she had neglected to mention that the price of steel was falling rapidly and there were rumours among the Ironworker insiders that there would soon be a furnace that could pour second rate steel. And perhaps after that, a first rate steel furnace might not be too far away and then the floor really would drop out of the market.

"We don't have enough steel," Cato shook his head.

"What?!" the guild leader of the Ironworkers blinked incredulously at him. Hino was a short woman
and did not look like she could be the head of any organization, but she could and did mercilessly exploit anyone who underestimated her just because of her looks. "By next week, the new furnace will pour a ton of steel a day! We can't increase production anymore! There isn't enough charcoal!"

Iron ore was plentiful from the Selabia mines and further mines to the east, but trees were getting scarce around Minmay of late. The Ironworker's blast furnaces for refining iron ore were consuming fuel like a ravenous monster. The price of charcoal was already hitting new highs and armies of woodcutters were making their living providing the fuel that drove the new iron and steel works. The peasants sometimes even complained that cooking was getting expensive.

"If I can solve your charcoal problem, you can continue to increase production?" Cato asked.

She tapped a finger on the table, "if we have fuel, sure we can, how much do you want?"

"I want to build a steel bridge across the Tine, four cart lanes wide," Cato said, "one hundred tons of steel reinforced brick and nearly a ton of steel wire. It's not just because the Tine is cutting off everything to the east but to develop methods for drawing steel wire, for using steel as a structural material. For the volume production of steel. Building this bridge can teach us all of that."

They looked at him as if he was crazy. "Um, there's no possible way Minmay has enough budget for that," Hino said.

"We just have to reduce the cost first, that means making more steel," Cato shrugged, "frankly, I hope you can replace all the use of iron with steel. Cast iron is cheap and has its place but we shouldn't use it for everything. Steel is the way forwards."

"I'll be glad for your business but there is simply no one who can pour that much steel," Hino pointed out, "we still haven't heard your plan to get us more charcoal."

"Simple, we'll use coal," Cato held up the inevitable protests, "I know, coal can't be used in a blast furnace. But more precisely, we'll be treating coal to make coke, a fuel you can use in the furnace. I have already refined the technique to working condition and am setting up a coking company that will sell coke, and the fuel gas byproduct for simpler purposes like cooking. We already have one coke furnace and once I give Muller the design, its just plain brick by the way, and get financing from the Minmay Bank, we'll produce as much coke as you want. Enough for a hundred tons of steel a day. You just need to work out how to get coke to work in your process."

All of them also heard the unsaid. The design of the coking oven would be released to the public as well. Which meant that the price of coke, while initially high, would crater rapidly as every person with two Rimes to rub together built an oven. And if the use of coke was successful in making iron and steel, which none of them doubted, the only remaining price barrier to steel would fall away and the volume of steel would jump yet again.

Cato could already see Muller getting wild delusions of new projects and the other merchants listening in were considering what else they could replace with steel. And what other uses coke could have and how they could sell it too. Seeing that, Cato wondered if it was time to create a commodity futures market.

But only Hino was looking at Cato, her eyes hard. "Are you trying to make enemies of the Ironworkers?" she asked him.

If Cato released public knowledge of how to make coke, then the last barrier that allowed the Ironworkers to dominate their market would disappear. Crucible steel was already appearing, made by independent and village blacksmiths, the more talented could even make what the Ironworkers
called first rate steel. If the blast furnace could be easily run by anyone...

"Your position is similar to Minmay's. You are the largest player in the industrial metal market and likely will stay that way if you don't mess up. True, you won't earn monopoly prices but no one will for very long. Why not turn the Ironworkers' guild into a company?" Cato matched her sharp gaze, "besides, I don't think you will want to break off cooperation with the University, will you?"

They also did not miss the fact that he mentioned Minmay's name, but none of them could guess what political changes might be in the offing.

The man walked among the towering metal monstrosities, sweating and panting from the heat thrown off by the bulbous iron bodies. The man and woman accompanying him were sweating too but none of them paid any mind.

They watched as the workers opened a port and glowing hot slag poured out, followed by the yellow glare of molten iron. Heat baked their bodies into dryness and the noise precluded all talking, but the sight was more than worth the discomfort.

Later, back in a well aired office next to the site and served with sweetened drinks, they began the actual discussion.

"This is quite the accomplishment, Mayor Corbin," said the man, "and yours too, Selabia."

"I'd need much more than that if I'm going to have a shot of becoming independent." There was no need to elaborate who she wanted to be independent from.

"Well, that's why I'm here, we can help each other," the man said.

Corbin and Selabia looked at each other. "What exactly, are you proposing?" Selabia asked.

"I'm sure you have heard of the conflict to the south," the man said, "Minmay is being drawn into a battle against Duport, his attention and resources are focused away from here. That presents an opportunity for you."

Corbin snorted, "I am well aware. Why do you think I can get away with trying to make steel and fighting the Ironworkers here?"

"But it can be more, so much more," the man said, "think of what the steel can do, the weapons it can make. I have it on good faith that Duport is about to launch a big attack. Soon. If Minmay has a threat behind him too, then surely even he will fall."

Again, it did not require elaboration as to where the information was coming from. Corbin and Selabia knew perfectly well to whom this man belonged to.

"That'll mean I'll violate the Rule of Armies," Corbin noted.

"So too Minmay," the man pointed out, "it may just be a technicality but those peasants he is drafting can be counted if they learn magic. And then who can blame you, pushed into a corner by Minmay, for arming your peasants just like him? Why, if we win, you can just release them as guards for hire and there will be nothing more said of it."

"It's a tempting offer but we still need some guarantee that you won't just leave us to attack Minmay suicidally then sweep in afterwards," Selabia said.
"Send an informant to Duport, if he observes the Order of Knights there, you will be able to coordinate your movements with them," the man explained.

"When we win, we want to be autonomous. Corbin will not answer to Duport," Corbin said.

"As long as he controls Minmay city, Duport will certainly overlook a town or two."

"Then I think we have an agreement."

The tail winked out sight around the corner of the chimney as the three people left the workshop. It was far too large to be considered a workshop though, with chimneys sprouting across it like mushrooms. Chimneys that were always warm.

The two most powerful people in Corbin nodded and bowed in agreement with the third man, like equals, then they left together with the ten guards surrounding them.

Well, that was an interesting piece of information. Whoever that third man was. Certain other allies of the Fukas would be very interested to hear what had been going on in there.

The tail crept silently back across the overly large roof to the carefully disguised hole in the tiles. There were still more observations about the iron furnaces, reports of Corbin's progress were useful information to the Ironworkers.

And more than just reports. Listening to the workers learning how to make iron was very educational.

After all, there was more benefit to be gained than whatever the Ironworkers were offering.

The light in the room was dim but the glinting of the twin steel rods was clear even in the twilight.

Landar leaned over the last portion of the circuit. The disjoining security meant to prevent interference with the spell was the most delicate part and had to be made perfect. It would add a rotating magical disruption shield that maintained no fixed surface to exert control the spell through and actively resisted any attempt to form a magical connection to it. The diagram for the magic written down on the walls and floors was already horrendously complicated, the enchantment aiding tool in her hands was looking like a cat had gone through a sewing box. This was the third time she was rebuilding that section due to past mistakes.

She absolutely had to hold in the maniacal laughter trying to fight its way up her throat.

How many innovations had she made in this spell? Landar had lost count. How many entirely new techniques had been invented? Three, if she was remembering correctly. This last one alone would easily earn her the respect of the Academy scholars.

Detachable magical circuits that spanned across multiple spells and an alchemy enchantment that could manipulate non-alchemy magic, avoiding the alchemy inefficiency. These two were slightly easier but still represented original inventions.

Landar checked the rails one last time and fired a small pulse of magic through it, keeping the setting for magical speed at zero. A small spell spurted out between the rails and hung there, slowly evaporating.
Once again, she checked it meticulously. The interference layer was working properly now. Finally. She had to disrupt the spell to get rid of it, instead of just controlling its magic and moving the thing out of the way.

Landar gulped and removed her blocks and checks that isolated the portions of the device from each other. It was time to test fire again. She summoned up her magic and fed it into the complex alchemy enchantment.

Her magic, raw and unformed, was seized by the spell and shaped, imposing order and purpose onto the clouds of magical power. A spell sprang up in between the rails and in an instant, the spell was already flying out the door, a large and complex disruption bolt that no mage could hope to create so quickly. It was even shielded from takeover and deflection attempts!

Landar slid out the plate stuck at the loading section and put in a different plate. Her magic flowed once again and now a firebolt burst out between the rails, again disappearing down the firing range to char another piece of suspiciously glassy ground. The third and most complex plate though, didn't launch a bolt. Landar placed a rounded iron ball the size of her fist onto the support between the rails just in front of the control plate and her spell was converted into a launching spell that sent the ball zooming into the field outside. It was even covered by a disruption shield to break through defending shields as well as a resist enchantment to pierce physical barriers.

The plume of soil and dust thrown up by the impact was as tall as her workshop.

Finally. It all worked. It worked! Variable ammunition? Variable power? Protection from external control? Defence breaking techniques? It had everything! All it needed was to have the twin steel rails loaded with sufficient power. And what better source than the hundreds of thousands of magical power units available in a certain storeroom?

"Hehe", Landar sniggered as she swayed wearily beside her new toy. "Haha, yes! That'll show Cato! Ahahaha!" The crazy laugh would have sent the hardest of Duport's Knights running home but she was beyond caring.

If Cato managed to obsolete this thing in less than a day, she swore that she would just strangle him on the spot.

Oh, but what if the alchemy could absorb the power from crystals directly? Then she could reload it just by dropping in a bag full of crystals. Hmm, it would need to isolate a magical dead zone with barriers around the crystals, if she wanted to use Mari's new magical 'evaporation' method.

If one could just shovel in the magical power by the spadeful, forget easy reloading of the weapon, the speed one could dump power into it would let one supercharge it beyond all reasonable measures. Beyond even a Ritual Summon! Sure, it would need a re-sealable crystal 'evaporation' chamber, which would be something Landar would have to invent, but what was one more challenge out of... how many was it now? Five? The problem didn't even look impossible!

She swallowed the laughter and got down to work.

"... and Minmay continues to urge calm among the peasants, issuing a new commission to the Order of Knights to protect the villages today. His wife issued this statement at the footsteps of the Order: 'Minmay does not and will not call the peasants to arms, this is a fight between noble powers and their knights, with nothing to do with the people of the land. I am glad that so many of my people are willing to lay down their lives and magic but I cannot stomach the price in blood that they pay. You
Meanwhile, recruitment by the Order of Knights has stepped up again, with many parties looking to replace losses with new blood, but applicants still exceed the number of possible recommendations. Peasants confident in their magical ability are encouraged to take the test to be an independent Knight but are warned that the requirements are strict and the knowledge in the recently released books are not enough to gain acceptance.

"Shut that trash!" the yell from the door cut off the man reading from the Minmay daily broadsheet, or more precisely, a local copy of the broadsheet. The circle of listeners in the tavern looked up to find three large foreign men bearing down on them. They scattered out of the way hurriedly.

"Minmay is not a noble!" the knight roared, ripping the sheet of paper out of the reader's hands, "you ought to be punished for spreading that lies around."

"Hey, you're those guys from last week! Are you back here after you got beat by his peasants?!

"Yeah, don't think you can just barge in here and tell us what to do!" yelled another.

"Who said that," the knight growled. His two subordinates loomed behind him menacingly. He put a hand on his sword. "I asked, who said that!"

The crowd looked at each other uncertainly but no one owned up.

"Enough of that! If you're going to fight in here, you're not getting any drink," the bartender said, slamming down her glass, "this establishment is protected by Duport's Order of Knights. Even if you're a Knight yourself, you follow the rules."

The foreign knight raised an eyebrow, "ho. You're just a random serving girl. What you going to do?"

"This is my shop," she said, "leave. Now. I'm not going to sell even a single drop of water to you."

That brought a whistle of support from the crowd.

"Grr," the man bared his teeth and sauntered over to the counter. A flick of a hand and a dagger flipped out of his belt to stab into the wooden countertop. "I'm not afraid of a little arbitration. My word against yours, you lose. I'll have one of your strongest."

The woman flinched visibly but still held her ground. "Out. Now."

The crowd behind them surged forwards angrily but the knight spun around, snatching up the dagger. Magic flared around its edge, coalescing into a point of heat at the tip.

"Don't push your luck," growled one of his companions, drawing his own sword.

"No weapons in my shop!" yelled the bartender.

"I'll defend myself however I feel like, miss," the knight smiled nastily, "maybe I should have you too, for that insult."

The crowd of customers growled angrily again. The woman scowled and spat in his face, "over my dead body."

There was a vein throbbing in his temple now but the knight managed to not explode. A mailed fist
shot out and grabbed the woman's wrist, twisting it forcefully. "I guess we have a deal then," he said flatly, leveling the dagger in his left hand.

That was the last straw. The crowd of customers had had enough, their favourite innkeeper was somewhat famous for her looks in this area and the three foreign knights hadn't earned any favours since the last time they set foot into the building. They surged forwards, snatching up knives, chairs and mugs. Magic flared out into a shield around the knights, swords ready to draw blood.

"What's going on here?!" the shout was almost loud enough to knock out the men closest to the door.

"Falling Leaves!" "It's Falling Leaves! The commander himself!"

Murmurs swept through the crowd as they hurriedly made way for the six knights who had just come in.

"Using magic in a bar fight, Raelin?" the leader of the six shook his head disapprovingly, "my friend gave you a warning two weeks ago and what do I find now?"

The six spellstorms held staffs and the shorter rods and they knocked tables and fallen chairs out of the way as they swept into the tavern.

"I was just defending myself," the foreign knight growled. His companions nodded in agreement.

"You're a knight and a guest of Duport. Not someone who should draw magic in his town," the lead spellstorm of the Falling Leaves party stated flatly, "one more disturbance from you and I'll launch an arbitration you won't win."

"And who makes you able to tell me what to do? Huh?" Raelin shook a fist defiantly.

The spellstorm sneered, "I'm Ture. The vice branch leader of the Order is my older brother, I can have your commission terminated and you kicked out of the region if I wish. Not that it'll be any loss, seeing your performance."

The man growled but Ture's short rod swung up to his chin. His party members leveled their own weapons, magic flaring into readiness. Ture shook his head, continuing, "don't even think about it. Remember we have six staffs over here? We'll blow you to bits before you can take a step. Do you want to appear as a commission target yourself?"

The two men stared at each other for a tense moment. Then Raelin flinched and looked away. "Tch, we're going elsewhere," he said lamely and stomped out of the tavern. The spellstorms watched him go with raised staffs.

"You're welcome," Ture glanced at the bartender, "your commission price is going up by half a Rime a month, miss."

"What?! But-"

"Don't bother arguing, I've four more watering holes to stop from burning down by the end of tonight. If you don't like my price, you can try finding someone else." Ture nodded at his companions once it was clear the three foreign knights were actually leaving.

The six local knights stalked out of the tavern in complete silence.

"Atrocious," said one sailor, breaking the silence, "these two ports sure changed since the last time our ship came in."
"Tell me about it," the bartender sighed, tottering over on her shaky legs to a short stool, "twice the security price has risen in as many weeks! And Duport won't even listen to any complaints! I'm sorry everyone but I'll have to raise prices again or shut my doors. "

It only added to the gloom in the tavern.

"If only we were in Minmay," muttered one of the customers. No one dared to look who it was.
The gaggle of alchemists and knights swarming over the device brought an inevitable grin to Landar's face. Exclamations of surprise rang out as they discovered one new feature after another. It was like watching children in a new shop, poking at everything curiously.

She had unveiled the spell launching device, getting two university porters to drag it out into the test field, and invited everyone to come take a look. The sun was bright and the skies clear, with the usual bustle around the university far away in the distance and muted by the buildings. For some reason, no one had wanted to build anything in the direction of where Landar and the alchemists tested new spells and inventions.

She hadn't even overshot the boundaries in the last week, that last fix of hers should have suppressed the angle problem for good.

"Amazing how you managed to build that all by yourself without even letting anyone know what it was," Cato said. Landar just shrugged.

The device sat on a table placed at the corner of the field. Twin rods of steel spaced ten centimeters apart and nearly a meter long, the rough metal surface crawled with complex magic. At the loading end, a steel framework fixed the rods to each other and clamped down onto a steel plate. Two other plates were placed next to the device, also shining with magic but clearly deactivated.

Underneath the table, connected to the rods through a hole, was a large steel box with a door at one end. Magic wafted from it and the bag full of loose magic crystals beside it. The shovel lying on the table drew many curious glances but it was non-magical and no one could figure out what it was used for.

Along the right arm and the top of the plate holder, two loose metal pieces held in brackets could be slid up and down, clearly connected to the device.

"Do you think you're going to tell us any time soon?" Minmay pointed at the alchemists, who were starting to argue, "they might decide to skin you alive if you keep quiet for much longer."

Landar snorted, walked over to the desk and grabbed the shovel, "stand back everyone, I'm now going to show what this does."

She held open the door of the box below the table then shoved a shovelful of crystals and dust into the box. Closing it then tightening the door caused some mutters. The seal was nearly perfect, the magical signature of the crystals had disappeared. Cato recognized the arrangement, it was Mari's low magic evaporator, a prototype method for extracting magical power from the crystals, Landar must have worked with her to make the technique work as an enchantment.

Then the box flared with magic, power crawling up the connection into the twin rods. Landar pulled the slider on the plate downwards and immediately, the power surged through the plate into a ball in front of it, between the two rods. A magical connection formed between the two rods, behind the spell, spreading out into a wave of fast moving magic that shot down between the rods, dragging the spell along and hurling it into the air.

Before the spell had even left the device, another was already forming in front of the plate again. Landar pushed the slider down further and the wave of magic appeared sooner, when the spell was still weaker, firing a stream of weak magic into the plain. Pulling the slider on the rods down reduced
the power of the magical wave that hurled the spells, consuming less power and firing slower spells. Cranking the non-magical gear at the base of the device levered it upwards, changing the angle of fire.

The spells in the air all drifted downwards under their own power, impacting into the ground in an arc determined by the speed and angle they were fired in. The ground burst into the pure red clouds of magical fire, scorching the blasted soil and sending a hot wind back to the spectators behind Landar.

Cato stared at the sight, not even minding Landar's laughter. He wondered where to even begin. Minmay beside him looked equally floored.

Behind him, the watching alchemists and knights burst into hurried conversation as the firing rate slowed and Landar kicked open the door of the box to shovel more magic in. Then she unfastened the plate from the device and replaced it with one of the two sitting on the table.

One spell after another were flung out of the device, landing and bursting on the ground into clouds of magical disruption. The knights started to make even more noise now. Then Landar put in the third plate and positioned a small metal holder between the rods.

Cato sat up very straight as she placed a fist sized rock from the ground onto the holder. She moved the two sliders all the way to maximum. A spell formed between the rods over the rock and nothing seemed to happen despite the huge amount of power building up in front of the plate. Then Landar tapped the power slider and the rock disappeared with a nasty crack. A plume of dust exploded upwards from outside the field.

Landar turned back to Cato and bowed politely. The triumphant smile on her face at their shellshocked expressions was not at all polite however.

"You have clearly outdone yourself," Cato nodded.

Landar beamed at his praise.

"It was the Academy's loss to let someone like you stay out here," Hino said.

"I can't imagine how many new things you had to make to get it all to work!" Mari shook her head, "the evaporator I knew about, but am I right in saying that that plate controls which spell is created?"

"Actually, the plate casts the spell itself!" Landar stuck out her chest proudly, "the base section creates the stabilized spell bubble, the plate controls what goes inside."

"I've heard of such things, but they've only been toys," said one of the alchemist teachers, "this is the first time I've seen an enchantment spell actually used to cast other spells!"

"That's because no one's ever found a use for it," Landar said, "any mage can do better than a spell, and if a mage is powering a spellcasting spell, you're still limited by the power of the mage. But a spellcasting spell connected to a source of power, like magical crystals or a staff? That isn't limited."

"You've used such things before," Cato said, "like those automatic aiming wands you put in the house in Corbin."

"Exactly! But the Academy always thinks that anything complicated I make is not practical!" Landar
snorted, "this time, I'll show them 'not practical'!"

"The wands in the house could only be charged by someone as powerful as you, but this runs off."

Minmay cut Cato off with a clap, "an impressive demonstration, but you should have this discussion later. I believe the Minmay Guards and the Knights will be interested in obtaining some. What does the staff recommend?"

"Agreed!" Instantly said most of the university staff who worked with magic.

"I think some parts need improvement first," Cato said. Everyone looked at him incredulously.

"What?" Cato looked back, "isn't it obvious that complexity in magic has been severely underrated? Rather using it to fire plain magical bolts with a few special techniques applied, I think there is the potential for a wholly different style of magic. From what little I know, there's no real reason why this thing can't be made smaller. After all, Summoning Stones are even more complicated and far far smaller."

Hino shook her head, "Cato, complexity can let you do a lot of things but honestly, you're not someone who has fought on a battlefield before. " The small woman shaking her head sagely was bemusing but one did not become the leader of the Order of Knights without combat experience. "Sometimes what you need is a sledgehammer. A bigger version of that," she pointed at the device, "and with more magical crystals. That's what we need."

The discussion started up again, with a number of the knights looking at the thing speculatively. As if considering how they could get one for themselves.

Cato looked at Minmay and sighed when he got a nod back. The Minmay Guards weren't going to wait for a better version either.

Landar tapped him on the shoulder and lead him away from the buzzing crowd. "What was it you had in mind for improvements?" she asked.

"Can the spellcasting plates be made the size of wands?" Cato asked back.

"The reason why this thing is so big is because it's hard to create spell circuits when you can't see them," Landar said, "you can't fix what you can't see and with a spell that complicated, you're not going to get it right the first time."

"That's also why I asked you to develop the spell circuit enchanter, surely you used it while making this thing. It probably needs to be improved first though."

Landar looked at Cato, staring at the alchemists examining her device. No, he wasn't looking at the thing, he was seeing something else. Something only Cato could see. "What exactly do you have in mind?" Landar asked, half afraid of the answer.

"We've also established in that house that spells can share information," Cato looked back at her and then out towards the direction of the city. "Imagine a city with enchanted ground. Magical power is added to the ground at stations that process and store magical crystal. This power flows through the enchantment network into the city. Into the walls of buildings or any object touching the ground. Mobile nodes, spellcasting enchantments that draw on the power, can be anything you like, a wand, a staff or even your breakfast spoon. With a tap, a command, anyone can cast a spell that has been registered. If you make a spell, a new function, you can create your own spellcasting enchantment that casts it and share it with others to use through the network."
He sighed, looking pointedly at the summoning stone on a bangle around Landar's wrist, "ever since I worked out that Summoning Stones are really just spellcasting devices, I've been toying with the idea of using a magically charged environment to cast spells. Magic can be a utility just like water and electricity in my world."

Landar was starting to understand why the alchemists around her never seemed to understand what she was doing. The idea of putting a spellcasting device with a source of power as well as having parts that could be swapped to cast spells, that wasn't something they would have considered. The vision she saw in her head, of her spell plates launching dozens of spells into the air at once, like the rows of artillery in Cato's world, wasn't something they could have thought of.

Similarly, the vision in Cato's head wasn't something Landar could have thought of herself. Why indeed have dedicated devices for spellcasting when the casting, the controls and the power source didn't have to be the same enchantment? Why even move the heavy power source box with you? And yet, just like the alchemists didn't understand her, Landar had the odd feeling that she wasn't quite understanding Cato's vision.

Somehow, despite her earlier resolution, she didn't quite feel like strangling him anymore.

"By the way, Landar, what were you going to call that thing?" Cato asked.

She smiled weakly, "a spell cannon."

Dear Kalny and Tulore,

Unlike Cato's prediction, the various varieties of wind eye bread mold do not appear to display antiseptic effect. However, some of what Cato considers a bacterial colony displays the antiseptic effect, a 'halo' around which very few or no other colonies grow. Keep a sterile zone with magic disruption enchanted plates and a general low intensity disruption field was necessary to isolate bacterial colonies from the mold.

Nevertheless, I shall endeavour to learn how to identify these antiseptic colonies by their shape and colour. I suspect that there is more than one type of such bacteria, some of these colonies cannot grow in the presence of others. An identification and a chart of which types the kill others is in progress.

We may have different antibiotic candidates to choose from, although like Cato says, some of them might well be toxic or have unwanted side effects. Nevertheless, once I have isolated samples, I will leave it to Kalny's expertise for bulk fermentation and Tulore's for purification and chemical modification.

Be aware that a number of Pastora members have already expressed extreme interest in the project and I have had to send them samples of the curse-breaker and the theory of antibiotics. Time stands for none other than Selna and we had best polish our expertise in the production process if we wish to succeed.

Kupo

The musical tradition in Inath had been staid and dying for a long time. Folk tunes and musicians played jingles and short dances for peasants and occasionally, an odd noble or two. Singers and bards gave their voices, laments and hymns of the ages long past, of glory forgotten and of mighty
heroes who wielded them. Like the waning of humankind, the life and energy of the musical arts declined with it.

And so when the first orchestral concert burst onto the scene in Ektal capital city, it was to a nearly empty floor that the band of thirty played. Such a huge band was unheard of, none of them could possibly earn enough to eat, especially not with the low opening prices they charged.

The song they played broke nearly completely with the musical traditions of Inath.

Three days later, the shallow pit they performed in was completely packed, with the King of Ektal himself reserving a box for his family in the best position front and center. The musicians' burnished steel instruments, polished to a mirror shine and hand tuned into harmony, were things unseen before.

"And so since we have a special guest here today," the immaculately dressed host bowed deeply to Ektal, "we also have a special performance dedicated to you. And so without further waiting, we present the Fanfare of the Lands!" He bowed again.

"Eee!" Ektal's daughter bounced excitedly in her seat as the musicians adjusted their instruments. That earned her a light bop on the head from the crown prince and a round of stifled laughter from the seats around them. She settled down with a red face, but not too red. The other songs were exciting enough already.

The first blast of the song took the audience by surprise, a loud cry from the trumpets that buzzed through the crowd. Marching to a quick tempo, the brass band sent hearts racing and befuddled eyes with visions of grandeur. Like boots raining on packed ground, like the beat of human energy, the song pounded the blood through the body. The final phrase, the same as the first but grander and pompous, rang loud and triumphant, a lone trumpet soaring seemingly above the clouds and the sky itself.

Ektal didn't even bother restraining his son from leaping out of his seat. Not when he himself still felt the buzz, the sheer energy of the song.

Then the band started up again and the world disappeared into a melody of sound.

"I have to wonder," said his wife, the queen, after the all-too-short concert, "how they managed to afford that. Someone had to have given them the money to buy all of those instruments and practice."

Ektal smiled and shrugged mysteriously, "it was a wonderful performance. I'm glad someone paid for it."

After all, he couldn't let Minmay have all the new toys, could he?

Under economic pressure, the farmers, millers and peasants had come to Minmay city in search of work and a better life. Farming had become easier, with Reki drawn plows, water and wind mills, and systematic formula for fertilizers and irrigation schedules. Spread earlier than the books, the full impact of the farming improvements were already beginning to be felt all over the Federation.

The first harvest using the new techniques came from more land and yielded far better for each bit of soil. The price of food crashed and ironically, the farmers became poorer. Many of them who moved to poorer soils that depended on their tools and externally supplied fertilizer found themselves unable to afford to farm.
In contrast, the cities and towns had become easier to live in, with food and transport prices falling everywhere and increasing in volume. They had become places to find work, to learn a trade and to find life partners. The economy obliged, new water driven factories and workshops multiplying to take advantage of the cheap labour.

However, the growth of services had not kept pace with the economic change sweeping through the lands. Ballooning populations caused hastily constructed houses to mushroom up wherever there was space, there was no possible method the masons and bricklayers could keep up with the sudden spike in demand, even with the armies of hands seeking work. Law and order was bad, hygiene was worse and safety abysmal.

The poorer districts had grown into a slum, a byproduct of the explosive growth of Cato's technological revolution.

The new experimental matches were still unsafe and toxic, and far too expensive to afford. Many peasants borrowed their fire or kept slow burning wicks in oil for keep-alive flames. With the slums made out of waste wood, scraps of cloth and whatever else was handy, the fire was more or less inevitable.

"Fire!"

The shout rose and echoed through the dense paths even as tendrils of smoke began to curl around the doorway of stricken house. Everyone knew that fire was dangerous in this environment and the shouts sent parents scrambling for children and everyone else for their valuables. The flames were licking the sky before the first families had left the twisted streets into the relative safety of the open fields outside the city.

"Defend the workshops!" "Get the men!"

"Listen here!" Minmay's shout brought men and women to a screeching halt in the university courtyard. It cut through the haze of panic and disorganization. "That will be the headquarters, I'll command the defence from there!" he pointed at the cafeteria, "all messages should report to here!"

The chancellor's strong voice steadied the crowd, replacing fear with confidence. He pointed at the two guards still standing at the university gates, "the two of you take everyone over there as messengers and go find out where the fire is and how far it is spread. Send them back here with the reports. " Minmay looked sharply at the mess of random passersby, "the city needs your help, this is not optional."

The guards scurried off and rounded up groups of drafted runners.

"Go to the Order," he said to the receptionist, still sitting behind his desk. Minmay drew a sheet of paper from the stack and scrawled a hasty commission, "give them this and tell them it's urgent! Then go to the barracks and roust out the Minmay Guards. Tell them to gather here."

"Someone fetch me the map of Minmay from my office!" he shouted and three university staff sprang away instantly, "and Cato, go find Landar and see if she can't rework her spell cannon to shoot freezing spells. Just in case."

Cato nodded and went. Clearly Minmay was well suited to be chancellor.
"I can do more than just that," Landar said, "but there's no time, like you said. And done!"

She waved a hand over the hastily reprogrammed spell plate and a bolt of magic shot out to hit the table nearby. The edge was deathly cold, just how she liked it. "I just need your help to move it..."

Landar turned around to find Cato already bundling the two firing rods carefully into a small wooden trolley. They loaded the parts onto it with a shared grin of mutual understanding.

By the time they got back to the courtyard, two platoons of the Minmay Guards were already assembled, all of them with scavenged buckets of varying sizes.

"Ah, you're back so quickly!" Minmay came out of the makeshift command post, "go with group two. Both groups are to head to 7th Avenue, there's a esquire oil refinery burning next to the river. Go!"

"Help them with that," the sergeant pointed from his squad to Cato's trolley. The guards grabbed the spell cannon and the second trolley he was dragging behind, heavily laden with more bags of magic crystals. "We move out!"

Behind them, a clatter of voices and boots heralded the arrival of the third platoon. Minmay was directing them to demolish houses around the industrial quarter to form a firebreak when they had left.

The streets were packed with people rushing around trying to rescue anything they could. The Guards shouted, shoved and pushed aside anyone who got in their way, and they hurried through the city to the stricken refinery.

Built down in the slums by an enterprising group of small time traders, the slowly solidifying cakes of esquire oil had begun to melt under the heat. The fire lapped up the fuel gratefully and had begun to tear down the building's structure, destroying holding tanks and loosing waves of burning oil into the street beside it. Dark acrid clouds of smoke rolled upwards, darkening the sky even under the strong afternoon sun.

"Clear the street!" the sergeant shouted, peeling off a small group of the guards to hurry people away, "all others, form bucket line!"

The remaining guards hurried down to the riverside with their buckets and began to haul water into the developing blaze. The wall of heat radiating off the burning buildings around the spill poured sweat down Cato's body and he couldn't help but admire the courage of the guards, who were barely new recruits just a few weeks ago. He scrubbed away the sweat, trying to quell the uneasy feeling. What was wrong? The new empty warehouse next to the factory was slowly collapsing and the houses behind the firefront were already fully ablaze.

He realized what the problem was just as the first bucket of water reached the burning oil spill.

"No wait! Don't pour-

The spray of water hit the burning oil and flashed into steam, splashing a cloud of steam and oil into the air. The fireball sent the guards scurrying back, Cato could feel the hair on his face curling back from the blast of heat. They nearly broke right there, bucket-filled hands trembling. How could they fight a fire that exploded on contact with water?

"Avoid the oil!" the sergeant's commanding voice brought, "cut down the houses on the street sides, use the buckets on the walls to stall the fire!"
The guards split their line hurriedly. The nameless sergeant turned to Cato, "it was the oil, wasn't it? We can't use water on an oil fire?"

Cato nodded.

"Then it's your turn," the sergeant said, "there's only one way to fight this fire if water doesn't work."

With a blast of magic, Landar directed the spell cannon at the building, firing a stream of magic at the biggest tanks of oil while Cato and two guards shoveled crystals into the charging chamber.

The spells deployed as they hit walls, oil tanks and beams. Instead of creating fire, the spell instead sucked heat out of the surroundings without restraint, plummeting the temperature below freezing in an instant. The melting tanks of oil froze solid and the burning beams choked abruptly. Stray spells landing on the ground cut swaths through the mat of fire, leaving trails of frozen oil behind.

The wind changed, coming from behind them and pushing the fire away from them. It also fanned the flames but Landar choked them out with her freezing spells. The heat lessened a little and the guards leapt into the gap with their water buckets.

Turning the cannon on top of the trolley, Landar hosed down another section of the factory then covered the wall of the neighbouring shop as the walls began to catch fire despite the guards' best efforts. With a stream of freezing spells on their side, the guards began to advance steadily, claiming sections of the factory and carrying away the frozen oil to a safe place.

Minutes passed as they continued to fight the wall of flame. The spell cannon hosed down one building after another, which the guards then rushed to demolish with shivering hands and frosty breath. Then Landar paused.

The sergeant looked back at her, stopping his endless stream to commands.

"What's wrong?" Cato asked.

She frowned and shook her head, "just... a feeling. Magic?"

Cato gestured at the shovelful of crystals in his hand. They still had more than half their stock and it was beginning to look like they might win this battle.

Then a soft glow shown down on them from above. A red glow, pure red like the colour of magical fire, a vast and diffuse magical signature accompanying the glow. In the clouds of smoke coming from the burning slums on the other side of the burning zone, tiny specks of red flakes were appearing in the sky and raining down onto the outskirts of the slums beyond.
Ashes

The magical signature crept up on all of them, starting so low that it was felt as nothing more than a vague sense of unease. But as the fire grew, so did the magic and once the flakes began to fall out of the sky, the vast fiery cloud above them was obvious for all to see, despite hiding amongst the choking black smoke, raining streaks of magic down onto the hapless city below.

The flakes drifted and fluttered downwards, winking and blinking as they fell. Cato raised a hand, feeling the heat radiating off them on his palm, distinct from the smaller closer fires of the burning slums around them. Beyond the fire, downwind from them, a new conflagration licked the sky as buildings torched under the storm of fiery rain. The sole consolation was that the flakes were mostly drifting northward, directly away from Minmay city.

The Guards stopped moving, retreating silently from the fire. Not even the sergeant was shouting any encouragement. What could anyone say to that? The cloud above was vast and unstoppable. The extinguishing the fires of the burning oil factory seemed like puny accomplishment, washed away under the calamity that would befall them if the flakes began rain on them too.

"No."

Cato looked down, an empty shovel still gripped in his hand. Landar mumbled again, "no."

"What can we do?" he asked. What indeed? There was no way to fight that thing. Whatever it was that was raining fire magic onto Minmay city.

"What can we do?" Landar growled, whipping around to stare at Cato. He stared into her eyes, wild and desperate as they were. "Something! Anything!" she shouted, beginning to draw looks from the guards around them, "are we just going to let Minmay burn down now?!"

The frozen streaks of ground in front of them were already melting, but the fire was dying already. Most of the slum buildings in the fire zone had been consumed by now and those at the border sputtered and smoldered where fuel remained. The ash-blackened street and acrid wood smoke layered on everything like a thick coat even as they shivered in the chilly air rising off the deep frozen ground.

Landar turned back towards the fire, "it doesn't change what we have to do. Cut firebreaks. Stall with water or the cannon. We fight the fire where we can."

"In case you haven't noticed," Cato pointed up at the giant magical cloud in the sky, "that thing is raining fire on Minmay city. How are we going to put out the fire when fire is literally raining out of the sky!"

Landar bit her lip and shook her head, "I don't know. But I do know that it is magic. And magic can be fought with magic. Take the spell cannon, you should have seen enough to know how to use it by now."

She stepped away from the cannon and began to build a spell above her. She poured her power into it without restraint, without care for reserves or any of the usual niceties of magical combat. Just what an Iris was trained to do.

Cato looked down at the cannon and found the two crystal shoveler's looking at him expectantly. He smiled wryly. "We do what we can huh? Sergeant!" the man jumped and looked at Cato questioningly, as if startled out of a trance. "We've won here, we should move to another area," Cato
said, looking around pointedly.

The sergeant nodded and assigned a runner to report to Minmay before organizing the guards into squads again.

"Can you bring that with you?" Cato asked Landar. She was closing her eyes now, the ball of magic shining brightly in her hands.

She opened her eyes and fired the spell. The dense ball rocketed into the sky and burst into a shower of disruptive magic. The cloud barely rippled. Landar snarled, "we need more magic. You go on ahead, I'll try to rally the knights."

Without waiting for Cato's reply, she dashed back down the street towards the city center.

Aware that the guards were all looking at him, Cato shrugged and started packing up the spell cannon's rods, "let's move on."

"I wonder if he'll let me buy him a drink," Parsee muttered as they jogged along slowly. Not fast enough to tire them out, but not as slow as a walk.

Her squadmate clipped her helmet with a gloved hand. "Hey, what was that for?" she complained.

"Parsee getting ideas again," John sighed as the woman in front of them glanced back curiously.

"I can hear her, you know?" Rache chortled, "at least we women know she won't ever be a rival."

"What do you mean?" John asked.

"You were talking about Cato just now, right Parsee?" Rache said, still jogging forwards.

Parsee nodded and grinned, "a mage at the university! I heard them talking about him. " The rumour mongers of the squad needed no identifying. "Just thinking about how much money he must be earning makes me shiver," she somehow managed to wriggle and jog at the same time, "and he'll be gentle and clever and..."

John couldn't resist hitting her helmet again. "Stop that," he scowled, "you're creeping me out again."

"You see, John, she's always going after someone far above her," Rache shrugged, "and then she'll be disappointed again. Cato is not just any mage, Parsee. Rumour has it that he's a professor of the university, with personal connections to the chancellor himself. Can you really win against the nobles and rich merchant daughters?"

Parsee frowned then perked up, "you never know until you try!"

John could only sigh at her perpetual enthusiasm. He would find her crying on his shoulder tonight, no doubt.

Rache in front of them could only sigh.

The ex-war room was gloomy. A map of Minmay was half draped over the cafeteria table, covered with drawings and arrows. All of that lay abandoned by the circle of men and women leaning, lying
and slouching wearily in their chairs.

It's over. That was the general atmosphere, one of relief and of helplessness.

"Casualties?" Chancellor Minmay asked.

"Knights, no reports," Hino raised one hand, still draped over the backrest of her seat.

"Guards, seven wounded in collapsing buildings, twenty killed by fire rain," Trev, the leader of the Minmay Guards reported. His salute, mimicking that of Earth's, looked less than crisp however.

"People, estimated four hundred dead," a Recordkeeper clerk said.

"Material loss?" Minmay asked again.

"Northwestern wing of the slums is completely burnt, there is nothing left of it. Further north, an area of roughly twenty fields is damaged or destroyed," Arthur said.

The same Recordkeeper clerk shuffled her notepad nervously. "By Cato's statistical methods, possessions destroyed are worth upwards of a thousand Rimes. That's a low estimate. The oil factory accounts for a third of it. We're lucky the fire only hit poorer slum areas."

Gloomy silence descended once more.

"Anyone have any idea what happened?" Minmay asked, "have the knights heard of anything?"

"No one knows anything about that firestorm," Hino said, "it was too big to seriously stop, even with all the knights. If it had headed south instead of north, I would expect Minmay city to be a burning ruin now."

"Could it be a new monster?" Arthur asked.

"Who can say for sure?" Hino shrugged, "all witnesses agree that the cloud grew weaker and disappeared after leaving the city. Never seen a monster do that."

"How did the fire start?"

No one looked up to find out who asked that question. No one answered it either. All the clues were buried somewhere in the charred rubble and probably destroyed with that chunk of the city.

"Can Minmay survive this?"

"Yes. But not if it happens again," the chancellor replied.

"I think this is an opportunity," Cato said. "Wait, let me explain," he said as Hino started to get angry, "for the last few months since the peasants started coming into Minmay, the lack of a central organization has been hurting us."

He looked around the room, filled with the movers and shakers of Minmay city. "A small committee like us might have been sufficient when Minmay was smaller and there was less industry. Merchants come in the morning, leave in the evening. Collect taxes, pay the knights. Minmay didn't change much. But this fire shows us that simply improving the technology isn't enough. We have to improve the organization of Minmay itself."

Cato had their attention now.
"I propose creating a civil defence force. The Minmay Guards had a great performance today, holding back the fire under the direct leadership of our chancellor. Today, you saw how powerful groups of people can be if we work together. We need to train and hire people to take care of the city itself, to fight fires, to reduce crime and to maintain the city's functions. The Minmay Guards already have training and can serve this purpose until more can be trained," Cato said.

"We also need help in administration. The few toll collectors and the Minmay Guards are still small enough to report directly to Minmay. With all these new people, our chancellor and his butler can't do everything by themselves, even if we get ten secretaries each. He has to have time to eat after all."

Kalny at the edge of the room smiled a little.

"It goes to more than just handling fires," Cato said, "most of the work will be in organizing the city itself. Permission to build should be required, there will be restrictions on the types of building by area. Even the traffic, which way the carts run, who responds if the surface is damaged, maintenance of the markers and a registry of all streets and locations. A registry of all people and businesses too! Writing and maintaining a formal law code and administering disputes. It sounds like useless work but you will not regret having these conveniences once you realize how much they will improve law, order and safety."

"Minmay as it is needs a government, not a chancellor and thirty people in a room," Cato leaned forwards, "especially if we're ever going to become independent."

"How am I going to pay for that?" Minmay asked.

"Levy a new tax," Cato said, "the last few months have seen us all gain experience in managing larger operations. Many of the merchants have workshops and factories spread over the Minmay region. Many of us have gotten rich doing so. Paper is everywhere now and I believe we can now support a tax with significant administrative costs. A tax on business profits and on all income paid to workers."

The room exploded with protests.

Cato held up a hand, "Kalny, how much do you make?"

The fat man smiled and shook his head, "I can't very well say that, can I?"

"Well, if you paid one in twenty of your earnings, after paying your workers and buying new tools, will you survive?" Cato asked, "and if you had to pay the same for the amount you pay your workers."

"I'd have to raise my prices," Kalny smiled, "but if everyone is doing it, then that won't hurt so much. I'll live."

"How can you support this!" one of the rare independent Ironworker masters practically screamed at him, "a twentieth here and a twentieth there! You won't even earn a telin!"

"I have a condition," Kalny said, looking at the Ironworker. He walked over to the man and asked, "if I asked you to make me a thousand steel tins for my food, would you agree? I'd pay you a fair price of course."

He just looked confused, so did the rest of the merchants in the room. Cato could see that Minmay had already understood. "I'd want to know if you can even pay at all," the Ironworker said, "Maybe if you let me see how your business is doing? A tour perhaps. I'd have to know how you're going to
use the tins anyway. Also I need to know if you are even going to pay at all. I think you might be a bad customer."

"Now, why are you worried I won't pay?" Kalny raised his eyebrows.

"I only know you from your reputation. That... isn't enough," the man gulped, "I mean, if you took out a contract for the knights against me, I don't earn enough to defend myself."

"Imagine then, that our agreement can be ratified by Minmay and enforced by his Guards, or an agreement with the Order of Knights," Kalny said, "we go to Minmay and the civil service, record down how much tins you will give me and how much money I will give you and if either of us don't meet our end of the agreement, Minmay will make us pay the other person. Now, do you think I can win against Minmay?"

The light was beginning to dawn on them.

"This is what Cato means when he talks about a code of law," Kalny nodded at him, "not just catching thieves or breaking up gangs. Imagine we didn't have to spend weeks getting to know every person of business in the city, just so we can trust them. We just have to be able to trust that Minmay can enforce these agreements. Now wouldn't that be worth a twentieth of our earnings?"

He turned around to Cato and Minmay, "so this is my condition. Settling disputes needs to be a primary function of this government. Make Minmay city a place where we can trust each other to trade honestly and we will gladly pay additional taxes for the privilege. Just so we don't have to spend all of our time making sure everyone we have an agreement with can still keep it."

Minmay nodded, "it can be done."

"That was quite the move you pulled, Cato," Minmay said, tossing back the last of the spirits in his cup, "I have no idea how you managed to get the guilds to agree but that's fantastic."

"Really?" Cato raised an eyebrow, "I expected you to object, not them. Instead it's the other way around."

"Me?" Minmay leaned back in his comfortable sofa chair. Arthur refilled his glass with more alcohol and a few ice cubes. "Nonsense!" Minmay snorted, "you just handed control of the guilds back to me! Why would I object? And of course the merchants and guilds would object to paying a new tax. Using Kalny to put them under my thumb with that law code of yours was brilliant. How much did you pay him?"

Cato merely smiled weakly, "I paid him nothing at all. Kalny's reasons were right though. Hiring mercenaries and Knights to enforce agreements costs the merchants a fair amount of money. If they could dispense with all of that, a twentieth tax is nothing."

"Do the numbers work out?" Minmay frowned, "if the Minmay Guards have to settle commercial disputes, I could end up paying them more than the tax takes in. There is a reason why they spend so much money on guards after all."

"Well, if you're the only one, or just the biggest, force in this region," Cato explained, "who would even dare to try fighting you? I mean, you are already the biggest, aside from the Order of Knights. But if you rival the Order, most of the merchants will respect any deals enforced by your law, knowing that you can easily crush them. And if most of them won't even try, and you eliminate those who refuse to obey the law code, then the Guards will be called on far less than you think."
They nodded in silence, appreciating the fine drink together. It had been an all too exciting day after all. Cato wondered how long before Minmay realized that with the first steps to a common law code, even the nobles would soon be expected to obey it.

The door opened as Landar entered the room, having put away the spell cannon after conducting maintenance checks.

"Oh hey, is that the new Tisin brand spirit?" Landar pointed at the bottle in Arthur's hands, "give me some! I need one too."

Cato nodded at Arthur, who went to fetch a cup. "How's the cannon?" he asked Landar.

"Still working. The timing circuit just broke a line," Landar explained, "I suspected as much when the cannon started firing continuously."

Minmay sat up straight and got straight to the point, "any chance you could build more of them?"

"I've already sold the plans to the Academy branch here," Landar shrugged, "as well as the variable enchanting assistance device that they'll need to make more."

Cato sighed, "you've changed its name for the tenth time now. It's just a glorified sewing board, and a first version at that."

"It's only the fourth name," Landar pouted, "there's just no elegant name for it."

"Like naming your child," Minmay laughed.

"Exactly!"

They shared his laughter but Cato knew that both magical devices were more or less Landar's brain children and she treated them preciously.

"Still, was it a good idea to just sell it like that?" Minmay asked, "Duport and Ektal will get those plans too, you know?"

Landar sniffed, "and much good it'll do them. " She winked at Cato, "we already have ideas for an improved version and without the little tricks I've learnt from actually making it, anyone trying will find that complex spell devices aren't that simple to build."

"But we'll still face them eventually, yes?" Minmay pressed.

Landar shrugged, "magic crystals are still under wraps. We still hold a major advantage with that."

"More than major," Cato closed his eyes, "I think the fire today at least gave us something useful. I was waiting for you to come before I showed this."

He took out the small ring on a stick and put it on the table. It was the magical sensor Landar had made, although it had gone through a few revisions since then. They looked at him curiously. He picked up the stick and had Landar power it on, then flicked the sensitivity all the way down.

The magical light in the ring glowed solidly.

"I don't see anything interesting," Landar said, "I mean, we know that too high a sensitivity picks up noise from the environment."

"We worked on that. Besides isn't the signal a bit too stable to be noise?" Cato asked. "I had a
hunch, seeing that rain of fire today," Cato explained, eyes still closed, "it reminded me of the Miasma in the Death Marsh. Both were magic, both grew out of nowhere. I think the firestorm was just the burning version of the Miasma."

As Cato moved the stick around, the ring pulsed as it passed near Minmay and Landar, glowing more faintly for Cato. He thrust it towards the floor. The ring grew just a little bit brighter, almost too little to see.

"Lifeforce is made of magic, and the sensitivity of this sensor can detect our innate magic, simply by being nearby," Cato said, "but look, the floor is magical?"

They stared down at the glowing stick and the stone floor. Minmay's house was getting rich lately, but enchanting his floor like Landar had done with the house was still too expensive. The downsides of a large mansion.

"And there's more," Cato got up and directed Arthur to drape a heavy carpet in front of the fire, not close enough to be burnt but blocking the firelight. He thrust the stick at the fire, and it glowed too. He nodded and Arthur put the carpet away.

"I don't think we're seeing noise," Cato said, "I think the sensor works much better than we thought it did and it is us humans who are bad at sensing magic."

They looked at him, slowly understanding what he was building up towards.

"Again, this is where I must realize that my preconceptions of magic from Earth have held me back," Cato smiled wryly, "in our stories, magic is always something that originates from people. Whether it is voodoo dolls or throwing fireballs, it is always the wizard, the god or the spirit who is responsible."

"But Inath isn't a story," Cato continued, "it doesn't run on rules that are anthropocentric. That's a word that means human centered. Magic isn't just limited to humans, as we know plants and animals have lifeforce, but it isn't limited to life either. Magic is truly, truly, a part of this world, not a special exception to the rules. It is all around us, maybe not in the same amount everywhere. And magic follows its own rules, and lifeforce and our ability to manipulate magic is just one small part of what magic is doing all around us everyday."

He put the sensor into the ice bucket and it brightened too.

"What I suspect," Cato concluded, "is that the firestorm and that miasma are the same kind of thing. As we saw just now, certain conditions, like heat and cold, or the ground, have a higher magical signature over the background. And we know that magical signatures are emitted by magical phenomena, like fireballs and shields.

But what if the signature is part of how magical phenomena work? Maybe having a strong enough signature can spontaneously create magical effects. Create a big enough fire, or a large enough cold wet place, and enough magical signature happens to generate magical effects like a firestorm or miasma cloud. A magical version of weather. And perhaps the background is not plain noise but an actual signal of the magic around us, of the magic in all the things that make up the world."

"So how does that help us in this war?" Minmay asked, "are you planning to create a firestorm in Duport's cities?"

Cato shook his head, "even if we could, such a weapon should be reserved for the monsters. Besides, needing a fire the size of a city to create a firestorm kind of defeats the point, you're already
burning his twin cities down around him. No. This is a hypothesis, a guess of how magic works in the natural world, when lifeforce and active magical effects aren't in the way. And those magical crystal mines are natural too. 

Landar and Cato looked at each other, a grin appearing on her face. "So we make a better sensor, maybe one of those graphing things you mentioned, then we bring it to a mine and see what we can find there," Landar said.

"Indeed," Cato nodded, "and if we can find why the mines had magical crystals in them, and I have a hunch they're the equivalent of the firestorm and miasma from the 'ground' magic, maybe we can recreate the same conditions and make a magic crystal farm. We might know how to recreate the conditions for firestorm and miasma but I doubt anyone wants to try. And even if we don't find out how, we may also find out how to detect such deposits at longer range. It would certainly beat having to manually check every square meter of mountain."

"So it's time for the second expedition?" Landar's eyes were sparkling now.

"Yes. Yes it is. " Cato nodded.

"Do I have enough money for that?" Minmay asked Arthur, who thought for a while and made an unsure gesture.

Landar grinned, "well, I do happen to have suddenly gained a large amount of money. Enough to recruit knights for the expedition too. Knights being the clients of other knights hasn't happened before but screw that, money talks louder than tradition. We should bring the lab along, I wonder how much stuff we can invent if you're not distracted by the university."

Cato blinked and sighed apologetically, "actually, I was thinking perhaps you should go without me. I can't use magic and will end up being a drag if we get into a fight. Besides, I am needed here."

She was taken aback for a moment then nodded, looking a little sad. Cato resisted the urge to go over and reassure her.

Landar raised her untouched cup of alcohol and drank a little then opened her eyes in shock, "wait, this smell. It's mistletein!"

Minmay looked at his cup again, "ah, I did think it smelled a little strange. Where did you buy it from, Cato?"

Cato sipped the strong spirit, frowning, "I didn't buy it. One of the guards from the squad we worked with today gave me a bottle. She said that she admired us for helping with the fire. Said she made it a little special."

Minmay blinked and looked at Arthur, then they giggled like a pair of schoolgirls. Landar was scowling down at her cup.

"Um, did I miss something?" Cato asked, "what's mistletein?"

"Mistletein is a rare wild flower," Minmay explained, still smiling, "it grows two beautiful blue bell shaped flowers always in pairs and is often used as a gift to signify romantic love. Poor girl, she couldn't have known that the custom would be lost on you."

Cato looked at the unlabeled bottle in Arthur's hands again. He sighed and put down the cup. "I don't even know her name, how am I supposed to handle this?"
Landar suddenly slammed her empty cup down. Cato looked at her. What now?

"I don't care what it takes, but you're coming with me on that expedition," Landar growled, "even if it means you resign from that university."

"What?" Cato looked at her slightly red cheeks, "are you drunk already? I can't just leave like that!"

"I don't care!" she said, grabbing his hand, "we're leaving within the week!"

Cato looked back at Minmay for help. Surely the chancellor could convince her?

"Well, why not?" Minmay shrugged, "I am the chancellor and I'll show you I can run the university too."

Cato could feel his jaw drop. Take Cato away from the university?!

"Let us discuss this, all right, Landar?" he followed her hurriedly as she stormed out of the room.

K&T, strain isolation is a success. I require a sum of twenty kilograms of esquire gel and forty class A glass bottles. Sterile.

Kupo

Dear Minmay,

In accordance to the new rules, find attached the plans for the sewer network. The pilot trials have gone well with all initial problems addressed. Your house is included in this phase two. I have included space in the digging region to allow the easy addition of pressurized water supply pipes in the future.

Muller and Concrete company also requests a loan from the Minmay bank of up to the sum of six hundred Rimes in order to complete the work faster.

Muller & Co
Reignition

Ryulo watched from the rooftop as a tail disappeared around the corner of the houses. Counting to ten under his breath, he dropped down the side of the house and landed in front of her.

"Where do you think you're going, madam?" the phrase was getting very familiar now.

Danine yelped in surprise and tried to pat down the fur on her bushy tail. "Not anywhere important," she said, looking aside.

Suspicious. "You've disappeared around evening every day for the last week," Ryulo stated.

"I just want to see the town," Danine made up an excuse lamely. Even he could tell she knew it wasn't going to get past him.

"Even if it has been safer recently, you should know that the humans don't like us," Ryulo said.

After the last major fight, the Red Water seemed to be leaving the Fukas alone now. Life was slowly getting back to normal and running the trade from his village through their quarter to merchants from the outside brought in some money.

"And every night you come back smelling strange," Ryulo said slowly, "where have you been?"

She looked away silently. Her ears and tail lay flat, as if expecting to be scolded or hit.

"Please answer me," Ryulo sighed, "your mother will worry otherwise you know?"

"Using her is unfair," Danine muttered.

"Not as unfair as you, going off to do something dangerous without telling anybody."

"You don't even know it's dangerous," Danine said.

"If it wasn't, you would have told us already," Ryulo said, "Is what you're doing safe?"

Danine looked down without saying anything.

"Look, tell me what you're doing, speak to me," Ryulo urged her, "if you're in trouble or you want something, I'll hear you out."

She took a step back and shook her head.

"Ryulo!" the shout from behind him made him turn around. A short scrabbling sound later and Danine had disappeared onto the rooftops.

"Aleas. " His fiance appeared around the corner holding two sheets of paper. "Danine's run off again," Ryulo said, "I can't imagine where she's going that she has to sneak off every day."

"Are you sure you're supposed to be the best hunter of our village?" Aleas raised her tail merrily, "you can't even track a young girl for a few hours."

"When your prey can run up walls and practically fly for tens of meters, I'll like to see you track her," Ryulo rolled his eyes, "what is it?"
"I found this in her room," Aleas held up the two papers, eyebrows knitted with worry, "they're letters. To Minmay."

Huh. "What's that girl have to do with the chancellor?"

"She's warning him of suspicious movements on Corbin's part, something about how Corbin is raising an army," Aleas said flatly.

Ryulo spun on his heels to see the rapidly vanishing figure leap across the rooftops, "that sneaky little tail! She's taken the Ironworkers' request!"

He grabbed up his bow and caught Aleas's raised eyebrow.

"I'm going after her, we can't let her play with fire like this," Ryulo shook his head, "if Corbin raising an army is true, Danine is poking her ears into the Reki's den!"

Aleas nodded, "you chase her back, I'll get some backup, just in case."

Ryulo nodded back and scrabbled up the wall himself.

Danine frowned and sighed as she watched his tail disappear over the side of the tiles.

Danine spared a glance behind her. Nothing. Looked like she wasn't being followed.

Good. Even if it was for the benefit of the Fukas, she still felt guilty about disobeying instructions. Cursing her childishness, Danine sidled up the wall, tail held low, then dropped down her favourite hiding spot.

The soldiers drilling with their black cast iron weapons were intimidating and Danine stayed low behind the bushes lining the wall edge so as not to get caught. Most days, she went back with nothing, all the initial observations were merely being repeated day to day as the soldiers went through their drill. She could see them getting better and more terrifying but they were still ultimately the same hundred guys and girls in a field yelling their lungs out.

One got a little bored with that.

But occasionally, like it appeared today, she saw something useful. The mysterious messenger from the south had come up again and Corbin and him and Selabia were watching the drills again. The soldiers picked up the pace like they always did when the big guys were watching.

As the display ran down together with the sweat onto the floor, the messenger and Corbin seemed to be satisfied and left towards the gate to the messy common area of the town. As they always did when they wanted a little privacy, which they got, only with an extra tail in it.

She crept down the wall, tracking their movement through the market square’s final hours of business. They had started to change their routine recently and if she didn't keep up, Danine could lose track...

She turned a corner and saw Corbin waiting in the middle of the street. Selabia was looking at a shop but where was the messenger?

"A little hanger-on we have here, hm?"

The voice made her jump. He was right behind her! She looked back and saw two of the soldiers
behind the oily man. A quick glance out into the street showed at least three commoners were actually soldiers too, the misshapen lumps under their clothing were obviously swords and shields now that Danine was looking for it.

The man caught her glance and gestured with a look over her shoulder. Danine glanced back again and noticed a glint in the window across the street. A crossbow archer perhaps.

In a fix was not an appropriate description for her situation. In a pot of already boiling water was more like it.

"I was wondering how all our information always seemed to leak out to Minmay," the man said, "you gave us a lot of trouble you know? Combing our ranks for a bribe wasted too much time."

Danine glanced up and down the street, looking for a way out. Was the pair of shoppers leaning against the wall up there actually more soldiers?

The man smiled nastily and raised a hand. Right then, time for desperate measures.

Ryulo was still trying to find sight or smell of Danine's tail when the sudden screams from two streets over told him where she was. And that the trouble had found her first.

He shot a light arrow into the air, a bright flare at the blunted rubber head sending the signal across the entire of town. Now it was time to go save her.

With one single powerful bound, and a bit of force pushing cheat, Ryulo sailed across the three wagon wide street to the row of houses opposite. Nocking a killing metal arrow to his bow, he was ready to unleash death. With the new ultra precise micro-timer from Landar controlling the Resist enchantment, an iron arrow propelled at Em enhanced speed with a Resist enchantment timed to activate just after leaving the string was massive overkill for non-mages but Ryulo wasn't going to spare any mercy today.

He ground to a halt at the sight of the street below.

The screams had come from the soldiers surrounding Danine, judging from the two bleeding soon to be corpses on the ground. A soldier swung his sword downwards but Danine just slid to the left without even moving her feet, as if walking on air. A quick Em enhanced jab to the throat later and he was also rolling on the ground, getting in the way of the others trying to pin her down.

It didn't affect Danine, her Em boosted footsteps always seemed to bring her one step out of reach and the short sword in her hand, looted from one of the fallen soldiers, was just as threatening when the little girl had just as much strength as fully adult men.

There was a twinkling from a window and Ryulo's sense of danger spiked. Just then, Danine seemed to freeze solid and a massive crash of shattering metal cracked across the street.

The crossbow bolt simply shattered on her shoulder, gouging only a shallow wound to match the one on her other arm. Far too small for a crossbow bolt, it must not be one of those bowguns. In fact, Ryulo didn't sense any magic from the soldiers at all. They were just peasants. Trained peasants.

His ears caught the faint creaking of the bow wire and almost without thinking, he leveled his bow and fired at the shooter. The Resist arrow plunged through the man's breastplate and almost completely out the other side, sending the man staggering back.
Another clang from below sounded as one of the soldiers managed to land a kick to Danine's legs, only to find his armoured legs bouncing off her bare skin. Danine wobbled for a split second, giving the soldier coming up behind her time to grab her collar and haul the girl off the ground.

She regretted it instantly. Danine's hand clawed backwards, smashing the woman's jaw with a nasty crack while the other intercepted an oncoming shield with a solid punch.

Then Ryulo saw the formally dressed man in the alley backing away, clearly in charge and unhappy, and quickly drew a bead on him, shouting, "call them off if you want to live!"

"Ryulo!" Danine shouted happily, looking up.

The soldiers were less easily distracted however and one of them took the chance to draw his sword in front of Danine's neck. Then before she could react to that, another came up behind her to pin her arms.

The action came to a stop as the soldiers looked back to the unknown man for direction.

He shifted uncomfortably and cleared his throat, "well then, if you want her to li- aark!"

Ryulo's arrow came from nearly directly above into his right shoulder, shattering his spine and lungs in a single devastating blow. The Resist arrow was actually buried head deep into the stone paving below, having exited through his left hip. The man collapsed in a pool of blood and innards.

The soldiers shouted and rallied admiringly. The sword holder thrust his blade forwards but Danine screwed up her eyes in concentration and the metal was barely able to scratch her throat at all.

Ryulo spun around, catching movement out of the corner of his eye. The second archer ran away from the window as his arrow shattered the woman's crossbow, a rare miss. Danine kicked away the threat in front of her, unbalancing the man holding her from behind as he was fumbling for a knife. Then Ryulo's fourth arrow freed Danine from her captor by way of exploding head syndrome.

The seven soldiers still alive were now cautious, some carrying their shields aloft to protect from Ryulo's deadly arrows. But they were still clearly underestimating the Fukas' Ems. Ryulo just aimed for the nice big target of the shield bearing the white and blue cross in the center. How nice of them to provide target boards.

After one shield was pierced the soldiers began to back away more now.

Then their imminent defeat by one hunter and a little girl was saved by the hurried arrival of a troop of Rekis, knights clanking in their armour on top. In their magic armour.

Ryulo paused to think rapidly. Now that the knights were almost here, the fighting would stop. But how to prevent Danine from being arrested by them?

The knights didn't approach her, looking up at him worriedly and for some reason, at the row of shops on the other side of the street. Then he caught sight of a pinch of red cloth.

Danine's friends had arrived. Aleas leading them waved at him from the rooftop, half hidden behind the crest of the building.

"You Fukas really like high places, huh?" the leader of the knight group urged his Reki forwards up to Danine.

"It's not my fault," Danine said instantly.
The man raised his eyebrows, "what isn't your fault?"

They shared a look down at the dying men and women around her. The knight looked back up at Ryulo on the roof, clearly eyeing the metal arrows.

Then he sighed, "I wonder how a young girl like you managed to become so proficient at Ems."

Danine started guiltily and the knight shot another glance upwards.

Was he nervous about Aleas? He might be assuming that Danine's friends were all as good as her. Ryulo squinted down at the knight, trying to guess if he was guessing if they could win a fight. There were only six knights after all. And maybe Danine's friends were that good. And the Ironworker goon did say he judged Ryulo to be as good as a knight. Maybe they could win?

Ryulo wasn't about to make that gamble. And it looked increasingly likely from the uncomfortable battle of gazes down there that the knight didn't want to fight either.

"The Order of Knights will undoubtedly receive an arbitration request," the knight said with a nod, finally. "You best be prepared for it."

With that, they rode off and most of the tension went with them. Ryulo looked down at Danine who collapsed onto the ground in relief. She grinned up at him, a grin that slowly died as she started to realize just how much trouble she was about to get into.

"We have been waiting for some time now," Duport said to the man standing in front of him, "when will your contact ever push that woman forwards? There's only so much training she can do."

"The longer you wait for Corbin, the stronger a distraction she will make," the spymaster said. "And the stronger Minmay gets," Duport growled, "that new spell cannon from their university is practically an artifact! If we have to face that thing in battle..."

"Minmay has attached it to his Guards, which of course he would," the spymaster explained, "so Corbin will be the one to meet that surprise, and however nasty it might be, it won't help when your knights crush his city. The worst thing for us Minmay could do would be to lend it to the Minmay knights, but I doubt that will happen any time soon."

It went without saying that Minmay's attempt at skirting the Rule of Arms was becoming a symbol of Minmay's independence. Giving something like that spell cannon to the knights, no illusions on getting it back, would be devastating to Minmay's political control.

Duport nodded. This was all scenarios they had discussed before, but the spymaster knew that retreading familiar ground was needed with a man like Duport.

"The knights are getting restless here, keeping them on probes and minor raids is making them antsy when such power is concentrated," the chancellor said, grabbing and downing a wine goblet held by the waiting servant. She went to get another refill. "I'll give her another week and no more. The attack comes whether she's ready or not."

The spymaster bowed as the man swept out of the room with a flourish of his long robe.

Frowning, he rang up the scribe boy to bring a message to the knights of his own game in the
shadows. It was worrisome that his contact dedicated to managing the Corbin affair hadn't reported in since the reports of a fight between Corbin and a few slum Fukas.

Then again, if that man had managed to get himself killed by a couple of measly tails then he was probably more incompetent than the spymaster thought and deserved to be removed anyway.

He sniffed, considered the matter for a moment then wrote another letter detailing the unfortunate man's replacement. The first task being making sure the previous shoes were unfilled, and emptying them if they weren't.

Dear Cato,

I have taken on a promising group of young independent blacksmiths. They have managed to build an airtight seal by carving close fitting threads and sealing it with rubber from my tins. I saw the benefit immediately and extended an employment offer that they accepted.

They assure me they can replicate the one way check valve you described and diaphragm air pumps with decent performance should become possible. However, apart from moving water and fluid around my factories, I cannot see any uses for a vacuum pump. Perhaps you have some ideas?

Also, I have found a fast growing Mirin bush yielding a leaf extract containing a starch breaking ingredient. It's not a high yield but it is the strongest I have seen. The activity is sensitive to heat so it is clear that this observation is an enzymatic reaction. Mirin leaves aren't edible so there are no records on attempts to farm this bush. I doubt it will be easy. Do you have any recommendations?

Kalny

Kalny,

Vacuum pumps are very useful! If it's not too costly, I imagine you can use it for quick low-heat distillation. Pressure swing distillation to get much higher purities also relies on having a good air seal and pumps. The zero-heat distillation in particular gives you another food preservation method more suited for bulk transport, freeze drying, and if combined with canning can extend the shelf life of foods into decades!

It may come as a surprise to you, but at high vacuums, ice can boil directly into steam without going through the liquid water phase. This will preserve food texture and taste better, as well as reduce weight of most food drastically. Almost like transporting raw windeye flour. You may also attempt the same on seawater to purify salt although there are probably cheaper ways to achieve that.

In fact, I suggest that you help the blacksmiths create a partner company that you own a share of the profits, in exchange for seed money and consultation. I will write the sketches of how a limited liability company works and the concept of ownership shares and submit it to the Minmay Bank for consideration. Pump design is also required for hydraulics and the more advanced machinery, clearly out of your area of expertise. It would be better if you could focus on food industry while developing a more technology focused partner. There are uses to high pressure too.

As for the Mirin bush, I have no farming expertise and can only give general suggestions. Other than the basic fertilizer and water tolerance experiments I did with windeyes. From my knowledge of Earth, a deliberate breeding and mutagenesis program can improve yields drastically. You may wish to create a list of desirable traits that will make farming the bush easier and manually create crosses
and clones to encourage those traits. Be warned that this will be a long project however, possibly
lasting many years.

Of course, there's no reason why those techniques are restricted to Mirin. I was considering starting
one for windeyes, which suffer the same long stalk problem as wheat and thus might support better
yield with a dwarf variant. I eventually decided not to do so as there were faster payoff projects I
could put my attention to. Don't let that stop you however.

Unfortunately, I am heading out on an expedition to the Snow Wall soon and correspondence may
become unreliable in this period. I hope this does not pose too much of a problem for you.

Cato

"And we think Corbin is making waves to the north," the captain of the Guard began his final point
in the summary review.

Arthur nodded his thanks and elaborated, "her metal working industry has been getting more
intensive and the Ironworkers there have made complaints about her governance. The strength of her
soldiers is unknown but the Knights are clear that they can defeat her easily, even if the Corbin
knights decide to back her, which is not certain."

Minmay rocked in his chair for a while. "Any more news from our little informant?"

"I don't think we're going to getting much out of her anymore," Arthur explained, "last I heard she
hasn't sat down for the entire of this week after that spanking."

Minmay shared smiles among the three of them, "I shall mourn the loss of a good pair of ears. Selna
knows she was certainly daring enough to try to steal the secrets of iron."

"A bit too daring, if the rumour of her killing six soldiers is true," the captain added dryly.

"So what shall we do?" Arthur asked.

Minmay rocked in his chair for a while, thinking and staring at the ceiling.

"Reiga, what do you think of the knights?"

"Whose knights?" the captain of the Guard asked.

"Ours and Duport's. Can we hold him off if he tries to attack us?" Minmay clarified.

"No,' the captain shook his head, "I may not be the most well studied in battle magic but we simply
don't have enough knights. Not since Ektal convinced the Central Territories that their knights should
sit this out."

"So its a gamble then."

The two men looked at each other as Minmay continued to study the stone above.

"You can't be thinking of pitting the Guards against Duport's knights!" Reiga exclaimed.

"I am indeed," Minmay said, "I have seen your drill. The real drill, not the one you stage for
everyone else. Cato's tactics are well suited to the weaknesses of the knights. And we always knew
that you would be tested at some point. And without the Guards, there will be no Minmay in any
"We're not ready," Reiga shook his head.

"We never are."

They looked at each other.

"What do you have in mind for the knights then?" Arthur asked.

"Corbin of course," Minmay shrugged, "Without Landar around, there are no key summoners in this battle and I'd just as soon not get Iris involved. Who knows which way they'll fall. Without her, we have no chance with a conventional battle of knights. I don't trust the knights enough to handle the spell cannons, and the most we can do is attach some extra knights to the Guards to serve as a flanking cavalry force."

Reiga still tried to protest, "we don't know if Cato's theories of war even work."

"Duport won't know how to fight it either," Minmay said, "and I doubt waiting until we have to deal with Ektal is wise. There is the benefit of experience to be gained. Remember that we still have to win the wider war. And Corbin is closer than Duport."

"It's still risky."

Minmay nodded, "that's what I said. If you win, there are many advantages, but if you lose that battle, we also lose. But our knights don't have a chance anyway."

It placed a lot of expectation on the Guards but they had been preparing for months now. That and the spell cannons just had to be enough.

"Arthur, place the contract," Minmay decided finally, "I'm starting the war with Corbin."

Queen Amarante,

I hope this letter does not find you in too much of a shock. It has come to my knowledge recently that a series of books has been circulating in Inath for some time and only just now reached me here in Illastein. By the time this letter reaches you, I doubt any part of the Federation will remain untouched by its influence.

I am almost certain that the writer of these books is from Earth, there are too many cultural references in these books that I recognize. You may be asking yourself where they are, which only underscores the strength of this evidence. As queen, you surely must have some idea who that person is and I would like very much to have a chance at meeting them.

As I have not heard of any new Heroes being summoned, I do not think this person was summoned at First Landing like I was. Given that my position is well-known, this person has most likely already known of me and has judged contacting me to be too risky. Why this should be so is beyond me but perhaps they are simply being cautious and staying out of your sight.

Please reassure them of their safety and allow me to meet them. This writer clearly knows much of Earth's science and engineering they have written into these books and I am certain that they can and already have greatly helped the Federation. Let us work with this person, with magic and science, Inath will gain strength enough to push the monsters back and win this war.
Morey
Dear Cato,

We had an extensive chat with Landar just before you left for the expedition, we now have a roadmap for the iron recrystallization technology. The drawing technique we discussed has scaling potential and Landar's samples appear to stabilize magic to a far higher degree than previously possible. Our research branch will be beginning another project with your university.

In other areas, the Ironworkers would like to discuss the development of electrical technology. We understand that you have decided to focus on developing magical applications and consider electricity too hard to develop given our technology level. Nevertheless, the Ironworkers wish to try. We request that you allow Polankal to release your books on electric physics.

Willio,
Ironworkers, Minmay Branch

Dear Willio,

Certainly, if you wish to develop electrical technology, I will support your efforts with a partnership arrangement. However, I must impose a requirement that you restrain the excesses of your Corbin branch; a number of my Fuka friends have reported cases of harassment and abuse of power. While I have turned a blind eye to these actions so far as the Fukas can defend themselves, we cannot have a working relationship if your subordinates continue to be hostile towards them.

I am glad to know that your academic research projects are bearing fruit, keep in mind that the university is a public institution and will not tolerate attempts to monopolize knowledge the university discovers.

Cato

"Those little balls of fur are going to get it!"

Her scream sent the cowering servants and maids scuttle around trying to look busy. Once again the fat man tried to calm the mayor down, her gnarled hands only bent the spoon in half this time. How this old crone had the strength to destroy iron cutlery with bare hands was beyond Selabia but he supposed it wasn't his army who had been spied on.

Not that the army had been very secret, it was impossible to conceal after all. But the official line was that the soldiers were merely in reaction to Ektal's and Duport's aggression, a guard unit.

The Fukas had blown that wide open, at the same time unveiling a hidden printing press. Run by a mere child too! Apparently, the little spy had been working with the Ironworkers, who were understandably pissed at Corbin's attempts to muscle into what they considered their territory. The sheets she had printed were dense badly written text but their contents had been broadly spread by those literate peasants.

Now everyone knew that Corbin had been raising an army in order to oppress the peasantry and seize control of Corbin town by force.
Never mind that the peasants could believe such blatantly false lies, but even the knights had the temerity to 'investigate' Corbin's actions.

"I knew they were up to no good," Corbin snarled again, the fire of her anger simmering under her stern exterior.

"We need to focus on what is important," Selabia reminded her, "the Fukas aren't going to try spying again once that girl got found out."

"What we really need is to send a message that this cannot be tolerated!" Corbin grabbed the spoon right as a servant brought the replacement and disappeared like a startled grassracer.

"Are we going to attack the Fukas then?" Selabia asked.

"By all things under Selna's light we will," Corbin sniffed, staring at her official stamp on the table. Selabia had pushed it and all the documents to the middle during lunch, safely out of immediate reach. It wouldn't do to have her take hasty actions.

"Spending money that should be going to the army? Or are you going to make the soldiers attack them again?" Selabia asked, "no doubt they'll do better now that they're prepared but it doesn't change the fact that a little Fuka girl could punch right through a cast iron plate."

Corbin's eyes twitched as she got reminded of the disastrous trap that was Duport's messenger's idea.

"You don't seem very enthusiastic," she said, looking at him. Her suspicious beady eyes were fixed right at Selabia.

He gulped visibly. Which was a feat given how large his throat was.

"Just remember that we are in this together," Corbin said, "once Minmay goes, I wouldn't want to find Duport knocking on my gates and neither should you."

She drew out a small envelope from a hidden pocket under her coat, "I'm not dumb enough to not notice you've been preventing me from using my own seal."

The letter was undoubtedly a contract for the Order of Knights. Duport gulped, he wondered just how crazy for revenge Corbin and how much of their money she was going to spend on this personal vendetta.

"I'm still not crazy, I haven't spent all our money," Corbin cackled, as if reading his mind. She called over a servant and put the envelope into his hands. The servant left. "It's just a little warning."

Selabia gulped again, wondering if following this woman was the right idea.

He looked at the warm soup still in the pot and helped himself to another serving. When in doubt, or any other circumstance really, have a snack. That was his philosophy and by Selna he needed one now.

"A messenger from Duport has arrived," a servant said from outside the room. Corbin grunted.

"So a replacement finally deigns to show up," Corbin said acidly as the man walked into the room. He was thinner and had a sharper nose but the two men had the same oily smooth feeling to them.

"And in time too," the man said, ignoring her abrasive tone, "on my way through Minmay, I encountered signs of the Minmay adventurers preparing to attack. The war has begun."
Corbin sprang to her feet, all her anger forgotten. "What? That was earlier than we planned!"

"Minmay made the first move, probably hoping to catch us off guard. The enemy will not wait for you, Mayor," the messenger said.

Corbin took a few deep breaths then nodded forcefully, "all right. The Corbin soldiers will be ready to move with you."

The knights rode out of Minmay in a chaotic mess. Groups of Rekis and their parties of riders laden with journey supplies, a bewildering array of colourful flags all competing to be unique. Like any army of knights, the supply train of opportunistic peddlers and merchants followed behind.

Hino stood on the roof of the tiny gate with the Chancellor, gazing out at the late leavers.

"You know, I never realized just how different Cato's world was until now," Minmay remarked, indicating the gaggle of children and young adults swarming around the knight parties still nearby the gate.

"What do you mean?"

"Look at that," Minmay pointed, one young boy had been nearly trampled by a Reki, saved only by a hastily cast shield. It only made the boys around them clamour for more magic. Minmay explained, "Cato worries about things like cart collisions causing injury and insists on safety measures in factory machines. His world is a safe world, they would not tolerate such dangerous things as these children are doing."

"They also hate freedom," Hino shrugged, "such is the difference between countries."

Minmay raised an eyebrow, "surely not, one of the largest countries in his world has freedom as a core principle!"

Hino shook her head, "that's just words. The military you are building is modeled off theirs, and what do we have? Identical groups of people trained and drilled into pieces of a machine. Your Minmay Guards have no freedom, whatever the originators of the concept have to say about that word."

Minmay looked at the knights again. Now that he had spent some time with Cato, he was beginning to see the chaos underlying the knights. Chaos that anyone could exploit, if only he could see the flaws.

"We shall see when the Guards meet Duport," Minmay said.

"It is a dangerous move you made, chancellor," the leader of the knights said, looking up at him, "if you win, or even if you can just drive them off, the Minmay Guards will be acknowledged as a dangerous foe. All of that power answering to one government... one man really, is far too much."

"Indeed it is," Minmay nodded.

Hino raised her eyebrows this time. Of course, she wouldn't expect that out of a noble.

"You will not seek to control the use of combat magic?" Hino asked, "it is every noble's dream to have the knights answering to him and him alone. With your Minmay Guards, you have a chance of making that true and becoming the absolute ruler of this region. I will admit that with the spell
"And now it's time for the Rule of Arms," Minmay explained. "I think it's a good idea to allow all citizens to learn any magic they choose, especially combat magic. It's a parallel to the principle that same freedom loving country of his had."

Hino had a strange look on her face, as if she couldn't believe what she was hearing.

"I won't be around forever," Minmay explained, "we need a strong fighting force, the Guards are it. But as you said, command over so much military power is a corrupting influence. Arisacrota will almost certainly succeed my position and I will do my best to make sure she is fit for it, but there are other ways to gain control of Minmay than direct succession and while I have faith in my daughter, I do not know what my grandchildren will be like, or their children. A corrupt person in power, commanding the Minmay Guards, that scenario does not bear thinking about."

"That's the reason for the Rule of Arms," Hino said. So far he had not said anything surprising, even if Cato's analysis of his world's history of revolutions had added some detail.

Minmay continued, "which is why the Knights need to be a counterbalance to that. That was the reason Cato convinced me to allow the sale of Landar's spell cannon design. It is his hope that the knights can become part of the military force of this government, and yet remain outside the direct command of the leader."

Hino chewed on her lower lip for a while. "Something like a citizen's army? Like the Guards are the noble's army?" she said finally.

"Indeed, you understand."

Kupo crept out of the laboratory room, the rattling on her door was getting too noisy to ignore.

"Who is it?!" she shouted.

"I'm Kalny!" came the shout back, "open the door!"

She blinked and walked unsteadily to the door of her shop to open it for him.

The bright glare of the afternoon sun made her wince.

"Oh Selna, not another crazy scientist," the food merchant muttered, "do you even know what you look like?"

"I sure don't smell of roses," Kupo chuckled, "I know. What is it?"

"Never mind that," Kalny said, walking into her shop and closing the door behind him, "I didn't think you were the sort to work until you collapse. That's sort of Landar's specialty, no?"

"Haha," Kupo laughed weakly. Another bout of heat swept up her legs and she shivered. "I was testing the drug. This one just had a nasty side-effect."

Kalny sighed and shook his head, "and what in the world made you think that you should test it on yourself?! Not even Landar would... all right, she would, but that just makes my point for me."

Kupo waved him into the chair and snuggled down onto the sofa that Cato had gifted her. There was no better comfort when you were down with a fever after testing your own medicine.
"I was quite sure it wouldn't kill me," Kupo explained, "the piyos lived after all. But the piyos can't talk so I won't know if a drug merely causes reactions like this. Plus piyos aren't humans, a drug might just work differently."

Kalny shook his head, "find someone else to try it. If you die from this, this entire investigation into antibiotic drugs has to start over."

"You want me to try it on patients," she said flatly.

"Yes."

She stared at him and noted the concern in his eyes. Kalny wasn't thinking of the loss to his partnership profits if Kupo died from a drug reaction. Or well, he was but he was more concerned for her than he was for his wallet.

"When we don't even know if it will kill them or save them," Kupo said.

"Yes! That's exactly why you shouldn't be testing these drugs!"

Kupo raised an eyebrow, "and what makes my patients good testers for the drugs?"

Kalny sighed, "if you're worried about safety, then you need to worry about yourself first! If you need to, I can find some people who would be willing to try a new drug if it might just save them."

Kupo said skeptically, "an unproven drug that might kill you? You won't find ten people in all of Minmay."

"Well, then," Kalny got up, "if this is what it takes to prevent you from killing yourself. Ten people you said? I'll find fifty volunteers here by next week."

Kupo waved him out, not finding any energy to go lock the door after him. She curled up on the sofa and went to sleep.

She went through nearly twenty patients, who were comically eager to test a new drug, before she realized that Kalny was simply paying sick people to try it. The argument they had after that was loud enough to cause the neighbours to complain of noise.

Duport waved to the knights heading out of town. The mighty host in front of him, all three hundred of them, were a fine sight to see. Pennants and banners danced and waved merrily, despite the total lack of wind. Rekis and Pakas grunted and pulled their loads amidst the screams of excitement that greeted any major procession of the knights. Then the band started playing.

The new fanfare music style definitely suited the knights, Duport thought. The soaring trumpets certainly matched the beating drums, sending the onlookers into a frenzy of cheers. Knights saluted the chancellor standing atop the viewing platform as they moved past, one party after another. The inspiring march made the knights pull themselves straighter, armour and shields flashing in the afternoon sun.

Behind the temporary viewing stand, the crowd of onlookers cheered the knights on.

A certain bartender, surrounded by her regular customers, waved her hat merrily. The men and women around her cheered and whistled as the knights moved past. It was a sight she was long waiting to see, finally, finally, they were going to go.
The first almost-fight wasn't the last incident. Various foreign knights tried to throw their weight around and two fights actually drew blood. The second had destroyed not a few tables and killed one of her customers. That party had been forcibly ejected after Ture made good on his protection contract and pursued arbitration on her behalf.

It wasn't just her of course, she had seen the decline in law and order in the twin port towns of Duport herself every time she walked through the city. It wasn't safe to do her shopping in the evenings anymore and each day a new shop put up bars behind doors and windows.

She sincerely hoped the knights wouldn't come back.

In hindsight, the battle for Corbin was completely predictable. It was after all, what anyone expected to happen when the knights clashed with an army untrained in magic. What was unexpected was the price they paid to do so.

The pennants of the knights flew high and proudly in the wind, a colourful line of banners facing the lines of iron shields and weapons waiting for them across the plains. At a signal, the knights began to charge forwards, the formation breaking up into the race to be first.

The hail of crossbow bolts from behind the shields were met with a deflecting wall of magic. But while the bolts swerved and deflected to the sides and above, the knights began to receive hits from the sides. The few groups right at the front were targeted by so many bolts that their shields simply failed and the bolts proceeded to smash into armour and Reki alike.

As the parties began to separate to avoid getting hit by deflected bolts, the fire shifted. The second wave was targeted at single groups, aiming to overwhelm shields and slaughter entire parties of knights. Battlemages began to fall, armour and magic failing under a deadly storm of iron. Some groups even had bowguns, their bolts could pierce right through an armoured knight.

The return fire finally came, the relatively slower moving firebolts burning on shields and men alike. The first salvos of the spellstorms reached the line of soldiers, reaping them like a heavy wind in a crop field. The death screams of men set ablaze with magical fire, the soft sighs of those stripped of lifeforce and the choked cries where cruel force ripped apart men and armour alike, the clamour and panic that ate into the line of Corbin's soldiers broke their coordinated firing, bolts flying wildly as the pockets of soldiers still standing worked their crossbows independently.

The knights broke off, riding out of range to regroup and count their losses. The soldiers tried to rescue those who would live but the holes in their line were greater. In that very first exchange, Corbin's soldiers had lost far more men than the knights. At the last rate of exchange, Corbin would lose the battle; that was what both sides were aware of, even if none mentioned the cold calculus of life and blood.

But the knights wavered, hanging out of bow shot on their Rekis, unwilling to brave the storm of iron again, not even to rescue their fallen comrades who were not quite dead. Bit by bit, the cowering soldiers realized.

The knights were afraid of them.

Except in disastrous battles against the monsters, the knights rarely suffered losses of this magnitude. The later count put the casualties at nearly one in five knights. Without magic, the simple mechanism of the crossbow and the mass produced cast iron armour had allowed them to fight the knights of Inath.
Even so, the knights were not out of options. The spellstorms formed ranks and approached on foot, a thick interlocking shield of multiple layers buzzing with magic in front of them. The battlemages rode off to either side, aiming to flank and cut off their retreat back to the forest.

With more than half fallen and no way to escape Reki mounted battlemages, the remaining soldiers surrendered without firing a shot.

Quickly and anti-climatically, the first human on human military battle in more than a hundred years came to a close. Happening in a relative backwater compared to the later shockwaves, no stories were told and no songs were sung of the battle in Corbin plains. After all, it was grossly overshadowed by what happened to the south.
The Battle for Greenspring Peak

Enil looked at the mountain rising out of the rolling plains. It wasn't a particularly tall mountain, nor sharp and forbidding. In fact, it was green and round, barely qualifying the name of Greenspring peak. But the twin towns to the east and west of it were proud of their mountain and insisted on calling it so.

"How's the scout groups going?" Enil asked his aide.

"Fine," Feuston tossed her head, "I still have no idea what you are thinking, spending our money like that."

Well, now was as good a time as any to start teaching her. Enil shrugged, "This army is too big to move quickly and if we can hold the Greenspring towns, they will allow us to rest behind some proper fortifications. Greenspring towns have long sided with Minmay, they're practically right on the doorstep of the Minmay south gate."

"How does that justify spending money on scouts?" Feuston scoffed.

"Times are changing, my girl," Enil laughed at her naivety. The younger woman scrunched up her face cutely, the same way she did whenever she thought he was looking down on her. Well, this old sack of bones could still learn a new trick. "Humans aren't like monsters, they won't charge at you so you can conveniently kill them. Imagine if we were the monsters and Minmay's Guards were the humans, how would you defend Minmay?"

Feuston looked down and frowned in thought, then she brightened up, "I'd pick us off a bit at a time, raiding and attacking isolated groups. Just like how we attack monsters."

"Good, we'll make a commander out of you yet!" Enil grinned and stroked his beard, "and if our knight scouts meet their scouts, we will know if they are trying to attack us and we may even win such skirmishes. From our information, the spell cannon isn't very portable after all."

"I still don't understand why we're going after the Greenspring towns though," she asked again, "shouldn't we just attack Minmay city directly? What do we have to be afraid of with four hundred knights? They're probably just digging in around Minmay and waiting to ambush us."

Enil shook his head, "And if we go directly there, the Greenspring towns will be right behind us. What if some of Minmay's Guards were there waiting to attack us? We'll be cut off from Duport."

"Let them! We'll kick down Minmay's front door."

"We'll be fighting both in front and behind," Enil shook his head again, "the Guards behind us will harass us, the Guards in front defending Minmay. We aren't invincible and I would prefer to force them to give up than turn this battle into a free for all fight in the fields between here and Minmay. That can only end in total massacre and even if we do have the advantage in battle, more knights will still die than necessary."

He shaded his eyes from the sun. There were four dots approaching the army from the hills. Riders. "A scout group has returned I see, go find out what they saw," Enil nodded at Feuston.

Kobel held up a clenched fist and the group went silent immediately. The little copse of trees was
barely large enough to hide all of them, the large flat fields of Wind eyes made for non-existent cover at this early budding stage.

Slightly down the slope, a group of knights had dismounted from their Rekis and looked like they were taking their bearings. And having a break at the same time, some of them were watering their Rekis. Vague murmurs of laughter and conversation drifted downwind to the guards sitting among the stand of trees watching them.

"Duport's knights," Kobel muttered, "that banner is not one of ours."

The guards looked at him, soft creaking from their leather armour as they shifted slightly. He counted the knights, weighing their odds in his head. Four knights against his six. Five with the messenger.

"Distribute wands," he murmured.

Ildhin opened her pack and started taking out the bundles of magically active sticks.

"Kinrayi," he got her attention, "go back to Greenspring and report that we are engaging a scout group just west of Milly Creek."

"She always gets the soft treatment," Sulee grinned, "do you think he likes her?"

Ildhin frantically gestured at her to shut her up. Kobel sighed mentally and turned away, pretending not to have heard.

When Ildhin had finished taking out the wands, Kobel leveled his bowgun and took aim. A rustling of leaves and soft footsteps told him that Kinrayi had disappeared, keeping to the ditch running along the edge of the field to avoid being seen.

He thought, considering blow and counter blow. They might need an edge in this.

"Set firebolt battery for timed fire, one minute, then ten seconds after that," he muttered and Ildhin, the most practiced at using enchanted items among the squad, aimed them and set up the lines. She held the triggering wand over the fuse and nodded to him.

Kobel raised a hand and right as the knight watching the surroundings turned away, swung it down.

A clatter of bowguns lashed outwards at the same time as Ildhin triggered the fuse. Without waiting to see if he hit, Kobel pulled back the string to load another bolt, counting the seconds under his breath.

The lookout died instantly, pincushioned by three bolts. The fourth bolt was nowhere to be seen, missed.

As the knights shouted in alarm, Sulee unslung her wands with practiced coordination. The second salvo of bolts passed the returning fire, that splashed into an invisible disruption wall from Sulee's shielding wands.

As fire blossomed overhead, Sulee dropped her dead wands and drew another set.

Kobel fired a third round, the knights were alert now and their bowgun bolts were glancing off shields and activated armour. It still made the knights hesitant to charge them though, the knights probably thought they had a mage, with the shield above them.

"Out, into the ditch, avoid being seen," Kobel gestured and the squad followed him out, firing their
bowguns along the way.

"Wands out, force and fire mix," Kobel growled as they got clear, the knights second salvo of disruption bolts tore away the shield and ripped at empty ground. The first of the timed battery went off, firing a sequence of firebolts down range to splash on a hurried shield.

The knights weren’t even trying to take cover, not that there was much there. Kobel shook his head and nodded at his squad

They stood up and leveled their wands at the knights. A hailstorm of force bolts and firebolts, with even a bowgun bolt or two mixed in, smashed down towards the knights.

The knights frantically warded off the attacks, missed force and firebolts throwing up dirt and heat all around them. Then the second timed battery sent another screaming spread of the standard ten firebolts at them.

Ildhin glanced at the firebolts headed their way and jerked her thumb downwards. While the knights were distracted by the firebolt battery, they all dived flat to the muddy ground, watching the firebolts sail over their heads and impact into the soil around the ditch with gouts of flame.

Kobel peeked over the edge and saw the knights swinging up onto their Rekis and turning away, leaving the one dead scout on the ground. He sent another bowgun bolt their way, but only glancing off armour again.

Well, that went decently enough.

"And how did you manage to lose to a Guard scout group?!” Feuston fumed.

The knights huddled in front of her anger like lost sheep, looking down. The four Rekis behind them snorted and sniffed at Feuston curiously.

"There were two groups!” the leader of the party protested, "the second one must have been nearby and came running when the fighting started, they wouldn't have dared attack otherwise! And there was a spellstorm with them!”

A spellstorm? Enil frowned. The Minmay knights wouldn't have needed all of them to win against Corbin's army but they wouldn't have dared to shave off too much. So the opposing commander had put his knights with the scout units, hm?

"Who would put a spellstorm with scouts!” Feuston exclaimed.

"It's true! They had a rank ten spell storm with them! Two salvos of firebolts!” the knight tried to defend himself.

"Spellstorms can't even defend themselves properly, who would use them to scout?!”

"Enough Feuston,” Enil interrupted, "I am inclined to think it's true. There cannot be many knights with the Minmay Guards and even if spellstorms are fragile, they must be tougher than a Guard. "

She backed down at his nod.

"That was useful information," Enil nodded his thanks and tossed a small coin bag to them, "it's not much consolation but-"
"It's all right," the leader caught the bag and looked inside, "we never liked him anyway. His share will be welcomed."

Enil nodded again. Good that they weren't too attached, the closest knit groups worked better but tended to cause trouble if any casualties arose.

One spellstorm would multiply the firepower of the scout groups, but wouldn't help if his knights managed to close the range. Although if the Guards were scraping the bottom of the barrel for any knight, a spellstorm would be better than nothing he supposed. That probably meant there weren't too many knights over there although if that was the case, then Enil wouldn't have used them for scouting.

That and the fact that scout groups were clashing so near to here meant that there was a high chance the Guards were in the Greenspring towns. Good to know.

"We ride for Greenspring Peak. I want to get there by tomorrow midday," Enil nodded at Feuston and she snapped to attention before running off to organize the necessary orders.

Enil wondered just how the Guards managed to persuade the Minmay knights to break up their parties.

"The battles are going decently," Curaysm nodded, placing another marker on the map. The large table in Greenspring East's biggest inn had been commandeered as the war room. After the Minmay fire, the idea of a war room had spread and it seemed that just about everyone had a table map with markers. Merchants used the concept to mark their markets and sales by area, the knights and Guards for patrol routes and trouble spots, builders for construction sites and transportation.

Curaysm didn't know how useful it would be to the others but it was sure useful here. Too bad accurate maps outside of city areas were hard to come by, they just had to guess where the reported fighting actually was.

"The fighting seems to indicate the army is around here, perhaps a few hours ride from Milly Creek."

He looked up to see Polve arranging the red markers for battle spots.

"They'll come here, now that they knew we are in Greenspring," Curaysm nodded.

She nodded back.

"How's the preparations? The spell cannons?"

"It's fine. The Guards have dug out raised shelves for the power box after last night's rain, it won't happen again."

Curaysm nodded. The things you learnt when you brought new equipment into the field. The rain last night had caused some minor flooding, what was slightly uncomfortable for the Guards had resulted in water getting into the crystal evaporation chambers for the spell cannons. The wet had caused the seals to fail and the power output was miserable. Luckily they recovered function once they were dry again.

"Will the supplies last for another day?" Curaysm asked. Minmay had given strict instructions that the Guards were not to take anything from the towns without paying for it.
"The victory cans-" Polve blushed and corrected herself, "we still have three days worth of canned food. It will be sufficient."

"Tell the Guards to eat well tonight," he nodded, "we will all need it tomorrow."

The knights rode up the hill and halted in sight of the thin line in the rising land ahead. Men moved along the line and arms were waving in the distance. The enemy had spotted them too.

"That would be the Minmay Guards?" Enil asked no one in particular.

The strange line in the soil was two rows of artificial ditches dug into the farmland. Stakes pointing outwards had been driven into the ground in their direction, a clearly makeshift defence. Despite how the scouting battles had gone, humiliating draws most of the time, the knights were still optimistic.

Enil tried to count the number of Guards rushing around the lines. Certainly more than he had knights but how much more? "How many do you think they are?" he asked Feuston.

She sniffed, "it doesn't matter. When our spellstorms get in range of those lines, we will roll over them!"

"Well then, I guess we should find out if that's true," Enil smiled, "advance!"

The first attacks were launched right at the edge of feasible targeting range. Battlemages hurled disruption blasts and the spellstorms' signature mnemonic chatter heralded a tidal wave of magical bolts that sailed overhead towards the enemy lines.

Then much farther than normally possible, the returning fire entered magical sensing range. Enil heard Feuston gasp in shock, the range at which they could be felt meant those huge blasts were ludicrously powerful. Those must be the spellcannons! And there were four of them!

"Intercept with disruption!" Enil shouted. A number of the knights, those who were in the lines of fire of those monstrous blasts, had already started but more of them turned their attention to countering the incoming magic. The outgoing fire waned as spellstorms began to unleash their power at the oncoming attacks as well.

Without a sound, the clash of raw magical power winked out in unseen violence. The blasts were stopped.

Then a wave of smaller bolts, all of suspiciously identical strength, entered view. They splashed, diverted and faded away on the hastily thrown shields and walls of magic. The entire area of the frontline disappeared in a conflagration of magical flame and great gouts of rock and soil. Spot failures where the party simply wasn't strong enough lead to sudden incineration of entire squads of knights. Wails and cries began to rise. Only a few casualties, certainly not enough to stop the knights.

The hailstorm of the knights' first attack reached the enemy lines. Enil craned his neck, trying to catch a glimpse of what was happening through a gap in the smoke.

Just like their own, the Minmay Guards' position was blanketed in fire and smoke. Enil frowned, the flaming wall of smoke and dust nearly completely covered their lines. An airburst? Their firebolts had ignited in the air! The Guards had shields too! He squinted, the continuous rain of magic on the shields were beginning to define the shape, stray shots still exploding high in the sky.

A dome? Enil could count three massive domes covering all portions of the thin lines.
What kind of mage was powerful enough to cast that huge a shield and sustain it against the kind of continuous bombardment the knights were pouring on it?!

"Charge!" Feuston urged her Reki forwards, her powerful shield shouldering aside a trio of forcebolts from the second wave of the enemy fire.

He had the sinking feeling that this battle wasn't going to be as easy as Feuston hoped. It proved true when another quartet of spellcannon blasts rolled into view, all of them seemingly bearing down on him.

Kobel ducked into the trench as the shield overhead failed and Duport's knights' blasts began to rain onto their trenches and smaller individual walls.

"Concentrate fire at the center of the line!" the cannon commander shouted and the four spell cannons were manhandled forwards past their shields to point at the charging knights. "Fire!"

The huge magical power in their barrels discharged downslope. They drowned out the smaller bolts in their sheer brilliance, filling his magic sense with nothing but a uniform glare. Then it was gone and the invisible world of magic returned.

He could practically see it through the walls of his section of trench. The dim cloud of the oncoming knights' shields, pinpricks of magical bolts flying their way like rain from an overcast sky. The clearly defined explosions of magic on the Guard's square shields from their wands, a glittering bulwark of multilayered disruption shields protecting the spellcannons. The constant flashing of bowguns firing. Then the beat of their drum came again and everyone popped out to fire a wave of smaller blasts down at the knights, obvious gaps where their own shields prevented wands from being fired.

Screams of burning men and women rang in the air as their shield walls began to fail and lucky shots caught soldiers out when they were shooting.

"Main shield, deploy! Cannons, begin charge!" the cannon commander shouted again.

The spherical device behind their lines discharged its shining load of magic into the sky, blossoming into the carefully spaced spherical shields that once again blocked the knights' attacks. Kobel sighed in relief and popped out of his trench to fire his bowgun in the direction of the knights struggling up at them.

Behind him, Kinrayi and Sulee were at the spherical shield device, hurriedly shoveling more crystals into the charging chamber. Four men were ferrying sacks of the crystals forwards from the waiting ammunition carts behind the lines.

Kobel reloaded his bowgun, only three of the new model Resist bolts were left in his belt, then he had to make do with the original acceleration ones.

He took aim downslope and was shocked at the sight. The center of the knights' formation had completely collapsed. The four spellcannons had punched a hole all the way through the center shields and knights alike, leaving a line of human and Reki bodies on the ground, lifeforce completely destroyed. The rest of the knights continued their reckless charge, seemingly leaderless.

Kobel shook his head at the senseless charge. He took aim at one of the leading knights and fired, the man's Reki crashed to the ground. How many of them would survive to reach the line? At this rate, Kobel wondered if any would.
"Main shield, lower. Cannons space your fire!" the cannon commander shouted.

Kobel dived back into the mud along with everyone else. The shield overhead shuddered under the multiple impacts then winked out.

"Fire wands!" the call for the third salvo came out, right as the bright searing glow of spellcannon fire flew overhead again. They boiled upwards to fire another salvo at the still charging knights, barely thirty meters away now. Flames and showers of dirt and limbs greeted them, fierce and savage close range magical combat taking its toll of life. The great blasts of fire from the spellcannons ripped the holes in the knights' tattered formation even wider. There was no time to intercept this shot.

"Spell cannons, continuous fire! Shield stand down!"

Kobel drew his sword and readied it, the commander would only call that if the knights were going to reach. He leveled a wand at the nearest knight to him and discharged it futilely against a shield as the bugle went out for a counter charge.

Kobel rushed forwards, scrambling out of the trenches along with the rest of his squad, freed from crystal shoveling duty. The knight he shot at had been dismounted and came at him with a cry, swinging a magical blade downwards with savage force. Kobel parried with his own, the Resist enchantment along the blade anchoring it against the attack. Then the knight's sword broke through, smashing his blade in half and slicing downwards along his shoulder.

Kobel screamed and fell backwards, only to see the knight shielding himself desperately from the close range fire of his squad mates. Sulee even had the nerve to grin at him. He gritted his teeth and drew his wands with his good hand and added to the fire, tossing spent wands like so much trash.

The knight's shields failed finally and he went down in flames. The choking smell of burning flesh and the thick metallic scent of blood seemed to blur with the shouts and cries of men and women dying in the chaotic melee. Kobel groaned and tried to get up, but the pain in his shoulder was too much. Ildhin nodded down at him and he waved for her to take command of the squad. Sulee looked apologetic as she scooped up his wands, he wished there was time to reassure her.

Overhead, the spell cannons fired a stream of blasts, stronger than any wand, hammering down shields and men alike. To either side, the Guards, far outnumbering the knights now, were attacking them in a mix of melee and close range wand fighting. Here and there, pockets of knights made their stand, only to be hosed down by spell cannon fire.

A hailstorm of magical bolts flew over Kobel and there was a sudden outpouring of magic at the back line escaping into the sky. One of the spell cannons had been hit, probably. He shifted, trying to crawl back into the trench. His shoulder wouldn't cooperate, there was probably a few bones broken in there.

Then a knight fell down beside him as the woman's Reki died under her. Before she could react, Kobel hurriedly grabbed the remains of his sword with his left hand and stabbed downwards into her face. She twitched and stopped moving.

He flinched from the blood spray and resumed his desperate crawling. With nothing but his knife in his belt, there was nothing more Kobel could contribute.

The screams and explosions was starting get distant. Was there always so much blood on the ground? Kobel sighed and rolled onto his back, too tired to go on any longer.
"Hey, you're awake?"

Kobel opened his eyes. He sighed and smiled at Sulee sitting beside his bed. "Can't you let a man get some rest?"

"No rest for the wicked," she grinned, "you were already awake since five minutes ago. Count yourself lucky I let you sleep that long."

Kobel snorted, "so, I see I was treated when I was still sleeping. How bad is it?"

"Your shoulder is broken, but you'll live," Sulee nodded, "you'll be back in two months."

"The others?" Kobel asked.

Sulee paused, her face falling. "Kinrayi didn't make it. A knight archer shot her," she said finally.

Kobel blinked up at the ceiling and sighed heavily. He supposed it was too much to hope that all of his squad had made it out alive. Then again, when he was surrounded by groans in this white tent, it was clear that the casualty count must not be low.

Sulee looked up and got to her feet, saluting. Kobel raised his head and saw the commander, Curaysm, approaching his bed. He struggled to get up but the man held out a hand. His expressionless face was hard to read.

"It's all right, you don't have to get up," Curaysm said, "how's your shoulder?"

"Sulee tells me that I'll be out of the force for two months," Kobel said.

Curaysm nodded then turned to the woman following him, who scribbles some notes on her clipboard as he talked, "an honorary discharge. Kobel, your service for the city of Minmay has been recognized and we grant you a leave from the Guards to recover your injuries. A sum will be paid to you for your salary during these two months, with a bonus to cover your treatment. Once you have recovered, if you wish to join the Guards again, then we will welcome your application."

He looked at Kobel, as if waiting for him.

Kobel nodded formally, the best he could do on this bed. He was expecting worse than that, now that he couldn't fight. "Can you tell me what happened? Did we win?"

Curaysm looked at Kobel and nodded, "we did."

And then the two of them were moving on to the next bed. Sulee sat down beside him and grinned, "he's been going around all week, talking to those who have woken up."

Kobel smiled, "he might actually be quite nice under that sternness after all."

"Yeah, I wouldn't have thought him capable of that," Sulee pouted, "not after the marathon we got forced to run for training. I hear the commander was the one who mandated that everyone do it."

Kobel leaned back against the hard bed. This was going to be a boring two months after that excitement.
Aftermath

The Minmay Guards will march on into the territory of Duport. Obtain the unconditional surrender of the Chancellor Duport or capture the twin port capital of his territory.

Signed, Chancellor Minmay

The Kalny Canned Foods brings you a new Victory Cans series! Yours for only five telins each! Containing only the best recipes our chefs make, each can contains all you need for a hearty meal without the fuss. Simply pop, heat and eat! Comes in recipes from chunky paka and vegetables, piyo and noodles, mushroom and vegetable mix, and much more! For five telins each, get yours while stocks last!
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A Kalny Can advertisement sheet found in Duport

Amarante dropped the summary of the battle onto her desk in disgust.

"I though we had to worry about Morey raising an army," she said acidly, "it turns out that there was someone already willing to flout the Rule."

The bowguns were bad enough, the spell cannons were worse. Weapons that needed no knights to use, where any baron with the money could muster up the men to fire and kill with. And those shields could only have been made with the full intention of turning them into an army that could rival the knights.

It was all the fault of that one man, Cato. After Morey's letter of warning, the first time the Lesser Court had fully supported his actions, that little town of Minmay had been crawling with observers from all over Inath. Getting into that university had been absolute child's play, why there was practically no secrets, the lectures and lessons were open to attendance and no one even tracked who listened! One of Amarante's best informants was a humble maid who sat in as many lectures as her free time permitted and took notes of everything. The teachers even praised her spy as hardworking and studious!

Amarante still didn't understand that. She expected Cato to hoard his otherworldly knowledge and build a trade guild, and with time, take over much of Minmay. The battle with Duport's knights would have been terrifying if it was Cato's personal army winning that battle.

Now she was still confused. The Guards were undoubtedly under the command of the chancellor. The university was jointly controlled by Minmay's guilds and Minmay himself, even if Cato was nominally the leader. His own word was only taken as law when it came to safety in experiments, something too many people had trouble appreciating although Amarante reluctantly agreed. He functioned mainly as a mediator for disputes, for advisor on research direction and for coordination in the fledgling government. His personal income had been estimated to be a paltry ten or twenty Rimes a week, all the rest of the profits went to the guilds, merchants and university.

Amarante did not understand Cato's actions. But she did not have to understand to know how much
it was making her life difficult. Blast furnaces were going up in Ranra by the hundreds now, and the thick forests in full retreat. Bootleg and local broadsheets were circulating, along with more books than anyone could keep track of. Every village was secretly keeping a small library and a printing press, somehow it had become a matter of pride to be able to write each other letters. Full of local problems and nonsense most of the time but still popular.

And now, Minmay's Guards had won the day against a full army of Duport's knights. No one had believed they could win. Untrained soldiers, with admittedly good equipment and even some wands, against full fledged knight cavalry?! But they won.

Like the other proven ideas, spell cannons had been sold, sold!, to the knight order. Not much better in security, Amarante knew many alchemists were already working to build them. Her only consolation being that it was harder than most people thought, requiring a nearly inhuman finesse to create. Soon everyone was going to copy the model of the Guards.

And the world would return to the war-wracked times of past.

"Not good reading?" her husband Vorril said, leaning against the door.

"No, it is not," Amarante sighed and put down the paper. The new supplier had his praises sung by all the palace administrators, it was wonderfully flat and consistent paper.

Was it the work of that man too? Amarante shook her head. No, she couldn't go around doubting everything she saw. What harm was paper anyway?

"I suggest we work with Cato," Vorril said, staring at the folded letter on her desk, "Minmay's victory may be small but those inventions hold the possibility of winning this war. Without needing the Sword."

"I've half a mind to hire some knights to assassinate him," Amarante said, "Ektal is disintegrating faster than even Illastein. If Ektal fails to control Minmay, Minmay might as well name himself King. Ranra and Inath are wondering if they are next. The Federation is falling apart, Vorril." 

"Inath will survive," Vorril said, "you can leave that to me."

"The country will, but the Federation will not," Amarante sighed, "but what can I do? Should I actually try the knights?"

"It won't help," Vorril smiled, "the man is smart. I'm sure you are better informed than I but what your people tell me is that Cato barely runs anything directly. His university is focused on teaching people to think like him, to make their own advances. Kill him and the rest of the people in the university will continue his work. He's not essential and all you achieve is to make enemies of Minmay."

"Then how do I stop this?" she asked, "we can't burn the entire university, not with Minmay's Guards there all day."

"Even that won't help, my queen. The Iris family has a copy remember? Unless you think you can get rid of them too."

She winced. The summoners. The clans were stubbornly independent no matter what she tried and she had always known they were going to be a problem. They were also traditional and inflexible, she didn't think they would embrace Cato's ideas, only that made them an even better choice as a third party trustee. The clans could be bought and even if they refused to use the knowledge, the clans would not look unkindly on Minmay for giving them a political chip this huge.
"Amarante," Vorril walked in front of her desk, sitting in the seat opposite her to bring himself down to her eye level, "the knowledge cannot be lost so easily. Not unless we go through another Great War like the First and the Tsar. Are you going to let the Inath Federation dissolve into a civil war? That will simply let the monsters destroy us all."

"I know you are worried that this knowledge and these armies will be turned against other people. That it may cause this war I am speaking of," Vorril continued, "but I know for a fact that wars are caused by the kings and queens. You have helped abolish war as it was known, can you not make it work when the rulers have their own armies?"

That the rulers would have their own armies went unsaid, Ranra and Ektal were furiously copying the tactics now, if they had not already started upon hearing about the Guards. Also unsaid was the surreptitious preparations Vorril was making and that he knew she was keeping an eye on.

"Such a peace cannot last forever," Amarante objected, "even if we managed to put aside our differences and remain peaceful, all it takes is one ambitious king. After me, who will defend the peace of the Federation?"

Vorril snorted, "that is a problem for future generations. It may be that war is needed in the future too."

She looked down at the report on her table, unable to think of anything to say to that.

Danine wagged her tail, looking for all the world like a baby Reki.

"... and so, despite your incredibly foolish and risky actions, I have no choice but to agree that it all worked out for good," Ryulo sighed.

Her posture was all anyone needed to tell that she wasn't really being scolded.

"However, the Ironworkers are only treating us well because of Cato," Ryulo added lamely, "you don't know if they would have betrayed us instead."

"The Red Water have been broken up," Danine pointed out, "and I did take notes about steel."

"And much good that will do us," Ryulo shook his head, "perhaps Toal might be interested but do you think we can just build a blast furnace like Cato did and not have the Ironworkers sabotage us again? Why, they just asked you to inform them of Corbin's attempts! And if Cato hadn't intervened yet again, we would have real knights coming after us!"

"He wouldn't have known to intervene if I hadn't been keeping Minmay informed as well," Danine said.

"You were going to take responsibility for yourself, like what Cato was teaching you," Ryulo raised an eyebrow, "are you sure you're not just relying on him again?"

Danine smiled, "using the name of powerful friends is also a way of solving a problem. It was the best chance we had. He didn't come to save me, I made the decision to ask him."

"So, then, what do we do, young Elder?" Ryulo noted her flinch, "if you're making decisions for the rest of us, that makes you an Elder, does it not?"

Danine winced but nodded anyway, "the Ironworkers want to run some tests with our Ems. They
want to see if the Ems can be used in forging iron in any way. Now that Corbin is gone, the Ironworkers are willing to take Fuka students. Cato says he can guarantee that they will treat us fairly."

Ryulo blinked and she had the satisfaction of noting his surprise. "That... isn't so bad an idea actually," Ryulo rubbed his chin, "if Cato is sure the Ironworkers can be trusted..."

Danine huffed and puffed her cheeks indignantly. "The moment I drop Cato's name, it's all fine, eh?" she snapped acidly, "are you sure you are not the one relying on him?"

The speechless look on Ryulo's face was completely worth it.

Aesin rocked the sleepy Arisacrota in her lap. Minmay sitting beside her drank his cup dry. Curaysm followed the gesture, trying not to wince at the strong alcohol. But the ritual to honour the fallen warriors was never a pleasant thing, and Curasym wished that he would never find it pleasant.

"The Guards have seized Duport's territory, the chancellor could not be found," Curaysm summarized, "Corbin has been arrested and her town will be administered in your name. Apart from the battle for Greenspring Peak, there was hardly any resistance or loss of life."

Minmay nodded

"It was only to be expected really. The few knights that ran away must be spreading word of the defeat faster than the Guards move. No one expected Duport to lose, and lose so badly. Even Ektal is having second thoughts."

"And raising his own army," Minmay said.

"Sir, at this point, with your knights willing to cooperate with us, there is no army in the entire Inath Federation that can win against us. None," Curasym said confidently, "and their armies are at a disadvantage with our technological advantage."

"One that won't last for long," Minmay pointed out, "Cato did release the existence of the mana crystals after all. Even though I told him it wasn't a good idea."

"It would get out eventually, sir," Curasym said, "I'm not sure what he plans to do by giving it away though. Our enemies aren't going to do us any favours because of donations."

"I could have at least traded it for political support in the Central Territories," Minmay sighed, "but no use crying about it. What about Duport's territory. How bad is it over there?"

"Very. Law and order is poor and the Guards are viewed with suspicion by many of the citizens. I doubt they have had a good experience with foreigners."

"Well, don't make it true," Minmay warned.

Curasym nodded, "of course, sir. I left the commanders with explicit instructions not to allow any sort of looting or criminal actions."

"I hear their food supply is getting low too, with the problems caused by the Ektal knights. Are they dealing with it?" Minmay asked.

"Actually that part I know of," Aesin said, "a number of food merchants were right behind the
Guards. They're making money hand over fist by selling our surplus food to Duport citizens. They won't starve."

"Yes, madam, I saw that too," Curasym agreed, "the canned food is popular there too. The merchants are also shipping thorn down cloth from Duport's Threadspinners back to Minmay after emptying their carts. But apart from that trade, there is little else we can do to make the citizens trust us faster."

They looked at each other.

"Actually," Aesin broke the silence, "let me go to Duport. Without a two week lag for communications, I can make decisions more fitting to Duport's situation. It will be just like the Central Territories."

Minmay appeared to consider the option but Arisacrota woke up and murmured sleepily, "mama, are you going away again?"

Aesin smiled down at her and asked, "do you want to come with me?"

"What?!" Minmay exclaimed.

Arisacrota was wide awake now and held her mother's gaze with her large eyes, "can I? Really?"

"Aesin, we were just talking about the poor security in Duport! I can't let Arisacrota go there?!"

Aesin looked up, "we can. We have the Guards, and after that battle, I doubt anyone will pick a fight. And what better way to say that you trust the people of Duport if your own daughter comes to visit? With sufficient propaganda as Cato calls it, Duport can be the friend of Minmay again."

Then she abandoned the cunning light in her eyes to grin at her daughter in her lap, "besides, our little Arisa is old enough to leave the house now. Isn't she? She wants to see the world, right?"

Curasym chuckled and shook his head as he watched Minmay sputter useless protests.

After Aesin went to put Arisacrota to bed, Minmay and Curasym sat across the dining table.

"I never did expect to win," Minmay said, wiping his brow with imagined sweat, "I guess its still sinking in."

"Well, the Guards have always been more numerous," Curasym explained.

"They are certainly much cheaper than knights," Minmay said, "how long did the first batch take to train? Five weeks? Seven?"

"About five, sir," Curasym clarified, "and as long as we can field at least five or six per knight, we should be able to win the battle as long as it starts at long range. If they try to duel us at range, our wands and spell cannons are more than sufficient at two Guards per knight. The latest innovation, linked wand batteries, didn't reach the battle in time to be used in any large amount but I believe it can be a devastating first strike if used properly."

"They're really turning into an army, huh?" Minmay nodded, "I could hardly believe it when Cato first said that any person could be made a soldier."

"Our fighting power most relies on the equipment after all, it doesn't matter which man or woman is holding the wand or shoveling the crystals," Curasym said, "as Cato and the university improve the spells and alchemy enchantments further, the balance will only continue to tip in the favour of cheap
soldiers with good equipment. The way of the knight as a fighting force is over."

"But if the knights are useless, how will they react?" Minmay asked.

"They can't, not really, since your Guards are so strong. But I believe Cato's compromise will eventually gain acceptance. The knights are better trained and more flexible than the Guards, as scouting and peacekeeping elements they are still stronger."

Minmay considered his words for a moment then nodded in agreement.

"So about Ektal, what should we do?" Minmay asked.

"We should pursue peace, sir," Curasym said, "even though I am confident we can win any battle with his knights, it does not mean we can throw away the lives of our Guards lightly."

Minmay raised an eyebrow.

"Forgive me sir, but the Guards are tired. They need rest and to return to their families," Curasym said, "I had already drawn up a leave rotation. I strongly advise you not to start a new campaign now."

Minmay sighed and smiled, "it's all right. I never wanted to be King. I never wanted to fight a war, no matter how victorious we are now. If this war turns out to have a continuation, it won't be by my aggression."

"I understand, sir," Curasym said, "so peace it is?"

"Peace, it will be," Minmay nodded, "if Ektal would have it."

Cato,

Our project is a success!

The water tower is sufficient to maintain constant pressure and the windmill pumps are working completely unattended now. With waterproof concrete and copper pipes for indoor sections, the pressurized water system carries water to all houses in the noble district of Minmay. It is with great pleasure that I inform you that Minmay has a running water system in addition to the sewage network.

Other than plans to extend this all over Minmay, I have drawn up plans for a completely closed cycle boiler and heater system, based on the extensive experience in waterworks I have recently acquired. In particular, if the boilers can also be used to heat houses on cold nights by piping water around the flooring, I can foresee a market for such luxury homes among the nobles. Please review my plans and suggest corrections as usual.

Muller

The contraption hissed and spat as the coals in the boiler beneath roared in flame. The heat in the forge floor was nearly unbearable, but no one flinched in the slightest. Even the branch leader Willio stood there with waves of sweat pouring down his face, watching the maiden firing of their new project with hard beady eyes.
The arm lifted again, the massive steel hammer rising into the air in time with the hydraulic pump's chugging. Then with a groundshaking slam, the hammer fell down, pounding flat a section of steel. Showers of sparks flew, slag and bits of glowing hot metal scattering across the ground.

In front, three master smiths laid their pieces under the steam hammer, letting it beat their creation into shape. Behind at the boiler, a quartet of labourers shoveled their coal in turns. Yet further, another team of labourers lead by a smith began to pour steel from the hearth furnace. And all across the floor, the Ironworkers looked on at the hammer move up and down.

The first pieces of the tempered steel from the steam forge was brought to him for inspection. Willio took the offered metal file and rubbed it against the hardened steel. The distinctive metallic noise as the hardened steel repelled the file made the smiths in the manufactory stand straighter. Prouder. Willio didn't react, he proceeded to test the file against every inch of the piece and it made not a dent at all. He dropped it, hammered it and subjected the metal square to every manner of physical abuse and it stood up against all of them. Mere human strength could not scratch it.

Finally, he nodded. "Mass produced hardened steel," Willio breathed, "unflawed hardened steel."

The legendary steel quality that every smith aspired to, that was the graduation requirement for a student to become a full fledged smith in the Ironworkers. Now three smiths had made half a dozen pieces weighing as many kilograms and they were just hitting their stride. Not that it required a smith to refine steel in a crucible by hand, they had an open hearth furnace that could pour first rate steel by the batch lot. The regenerative preheater from Cato's collaboration was saving them almost forty percent on fuel costs and there was still room for improvement. Not to mention the coke furnaces supplying them fuel.

It went on for some time, the deafening clang of machinery, the yelling of hoarse commands and the constant presence choking smoke. The manufactory was on a clock, churning out pieces of steel for a planned expansion of another steel production line. There was talk for a design of an elemental furnace using magic to heat raw material to unheard of temperatures in order to refine anything. Although the first targets were aluminum, chromium and nickel, aiming for the miracle never-rusting stainless steel and alumina of Cato's world. The new first rate steel.

With sufficient first rate steel, and sufficient magic, Cato had promised the Ironworkers that the most advanced technique of his world requiring liquid oxygen would be possible. High pressure and vacuum vessels demanded nothing less than first rate and ludicrous quantities at that.

Willio looked away finally, heading outwards to the empty ground next door. It might have cost them some pride and the sheltering of some tails... but this was where the steel of Minmay would be forged, nay the steel of the Federation entire. This was the future.
Locoss nodded silently as the boy's magic coalesced into a stable spell. She moved on to the next person the bench.

At another row, Ereli was being detained by a nagging old man, but her pleading glances towards Locoss went unanswered.

The room was mostly full of children and young men and women. Seated on benches in rows, they focused on their little balls of magic as Locoss and Ereli taught them to make. Rather than trying to learn it from the book, it was far better to learn under those who knew their craft. Even Ereli could so some small amount of alchemy enchantment now, if still slow and inefficient.

"What else can we do if the baron decides to raise the tax again?" the old farmer complained for what sounded like the twentieth time now, "With more than half the wind eyes taken from us each harvest, we can barely even survive."

Ereli nodded stiffly, hoping that the man would let her go now.

"And don't let me get started on my grandson," he added, "paying a Rime a month in interest on that loan he was forced to take."

You've already started talking about him, Ereli thought to herself. She suppressed her irritation and nodded politely again. Morey had told them to keep on the good side of the common people.

"That's why we are here," the merchant on the row in front of them turned around, "so that this system can end."

The old man nodded, "without a Baron to oppress us, we can be free to live our lives."

"There can't not be a Baron though," the merchant said, "who's going to pay the knights?"

"Why do we need knights?" the old man scoffed.

Seeing them begin to argue, Ereli took the chance to sneak off.

"Am I doing it correctly?" he asked, holding out a simple iron rod less than a hand long.

Ereli took it and examined the magic in it. The blacksmith of this village was one of the faster learners of magic, having already started making inroads into alchemy.

"Hmm, I can't tell," she turned around to find Locoss right behind her. "Whoa!" Since when did she...

"Show me," the girl demanded, taking the rod from Ereli's hands.

Ereli patted down her hair nervously, the taciturn alchemist made her jumpy when Morey wasn't there. She never knew what the girl was thinking about.

The enchantment on the rod burst into little pieces that dissolved into the air. "Circuit weak. Binding incorrect," Locoss spun a complex magic in her hands and in a few seconds, handed back the rod with a new enchantment. She left him with one word as an explanation, "firebolt."
The blacksmith nodded and went back to studying the rod as Locoss wandered off.

Ereli sighed. Perhaps she wasn't cut out to be a teacher.

She had showed another row of young children how to create the ball of magic again when there was a clattering outside. The metal clappers tied to the gates on the village perimeter were ringing. That meant there were knights coming, according to the pre-arranged signal with the lookouts.

"The knights are here!" "We have to run!"

Immediately, the room filled with cries. Before Ereli could react, the blacksmith and the old man were already herding the children out the backdoor, where whoever was in the main road wouldn't see them leave. The mayor's house where they were gathering was not defensible, like any of the other buildings in this village.

"Get the wands!" the mayor hurried the older adults, "Ereli, if you would?"

"Yes?!" she jumped a little as the mayor suddenly turned to her. But it was obvious what she needed to do.

While everyone else was cracking open the shielded wooden crates of charged wands stacked at the far wall, Ereli was to go stall the knights. She clutched the three bangles on her right arm and ran out of the building.

The stones on the metal rings clicked noisily as they rattled against each other.

"Hey!" A shout came from the street outside as Ereli burst out into the bright sunlight. "Stop right there!"

She looked up and found herself facing down ten knights still sitting on their Rekis. Drawn swords and bows glinted under the afternoon sun and the scattering of chainmail winked at her. The Rekis were looking very big and menacing now.

"Where are the rebels! Give up now and we will spare your life!" the battlemage at the front of the group shouted.

Calm down, Ereli, pretend they're like those practice targets back home. She tried her best to imagine the knights were those large balls of rock the Iris used as target practice and sent her magic down her arm to the second bangle.

Just like she had practiced thousands of times, the first panel of the bladewall sprang out in front of her nearly instantly.

"A summoner?!" the battlemage gave a strangled cry and shouted at the rest of his group, "attack! Now!"

He needn't have said that. By the time the first blade was ready and the second blade started forming, the knights were already beginning to build their disruption bolts. The panel absorbed the bolts with contemptuous ease.

Ereli looked left and right. Just like Morey had told her to do, a single panel might protect her from the front but curved bolts could still kill her. And if the knights couldn't batter their way through the shield, which she strongly doubted they could, the only chance they had was to attack Ereli before the wall was full formed.

The second panel swiveled away, half completed, to block a firebolt one of the battlemages sent in from the side. Unlike normal disruption shields, the cloudy panels of bladewall shielded her from
even the heat. Morey had told her that it was due to the panel scattering light rays, which gave it the characteristic solid mist look shared by shieldwall.

All around her, for more than ten strides, the reaction field twitched and jumped as the knights' bolts swept their way through the thin clouds of magic. Without even having to do anything, Ereli's bladewall snapped forwards to intercept any bolts that would pass through the defended zone. She tweaked the stone and the third panel broke away to move independently. No need to charge them so strongly when the knights had no alchemists or spellstorms.

It was getting too late for the knights to get past her now, with two salvoes intercepted flawlessly. After her fourth or fifth panel, Ereli could start attacking.

Or Locoss could do that.

While shouting another order to break the group to flank her, the leader's head simply exploded. Ereli had seen it enough times to know what was happening, but it didn't make the sight any less gruesome. She swallowed the bile rising in her throat as the second battlemage's Reki turned into so much shredded meat, along with the woman's leg.

Morey would not like her to be so squeamish. After all, Etani, Nal and Locoss didn't have any trouble killing people. Why was she the only one so naive? The slaves were the same too, despite Locoss's support for the cause, Ereli could tell that only she was the one so disturbed by the thought that she still had nightmares about the whipped boy.

Ereli wished she could get used to the world outside Iris a bit faster, even if she wasn't sure she really wanted to. But every time she balked at killing someone, Morey would be disappointed.

The building beside her suddenly sprouted a dozen magical sources. Bundles of sources. The wands appeared at every window and door, held by angry villagers. Locoss and the gun was still unseen and unfelt. She looked at the knight group dissolving into chaos and gulped again.

This was much harder than aiming for a single person Ritual summon. Why couldn't the world be simple and nice?

"What do you think?"

Morey put down the letter gingerly and nodded.

"Good. It's good," he breathed, "I had a hunch when your investigations into the slave caravan raids were suspiciously incompetent. It looks like we share some ideals. "

The Lawi nodded. "My grandmother was a slave," he said, causing eyebrows to raise among Morey's group, "before my father seduced the then Lawi's daughter. "

The roguish grin on the man's handsome face made some of the ex-slave girls blush but Morey just sighed. The ruler of the town continued, "ever since I was five, my grandmother would always tell me stories about her time in the plantation. It's why I never employ slaves."

"You still allow slaveholders on your territory," Morey pointed out.

"I have to," the man rubbed the stubble on his chin irritably and shrugged, "I've done my best to lift the system of oppressive debt in this town of Lila, but my power as a Lawi is limited. If the Alawi is persuaded to remove me by one too many irritated businessmen, my work stops. This is all I can give
"It is more than enough," Morey said, "with information as to where your inspections and patrols will occur, staying unfound will be simple. You're even offering to be deliberately incompetent in investigations of raided slave caravans. The only thing more I could ask of you is to contribute funds or troops when the revolution starts."

"My Wiis will complain, even if most of them are family now. It's too much risk if the Rawi squashes the rebellion," the man nodded, "I don't think you'll fail but I hope you understand if the tradeoff is not in my favour."

"The Rawi is what they call the king," Harlos clarified for Morey.

So he was looking for some kind of reward? Morey sighed. Well, he needed all the help he could get and a major noble like this man Bini would be a great help. "You could take over as this region's Alawi afterwards," Morey said, "he was not going to stop the slavery. At least not until I made him last week."

"I heard about that one," Bini grinned, "I heard you defeated three entire parties of knights!"

"It's only because I have Nal and Etani with me," Morey said, "they're the best knights of Inath after all."

High profile raids like those on the compounds of major nobles and the best guarded caravans was talked about in every corner of Illastein now. No matter how the nobles tried to suppress it, the anti-slave uprising was gaining notoriety rapidly. And the more desperately the nobles tried to guard their slaves, the bigger the impact when Morey finally freed them.

After all, the hit team of Morey, Nal and Etani was nigh unstoppable. Of course, that was mainly due to the dozen or so slaves armed with the best magical guns money could make. Those ex-hunters were turning into a very deadly sniper team. With Locoss and Ereli off training the peasantry and canvassing grassroots support from the common people, it fell to the Hero to use his name to convince the nobles to switch sides.

"In any case, if you can guarantee a place as Alawi, I might be willing to lend some support at the final conflict," Bini smiled, "I have no doubts that after the dust is settled, the sands of Illastein will be yours to distribute as you see fit."

The greed was all too obvious and Harlos bristled beside Morey, her tail fluffing up. "You-

He cut her off with a wave. To the Lawi, Morey only had a warning, "I can agree to that. Though I intend to give representation to the common people, you may be asked to take on a panel of advisors."

Bini shrugged, "a game simple enough to play. I accept. When you are ready, my swords and Rekis march with you."

When they were out of the compound, Morey sighed and turned to Harlos. "Your enthusiasm for our cause is good," he said, "but you have to accept that not everyone is an idealistic revolutionary. Most people just want to live their lives."

"What about them?" she pointed at Nal and Etani, trailing behind Morey silently. They looked at each other then back at her blankly.

"What about them?" Morey asked back.
"Why are they following you around?!" Harlos asked acidly, "even if they come back to you, you can't just trust them so easily."

"I would trust them with my life," Morey explained. Although that didn't mean trusting them with the rebellion. "For reasons unrelated," he added.

Harlos grumbled but Morey was the leader after all. He nodded at Omal, now one of the leading figures of the revolution, to lead them away.

To revolutionaries like Harlos, Nal and Etani were Morey's bodyguards, and the three of them made up the hit team of the revolution. The main fighting force of the armed rebels. Officially, Nal and Etani had been captured by Morey after the battle back at Zain's town.

Of course, after that fight back at Zain's town, Morey couldn't trust them to act independently like Locoss and Ereli.

"What are you thinking about?" Nal asked.

Morey looked down from the sky. Sitting on the roof at night was a little cold but he needed to stay awake to think.

"I'm considering what to do next," Morey replied, "peasants and shopkeepers may be invisible but they don't hear much. We need more information on Alawi Zain's movements."

"You need a spy, you mean," Nal said.

Morey nodded. A plant in the noble society of Illastein. The relative of one of the pro-slavery nobles would be perfect, provided they could be trusted. Or just someone ambitious enough to be bribed with promises of power after the revolution.

"Do you not need to rest?" Nal crawled over the tiles and sat next to him, sharing his view of the stars, "you've been staying up late almost every day."

"On Earth, no one really went to sleep when the sun set," Morey explained, "this much is fine, I don't need ten hours of sleep. Not when your hours are longer than mine. I used to stay up until midnight at times."

"What can you even do?" Nal asked, "how do you see anything when there's no sun? I thought your world didn't have magic."

Morey smiled. "We didn't have magic to light our rooms yes," he nodded, "but we did have electric bulbs. They lit up entire rooms and buildings. Light more stable than the little wisps you use."

"We put them everywhere, so much so that the light from our cities at night blocks out the stars and tricks animals into thinking that our buildings are the moon. " He created a small dribble of liquid Light on the tiles, a pale flickering imitation of the halogen and fluorescent lamps. "Imagine a candle with liquid Light, only more diffuse and even. A bulb could make your room as bright as day and many rooms we built did not even have windows."

Nal looked around the city, clearly imagining what the streets and buildings could look like during the night. "You must find it hard to sleep," she said finally, "if you can turn night into day, how will anyone be able to rest?"
Morey laughed a little. "The bulbs can be turned off," he explained, "they're also not as bright as the sun of course, if you turn off the lights in your room at night, the city lights aren't bright enough to read by."

"Impressive, to have so much control."

Morey nodded. It was impressive. He had thought of trying to reinvent things, like that man Cato was doing up north, but the task was far harder than it looked. Inath lacked so much of the understanding and organization that made Earth's production reliable and scaled. The only way to get there was to do what Cato was doing, build an entire industrial infrastructure and tradition.

Everywhere Morey looked in Inath was a reminder of how far Earth had come in understanding the sciences and engineering. Not for the first time, Morey wished he had bothered to learn a bit more detail.

"I wonder," Nal began, "if you find the Sword. Will I get to see Earth?"

He looked at her skeptically. "You would leave Inath?"

"When the war is over, I think I might want to. Earth sounds like a nice place."

There was no guarantee that the Sword would be able to send Morey back though. He refrained from saying anything about that. "There are so many problems with that I don't even know where to start," Morey said, "for one thing, we don't know how much time has passed on Earth. If I return to when and where I was summoned from, that would be simple. But if this quest takes the years I think it will, and the same time passes on Earth, I would be considered missing and dead. And you don't have an identity. I can't possibly explain how you appeared."

Nal looked confused, "identity? I'm Nal, right?"

"Not in that sense," Morey sighed. How did one explain the concept of national census and identity registers to a native of a world where the queen only had a vague idea of how many people existed in her domain. "The government in my world has files on every person born, lived and died in their countries. In any of the First world countries at least. If someone like you turned up without any identity, I don't even know what kind of trouble we might get into."

"I think there would be no point in asking how your government even manages to maintain that many records," Nal sighed, "can you not find a way? Or are your governments so all-seeing that nothing escapes their gaze?"

Morey sighed, "it's not like fake identities can't be gotten through less than legal means. Not that I know how of course."

Nal chuckled, "good to know that some things stay the same, even in a world as wondrous as yours."

Crime was part of the human condition after all.

They sat there for a long while, on the slowly cooling tiles in the night wind.

Morey was about to get back to his bed when Nal suddenly pressed against his back. Her two small hands and forehead huddled against him, a source of warmth from behind to contrast the chilly night air.

"Sorry for fighting you when you freed Zain's slaves," she whispered.
Eh. Morey tried to glance over his shoulder but she was right behind him. "It was the right thing for you to do," he said gently, "you have your loyalties to your queen after all."

"I might reconsider that. " That last sentence was so soft that if not for her forehead transmitting her words by vibration, Morey might have simply missed that she was talking at all.

With that, Nal stood up suddenly and ran off the roof, swinging her way down to the ledge below, not looking at him.

Morey looked up at the foreign stars again and sighed. Perhaps he should stay out a little longer.

Nal hadn't stopped trying to seduce him. Now that Locoss had pointed it out, Morey could only see the attempts to get him to share some private time and conversation as aiming for his heart. In fact, while she did not hound him too blatantly, Nal's attempts at trying to understand Earth and Morey's culture and share some of her more private thoughts with him was too obvious if one was looking out for it.

Morey was sure Amarante was behind that. That meant that she was still trying to get him to complete his quest and stay in her control through one of the girls. That also meant that Amarante wasn't about to kill Morey or even punish him at all for the problems he was causing in Illastein. So he could be fairly sure that Amarante must be gambling on Morey being able to pull it off.

On the other hand, having a cute girl to talk with intimately didn't feel too bad. No, to be honest, Morey did enjoy it. Even if Nal looked like a mid-teen despite being around Morey's age. And Nal's little night talks grounded Morey. It let him talk about Earth and his life, let him remember who he was despite being caught up in a war in a foreign world. So perhaps he should just enjoy it a while longer.
Cato's Expedition 1

Cato hopped off the cart and took a much needed stretch. Even with the new spring suspensions, carts were still not a comfortable ride.

After coming so far from Minmay city, passing up north near Selabia, the ground was beginning to visibly rise. The mountains were still distant but definitely bigger and closer. The biggest change though was the soil and ground. Where the cultivated fields and roads were gone, only light forest and untilled land remained. This was closer to the Snow Wall than most of the settlements and only the occasional hermits scratched out a living this far from civilization.

"We'll make camp here, I think," Quinn, the leader of the knight escorts said, "there's still some light after the Little Night but we shouldn't tire ourselves out."

Cato nodded, better to leave the travelling up to those who were more experienced. Besides, it wasn't like he didn't have things to do.

Like investigate new magical constructions, something he hadn't had time to do among all the endless meetings in Minmay. Well, he was on holiday from all that now.

Landar hadn't even bothered to pitch a tent or unpack. She just levitated a crate off the cart containing the Crystal container and immediately got to work.

"So, what are we going to do first?" Cato asked.

"I'm thinking of elemental Water," Landar said, simply lifting out the container and placing it on a flat area of grass, "I made this Crystal container to work with it. Crystal is ideal for this but well, it's expensive."

"Hey, is that really Crystal?!" one of the knights asked, approaching them. His name was Tarral, if Cato recalled correctly.

"Yep," Landar held up the large pot proudly. It glinted under the light of Selna, multifaceted light refracting the bright red glow that was the brightest thing in the sky during the Little Night.

"Huh, you must be crazy to make a Crystal pot," Tarral said, "I thought it's only good for making shields?"

"I can make whatever I want with my own magic," Landar stuck out her tongue, "besides Crystal is the only material that can contain elemental Water without dissolving."

Tarral sighed, "I don't even know what you're trying to do with that much Water. But I was sent here by Quinn to ask you to pitch your tent before it gets truly nighttime."

Landar looked down at her pot then pouted, "can you pitch it for us?"

Hey. Cato almost stopped her, but Tarral perked up exactly as if he was waiting for that. "I'll do that for you if you can teach us alchemy during the day," Tarral ventured, "I heard some amazing things about your work. Not many alchemists can even manage to duplicate it."

Like spell cannons. Cato nodded, "it's all right to teach them, Landar. They're a party that can keep secrets or Minmay wouldn't have trusted them with the expeditions for mana crystals."
Landar shrugged, "you have a deal then. If you pitch our tents and cook so we don't have to do all the annoying things about camping, I'll teach you how to make a device enchanter."

Cato could only grin as the name seemed to have changed yet again. At least it was simple now. 

"So, about elemental Water," Landar said, filling a small amount of the stuff into the container and stirring a rod of nearly pure wrought iron into it, "I want to try the drawing technique you described to the Ironworkers."

Cato raised an eyebrow, "I thought they were working on making cold iron, as they're calling it? It's soft but holds magic better than steel. It's still too expensive, no?"

"Well, I think we can use the technique to make a bastardized version of composite materials. Like a layered yama jam cake," Landar said, pulling out a long spool of thread from her supplies. She dipped it into the pot and drew it out slowly, a layer of crystallized iron growing unevenly over it as she disrupted the elemental Water in a single practised motion. "The Ironworkers discovered that cold iron has better strength if you draw it unevenly, it doesn't shatter as easily if the grains aren't all lined up like when they do it in your slow-draw fashion."

She held up the thread that seemed to be growing little iron whiskers. "By depositing multiple layers, you build up a sheath of iron around the thread. If you place a roll of thread or thin cloth around the outside and draw again," Landar demonstrated, pulling out a piece of cloth and wrapping it over the thin delicate rod. Then she put it aside and pulled out an rough looking rod of metal. 

"This is the result when I tried it," Landar said, "observe that the iron flakes off easily at the contact points with the thread. It doesn't bind well, but the core portion is solid because the threads are embedded. And while the cloth layers block cracks from going through the rod, it weakens the rod if you strike it along the direction of the cloth."

She pointed at the top of the rod where the concentric circles of cloth making up the pseudo-composite was hanging off. A quick strike of a steel knife flaked off a chunk of iron.

"Hmm," Cato blinked, "show me how you draw it again? I think it might be worthwhile to create the cloth shape first then fill in the holes with iron. Maybe we can try fibre balls instead of woven cloth to get around the grain problem."

It was well after the Little Night and late evening before they finally gave up. Landar was starting to run low on magic and the pile of failed product was getting quite worrying.

"Thorndown thread is probably not a good choice," Cato sighed finally, "it's too bad we didn't remember to bring other types of cloth. With a more flammable one, I would have liked to try charring it. Carbon would definitely work."

"Perhaps," Landar joined him in the sigh.

"That said, I have one last experiment to try," Cato said.

Landar suppressed a groan and refilled the pot with elemental Water. He nodded and she lit it up with a small ball of light.

"This isn't a composite materials experiment," Cato explained, fetching a piece of poor quality iron, "we know that certain materials will displace others but what about carbon and iron?"
He stirred the pot with the rod of iron, watching the Water eat it away. "The impurities like sulphur and phosphorus make cast iron brittle, requiring a good source of iron ore to avoid them," Cato said, "in my world, we added other elements to purify them in the furnace but trying to get say, manganese, in Inath seems difficult without the technological base."

"But we should be able to utilize elemental Water to do this," he said, still stirring the pot. The Water had already taken on the blackish tinge, signifying it was nearing saturation, and iron crystals were dropping out of the solution at the bottom of the pot. "Simply put, since the impurities will likely differ in solubility compared to iron, dissolving more iron into the Water than it can hold should concentrate the impurities into either the solution or the precipitate."

The ball of light flickered and blinked. Cato looked up just in time to feel Landar leaning against his shoulder. Looking at her sleeping face, Cato wasn't quite sure what to feel about the slight smile. And despite being asleep, Landar was still maintaining the ball of light. Probably a result of her Iris training.

Well, she must be tired after all that experimenting. Cato took out the smaller pot and poured the elemental Water inside to leave it to evaporate overnight then shut off her light by shooting it with a disruption wand. Waking her up to ask her to test the iron would be sheer cruelty, it could wait till tomorrow.

The disruption bolt smashed through the wall, breaking up into uncoordinated wisps of magic that dissolved into the air quickly.

"A ten units shield of one times one meter size can be penetrated by a one unit disruption bolt," Cato noted down. Then added a short note, "barely. The bolt does not survive. I think that's a pretty good indicator we're approaching the minimum. Landar, if you would?"

Landar nodded and leveled the barrel of the spell cannon at the shield after restoring its strength. The modified cannon had a longer barrel and much faster acceleration of the spell. Chakim stood behind her watchfully. After two days ago when she became so completely drained that she could barely get up in the morning, Chakim was simply not going to let Cato do it again.

The bolt punched right through, diminished but not broken.

"And with one more unit of power spent on accelerating the spell, the same bolt goes through," Cato nodded, "I think that explains the spot failures of the dome shields during the Greenspring battle."

"This is the first time I've seen a disruption bolt go through a shield," Quinn commented, "we usually have to grind shields down unless they're just interlocking weaker shields in formation."

"It isn't all that useful," Tarral shook his head, "they're spending almost five time as much magic in making the bolt move faster than in making the bolt itself. You might as well just fire more bolts and break the shield. Magic bolts move by themselves already, why should you need to spend more magic just to make them move faster?"

"Leave it to them and get working Tarral," Quinn said.

"Can you make a stationary disruption bolt, Landar?" Cato asked, still writing on the notepad.

She nodded and simply fired the spell cannon without activating the arms. The bolt hung in the air, slowly dissolving. Then to everyone's surprise, Cato took out a ruler and began to measure the size of the bolt. Sliding the magical sensor up and down the ruler gave a rough estimate of the size.
"Um, what are you thinking?" Landar asked.

"Given the tests, larger bolts have a harder time getting through shields without being countered or breaking apart," Cato said, now measuring the thickness of the shield, "I'm thinking this is due to the distribution of magic in the wall."

He pointed at the wall of magic, "When a disruption effect removes the magic at the impact point, the magic in the other areas of the shield flows towards that point, in order to even out the magic in the entire wall. Since our tests use disruption effects from a single caster, Landar, the bolt gets through if it has more magic than the amount it encounters while going through the wall, we established that equivalency first. When a bolt hits the wall, the total amount of magic it encounters is a function of the size of the bolt, the thickness of the wall and the flow rate of magical power. The last part is what I'm trying to measure."

"So," he drew a small diagram, "there are a few possible models for how magic could distribute itself in the spell. It could be simply random movement, or actual directed motion like how bolts have a natural speed. I've made some model equations to predict how the bolt might work but I've no idea which model is correct. That's why we're doing this."

Landar peeked at his notes and made a slightly strangled sound. The simple diagrams of the circular shield and bolt, as well as the cylinder the bolt would sweep through the shield was simple enough to understand. Then the annotations of diagrams and flow of magic from each hypothetical section of shield turned into a monstrous maze of symbols and algebra.

The model equations were made of differential equations. Something that Landar was despairing about ever getting her head around despite reading Cato's notes for the fifth time.

"Do you do this all the time back when you were studying?" Landar asked.

Cato didn't even look up from his scribbling, "I did this in first year of university. This is simple. Just ordinary differential equations. I don't have the confidence of being able to use the more complex models without making too many mistakes."

He looked up when he was done, "well then, this will get rather repetitive but I need to test a series of shields with successively faster bolts."

An hour of testing resulted in the mountainside acquiring a new series of scars. Firebolt penetration was concluded to be worse than disruption, as expected. It still took nearly half an hour of figuring afterwards but Cato eventually finished his calculation.

"I think the gas pressure equations might fit. The speed of 'sound' in magic, hm?" he grinned, "maybe ten meters per second, give or take twenty percent. Not very fast actually. In fact, it's suspiciously close to the maximum natural speed of a magic bolt without accelerating it further that I'm tempted to say they're related."

He nodded at Quinn who looked like he wanted to pack up the spell cannon.

"It makes sense to be linked," Landar said, "if your guess that the magical power inside a spell's boundary behaves like air, then it does make sense that the natural speed is linked to how fast it can move. To cast a moving bolt, you build up a 'wave' inside the spell and let it carry the spell forwards."

"It's not the same though," Cato scratched his head, double checking his math, "a sound wave isn't really motion of the gas, but magic really does move in bulk."
Tarral cut into their musings, "Hey, we're done packing, can we get moving now?"

The two of them looked up to find all the knights already mounted and the cart waiting for them. Except for the crate they were sharing a seat on, everything else was already packed.

Landar sprang off and looked up the steep trail towards the closest ex-mana crystal mine. "We can do the brain busting later," she said, tugging on Cato who was still scribbling with the crude pencil, "time to go get what we came here for."
"I see what they mean by this place is unnatural," Cato said.

The mine was cut straight into an artificial cliff face. No strata in the rocks or water existed to explain the gravel filled ledge and the hole in the mountainside. The First hadn't bothered to conceal it at all, they just left an unmarked hole in the mountain.

And it really was in the middle of nowhere. The mountainside ascended steeply upwards, topping off with a glitter of snow capped rocks many kilometers away. The tops of the mountains brushed against the cloud layers and looked like giants shrouded in misty cloaks under the morning sun.

"All right, we suspect the crystals are the ground version of the firestorm," Cato opened a crate, "let's take a set of readings."

"Why are you unpacking the magic sensor now?" Tarral asked, "aren't you going to use it inside?"

"We need to establish a baseline reading, when we aren't disturbed by the magic in the mine," Cato explained as he and Landar set up the device. With a very gentle hand, he placed the needle like tip of the swinging arm on the roll of paper.

Landar screwed the sensing head of the magic sensor into a modified crystal power box. "We're doing a calibration?" she asked and Cato nodded.

He unfolded a strip of extremely expensive crystals. These magic crystals had been painstaking shaved from large single crystals down to a series of weights. Standardization experiments had shown that individual crystals did not differ in power output if their weights and surface areas were the same. And that the box was the same and properly evacuated of magic in the same way, the list of control conditions to get good readings was nearly too many to count.

Not to mention that cutting a set of crystals to jewelry grade only to consume them was an expense that few others could afford. Even Cato had to trade in some favours to the jeweler to avoid breaking his bank. He could afford it out of pocket but the money could better used for other things and a few introductions to the daughters of high society was free.

Once the crystal was affixed onto its pedestal a carefully calibrated distance from the sensor then Cato shut the door and screwed it tight the standard two and a half turns. He nodded.

Landar activated the rollers and the spring arm, which jumped to life and wobbled a slow steady line across the moving paper with the sharp pencil head. The enchantments had been calibrated too, for consistency in rolling speed. All the minor details that many people overlooked had to be accounted for if this experiment was going to work.

The box glowed a little in magic sense and the line dropped flat to one edge of the paper, signifying the baseline signal of the box walls.

"Next," Cato said as he opened the door and took the second, slightly larger crystal that Landar handed him. The line jumped up a little bit higher than the previous crystal.

At the mine entrance, Quinn and his party of knights watched them burn a small fortune to obtain a few squiggly lines and shook their heads in disbelief.
"We'll take a reading about every ten meters," Cato said, "just mark the spot and we'll measure the distances and angles later. Calibration again inside the mine and once more outside before we leave."

That left two spare sets of calibration crystals, just in case.

The needle twitched upwards as they entered the mine entrance and continued to head ever upwards as they approached the center of the void. The crystals had long been removed and only a rough stone floor remained.

"I think that's a pretty good confirmation that there is a magical concentration here," Cato said after the calibration was done. The box pumped the magic out and the needle dropped back to baseline despite the concentrated magic outside. "It seems pretty obvious to suspect a link between the concentration and the presence of these crystals."

"But the crystals are gone," Landar pointed out, "why is there still a concentration?"

They looked around the chamber. "A good question," Cato said, "maybe this is like just before a Firestorm? We've removed the fire, but the conditions, meaning the mountain, is still here. So it might create the crystals again if the mountain gets bigger."

"Or perhaps the crystals are still growing," Tarral said, scuffing his boot at the stone near the center of the void.

There a tiny glitter in the rock chips. They shared a glance and then the entire party of knights joined by Cato and Landar was scraping away at the bits of rock scattered over the floor.

That revealed the true floor below the covering. It was glittery, with tiny tiny facets of crystals buried in the lumpy uneven stone. They were even growing on some of the chips.

"We are standing the middle of a crystal growing region, then," Cato said, "luckily, it's not fast or deadly like a Firestorm. That explains why the First left some crystals behind. They didn't leave anything, it just grew once the First stopped mining the place."

"I think this is good confirmation that the magic we're detecting here is causing these crystals, it fits what we know of magical weather. So, we just have to use it," Landar rubbed her hands, "do we build our own mountain?"

"That seems rather inefficient," Cato smiled, "let's go look for some more clues."

An hour of searching proceeded, turning up a few more spots growing crystals but none as big as the patch in the center. Cato took samples and was examining them, trying to find some relationship with the concentration of magic detected.

"I don't think our sensor is sensitive enough to do this," Cato said, looking over the calibration graph again, "I think this big patch has a slightly higher concentration but it's still within error. We'll need to get a new... Landar?"

Landar hummed and tapped the power box they had re-engineered for their sensor. The faraway look on her face as she played with her ponytail idly was familiar. After all, Cato had looked like that a few times himself when he was deep in thought.

Cato ventured, "thought of something?"

"How do we extract power from crystals anyway?" Landar asked, "think about how the crystal
evaporation chambers work. The walls pump the magic of the box out, to deplete the inside of the box of magic. This costs some power, which we know as the minimum power required to run a box. Then the crystals inside evaporate to fill the void, which we then pump out again, only this time we get to keep some of the magic coming out. This is like the power draining spells that can take power from other spells, only we're now taking it from ambient magic. But why does moving ambient magic out of the box cost power, but moving the magic evaporating from crystals give power? Are the two magics different somehow? That was just how we noticed the effect when trying to liberate the energy in the crystal, but what explains this effect?"

Hm. But magic behaved like a gas, yes?

"I think it's due to the gradient," Cato said, "if I'm guessing this right, if magic moves around inside spells like a gas, if all of that was right, then this is just like a river. Water flows downhill. So does magic. If you move magic from a high concentration to a low concentration area, then you get to keep some of the power, like running a stream through a waterwheel. If you move magic uphill, from a low concentration to a high concentration, that's like pumping water up to a house, that costs you power. "

"It doesn't explain how power accumulates here though," Landar said, gesturing around the cavern, "isn't this moving water uphill?"

"Indeed," Cato nodded, "but that can be explained if normal non-magical matter exerts an influence on magic. For example, in cold wet and dark places, miasma gathers. Fire likes very high heat. And perhaps magic that forms crystals is attracted by the huge mountain here. "

"So you're going to light a fire to collect magic?" Landar asked skeptically.

That sounded rather suicidal, someone else could try. Oh, but magic behaves like gas, doesn't it? Why would magic not be a physical thing? Just not interacting with normal physical objects?

Cato frowned as he thought, "the question is, if magic concentration is a thing. If magic itself is a thing that you can move around, then... why not just box it up and take it away? It doesn't have to be in crystal form, does it?"

Landar snorted and looked at their sensor. She hefted the calibration box, "well, help me set up this box and we'll see if we can't scoop out some magic. "

The answer was, they could. After three trips into the mine, and using the box to pump the magic out once they were outside, Landar was now carrying a box with a net surplus of magic. A small surplus but it was a proof that the concept was viable.

"This is like carrying water uphill to pour on the waterwheel," Landar said, huffing as they put down the box again outside the mine. The box grew a little bit brighter in the magic sense. The needle obligingly twitched upwards a notch once they reconnected the sensor rod to the delicate needle.

"Yes, completely inefficient," Cato added, "there's no way we're going to make a box light enough to actually make a profit if you move the box with magic. We need a different way to move the magic out. "

"Hm?"

"Since we can carry the magic out in the box, like scooping up the magic, that must mean that you can use acceleration spells to move the magic. Or perhaps moving walls of magical barriers. Non-
disruptive barriers like the walls of the box. Just without the wall. " Cato mused.

"You're forgetting that non-alchemy spells degrade too quickly. We've earned what, less than a unit of power? With the depth of the mine, we'll still be spending more magic to get the magic out than we earn back from it," Landar said, "moving faster costs magic, making a bigger wall costs magic, moving slower also costs magic through the spell's leaking, we don't earn enough. "

"Hmm. "

They pondered for another long while, looking at the knights cooking the evening dinner. A large luxurious hunk of preserved meat was roasting slowly over the fire.

"We can continue this over dinner," Landar licked her lips.

"Wait," Cato stopped her, still staring at the hole in the mountain, "magical barriers like this box and the disruption barrier all block magical effects. This includes things you wouldn't normally consider magical effects, right? Like magic sense. You can't sense a crystal that I've put in the box, you only see the box. What if the attraction force of the mountain is the same? If you built a really long box that reached all the way into the mountain from here, then you could put magic into the box at the center of the mine, then pump it out up here. This wouldn't work if the gradient still applies inside the box but barriers block magical forces. The question is, does it block this attractive force from normal matter?"

He took out a spare sheet of paper and drew the long box, like a straw stuck into a lump of shaved ice. "If you pumped magic into the bottom at the same rate as it left the top, you can control the density inside the box to be somewhere in between the high magic end inside the mine and the low magic end outside. Then both active faces power themselves. "

He tapped the sheet and muttered, "but how to do this experiment... we're going to have to come back with a really huge box or just an anvil and raw iron and make the box here..."

Landar walked up behind him and looked at the diagrams. She just laughed and pointed at the hole in the mountain. "Remember what you told me?" she said, looking at Cato holding his drawings of boxes, "you don't have to enchant the threads. Just enchant the ground!" Landar gestured at the tunnel walls, "we have a box here already! We just need to put up a non-alchemy wall and factor in the rate of attrition. For an experiment, that'll do. "

Cato grinned and nodded, "I admit I forgot. Indeed, that sounds like a plan. We'll have to enchant the entire tunnel but I think you have enough power, no?"

Landar smiled triumphantly. Then she thrust out a skewer of salted meat. "But we're going to eat first," her stomach grumbled a little.

Cato took the skewer gladly. "We'll start after dinner," he agreed.
"Why do we have to do this?" Rika complained as she scrubbed down the clothing in the bucket. The night air had made the water cold and her fingers felt like they were frozen now. And that was without considering the kilometer long trip to the nearest spring to get that water.

Not only had Quinn decided that the two guests would not perform their turns to cook or take watch, their party would also do all the washing, cleaning and tidying up of their tents! How rude could those two be?! An expedition with the knights was not a camping trip for the pets of nobles to enjoy themselves.

"You know what we're getting paid, right?" Tarral said as he plonked down his bucket next to her. Inside was another set of clothing reeking of metal filings and soot. "For triple the escort rate, you'll shut up and do whatever they want."

Rika scowled but did not stop moving her hands. At least the new foaming soap made cleaning that much easier. "Even so, every person on an expedition has to do their part," she grumbled again, "pushing all this work onto us, Landar should know better, she's a knight too!"

Tarral glanced around and heaved a sigh of relief when he saw the subjects of her current irritation at the mine entrance. They seemed engrossed in some sort of argument and most definitely had not heard Rika.

"You better not let them hear you," he hissed at her, "Cato works directly with Minmay, you know. Who knows what could happen to you if he hears you badmouthing Landar."

Rika sighed, "they're not lovers. And Cato is too nice to abuse his power. He's not a noble after all."

Tarral kept one eye on the pair while talking, "the second part is true, I've never heard of him acting like one of those nobles. But you look at them and tell me they're not seeing each other."

They looked at the two, still arguing and gesturing around at the mine entrance. Cato was leaning against the rock wall, nodding as Landar drew something on the rock. The pair stood right next to each other, huddling in front of whatever they were doing, not caring whether they touched or maintaining any sort of personal space.

"All right," Rika conceded in the face of the evidence, "even if they were involved with each other, how does that..."

Another bucket joined them at the cliffside, the few spits and knives from the lunch were floating inside the soapy water. "Hey, Rika," Quinn sighed as he squatted down beside Tarral, "you're just whining about having to wash the clothing, aren't you?"

"Ugh." She pouted and scrubbed the cloth again.

"I understand you don't like doing these jobs but think of it as a way of earning an extra bonus," Quinn took out the knife and began to pick out the charred debris from the cooking. "Landar is teaching us alchemy too. And who knows, maybe with that, we'll be able to make spell cannons too."

Rika scowled and scrubbed away silently.

"Well, I won't disagree that asking knights to do your dishes for you isn't rude," Quinn sighed. Both
of them froze and looked at the party leader incredulously, Rika most of all. "But at least we don't have to worry about those two even noticing us, so you might as well complain all you want. As long as you get the work done."

Tarral shook his head sheepishly, "and I guess I could hear you out too, it's not like I'm very happy doing this either."

All three of them sighed.

Behind, at the rock face of the mountain, Cato and Landar continued to pry open the secrets of magic, completely oblivious of the knights' grumblings.

"With the enchantment process being so slow, there's no way we can finish this whole tunnel in reasonable time," Landar was saying.

Quinn stepped forwards, carrying a large wooden cube in his hands, when Cato suddenly stopped him with a hand.

"Watch it!" Cato said, pointing down at the rock floor. Quinn looked down to see the threads lying on the rocks in a bewildering circular pattern. "I don't know what'll happen if you step in it, but it can't be anything good," Cato said.

Landar shrugged, "I expect it'll be the same as if you tried to enchant a person with alchemy. The magic would just bounce right off."

"It might damage the threads, I wasn't worried about his lifeforce," Cato said.

Quinn sighed and cleared his throat. "Is now a bad time? I just have some questions regarding the device enchanter."

Cato looked down at the strings on the ground, "we have our own problems with the device enchanter too. But go on."

Quinn held out his cube. "I've been trying to use the enchanter you had us make yesterday to build a power box, but I can't seem to get it right," Quinn indicated the enchantment, "after I bound the power to the wood, I imprinted the power transfer circuits as you taught us, but then now I have to hollow out the cube, which destroys the transfer lines."

"Quinn, you can't start with a solid cube," Landar shook her head, "the box has to be built in separate pieces."

He looked down and shrugged before tossing the cube aside, "all right. I just thought I had a better way to do it. Getting perfectly fitting doors is a pain if you don't start with a single piece."

"If you can restrict the depth of the enchantment," Cato said, bending down to the cube, "it should work. Of course, you're now trading the problem of making a tight sealing door for making a very precise hole."

He held it up for Landar to disenchant and picked up the threads from the ground then laid them around the now non-magical wooden cube in a clear region of the mine floor. "We were working on improving the enchanter actually," Cato explained to Quinn, "instead of imprinting the pattern into the spell, which as you note, makes controlling the depth difficult, we wanted a way to precisely control the formation of the spell and the enchantment process."
At the center was a circle of magical thread laid around the cube twice. Then he took out different colours and tied them in a complex varying pattern that went all the way around the outside, with six golden branched lines, four in each cardinal direction and two at the corners, that entered the inner circle with a series of lines. Off to one side, was the more familiar pattern that generated the power transfer circuit.

Come to think of it, Cato and Landar had been sketching variants of this sort of pattern again and again over the last day. Quinn stepped back as Cato nodded to Landar.

She poured out magic into the block of iron Cato placed next to the transfer line pattern. The magic flashed down the threads leading to the circle and the two inner circles glowed strongly in the magic sense. A spike of power snapped into place on the cube, baking into the wood before fading into the glow of an inactive alchemy enchantment. Quinn felt his jaw drop. An alchemy enchantment! Just like that!

Landar then sent a tiny pulse of magic down the black coloured thread in a circle around the outer edge of the formation. It didn't zip down like the power lines, instead taking its time slowly crawling down the black thread. The black thread had a huge mass of lines hanging off it, and as the pulse of power flowed past each thread, the line from the power source block connected to the black thread sent its power down the branch. Each time that happened, the transfer line enchanter flashed to life, creating the magical circuit on the gold thread at the target point. This circuit then traveled down the gold thread to the circles around the rock, going down one of the branches of the lines entering the circle before leaping into the air to imprint itself into the cube. As the pulse crept down the black thread, the enchantments took each of the branches in order, proceeding to imprint a copy of the transfer lines all around the cube. The corner lines were last and the enchantments leapt upwards and below the rock to enchant it from those sides too.

As the black thread reached its end and the entire circle shut down, Cato stepped into the circle to remove the cube. Quinn examined the surface of the enchantment, dimly noting through his shock that the spacing on the transfer lines matched that of the golden threads they issued from.

The whole process was complete in less than a minute. And now, if not for the fact that the target was a solid block of wood, the circle had essentially created a power box for a spell cannon! In practically no time and to a ridiculous precision. Knowing how the device enchanter worked, Quinn had no doubts that placing a new cube into the circle would give an identical spacing.

"Here you go," Cato said, "the depth here is one centimeter. Frankly though, I think it's still just as hard as the original..."

Cato trailed off as Quinn tried to take the wooden cube out of his hands. Um. He looked up at Cato to find the man frowning at it.

"I have been so dumb," Cato sighed.

"Cato?" Landar asked him.

"The box," Cato said, indicating the cube in his hands, "why did we think the box has to cover the entire tunnel? Magic can travel through rock! It doesn't care if the inside of the box is empty or now. If we could change the enchantment to create a hollow portion inside... " he shook his head and sighed, "I still can't shake the Earth assumptions that things can't overlap."

Landar looked at the floor and laughed. "oh yes, I see. Like Muller's water pipes. A hollow tube of magic, but not hollow tube of stone. I must say though, understanding that magic travels through solid non-magical objects isn't something that we are used to either."
"Indeed," Cato said, then he gestured down the tunnel, "so we just need to lay a very long but thin line. We should be able to drill some holes in the floor so we can put the magic power probe in it to tell if the mountain's attraction field extends past magical barriers. With less total volume, we should be able to finish in a few days instead of some time next month!"

"Well, it's not like our efforts to improve the device enchanter was wasted," Landar said, "this central bus and switch you've designed is going to be called overkill by just about every practicing alchemist. Although now I do understand what you mean by wanting a general computing device, after all, that is basically an abstracted version of this design, isn't it?"

"I never thought I'd be drawing magic circles though," Cato grinned. "My world put a lot of superstition in magic circles, even though they didn't do anything."

"Um, Cato?"

Cato looked back at Quinn, as if surprised that he was still there. Quinn tugged on the wooden cube.

"Can I have my cube back now?"
Cato sat at the back of the wagon and tried not to wince every time it went over a bump. Right beside him, facing away with her legs dangling over the edge, Landar hummed to herself happily, drawing messy circles on her notepad. She looked like a little kid drawing with crayons.

For that matter, Cato was feeling rather childish himself. The bright blue sky and nothing but forest around them, without the pressure of having to maneuver around the Minmay merchants seeking advice, support or currying favour, he was able to lose himself in the research and problem solving with Landar. Was it really three weeks already? It seemed like just yesterday when they had set out from Minmay city.

Cato looked back at the pile of boxes in the wagon behind theirs. It was a productive two weeks indeed. Cato suspected the contents of their experiments would probably change the world in ways that were unpredictable. The magic circles, Landar changed the name again, were going to change the face of how alchemy was done. And the big fish, the discovery of the magical weather that created magic circles and how to tap that gradient for magical power, that was going to change the world.

Quite apart from the two major discoveries, there were a raft of minor tweaks and improvements to magical devices like the spell cannon and shields, as well as some of the uncommercialized projects. Plus the attempts at composite materials had yielded a method for arbitrary compound separation using elemental Water. Which would do wonders for the metal industry for controlling impurities and for the nascent chemical industry that Kalny was still trying to build.

On top of that, they had found out just how hard it was to actually make even the old style device enchanter. Landar had made enchanting the threads look easy but the struggles of the knight party showed Cato just how much he had been taking her skill for granted. They were going to have to think about more advanced alchemy education.

... Hm. Had it only been three weeks? Come to think of it, that was rather a lot of work that had been done. And now his holiday was over.

Landar continued to hum a tune that existed only in her head as she began to draw yet another circle. Now that Cato was looking more closely, her smallish body, the sharp chin and general droopy eyes looked Chinese. The evening sun dodged past the edges of the wagon covering and lit up her messy black hair with a golden aura. It wasn't tied up in a ponytail anymore, Landar had gotten fed up trying to make her frazzled hair behave without proper soap. The soft light highlighted stray strands with lines of fire that seemed to burn around her like a halo of an angel.

Cato wished he had a camera to capture this moment. But of course, he hadn't gotten around to inventing it. Perhaps it was time to start looking into silvered compounds and photography.

Landar rocked and twitched her head from side to side as she thought and hummed before drawing a new line. Funny how he noticed all these little tics now, the small motions that most people made even when sitting still.

Almost without thinking, he reached out and patted down the hairs that stood out from her back. They were nice to look at but Cato still thought that having straight black hair down her back would look better. At least they didn't make one itchy. Come to think of it, Kalny was supposedly working on hair conditioner, wasn't he? Something about oil formulations.
Landar froze in the middle of drawing a circle but didn't turn around. So Cato continued to pat down her misbehaving hair, trying to comb them into some sort of order with his fingers.

A few moments later, he caught sight of the knight driving the wagon behind theirs. He was grinning at Cato and gave Cato a wink.

Cato coughed a little and turned away, trying not to blush.

After a long frozen minute, Landar resumed her humming and scribbling on the notepad, but Cato noticed later that the entire second half of the notepad had mysteriously gone missing by the time they got back to Minmay.

"If you're curious, I'll drop off your crates at the university for you," Quinn said kindly to Landar. She stopped her craning and nodded hurriedly before leaping off the wagon.

Cato thanked him and tried to give him a coin but Quinn merely shook his head and laughed, patting the magical box behind him, "you've taught us how to make spell cannons, we can't possibly take more from you."

"Just remember our agreement," Cato bowed and jumped off as well.

"No problem, we look forward to all the money we can make from teaching it!" Quinn waved goodbye as his party drove past.

Cato hurried along the two lane street. The noise of the midday business was lively, with market stalls lining the street and brick and stone shops behind the pedestrian paths.

"What's up?" he asked when he caught up with Landar.

She pointed at one of the big double-lot shops. It was new, the building's cement and mortar still uncured. In fact, most of the street was new, this extension of the market had been under construction when Cato had left.

The shop had total lack of a display out front, not even showing its business, but there was a constant trickle of people going in and out, a few at a time. What was more interesting was the magical signature coming from inside the shop. And from some of the customers. They weren't even nobles or rich merchants, some of them looked distinctly haggard.

They went in. The flat stone floor of the inside was new and dusty but that did not conceal the fact that it was busy. The shop had been divided into two, sharing a common area much like how the guild hall of the knight order was structured. In the common area stood rows of people queuing up on the left and a much smaller group on the right. The difference between the two groups was clear, with the smaller right hand group obviously much richer than the left.

In the center, at the far end, stood a massive floor to ceiling board. Two large numbers were scrawled on it in chalk, four and six it read.

"Welcome to the Minmay magic guild," an employee hurried up to them. Cato noted with surprise that she was wearing some sort of uniform, a flowery frilly thing like a cheap version of the ridiculous noble outfits. Uniforms in a business. Actually, the woman's uniform had a bit more decoration on it. Was she some sort of manager?

"What is this place?" Landar leapt on her like a cat on its prey, "I feel magic from here!"
"Oh, you're a mage?" the woman smiled nervously, "well, we trade in magical crystals and magic power. This firm is run directly by the Minmay government so you can trust us. If you like, shall I give you an introduction as to what we do here? We are always eager to know useful people."

Landar could not have nodded faster.

The woman lead them over to the long lines on the right, "here is our appraisal team. Over here, we buy stored magical power in the form of crystals or enchanted items. Anyone can sell magic, in any amount, as you can see. There is a transaction fee however, so as you see, most people will only sell if they have a reasonable quantity."

Cato nodded appreciatively. So it had really happened. Minmay had finally opened a magic market.

"Since you are a mage, miss, if ever you need some money, you are free to sell stored magic here. For a small fee, we can teach you how to do it, you should be able to learn quite quickly since you don't need the basic magic training," the woman said, "if you're strong, it can even come to quite a large amount. The current rate is four rimes per thousand magic power units."

Landar's eyes sparkled, "you mean something like this?"

She held up a small empty wand and positively flared with magic, baking it into the wood with sheer brute force to bind the magic quickly. It was inefficient, Cato knew, but efficiency and Iris did not go together.

That flare drew eyes from all over the floor. The people lining up did not look particularly rich or powerful, but judging from the small bags containing alchemy enchantments, Cato could tell that they were probably some of the first peasants who had been taught how to produce magic. Landar, who was probably one of the strongest people in Minmay if you considered only raw magical strength, outclassed everyone present to a ridiculous degree.

"Ah," their guide gaped in shock. She took the wand and examined it closely. "Ah. I'm sorry, miss, but we don't buy wands here. You'll have to do that the Academy branch. That's over at that corner-"

"Excuse me," Cato interrupted. They looked at him. "I'm watching the trade at the counters, what are those metal balls he's giving the appraiser? I understand that's what is being used to store the magic but surely those iron balls can't be cheap."

"For beginners, we'll usually loan them the cheapest iron to enchant, failed batches from the Ironworkers really," the woman explained, "we accept anything made of iron however and can trade an equivalent amount for it. So you will see quite a number of people use scrap as a medium of transfer. For the miss here, I think if you want to sell magic, you might have to buy your own steel staff. And we'll have to make special arrangements for payment. I'm sorry but we really aren't set up for such large trades. Perhaps if you tried the University branch."

Landar laughed, "haha, a steel staff? Nah, not even I'm that powerful. It'll take me all week to fill it up."

"One staff a week?" the woman blinked. Clearly she had just been trying to flatter Landar but well, the Iris tended to exceed expectations. "If you're interested in sale, we could certainly make arrangements. It could be a few Rimes a week even. What do you say?"

Landar shook her head, "I have my own projects that cost too much magic already. And I'm a fully trained alchemist too, so I'm more on the buying side."

The woman looked at Cato expectantly. He just shook his head with a small smile, "I can't use
magic. And I'm on the buying side as well."

"Oh but if you're looking for a good source, I know a bunch of crazy people who are happy to burn all their magic each day. They're even stronger than I am. I'm sure they'll be happy to take money for it," Landar perked up.

Er.

The woman raised her eyebrows, "by all means, we would welcome such an opportunity. But I haven't heard of any such group in Minmay."

"The Iris family." Landar said, "they're in the Central Territories. It's a two week trip by wagon but I'm sure that'll be more than worth your while."

"Iris..." the woman sighed and shook her head, "I'm sorry but the summoners have better things to do. Most of the knights won't bother with us. I doubt they would even listen. Sorry, even as a joke, I can't-"

"If you have my letter of introduction, I'm sure some sort of arrangement could be worked out," Landar said casually.

The woman did a double take and peered at Landar more carefully, "you have connections to the Iris?"

"Of course," Landar grinned, "I'm Landar Iris after all. First daughter of the third branch family."

The woman sputtered a bit then suddenly looked at Cato. "So then this must be..." she muttered and seemed to look even more shocked.

Cato took pity on the woman and interrupted with a hand on Landar's shoulder, "sorry, this probably ought to go through the chancellor himself."

The woman recovered admirably, given the circumstances. "I... ah, true. I'm sorry, to not have recognized such esteemed people like you," she bowed.

"Say! Why don't you show us the buying side?" Landar said excitedly, not even paying any attention to the woman's apology.

Cato caught the woman sighing a little. He hoped Landar wouldn't go too overboard with her excitement when they got around to the stockpile of magic items that was clearly for sale in the corner.

Then he noticed some of the alchemists behind that counter hastily unpacking some of the for sale wands, with the yellow coded band that was the Guard's standard marker for defensive wands.

Cato and Landar walked down the market street, appreciating the differences he was seeing. Come to think of it, he hadn't really left the University street in some time, all the necessities of life had popped up to serve the students and well-to-do research employees of the various merchants.

"Shall we take a walk?" he asked Landar, "see what has become of Minmay."

Landar smiled and nodded. If anything, Landar got out even less than Cato did.

Hm. Could that actually be a problem?
"I wonder what that is?" Landar exclaimed and skipped forwards happily.

The cart that had drawn her gaze was just one of many along the streets. Colourful banners and crude pictures proclaimed their wares, delicious food, trinkets and even the occasional cloth accessories. The number of people out on the streets were much higher than Cato remembered too, probably due to the exploding population.

Strangely though, Cato saw a fair number of young adults and even teenagers. Even if the population of Inath was skewed towards the younger side due to the high death rate, this was far too many. Where were all the children? Or did something happen to cause only the young able people to come here?

Cato watched as Landar handed over a telin. The shopkeeper smiled and cleared the flat copper faced board before measuring out a quantity of yama sugar and wind eye flour into a thick slurry. With practiced movements, although still unrefined, the man melted the sugary mix in the boiling water on the stove to the side. Then he poured out the golden brown caramel onto the copper board where a single wooden stick rested. It quickly hardened as it cooled.

A simple swirling pattern and dusting of sugar on top and the confectionary was done.

"Here you go, miss," the shopkeeper said, plucking up the hardened sugar on a stick.

"Mm!" Landar grinned as she licked the sweet treat, "a bit too much flour but I guess that's okay."

"If you were willing to buy more sugar, I could give you a sweeter one. How about it, sir? Won't you buy a better one for your lady?" the shopkeeper turned to Cato.

Cato smiled and looked at Landar, who was still enjoying the taste. "It's all right," Cato said, "although I'd buy one too if you could answer a few questions for me?"

"That's all right, I don't have many customers this early in the morning," the man began to mix up a new batch, with nearly pure sugar, as Cato handed over a few coins, "what do you want to know?"

"When did you first start to sell this? And how much money you make," Cato waved a hand as the man raised an eyebrow, "you don't have to give specifics about the second question. Just whether you're getting by or actually earning money."

"I earn enough," the man laughed, "besides, doing this is harder than it looks, don't think it'll be so easy to copy me. As for when I started... well, I first came to Minmay after the local baron merged some of our farmland. I just couldn't find work with all those new inventions. After a week of working for the builders, I finally saved up enough to buy the materials to build my own cart. This treat is something of a Cel Inci special recipe from my village and if it wasn't for my wife's skill, we would be having much harder time. She taught me how to make this, you know? Her days get more customers too."

Cato nodded to himself and thanked the man. As he began to pour the sugar, Cato asked, "can you draw a pattern on it? How about a flower?"

"That'll cost you extra," the man winked and proceeded to pour out the caramelized sugar in a complex spiraling pattern after Cato nodded, "took me weeks to learn how to do this. We've had this cart for a few months now. I'm thinking of expanding my range of desserts so we can get some savings."

Cato handed over another two telins as he took the completed fancy spun sugar on a stick. It looked like a pair of wings more than a flower but Cato felt that was all right too. It wasn't as if he really
wanted the sweet. "Thank you for the answers, that was very helpful," Cato thanked the man.

He looked over to find Landar eyeing his treat. Hmm. Cato snapped off one side with his fingers and handed Landar the stick and the remaining half. "Do you want this one?" It was sweet indeed.

Amazingly, Landar took the stick and smiled happily before pocketing it instead of eating the sweet. Cato frowned and looked at the shopkeeper, who just winked at him, before looking down at the pattern on the stick. Come to think of it, those could be a bell shaped flower instead of wings.

Twin flowers? Oh. And Cato had just eaten one and gave the other to Landar.

First, the knight had teased him, and now this hawker too? So they really did look that way, huh?

"Well, the two lovebirds finally deign to come in," Minmay put down the sheet of paper. A familiar looking grey style densely packed with words. Arthur packed it away efficiently and replaced Minmay's lunch on the white table cloth.

The table had changed and the cloth had a glossy sheen characteristic of thorndown. Even Arthur had a new suit. Clearly Minmay had come across some fortune.

"I wanted to see the city after leaving it for so long," Landar said.

"It has changed greatly," Cato added, "you can almost feel the wealth in the streets."

"Oh, so you weren't on a date?" Minmay smiled.

"No no, we're not like that."

Cato and Landar looked at each other, right after their denials came out nearly in sync.

"I suppose it's much too late to convince you otherwise?" Cato sighed.

"Yes, you're not very convincing," Minmay said, casually popping a slice of buttered toast in his mouth, "but let's put that aside. Take a seat and join me for breakfast. We have a lot to catch up on."

"Indeed, but I must ask, the city of Minmay seems to have become much more wealthy lately," Cato said, "does that have anything to do with Duport's territories?"

"And Corbin too," Minmay added, "in fact, you probably noticed that the price of food has been coming down."

"The pastries and cookies weren't cheap," Landar said, "but cheaper than when I was younger."

Cato laughed, "so the first full scale harvest has been collected? How big was it?"

Minmay sighed, "even though we can grow them year round, most farmers still plant their crops at the same time. This always causes some problems because we have to store the grain each year. I anticipated this year would be rather... problematic and started building six warehouses before the war started actually."

Cato raised an eyebrow.

"They said I was greedy. I was too optimistic. I was going to be saddled with empty lots. Well, they're not laughing now," Minmay sighed again.
"How bad is it?"

"I don't know just how much we wasted but the peasants are storing grain in their own houses and just about everyone is trying to grow piyos," Minmay said, "I loaned out the warehouses and made a coin or two, but we're completely out of storage space. And it doesn't help that the Central Territories next door are going to have the same problem in two months, only far worse, their entire economy runs on farms and I hear they just about paved over the entire region with new plots using your plows. You almost can't sell grain at any price. Also, are you sure those fertilizers are safe? I have never heard of a harvest this huge, you'll ruin the land if it keeps on like this."

Cato nodded, "I wasn't expecting it to be this big either. But that explains a lot. If it's easier to eat on less money, people have money to spend on luxuries like sweets. There are stalls out there in the streets selling sugar to commoners. Enough that I'm willing to say it's becoming a trend."

Minmay frowned, "you should get out of the university more, Cato. That's been happening for months, but Aes tells me that some of the food merchants made a breakthrough in some leaf extract that turned grain into sugar two weeks ago, something about maturing the leaves. Kalny got beaten to that by the way. Although he got his revenge when his cooks reproduced it and a spy leaked his recipe. That was a fun little trade war, let me tell you. So peasants can afford sugar now and come Cel Inci next month, everyone will be fat and round. But you haven't answered the question on fertilizers."

Cato shrugged, "if you keep the balance of nutrients in the soil, you can replace whatever the wind eyes take out with the appropriate fertilizer. The fields will be fine, but we'll have to start watching out for river pollution. How did the test plot go by the way?"

"Amazing. That dwarf variant you gave up on? The four research farmers started to work on it without you. They're telling me it just ruins the soil you grow it on, but the fertilizers can make it work if we spread more. They say if they get a cross of that with the hard eyes from the Inath mountain variants, they could get up to quadruple yields. Even if they'll take four seedings at minimum to get it, that's still another miraculous jump. On top of what we already have. " Minmay shook his head, "what am I going to do with that much grain?! None of the farmers have any money, with prices so low, and it seems like every son and daughter is coming to Minmay city to find work. The peasants are unhappy and it's really causing me problems, I had to collect tax in grain! At least no one's starving, in this economy, you can't starve even if you tried."

"I should think about the Haber process at some point, the Ironworkers have good steel in quantity now," Cato said, "fixer crops, composting and lime can only get you so far and you still need a proper crop rotation. Mild weather here means fertilizer loss is low. With artificial nitrogen fertilizer, we could probably jump the dwarf variant yields by another two or three fold and start planting year round harvests back to back. Pesticides and herbicides could get another multiple. Maybe."

"I don't think we need that," Minmay said, "are you even listening to me?"

"I am and I think we just need to hurry up the next stage," Cato said, "with this much spare hands, we'll just have to push the factory model and standardized measurements. There should be more than enough slack in labour now to power a nice little industrial revolution."

"About that. No one's made any progress. It's just too hard, I say. The Ironworkers have one workshop whose axles will fit with any of the wheels from the same workshop, and that workshop is staffed by three brothers who are all masters. But that's it. Even Kalny still has to fit his can lids to the cans."

"It can be done," Cato nodded, "it has to be done, if we're to build any device in mass. I'll talk to the
guilds again and see what the problem is."

"It's a political problem, Cato. The guilds aren't used to coordinating and far too many master craftsmen can't be bothered to use measurements when the customers only care if their pieces work, not if they fit other pieces," Minmay sighed, "I'm patching the problem right now by exporting the food to Duport where they need it and from there to Illastein and Inath. The coin and food tax goes to developing the land with irrigation projects, the only thing keeping the farmers happy right now. But that means the problem is only going to get worse come next harvest in four months."

"At least the mana tax could supplement their income," Cato sighed, "until we get factories to work. Do you think we might get better results training peasants to work in factories instead of having the masters do it?"

Minmay said, "it could work. And yes, that's why I opened the magic guild early. The peasants need a way to earn money and most of the first alchemy class have begun to teach others. Everyone wants to learn, what with the Minmay Guards propping up the price of stored magic. I also started selling the stockpile to the merchants."

Cato nodded, "we keep a strategic reserve, I hope?"

Minmay nodded, "enough to blow Ektal to pieces, yes. I expanded the Guard too and I'm going to give everyone the upgraded crossbow and a iron plate backpack power source."

"You have enough tax for that?"

"Income tax started, remember? And the price of cast iron is low," Minmay said, "the demand for patrols has exceeded what the knights can do so the Guard are doing it too. They need weapons, training and it all comes out of the new tax. I'm actually slightly in the red. But money for power is a good trade I think."

Cato smiled at the phrase 'in the red'. Unknowingly, he must have used it in front of the Inath people and they seemed to have picked up some of Earth's idioms.

The door opened to show Polankal wheeling in a trolley with their lunches, lead by Arthur. The woman smiled at Cato as she put his plate down.

"Something nice happened?" Cato asked.

"Thank you," the woman bowed, "and I'm sorry."

"What?"

He glanced at Landar and Minmay but they were just as bewildered.

"You said that you would make life better," Polankal bowed again, "I'm sorry, I... I guess never really believed you. Not until now, when we all have enough to eat."

"Many farmers just lost their livelihood, you know?" Cato said, "I thought you'd be angry at me, for ruining the value of your harvests."

Polankal shook her head. "Never. I'm sure people will complain, but no one will think this is anything but an improvement. No one who knows what it is like to lose children and siblings to starvation will want to go back to that world. So thank you for making that dream come true. I never imagined you could have done it so quickly."
Cato could only nod awkwardly. His secretary finally straightened, her eyes glistening wetly, but the smile on her face was bright and happy.

"So what about your end?" Minmay asked once Polankal had left, "changed the world lately?"

Landar spoke up with a big grin on her face. "Yes. Twice actually."

Minmay laughed, "great! Just great! Hopefully you have something that everyone can build so the peasants can get something to do. Those spell cannons are just impossible."

"That's the first one," Landar said, taking out a few spools of thread that never left her tool belt now, "the device enchanter has been upgraded to magic circles as Cato calls it. You don't need magic to be able to use it now, the thread functions are completely modular, you just add power and wire it up and-"

"Magic circles let anyone who learns theory actually create magical enchantments, without having to train them on the physical basis... well, magical basis of actually enchanting the item," Cato said, "learn how to construct magic circles and you can turn stored magic into an enchanted item without being an alchemist. You can even make more of the threads that are used to construct it."

Minmay winced and sighed, "there goes all hope of controlling dangerous magical items. I don't suppose there's any chance you haven't taught this to anyone? No?"

"Well, unless the trade in stored magic picks up, that little guild of yours won't supply enough to make learning magic circles useful," Cato pointed out.

"But, here's the second thing to change the world," Landar cut in excitedly.

Cato grinned, "we found the cause of the crystals and you can draw power from it without waiting. There is a huge bounty of magic to be earned, enough to make our current stockpile look small. But to get that, we need magic in the first place."

"Turns out, magic collects near rock," Landar continued, "or maybe just soil. And this concentration is just like the Firestorm. It makes crystals instead. We found a way to draw power from that concentration."

"And where can we find those concentrations?" Cato's grin grew wider.

Landar swung a hand downwards, "why, there's a huge mass of rock right below us!"

They grinned at each other. That was a good tag team explanation!

Minmay rubbed his temples, "you're going to dig a hole in my city."

"Yes!" Cato said happily. "A hole as big as a house. Just go half a kilometer straight down and shore up the sides with concrete and steel. We're going to pump that magic up."

"It'll cost magic, both to mine with and to enchant the walls," Landar said, "lots of magic."

"Lots of money and people too," Minmay said, "should we even get the funds for that?"

It went without saying that the proposal, if it went ahead, would likely be supported by the Minmay bank.

Cato's reply was instant. "Yes. We should."
Willio laughed as he read the public development plan. Dig a circular hole ten meters across and five hundred straight down? In search of natural magic power density?

Keeping the project secret was completely impossible, so Minmay had opted to blow it wide open and recruit just about every guild into its construction. With a eight hundred Rime budget, and the fact that there were armies of idle hands all eager to earn some coin, Minmay was going to throw an entire army of people down that hole to build it as quickly as possible. Orders for the reinforcing steel rods and concrete were already received, they were huge orders and Minmay was putting pressure on them to fulfill it as quickly as possible.

Sure, if the project worked, and Willio was sure it would, the magic coming out of it would earn the Hole Corporation back its entire investment. It didn't change the fact that a project this major could only be accomplished by someone like Minmany. Well, Ektal and perhaps Iris might be tempted to copy it, since the theoretical underpinnings was published for all to see.

No. Willio picked up another report by one of his subordinates. Bashal. A brilliant young man, although a bit lacking in arm strength, the alchemist mastersmith who had lead the Ironworkers' effort to build their steam hammer had noticed something that no one else had. Not even Cato.

If magical power density behaved like a gas, and high concentrations couldn't leak out of a closed box, then wouldn't shrinking a closed box increase the density? Just like a steam engine. Enchant a steam engine's cylinders like a power box, design a valve that worked with magic density, and the steam cylinder would automatically compress ambient magic into high densities. Discharge at the highest point of compression and viola, magical power.

And Bashal said he could build magic density valves. In fact, the preliminary tests had been promising enough that Willio had ordered Bashal's group to drop everything and start optimizing the design, the prototype could convert fuel into magical power but only at terrible efficiency. Something about back pressure on alchemy enchantments that Willio didn't understand.

Despite all that, Bashal was certain he could get it working before Cato’s Hole.

Willio smiled, a race then. It was long overdue for the Ironworkers to win one.
Inath Intelligence

Report on Minmay Characters of Note  
Secret, for Inath Royal Court only

**Cato Lois**  
Age: 21

**Description:**  
Male.  
Short black hair and medium height. A thin unmuscular young man with pale skin. Known to dislike formal clothing.

**Current Location:** North of Minmay on a private expedition

**Important Notes:**  
Originated north of Wendy's Fort. How he got there is unknown.  
Has an unusual lifeforce, probably related to his known disability of not being able to use magic at all. Cause unknown.  
Suspected to be a human being from Earth like the Hero based on the Hero's impression of his writings. Contradicted by the fact that the Hero does not possess the same disability. Also contradicted by the fact that he has made no effort to contact the Hero despite knowing the Hero is from Earth.  
Known author of the six books of knowledge. Strongly suspected of having written more books of knowledge that are currently unreleased.  
Leader of Minmay University. Plays advisory role to many Minmay merchants and guilds. Does not appear to have major commercial interests relative to his knowledge except for CaLa consultancy and Minmay Fuel.  
A remarkable number of spies are known to be shadowing him. Purposes and organizations unknown. This man may be one of the most watched persons in Ektal country apart from King Ektal. Minmay is also known to have posted a number of discreet guards to escort him, at least twenty identified knights in plain clothes were counted over a period of a day. Cato himself appears only aware of a small amount of this activity.  
Known to have good relations with Fukas, has sponsored charitable efforts towards sheltering Fukas in all towns in Minmay region. Despite attempts to be fair, Cato holds distinct bias against people and organizations who treat Fukas harshly.

**Known allies:**  
Landar Iris - Mad Alchemist of Wendy's Fort, lead magical researcher in the University, see separate sheet  
Chancellor Minmay - see separate sheet  
Ryulo - Fuka, see separate sheet  
Iris Summoner Clan - has familial connection through Landar, owed political favour  
Kalny - largest food merchant in Minmay region, supplies Wendy's Fort, known to be developing many of Cato's ideas  
Muller - owner and architect of a major builder's guild in Minmay region, also known to be developing many of Cato's ideas  
Polankal - peasant, Cato's secretary, potential source of information if she can be bribed?  
Hino - Regional Leader of Knight Order of Minmay, known friend of Minmay, see separate sheet  
Willio - Regional Leader of Minmay Ironworkers guild, known to be independently working on many of Cato's ideas
Kupo - Ex-Order of Pastora member, has recently become a member of the University, may be a spy for Pastora

Potential allies:
Elma Carin, Klaas - Corbin town Ironworkers guild, past history of animosity, recent deals have led to warming of relations

Potential enemies
Michi Tirem - Commander of Wendy's Fort defence
King Ektal

Known enemies:
Chancellor Duport - Missing, see separate sheet
Rany - Duport's son, missing
Light's Edge - Em master, captured by Iris Summoner clan, now missing
Mayor Corbin - captured by Chancellor Minmay's forces

Assessment:
Potentially destabilizing social force.
Assassination is unlikely to succeed due to his having many strong allies with vested interests in keeping him alive.
Known possessor of vast amounts of knowledge and techniques, very strong potential resource if recruited.
Control of his knowledge is an absolute priority to gain large advantages, deny said advantages to others and to maintain stability.
Potential second Hero is unlikely due to combat disability.
Vorril's Note - we don't need a second Hero, the best thing that could happen for our war against the Enemy is for Cato to make and sell better Spell Cannons

Chancellor Minmay
Age: 36

Description:
Male.
Blonde, lean and well-built, dresses as noble of Ektal country. Known to like expensive perfume.
Basic physical training for self defence. Alchemist training, little used.

Current Location: Minmay City

Important Notes:
Chancellor of Minmay region. Steadfast enemies of Chancellor Duport.
Strong political acumen, known to never overspend his treasury.
Works extremely closely with Cato, many of the new reforms in the Minmay region originate from Cato's ideas.
Currently acting leader of the University while Cato is away.
Inwards focused policy, with no history of political or military adventures. With the notable exception of Duport. Maintains close working relationships to major influences within Minmay region, guilds and the Knight orders. Weak relations outside of his region.
Is currently occupying Duport's territory by force. His wife and daughter are representing him there.
Highest level commander of the Minmay Guards, a dangerous army of trained peasants under his direct command.
The Minmay Guards have won one major battle against almost four hundred of Duport's knights.
Despite the known weaknesses of Duport's recruitment, Minmay's army is of unknown fighting power and poses a threat to the power stability of the Ektal country. Minmay's known reluctance for war and low militancy reduces their influence however. The Guards are known to be equipped with three spell cannons and three army shields, currently the only organization in the Federation with such strong magical devices. Other armaments include iron and steel equipment, charged wands and enchanted weapons and armour.

Key personnel:
Cato Lois - personal advisor, director of Minmay Bank
Arthur - Butler, acting mayor of Minmay city when Minmay is not in residence. Ex-knight now on permanent retainer to the Minmay household
Aesin - Wife, has strong social connections with the mayors of the Central Territories, popular with peasants due to running a number of charities and food kitchens
Reiga - Captain of the Minmay Guard, second only to Minmay himself; retired knight, spends his time training new recruits and administrating the Guards
Curasym - Commander of the Minmay Guard division occupying Duport's territory, recruited from the first batch of Guard trainees
Minmay Guards - number approximately two thousand, estimated five hundred still in training or standby in Minmay City, the rest are occupying Duport's territory

Potential enemies:
King Ektal - see separate sheet; Minmay has extended a peace offering to King Ektal which is still being debated in Ektal court
Mayor Selabia - under house arrest for participation in the war, Minmay seems reluctant to appear to punish the mayor publicly, possibly for political reasons

Known enemies:
Chancellor Duport - missing
Mayor Corbin - captured

Assessment:
The Minmay region can be a testbed for radical ideas proposed by Cato. Organizational principles observed to work can be adopted by Inath court. Power balance in Ektal region is destabilized by his recent capture of Duport's region. If his control solidifies and the Minmay Guards improve their weapons, Minmay can become the central political figure in Ektal, even if not in name. Minmay is unlikely to want to be Ektal's King. The Inath court influence on his region is indirect at best.
Infiltrators in the Minmay Guards are providing information on their training techniques and tactics. Such could be considered for implementation in Inath too.

Recommendation:
Encourage isolation to contain effects of his power. Such encouragement suits Inath's purposes and will gain favour with King Ektal.

Landar Iris
Age: 20

Description:
Female.
Long black hair and black eyes. Pure blood Tsarian descent. Disdains formal clothing and often seen
wearing heavy work clothes in daily routine.

Current Location: North of Minmay on a private expedition

Important Notes:
Only daughter of the third branch family of the Iris Summoner Clan. Has two younger brothers. Currently estranged from the clan for unknown reasons. Chakim from the Iris clan is escorting her under orders of her father. Studied at the Academy for four years after she left her clan, left when she achieved a formal grade of Masters. Leading expert in alchemy and a Greater rank summoner. Close confidant and friend of Cato. Potentially being used by Iris Clan to gain familial ties? Known inventor of the magical arrow, spell cannon and army shield.

Assessment:
A Greater rank summoner is not the strongest personnel but still higher than most others. Strong alchemist knowledge and high power due to being a summoner makes her a strong combat support asset for any party. Ties to Iris clan are weak, leaving a possibility of being open to recruitment for Inath. Unlikely to work separately from Cato, rumours of romantic involvement. If she can be recruited, Cato may follow, and vice versa.

Recommendation:
Potential recruit but unlikely to succeed. Efforts are better spent on Cato himself.

King Ektal
Age: 44

Description:
Male
Light brown hair, small trace of Tsarian descent. Taller than average height.

Important Notes:
Ruler of Ektal country.
Potential enemy of Cato and Minmay, King Ektal's power is precarious due to Minmay's current strength. Has strong ties to local knights and criminal underground. Runs a private information network, mostly focused on Ranra and internal security. Known history of assassination and spying. Does not hesitate to display military power when required however. Refer to previous information collections. Current stance towards Minmay is wariness. Has four of the strongest largest parties in Ektal country on retainer against's Minmay's threat. Known to be attempting to copy the model of the Guards, has been purchasing large stocks of enchanted weapons, armour and wands through his underground connections.

Recommendation:
Subtle encouragement of his suppression of Minmay without being too committed.
Urgent message to Cato and Chancellor Minmay,

I pray this letter finds you on your way to Barin.

I have examined the zombies and samples of the Tremor eggs that you left with me, being too busy to deal with it yourself. As you suspected, the destruction tests confirmed that zombies appear to ignore damage done to the body but instead de-animate upon suffering too much impact forces or a set amount of magical damage. The magic power sensor also confirms that the zombies do have something like a lifeforce, only weaker than a human’s and somehow diffused into the surroundings instead of being confined to the physical limits of the body. I think this is related to the zombie’s ability to find living things even through walls, which I have also confirmed to be related to magic and that magical barriers prevent this 'life sense'. Zombie 'life sense' does not apparently discriminate between humans and animals although they seem to ignore plants, as well as animals much smaller than humans.

Tremor eggs are completely baffling. Two of the eggs I was sent are hollow. As far as I can tell, the tremors in them had hatched long ago, the few traces of the yolk have long since rotted. But the eggs are still whole! I took the liberty to test their material strength and conclude that tremor eggs are roughly as hard as cast iron by weight. Their thinness allows them to be damaged quite easily by swords and axes but any normal bird’s egg would be completely destroyed by blows that only shatter small sections of shell.

The other tremor eggs were in varying stages of development. I have charted a rough outline of how tremors develop in the eggs, which is also baffling. Your observation of the few dead tremors the knights have dug up for you matches that of the baby tremors. Their teeth really are on the inside of their bodies and their shells really do lack any holes for breathing or mouths. I am sorry to say I am still no closer to understanding how tremors work.

With the minor progress report out of the way, on to the main subject of my letter.

Examination of the clothing on the zombies by the tailors resulted in a major discovery today that I absolutely must inform you about as soon as possible. The zombies are not from Inath!

Following the evidence of strange clothing styles, the tailors dismantled the heavy furs and discovered a completely unknown cross stitching pattern. The cloths are actually composed of two different materials, the reinforcing thorndown fibres are stitched through the furs in a way that almost completely hides them from view. The tailors are currently attempting to duplicate this technique from the scraps but they estimate it could take a month or two before anyone is trained enough to make the pattern.

There are other circumstantial evidences for my claim. The older arrow wounds are clearly not inflicted by the points used by our knights, they are vertically aligned hunting broadheads that few would use against humans. The clothing style previously mentioned is too hot for Inath use, they seem fit for the northern lands of frozen water mentioned in our stories. And lastly, the skin colour of the zombies are much darker than our own. While the Tsarians usually have yeller skin, as far as our dissection can tell, these zombies’ dark skin is native and not due to the evident decomposition. Perhaps a light brown like tree bark.
These observations drive me to the conclusion that there is another group of humans further north from Inath, perhaps also under siege by the zombies. They are clearly in need of help if the reports of attack frequencies from Wendy's Fort and Fort Yang are anything to go by.

What you should do with this information, I am not sure. I am only a simple researcher after all. I only know that you should know this as soon as possible.

Torcoff
Monster Research Department

PS: please do something about the lack of students. My collection effort for the organs of the world's animals is going very slowly. No one wishes to work with me on this, it is very disheartening.

Arthur placed a well brewed cup of tea in front of him. The luxurious marble dining table and the brand new tiled floor spoke of Minmay's wealth. Freshly renovated once the new building technique had been perfected, Muller had invited many of the local barons and nobles to a party at Minmay's dining room at his own expense. The last Cato heard, the man was doing a roaring business setting up water towers and sewage systems at the noble homes of the towns all across Minmay. And even the barons of Duport's ex-territory were starting to come around.

But they had hardly any time to enjoy the new facilities when Minmay had received a communication from King Ektal. And that was why Cato and Landar were here.

"Peace talks?" Cato asked, "but why me?"

Minmay waved a forkful of fried bread, "the lords of the Central Region are too many for me to visit them all, and their politics are heavily influenced by the Iris family. " He nodded towards Landar, who winced.

Cato frowned, "aren't you just going there to reaffirm our position in Ektal with the King? It was supposed to be neutral ground, wasn't it?"

"Doesn't mean attempts to bias the ground can't be advantageous," Minmay smiled, chewing the oily bread he loved. The 'French toast' recipe had supposedly been introduced by the Hero, and the eggs it required were leading some nobles to start looking into domesticating birds. "But in actual fact, I'm more looking to establish trade relations with the Central Territories," Minmay continued, "they'll be hit harder by the food price crash, especially now that our surplus is already beginning to affect their market. I also want your Hole Corporation to lend out your expertise in alchemy-" another tip of the metaphorical hat towards Landar, "-and in the harnessing of natural magic. A number of guilds and prominent business leaders are also coming along, hoping to ride my coattails into a profitable business arrangement."

Cato raised an eyebrow. This was surprising. "Isn't that a full blown trade delegation?" he asked, "sounds like you're focusing more on the Central Territories than King Ektal. " The peace treaty was a politically significant act, even if they were maintaining the official fiction that Chancellor Minmay was visiting the King on his holiday to apologize for his tardiness in answering the summons. But aside from that, every noble and well-informed person in the country had to know this was nearly inevitable, given the precarious balance of power between the Chancellor and the King.

To open trade talks, no doubt the longstanding import tariffs both sides had towards each other's goods would be a hot topic, would seem to others that Minmay was treating the Central Territories more seriously than the formal ruler of the country.
"Of course I am," Minmay said, "the Central Territories are our next door neighbours and Ektal is ultimately quite far away behind two major rivers. I don't trust Ektal to leave me alone if our fortunes reverse so I need to cement my position strongly in Ektal politics. The Central Territories have long been independent but if I can influence them with a strong show of cooperation, I am sure they can be swayed our way."

And controlling two major regions and allied with a third, out of the five regions that the country was divided into, Minmay would become untouchable.

Cato looked down then nodded, "all right, I'll come. With Muller to lead the project, I should be able to step away for some time. The magical techniques are already mostly finalized after all."

"Is there something wrong? You look hesitant," Minmay asked.

"I was just thinking that I didn't want to be spending my second Cel Inci in this world with Landar's family," Cato smiled weakly, "too many horror stories."

Landar shook her head with an echo of his smile, "now that you've seen the Inath tradition, let me show you what a Tsarian Cel Inci looks like. I just hope my father won't get in your way."

Cato nodded, "in that case, Minmay, allow me to expand the delegation a little more, I have some friends who I promised to introduced to the Elkas at Fort Yang."

"I never thought I'd be teaching you," Kalny mused as he looked around the floor of the canning operation.

Willio picked up a seemingly random can from a random worktable and examined it shortly before tossing it into the waste bin. The apprentice assigned to the table winced but said nothing. Kalny retrieved it.

"What's wrong with this one?" he asked, turning it over in his hands.

Willio smiled and picked up a pair of tongs and bent one corner, the corner of the can cracked and broke away. "Defective iron," Willio said, "badly forged."

Kalny shook his head, "I wish my workmen could find errors just by looking too."

"So do I," Willio said, "but on to the main topic. Cato presented a purification technique for iron materials recently and we're very interested in procuring it for our use."

"But why me? If it's about iron, surely you have the best experience," Kalny said.

"To date, the only people who have research experience in crystallization techniques are yours, Kalny," Willio gestured at the failed experiments in the far end. Workers and mages were sweeping through the debris, clearing up the last traces of the dangerous Elemental Water. Leaking containers, burst containers, destroyed stirring paddles, the accidents were endless. Cato's crystal containers didn't not scale up well, Elemental Crystal could not be worked after all. "All the other copycats are just that. Whatever you invent, they follow, they have no idea how to fix problems like what we're facing."

What makes you think I can?" Kalny asked, face carefully neutral.

"Because you already have," Willio smiled, "we did our research. Oil separation by way of
Elemental Water displacement? I would not have believed the expense made it worthwhile but your top grade soap and conditioners are unbelievably smooth for their price. And it seems just about anything new will sell nowadays.

Kalny laughed and waved a hand, "you got me there. What about me stealing your secrets?"

"It's not like you even have a blast furnace," Willio's smile got wider.

"Ouch," Kalny smiled back bitterly. "My help will be expensive," Kalny said finally.

"Despite past misunderstandings, we believe it best to have a good working relationship," Willio replied, as if already resigning himself to what Kalny was going to gouge him for.

"I will want those new steam engines of yours," Kalny raised two fingers, "two of them. The mana compressor type, not the normal ones."

Willio winced and sighed theatrically, "so much for keeping that a secret. If you have already found that out, it's probably all over the backdoors of the Minmay guilds."

"Not many people can get past your security, Master Ironworker," Kalny said, "nor would many try at all. Your secret is probably safe for a while."

"Our holes might be small, but you leak like a sieve," Willio pointed out, "your own secrets are not the only thing being copied."

Kalny paused then nodded, "fair point. I suggest you hurry up and sell as much magic as you can then. I won't get in your way, certainly not with only two. I just need a supply for my own factory."

Willio sighed, "there are problems with the back pressure. The densities of magic we are dealing with have never been seen before and we are facing leaking problems. It doesn't work as well as you think."

"Yet," Kalny added.

They paused and nodded together. "Not yet. But soon."

One month later

Ka winged his way over the last rocky rise and felt his breath get swept away in the wind.

Their journey at Cato's blessing had been uneventful. Faster than any land bound trail of carriages, Ka and his daughter and his brother's family had opted to fly all the way to Fort Yang. Mii, his wife, had been forced to stay with the delegation but Cato had assured Ka that Mii would be well-entertained.

Now at the footsteps of the imposing mountains of the Snow Wall, the ancient home of the winged, they were all tired from the weeks long journey of one flight after another. Any scout could have made the trip in half the time but with Kee's two children new to the air, a month was considered good time. Still faster than the land bound but not by much.

The location of Fort Yang and the home range of Clan Two had been given them by Cato, and their servitude to the commander Michi had been lifted by express order, and a hefty bribe, from Minmay, clearly also the work of Cato. Ka could feel his blood debt weighing down around his neck like stones but this did not stop the sight in front of him from wiping away his breath and thoughts.
He glided down to the crest of the ridge and perched there, taking in the view.

The Fort was said to be built in the mountains of the Snow Wall but Ka had not expected it to be actually built inside where the mountain was supposed to be. The thick black scar and smashed mountaintops had not turned out to be some strange tree growth or the infamous black snow.

It was an entire missing section of mountain.

The canyon was abrupt and sharp. On one side, a normal mountainside of rising rocks and light forest of the Elka's preferred hunting grounds. On the other side of the ridge, the black line turned out to be a steep slope cut through the mountain range. Filled with boulders, scraggly trees and other debris from the collapsing mountain walls to the side, the bottom held a large and mighty river. The Great Yang, so named by the landbound, was a formidable hundred wingspans across even this far upstream. Formidable at least to those who could not fly.

As if carved out of the rock by the hand of the wind gods, the canyon was practically made for the Elka. Easily kilometers high, full of handy cliffs, useful trees and tasty prey. The steep slopes were not quite vertical but they extended from the snowcapped tops of the mountain above all the way down to the slow lazy river below, so much area that it was impossible to describe. Below the snowline, the semi-permanent darkness of the canyon hidden from the sun for all but a few hours a day held its own nature, bursting with colourful life in defiance of the grey rocks around them. Already, the denser western side had awoken under the sun's light that was now drifting across the river, driving the sharp shadow of the eastern half of the Snow Wall into the depths of the rocks right below Ka.

And an hour's flight away, a circular depression held a large lake and gentler slopes around the side, like a bowl clasped to either side by mighty stone arms. In it, at the shores of the lake, stood the human fort. A wall across either side of the lake and a small harbour full of tiny boats to patrol it. Stone houses behind the wall and carved into the mountainside. The humans' construction seemed to pale in the face of the mighty nature around them.

There was a flapping behind him as Ri came down to settle on the ridge to see what was up. That Ka went to scout ahead was their arrangement but Ri was young and adventurous and she did not always take to his instructions.

This time, he said nothing as she gasped in wonder and beckoned to his brother's family who also winged down to join them.

They landed behind and folded their wings before joining Ka and Ri at the ridge. Kee's two sons looked a little tired, perhaps unused to using their lift, but this was as good a place to take a rest as any. With a handy cliff nearby, even they would have no trouble taking off again.

"Hey, there's someone approaching," Kee said, pointing upwards into the valley carved through the mountain range.

A pair of wings was flying towards them from the cliff wall on the other side of the fort. From the think lanky build and the speed of the flight, Ka could tell it was a Scout.

With a wing-bending turn, the scout banked sharply and dived towards them in a single swift motion. It was beautiful, a reminder of Clan One's glory days in the air. Ka peeked at his relatives and saw that the skill was lost on all but Kee. Well, his wife never had much interest anyway. The skill was nothing compared to Clan One's masters, but the wing over body turn had a practiced look borne of actual use.
The scout landed a few paces away, shrugging his wings into the folded position.

He eyed them all warily for a moment before approaching. "Unfamiliar wings, who are you?" he asked in a high voice.

Oh, he was younger than Ka thought, still in his teens. So young to be so skilled in the air.

Ka explained, "I am Ka, this is my brother Kee and his family. Ri here is my daughter. Only my wife Mii is not here, her wings..." he trailed off, there was no need to explain. "We are from Clan One. Or what's left of it. Please don't take us to be hostile. There are only the six of us here as you see."

The scout frowned and considered them for a while, "I am Tiki from Clan Two. I will have you come with me to see the elders."

He turned towards the ridge and before jumping off, Tiki dropped a bombshell none of them expected. "You're not all that's left of Clan One."

Tiki flew in front of them, leading them up the valley walls on the thermals rising from the sunny side. After gaining enough height, with a casual roll, he dived downwards, gliding effortlessly towards the stone walls on the other side.

Ka stayed behind to make sure all of them could follow the scout. Ri nearly lost her flight when she tried to copy the man but recovered admirably. Kee and his family did not bother to try, instead descending in a slow gliding spiral.

Halfway up the valley walls was an Elka village. A village built in the old style, a lattice work of wooden beams anchored into the cliff upon which shelter had been built and rooms tunneled into the cliff face. Hard to reach and even harder to attack, each house was only accessible by flight, save for the main village hall set with an entrance facing the sheer mountain path leading to the landbound fort below.

Many Elkas sat at the edges of their houses, weaving or cooking out in the open, shouting greetings and noisy rumours to each other over the empty space. While they were approaching, nine hunters, a full flight, came in from the southern low lands where Ka had journey over, slow and burdened with prey. Men and women winged up to meet them, joining the hunters in the air as they shared the load joyously. Not a few couples even started an impromptu aerial dance, to much catcalling and laughter. Ka could see the wind god's prayers in some of the patterns but the rest were unfamiliar. Well, this was Clan Two's home range after all, their traditions would be different. One young scout and his hunter wife were even quite good.

Ka smiled as he watched his daughter's head swivel round and round until she got dizzy. He and his brother's families received no calls, attracting only wary gazes that softened to something like curiosity as the Elkas saw they were unarmed and led by Tiki.

It was to this main hall that Tiki lead them to now.

They landed on the mountain path, with the sky seemingly filling with feathers as hunters and guards landed around them. Their long spears weren't pointed in any particular direction, which was good.

"I wish to see my father, we have guests," Tiki said to the big man standing in the middle of the wide doorway. Too big to be nimble in the air, but definitely better at fighting on the ground than any of them. A good build for a guard.
"Who are they?" the man asked in a rumbling voice, his equally stout wings vibrating in time.

"I am Ka, from Clan One," Ka said behind Tiki.

"Ka?!

He winced unconsciously at the voice. Ka thought he would have been glad to hear any familiar voice after all this time, but all the irritation at the woman came back up after just a single word.

"Lo," Ka said, turning around with a sigh.

Just landing on the path behind them was a woman slightly older than him. Her pure white wings were as beautiful as they ever had been. "It's really you!" Lo said, running up and pouncing on Ka's shoulder like an excited Reki pup. Just like he remembered.

"Yes it is, but please don't stick too close, I have a wife now," Ka pushed her off gently.

"Who is this?" Ri asked, tugging on his wingtip and eyeing the woman with a hostile gaze, "what does mama have to do with her?"

Ka caught his brother grinning at him and sighed. "Lo is a cousin. My grandmother's sister's granddaughter," he explained, "if it wasn't for certain accidents in the past, Lo would have been your mother, Ri."

Ri had a complex look on her face, as if discovering her parents actually had a history for the first time.

"Your daughter?" Lo asked, eyeing Ri with a distinctly predatory look in her eyes. Ri retreated behind her father, still unsure about the new woman. "So cute..." Lo muttered hungrily.

Ka wrapped a wing protectively around Ri, glaring at her, "don't look at my daughter like that."

"I see you still haven't lost the habit, Lo," Kee said, rapping her sharply over the head, "I wonder if Clan Two really took you in or if you slept your way in."

The Clan Two Elkas coughed and shuffled, some of them turning a little red. And not all of them men either. Even some couples looked distinctly guilty.

Lo licked her lips mischievously and smiled, "who knows?"

"In the end, I'm glad to see you're all right, Lo," Ka said. She raised an eyebrow incredulously but Ka just smiled gently. It was good to see her after all this time. Good to know that someone else other than his own had survived.

"Ahem."

A throat clearing from the doorway of the meeting hall drew their attention back. A much older Elka stood there, her greying wings barely in flight condition anymore. From the way the guard and Tiki both suddenly snapped to attention, she was an important person.

"You are Ka from Clan One?" the old woman asked.

Ka nodded, "I am."

She considered them for a while. "Come in," she said finally, "and Tiki, go call the Ones."
"I am Wakee, the elder is out so I shall act for him," the old Elka said.

They were seated in the room carved into the mountainside. It was large, almost six wingspans across. Small windows and three doors leading to the open air let the light and wind in, but the room was still cozy compared to the windswept cliffs outside. The large stone table in the center seemed to be carved out of the rock too, as if it had been planned when the room was created. The chairs were normal wood though, without the backing that the landbound liked so much that made sitting down in Inath chairs difficult for Elka.

After they sat down, the old woman had eyed the rest of the curious Elkas with a stern gaze until only the guard had remained with them.

"Clan Two knows of the destruction of Clan One," Wakee continued, "and despite our bad history, the fact is that we are both Elka. We were prepared to write off your past aggressions."

Were? Ka frowned.

"On the condition that you accepted our traditions and laws, Clan Two was prepared to accept anyone who survived," Wakee said.

Lo shifted beside Ka, her folded wings fidgeting awkwardly. She sighed and said, "I'm known as Lolu to them."

Ka looked at his brother and they shared a small smile. Ri just looked perplexed.

He nodded, "I see what the difficulty would have been. Where did the rest go?"

"Those who did not accept us went further east. Four flights and six came to us, only one flight and one stayed," Wakee sighed, "what became of the others, I do not know."

Ka nodded. Those who chose to accept the traditions of another clan would not be the proud hunters or scouts. Or the elders.

"It is more than just an extra name or learning new prayer flights," Wakee elaborated, "Clan Two is not like Clan One. We made peace with the landbound and agreed to help them in their war in exchange for being left alone."

Ah. "I see, the landbound attacked and destroyed Clan One," Ka said, more for the benefit of his daughter and Kee's sons, "swallowing that memory and working with them would have been hard to accept indeed."

"More so for the proud and strong Clan One," Wakee shook her head sadly, "we wanted to take any we could save. But Clan Two survived because we submitted to the demands of the landbound. We would fight their wars and in exchange they would leave us alone. Our own survival meant that we could not allow anyone who would be aggressive towards the landbound."

Ka and his brother nodded. It was only obvious, not that it would have stopped some of the older clan members.

"What did the landbound want? Clan One never found out," Ka asked.
"They wanted us to scout for them, to signal and carry messages," Wakee explained, "your Scouts made a strong impression on them and it was quite difficult for us to explain that even our hunters can't do much to the zombies. Much less now when they have those beams of light and can actually attack us."

Ka nodded and looked at Kee. Without even asking what the question was, his brother merely shared the same glance with his wife before nodding back.

"Is your offer to take in more Elkas still open? We will accept your conditions," Ka said.

It would be awkward to have to think up a new name but Ka's pride had long since faded away. Living among the wingless and landbound for years did that to you.

Wakee considered them. "Tell me first," she asked, "where did you live all these years? And why would you suddenly come to us?"

"We were separated from most of the Clan when the final attack came. My brother and I escaped to the west instead and lived with a village of Fukas for many years," Ka sighed and explained, "we served the landbound there as scouts for the local area and later for the wingless when the landbound left."

Then he continued on with a quick summary of Cato's coming and the destruction of the village, followed by their service under Commander Michi.

"Once Cato, to whom my blood debt runs deep, pushed Michi into freeing us from our service, he brought us to you," Ka said. He withdrew a small stack of paper from his pouch and gave it to the old woman. "He has a message for you, and an offer," Ka explained.

The woman raised an eyebrow but only glanced at the paper for a moment before putting it aside for later.

"I speak for the elders in their absence. I will allow you to join Clan Two. Your experience, if true, shows you can work with the landbound, that is more than sufficient," Wakee said and sighed, "even if Clan Two has submitted to the landbound, it was not without loss. There are far too few Elkas left and every wing is welcome to us."

"My wife's wings are furled," Ka said, looking at her seriously, "permanently. Will that be a problem?"

They did not miss the shock on Lo's face that faded into pained sympathy. The old woman looked between him and Ri and sighed again, "it is. But not because we do not wish to accept her. Surely you have noticed by now that our land is not like your mountains and slopes. In this valley, carved for the Elka by the god of wind, there is no place for those who are landbound. Even the commanders and messengers of Inath rarely come to us, so hard is the path. Here, your wife will live in a cage of air."

Ka took a deep breath and looked at Kee, who nodded back knowingly, "in that case, will you accept Ri alone?"

Wakee nodded but Ri cried in shock, "what? But papa, I can't..."

"Ri," Ka put his hands on his daughter's shoulders, looking into her eyes seriously, "you can. I will not say you are old enough, because I wish I could be with you as well. But Mii cannot fly and even the journey here will be long and hard for her."
"But, but," Ri's face twisted in shock and confusion, and pain, "are you going to leave me?"

Ka closed his eyes as her tearing eyes seemed to stab at him. So much for making this easy. "I am not leaving," he said, "I will visit often. Part of the proposal Cato made was for me to act as a messenger for Inath. And to learn, and later teach, magic. I can see both you and Mii this way."

Ri seemed to whirl in her confusion, not sure if she should cry. Ka sighed, he had wondered if he should tell Ri about the proposal but this scene would always come to mind and he never seemed to get around to doing it.

Wakee's voice cut through the fog of confusion. "Ri can do the same as you," she pointed out, "although every person in the Clan has to contribute and I'm not sure what benefit a messenger for the landbound could bring us. But if you manage to find honour as one, your daughter would be more than welcome to take your feathers for her own."

Ri looked stunned for a moment then turned to look at Ka hopefully, who was equally stunned. It had never occurred to him, Ri was his daughter, not someone who would do something so strange and foreign as being a messenger for the landbound.

He didn't get to reply. There was a flapping of wings from outside as more than a flight of Elkas arrived at the door and the ledge taking their turns to land.

"It's Ka! And Kee too!"

The familiar voice made Ka stand up as his cousin came in through the door. "Su!" Ka grinned as he saw the older but still familiar face. Su's larger frame was like Kee's, too heavy to fly quickly enough to be a Scout. Kee leapt to his feet also, clasping their cousin's hand strongly.

"And now the three troublemakers are back together again, I imagine that will be the end of this clan now."

Ka looked behind to find another much older man smiling at him. Su's father looked much older than Ka remembered, with harsh lines on his face and body accenting the drooping grey on his feathers. He had not aged well.

"I'm sure you'll be here to stop Su if he gets into any mischief," Ka grinned.

"And much mischief it is," Su's mother sighed behind the old man, "my feathers nearly fell off after he came home with a baby! I didn't even know his wife!"

Ka and Kee both stared at their cousin and friend, who smiled at Lo behind Ka. A sweet loving smile that Ka would not have understood back when they were still known as the troublemaking trio of Clan One. After Mii though, he did understand.

Lo shuffled, also with the same smile, "yeah. I'm bonded with Su. Our child is just two years."

Ri tugged at Ka's wingtip again. "Are these our relatives?" she asked timidly.

"Yes, they are," Ka said, smiling down at her, "this is my daughter, Ri."

Kee likewise introduced his sons. And then more relatives came in after landing and the introductions began anew.
Ka nodded as a second uncle clapped his shoulder and finally let him alone. The arrival of relatives had turned into a dinner and with members of Clan Two mixing with them, chatting and talking with Kee just like his relatives, it let Ka relax finally. Wakee's words were just that, words, but this sight told Ka that he could truly find acceptance with the clan.

It still did not change the fact that overly familiar relatives could be brushed off, something he never liked about clan life.

"Your proposal is strange," Wakee said, walking up with her son in tow, the actual elder of Clan Two. The three other elders sat against the wall, eyeing Ka and discussing amongst themselves. The other Elka gave them a wide berth.

Ka flicked a wing in polite acknowledgement to Raki, who looked solemn despite the increasingly festive mood. In the elder's hands was the stack of papers that Cato had given Ka. Once Raki had arrived with the other elders and Wakee had summarized the talk for him, the four elders had quickly confirmed Wakee's permission to settle in their clan. But Cato's proposal was giving them some trouble, Ka could see. He knew it wasn't going to work, but Cato had insisted anyway.

Sometimes blood debts made life difficult, but then it wouldn't be a debt otherwise.

"It is hard to understand how this benefits the clan," Raki said, "or the landbound for that matter. And we know they are ever so keen to count benefit by way of their coins. Why would they teach us magic, when it was the very weapon that let them prevail over Clan One?"

"Have we ever asked?" Ka pointed out, "my service at the Inath fort was not too bad. They understood our limits and never tried to press them. I even have some of their currency."

"It will do you no good here," Raki said in a warning tone.

"I understand of course," Ka said.

The worst part was that he did understand. Not just what Cato was trying to do when he wanted the Elkas to learn magic, and even this thing he called magic engineering which was a new thing even in Inath. Not just why Cato had said some not very nice things when he heard that the Elkas had never done such a thing as farming. Not just what Cato meant when he said that the reason Inath humans treated the Elkas and the Fukas like foreign beasts, not quite like people, was also partially due to their self-imposed isolation.

Ka understood that Raki did not understand. And that Raki would never accept letting Ka into his Clan while doing something no one understood. It wouldn't be worth his honour.

Cato had called it a cultural barrier, whatever that meant.

"Cato said that he would provide food and clothing in exchange for my being such a messenger for two years," Ka said. Frankly, the amount Cato had offered when Ka pointed out the essential flaw was staggering. That amount of food was more than sufficient to support ten Elkas for the same period. "If we still cannot find any benefit in continuing the arrangement then, he will give up."

Raki considered the matter for a moment, "you say you have a blood debt to this human?"

Ka nodded, "he told me that he would understand if I did not wish to take on the role he wants and refused to consider the matter of the debt. He says that regardless of whether I become a messenger, he will consider the debt paid."

This much Raki understood, and Cato never would. Ka would uphold his end without fail or his
honour would be forfeit. If Raki refused Ka's role as a messenger, Ka would have to leave Clan Two in order to fill the debt. And Ka could not consider a mere two years sufficient payment.

"And my mother just had to tell your daughter to follow you," Raki sighed, "very well. We have our misgivings but the payment promised is great enough. Two wings less will not hurt us when we never had them before."

Ri looked around the room, slightly bewildered by all the strange people around her. The spree of introductions had resulted in her father and uncle playing catch up with everyone else, it was turning into an impromptu dinner already.

But Ri was feeling quite overwhelmed with all these new people around her. She had grown up in a small village of Fukas with only immediate family, among Elkas anyway, and to suddenly find so many others examining her made her feel strange inside. Like she wanted to hide away. But her father kept presenting her like some kind of trophy, all smiles over how well she had grown.

It was good to see him smile, that had been so rare back in their village, but Ri felt weird about the way he seemed to know all these strangers and all of them seemed to know him too. Like she was just an extra tagging along behind his wingtips.

After a particularly long gap in the introductions, Ri took the chance to step away from her father and slipped past the large dinner table. With a strip of paka meat in her hands, Ri took one look at her father, still buried in conversation with the Clan Two elder and jumped out of the door.

In the cool evening air in the shadow of the Snow Wall, Ri took refuge from the noisy hall on the windy ledge. The cool air flowing through her feathers was nice and calming.

She nibbled the salty meat in her hands appreciatively. Mm! It was actually quite delicious. Ri idly looked out across the valley, still seeing new things among the nooks and crannies. Cracked rocks and steep cliffs hid scraggly trees. The hollows whispered in the wind, little pockets of trapped air singing to her quietly in the night.

It was truly a beautiful place, one that any Elka could appreciate.

"Is the party too loud for you?"

The sudden voice behind her made Ri yelp and tumble off her perch. She flapped out her wings and swooped back up awkwardly.

"You!" she said to the boy sharing the ridge, "don't sneak up on me like that!"

The boy was the scout that had led them in. Uh. Tiki was it? Yes, Tiki.

He held out a new strip of paka meat and Ri looked down at her hands to find her half-eaten one gone, somewhere down the valley. She blushed a little and nodded her thanks.

"Sorry about that, I forget to stop being a Scout sometimes," he said, sitting beside her on the rocky stone, legs dangling over the edge.

Ri looked at him again. He seemed younger than when he was leading them in. Older than Ri but young for an adult. And those wings! They were folded and handled with an air of mastery, she recalled his flight earlier, the elegance replaying itself in her mind.
"You are a Scout then?" Ri asked.

"I passed the Test last year," Tiki grinned at her, "for a kid, your skills aren't too bad. Who's been teaching you?"

"My father," Ri said proudly.

"Him? His skills are the real thing." Tiki nodded seriously, "Too bad about his weight though, he won't ever make a Scout like that."

Ri pouted. Papa was the best flyer she had ever known, but she had to admit that Tiki had surpassed him.

"Don't be upset, he does fly well," Tiki reassured her gently.

Ri could only nod.

"So did you come up here to avoid the crowd or to look at the valley?" Tiki asked suddenly.

She looked down and sighed, "both I suppose."

Tiki smiled and spread his wings outward to gesture at the rocks around them, "it is a beautiful place, is it not?"

Ri nodded.

"Did you know this valley is not a natural place?" Tiki said, wrapping his wings around him like a feathery blanket. Ri eyed the feathers and the muscles underneath, they were fascinatingly beautiful, like a honed and well-used...

"Hello?" Tiki looked at her, lacking a reply.

"Oh!" Ri flushed again and looked out at the valley. Funny how it appeared so uninteresting now. "I did not know that," she said, "it is a beautiful place though. What did you mean by not natural? Did someone make it?"

Ri could not conceive of a way anyone could make something like an entire valley. Much less one as steep as this cut straight through the cloud scraping mountains to either side.

"The gods made this, in their time," Tiki said, "I can tell the story, if you want to hear it."

Ri nodded.

Tiki smiled and put away his wings. Ri fought down a sense of disappointment at seeing them packed away but kept quiet.

"The legend is one of Clan Two's oldest. Back during the age of the gods, when the ancient Elkas served at their feet, when the gods were cast down and destroyed in the war of the sky. It is said that the gods had a mighty power here, one that the false gods had been jealous of and sought to destroy. Long was the battle that raged, and many of the gods fell and died, many of the old Elka heroes fell and died, but this place still stood, for all the arms and cleverness of the false gods could not breach these mountains.

In their anger, the false gods called upon the lightning from the sky. The lightning destroyed the land and the gods and even the mountains. And in so doing, the false gods destroyed themselves too. For the gods had their own sky lightning and their wrath was swift and terrible."
Clan One has also their stories of the gods and the war of the sky, I am sure. But Clan Two descends from the Elka heroes who fought at this place, and we tell the story here that one such sky lightning touched the stronghold of the gods here and destroyed them. The valley you see now and the lake where the landbound have built their fort is directly under the place where we fought alongside the gods."

Tiki was pointing at the lake far below but Ri had long since stopped listening. She stirred when he stopped talking, barely having registered any of the words.

"Are you all right?" Tiki asked, looking at her distracted face in concern. He reached out to her.

Ri pulled away suddenly, feeling a tingling going all the way down to her wingtips. What was going on? She frowned, not really understanding what that feeling was.

Tiki sighed and pulled his hand back, not knowing what to do with her. Ri looked back out over the valley, seeking answers.

It was getting close to night now, with the sun fully behind the mountains and the blue sky overhead getting dark.

"You must be tired," Tiki said, clearly unconvinced of that but she did not contradict him, "I know where my father will send your families to, let me show you to the houses."

He extended a hand to her and Ri took it silently. She felt as if she couldn't trust herself to talk, as if doing so would break whatever spell had fallen over her in the last few minutes.

Two Elkas, one almost-adult and one just starting, their pair of wings soared out into the falling light together.

Ka stepped into the stone office in the human's fort. Raki followed behind him silently, flanked by the two knights escorting them.

The commander was waiting for him behind the stone desk after receiving his request to talk. The stone room was empty apart from a single chair and table, anyone other than the commander was to stand. Much different from how Michi's official room looked, with all its decorations of war.

"I am Commander Erin. What brings you here?" the human woman asked.

"I have a message for you from Cato and Chancellor Minmay," Ka said, handing her a letter.

She raised an eyebrow and received the packet. "You may go," she said, opening it to read.

Ka coughed. "I was briefed on the contents of his letter. If you have questions, I can answer them, although I cannot make decisions."

Erin's eyebrows climbed higher as she looked at Ka curiously, "the Chancellor trusted you with information on this letter? You truly are his messenger and not a letter carrier?"

Ka nodded, "I have their confidence."

"This is very unusual," she noted, "are the Elkas going to start cooperating with us now?"

She looked at Raki for that last question. Evidently, the humans were aware of the power structure of Clan Two.
Raki sighed, "Ka acts on his own. I am here only to observe."

Erin sighed in disappointment, "oh well, that was too much to hope for. Let's see what the chancellor wants."

She read the letter quickly.

"A strange proposal," she said finally, "to lend the Elkas knights to teach them Ems and magic, in exchange for giving us those magic cannons? They also want to send us a detachment of soldiers to help fight the monsters? How does that benefit Minmay?"

Ka explained, "Minmay's Guards need experience and even with the current tension, the monsters are our actual enemy. Knowing that you have submitted requests for reinforcements lately, Minmay is of the opinion that the share of the bounty the soldiers earn is enough in light of the experience gained in real combat. He also wants to test certain ideas for the new magical inventions to help defend Fort Yang."

Erin's cheek twitched as she contemplated the proposal, "he wants to use Fort Yang as a training ground?!"

"Indeed," Ka said, "Commander Michi has been given a similar deal and has also accepted. More than just a training ground, the magical devices that the Minmay Guards are so famous for now are quite experimental. This arrangement will also help to test and refine their weapons."

"And in exchange I get some of these weapons too," Erin nodded, "a fair deal. Much better than could be expected given his political strength these days."

Ka nodded. He was certain Minmay himself would have something to say about this concept of fairness, but the code of honour among the landbound was subtly different from the Elka and so Ka kept silent. It would not do to accidentally insult their honour.

"I will have an answer for Minmay soon," Erin smiled, "will you carry it back?"

"That is the purpose of a messenger," Ka said.

"Very well, come back just before Little Night tomorrow, I will have an answer for you to bring him," Erin said, relaxing into her chair, "still I am very surprised to see Elka carrying messages for Minmay. Is he so powerful that even the winged will follow his words?"

"I have my own reasons," Ka said, "I will carry messages between here and Minmay, which should shorten the time of travel greatly."

Erin nodded. The Elka were too proud to do this, Ka knew, and he also knew that Minmay was taking the chance to present himself in the best way in light of that fact. To say that his reach was so far and so vast that even one of the famously isolated winged people would listen, something that Erin as Commander of Fort Yang right next to a Clan would be in the best position to understand.

Ka doubted whether many others would understand the games Minmay was playing here.

She waved them out and as they flew back to the Home Range of Clan Two, Raki shook his head. "So you speak their words too, Ka of Clan One. Just remember that the landbound are devious and honourless, I hope your debt does not tangle you too deeply in their affairs."

Ka sighed. Well, at least one other person understood that game then.
And he thought to himself of what Cato said. That the landbound also knew of honour and fairness, theirs were just different. And if the Elka were willing to work with them, the unimaginable richness Ka had witnessed in Minmay might be theirs too.
Cato's Notes

My notes initially began as a way of organizing my thoughts and observations as I arrived in this world, so that I would not forget them as I looked back on what happened. This is now served by the countless discussion minutes that I insist on recording and the various compiled observations, lab notes and written works that accompanies the university. Indeed, I have not touched my personal notes for over one and a half years now, lying forgotten in my cabinet. I hope they prove useful to some future unknown historian but that would probably be stroking my ego too much.

Guilds and Economy

I started with serious misgivings about the guild system in Inath and have come to realize that the guilds exist primarily as a method to enforce law and cooperation when the government does not. It is only in the most recent generation that the larger guilds have taken on criminal methods to enforce monopoly rights.

At a time when the government does not enforce contracts, at least when not between nobles, the average craftsman has little recourse if a business partner does not hold up the other end of a deal. While the knights do arbitrate disputes according to a vague notion of fairness, this costs money and often more than whatever can be regained through fines and restitution. Hiring knights to attack the offending party is apparently normal too, looked down on by the Order but tolerated as long as the dealings are kept private.

This has restricted dealings to the immediate present. No futures or commodities market is possible in such a legal environment, much less the more complex instruments like company shares. Debt is only available to those of stellar reputation or huge assets, like Kalny and the Ironworkers, the common craftsman owning their own shop simply cannot find anyone other than friends or family who will loan them money.

In this environment, guilds who manage their own internal affairs and have rules governing behaviour on pain of expulsion thus provide a substitute for contract law. They also allow the member to use their membership as a way of borrowing reputation, and indeed, some guilds like the Ironworkers have evolved far enough that they also function like a financial institution, underwriting their own members' debts and allowing debt transfers to settle accounts. At least for those members who are in good enough standing, whether it is by points or ranks is dependent on the guild's internal rules.

It is a poor substitute for contract law. The failings are obvious, the large and famous guilds like the Ironworkers and the Order of Knights and even Pastora have got that way by completely dominating their market. No one else sells medicine or iron in any large quantity or to the same expertise as they do, and their size allows them to even affect politics to a limited degree. Pastora in particular has been strategically arranging marriages with the nobility for generations and much of the upper leadership are both nobles as well as healers.

My hope is that with Minmay's taking on the enforcement of contract and property law, the abuse of power that comes with hiring strongmen and bandits will disappear. The guilds are almost certain to protest the first time one of them has to be punished for doing so but the Minmay Guards are indisputably the strongest force of arms in the region. With the proper establishment of laws and a level playing field, I hope the free market forces will then take care of the rest of the dismantling of the guilds.
Weather and Astronomy

I've arranged for the university to take weather readings in many different places over the year in the interest of understanding how the climate works in Inath.

To say that there are no seasons is incorrect. With careful measurements of the sun's position, I do detect a rise and drop in the arc the sun describes through the sky. Together with that, there are also small shifts in temperature and rainfall, only a few degrees and millimeters of rain between the months. I can't give any accurate numbers without more years to average over.

I thought that this indicated that the planet does have a very small axial tilt but it seems the truth is more amazing.

The astronomical measurements have gone well. After spending a hundred Rimes or so, I finally obtained a number of manually cut and polished lenses. Part of the fee went to paying the glassblower to learn how to perform such delicate and precise work. They still have imperfections that make the image not as sharp as it could be, but now I have a crude telescope.

The first thing to do was of course to look at Selna. Selna's size has made it large enough to vaguely perceive cloud like things on it and I have seen it through the telescope. Selna has an impenetrable atmosphere, with multiple thick red cloud layers that obscure any sight of the ground. Over a period of weeks and months, I have observed small storms and even the occasional flashes of lightning between the cloud decks. Such discharges must be absolutely enormous if they can be seen just with a telescope like mine. Together with the red colour, I doubt the atmosphere is breathable.

Next I tried to track the various minor moons that the Inath astronomers have been using to count the years. I first guessed that they were planets but their paths as described were far too fast to be such, often shifting in the sky in a matter of hours, after compensating for the planet's rotation. Speaking of which, the planetary rotation as calculated from the moons didn't match the approximately 24 and a half hours we see in the day and night cycle. It took me a few weeks to resolve the contradictions.

Selna is a gas giant and we are on a moon tidally locked to it!

This explains why Selna never moves in the sky and even explains the day and night cycle, simply times when our planet isn't facing the sun in its orbit. It explains why Selna is so huge, because it is huge and not impossibly close. The planetary 'rotation' is really the orbit of our planet around Selna and the Little Night is the once daily solar eclipse caused by us passing into the shadow of Selna. The other moons orbit in increasing periodic resonance, being higher than us. The only one that isn't, bright and speedy Ecury, is a tiny lump, probably with an orbital period slightly longer than 12 hours. In addition, the moon system around Selna is almost perfectly aligned with the orbital plane, I think to less than a degree of tilt, which explains the lack of seasons.

Crude estimates of the gravitational constant with ball drops and timers have let me calculate our distance to Selna to somewhere between a hundred thousand to a hundred and fifty thousand kilometers. With the angular size measurement, that puts Selna at over twenty thousand kilometers across, I think that's small for a gas giant but I don't remember the numbers on Jupiter and Saturn.

Immediate use for these observations are not forthcoming. The usage of Selna to navigate is already known, having an unmoving astronomical object in the sky is simple enough to use, its position exactly reflects your latitude and longitude. But it satisfies my curiosity and puts the definitive final nail in the coffin that I'm not on Earth. Having a gas giant right in the middle of the habitable water zone does seem to indicate we're not in the Sol solar system.
Monsters

The zombies are tough. The few that we captured have all been destroyed by various methods, attempting to find different ways to attack them. To a large extent, powerful physical blows that sever body parts are the most damaging and the zombies are deanimated after two or three such blows. Unfortunately this also means that the most time efficient method to destroying them is melee, not something you wish to do against zombies, especially now that they have a laser-like weapon.

We are still unable to capture a specimen able to use the light beam attack. Such an attack seems to shed light in many directions, which normally wouldn't make sense for a beam of light. However, given the damage it does to walls and people it hits, easily burning off limbs and sometimes even causing minor explosions, I suspect the power of the beam is high enough that it is actually causing blooming effects in the air. I cannot say for sure but it does sound like the same sort of effect observed in the high powered lasers on Earth. In any case, the single flash of the beam is incredibly deadly and would be nearly impossible to stop if not for the faint glow that announces the attack. For now, the light diffusing Mist is our only defence, that and placing thick obstacles between us.

Zombie reanimation was tested and about a minimum of six zombies are required to reanimate another. Bodies of executed criminals were also provided for testing and I observed that the zombies do not cannibalize freshly dead bodies for parts. It takes some time in the presence of zombies before a body becomes valid for reanimation or cannibalization, time that increases the less zombies are present and the bodies never become zombies if there are less than six. I suspect the zombies do something to the body that requires six zombies worth of power at minimum.

The proof of zombies wielding magic has been confirmed by the magical sensor. Each zombie emits an aura of magic that overlaps with the others. This magic drops with distance but does not appear to have a defined limit, instead gradually getting more diffuse. The field is blocked by disruption magic barriers and none of the zombies' abilities, including detection and reanimation, work through one.

Behavioural testing the zombies show that they detect people at short range through the use of this field, the limit appears to be around twenty to thirty meters for single zombies, with larger groups of zombies having a further detection range. Zombies appear to prefer closer humans, without caring if there is a wall in the way. They will even path around a wall to attack people on the other side while ignoring the person across the room so long as their path doesn't bring them closer to the unobstructed person. In the absence of targets, zombies will attack magical signatures and animals, in that order. How they differentiate people from animals from plants is unknown but probably related to our lifeforce.

The longer range mechanism of detection is unknown. I did not dare to allow a sufficiently large group of zombies wander the countryside. We only know from tracking reports that the zombies do appear to be attracted to large groups of people even over the range of entire regions.

The most important discovery was the mechanism of their 'rest times'. Zombies stopping every ten or so hours has been a mystery ever since the behaviour was observed, one that has been ruthlessly exploited by every Knight commander fighting them in order to achieve surprise or secure retreat. On a hunch, I isolated a zombie in a huge magic proof room similar to a power box and kept watch through magical barrier glass windows too high to reach. Draining the room of magic, something known through experiments to stop magic power regeneration in people and animals, then caused the zombie to immediately enter 'rest' mode and it simply stopped moving until we let it out again, three days of motionlessness was sufficient to make the conclusion.

The zombies are powered by magic and their 'rest times' allow them to recover expended magic.
When disturbed, the zombies begin resting much earlier as they never fully recharge. This conclusion suggests that a hit and run knight cavalry force could be used to keep suppressed a much larger force of zombies, an excellent stalling technique that Ranra could apply on the wide open Algami plains to the east. With multiple groups to take shifts, we might even drain zombie armies of enough magic to neutralize or at least reduce their light beam attacks.

Night Cryer samples have also been sent to the university by knights hoping to get some additional bounty. Seeing the wisdom of that policy, I posted an open bounty limited in volume over time to our budget. Requiring bodies of monsters recovered except for zombies, the more complete the body is the more the university will pay, with the most going to live samples.

In any case, night cryers were simple enough to find weaknesses for. As flying animals, a bit like a huge black bird, their weak point are the wings. Since they do not appear to fly using magic, unlike Elkas, the night cryer wing is fragile and susceptible to damage. I suspect they can’t fly at all if too much of it is broken. This allowed the mages at the university to develop some new spells aimed at shredding night cryer wings. While not as simple as a firebolt, the ‘net’ spell exerts force at the level of breaking bones along it’s lines. Compared to the usual forcebolt able to rip people in half, the lower power allows the net to be deployed over a much larger area to improve its hit rate.

A much more complicated version of the spell retains a core of power that lashes out at anything that the web touches. A bit like a proximity fuse. This version takes far too long to cast so a spell cannon version able to cover large sections of sky was made and the first spell plates have been deployed to Fort Yang, the usual site of night cryer attacks. We shall see how well this works.

Magic Theory

The invention of magic circles seems to have begun a boom in the magic industry. Previously, alchemy was a tedious process, both to use and to learn. It required large amounts of practice and power training to get anything useful. And all that dedication is rewarded with no useful combat ability at all, since training speed and ability to ignore distractions is a waste of time for alchemists who are expected to stay at home and make magic items.

Magic circles turn that completely upside down. All that is needed now is the theory on how to make an enchantment. Even I can make magic items, given the threads needed to make circles and a supply of stored magic. With generic pattern imprinters, the circle can be combined with the standard magical enchantment creation spells enchanted into the threads for any spell function except for magical material creation, whose imprinter type is still clunky and difficult to use. Integrating these to make a truly generic enchanter is the current goal. In this sense, magic circles function like a 3D printer for magic item enchantments.

Because magic circles take much longer to set up than a single straight enchantment by an alchemist, with errors being hard to correct once the circle is set in motion, some alchemists have been skeptical of it. I suspect they are simply threatened by something they see as endangering their livelihood and are just looking for an excuse. So with suitable timing threads and enough scripting, I managed to enchant a block of iron with a ridiculously fine layered disruption and Resist shields. A piece useless other than for demonstrating that the circles are useful because it was essentially impossible to make otherwise.

Regardless, once a circle has been tested to work as intended and properly set up, enchantments can be done repeatedly with little variation and virtually without error until the thread enchantments burn.
out. Indeed, Landar and I have set up circle configurations solely meant to enchant threads as components needed to make more circles and circle configurations for enchanting more of every thread type has been published as a book.

I am not sure who started it, but spell plates are now being sold in the Order whose circuits aren't like Landar's original spell plates but actually just magic circles copied into a static enchantment on iron. Probably made by circle too, since it has unnecessary complexity. However, this is a good trend, it means that the process of making spell plates are now being adapted into a more abstract form, instead of building a single purpose circuit that only builds one spell, people are just configuring a generic spell casting circle into the spell they want and fixing that in place. That and the fact that someone not in the university has made a meta-circle, magic circles which make more magic circles.

All that is required now is a source of magic that isn't human-powered. Not to disparage the trade in magical crystal of course.

Regarding the density gradient theory of magic, I cannot help but feel something is missing. The theory neatly explains why we can drain magic in a box and the theory of tapping power by moving magic from high density to low density areas. Magic crystals degrading completely when exposed to lower than ambient magic density is the primary observation and we have optimized the power box design to work a bit better. A ten percent increase by wasting less power not draining the box internals completely of magic. Magic power sensors can also be divided into signature detectors and density detectors, which are closely related but not the same. I have been using density detectors while thinking they were signature detectors, only recently has Landar managed to actually make a signature detector that doesn't react to density.

However, there are observations not explained by this theory. Magic density in spells are too low to explain the power they can exert and the lowering of magic signature as spells expend magical power does not correlate with a decrease in density. Also, magic energy density does not appear to be correlated with magic signature, since the empty crystal mines do not radiate anything detectable. Another point, lifeforce has extraordinary density, far more than even magical materials like mana crystals. But lifeforce has almost no signature.

I have no idea how to explain any of that, save to say that magic density is not the end of the explanation of how magic works.
Dear Cato,

I am sure you have heard of my presence by now, I doubt anyone in Inath has not. I am Morey, the Hero of Inath summoned by Queen Amarante to win the war against the Enemy. I am also sure that you know of my efforts to free the slaves of Illastein as trade ships from Duport have been selling large quantities of food.

I have in my hand copies of the books you have written and published through the University of Minmay, the knowledge they contain is great and I have to admit that you have done more than I ever could. The Federation owes you a great debt, whether they admit it or not.

We may not have come from the same Earth, who knows how this summoning magic works, but the industrial revolution is something you are clearly familiar with. To confirm such, I have attached the names of country leaders, names and dates of significant events that I remember. Do the terms internet, blog, meme, mean anything to you? Are they recent entries into public awareness? If so, then we at least share a common cultural background.

Since you have avoided contact and clearly avoided letting the Queen know of your status as a person from Earth, I sincerely apologize. I told her that these books must have been written by someone from Earth so she knows now. I don't know why you would conceal your status but I will not press for further contact if you do not reply to this letter.

If you do however, we should meet at some point in the future when our tasks are resolved, as the only two people from Earth to my knowledge, we ought to work together to find a way home, if you still want to leave. The Legendary Sword as Amarante calls it, is a First artifact that I am tasked to find to end this War. It is claimed to have the power to send me home to Earth, and it may do the same for you. I am also curious to know your story and what you have done and experienced so far in this world.

Morey
Dated 4th day of 6th month of year 631
16 months and 6 days after my summoning

Dear Morey,

I have known of your presence for some months now but I did avoid contact with the noble society and you because you are a Hero. From what I've heard they ask you to do, I think I can work better here where I am. I think you understand what I mean when I say they are using you. Still, your letter is very reassuring, I needed to know that you can still act on your own.

Yes, we share much of our history, I think we come from the same Earth. All of the history you wrote are the same in mine, the minor errors are perhaps just misremembering or differing sources. I have included some more points in this letter for you to verify, you must have left the date of the second atomic bomb blank for this reason. I have been in this world for the same length of time as you, given the times you have attached. Almost certainly not a coincidence, my appearance is linked to your summoning. There may be more people from Earth in this world, I shall see about spreading the word in hopes of finding them, if they exist and are in Inath territory.
You must have noticed by now that our language has been modified. This is not English, nor your native language if you don't speak English. I would appreciate any information on this matter, clearly also related to your Summoning, and if anything else about us has been changed.

We should work together, as you say. Tell me more about this Sword you are trying to find. Are there any descriptions, clues or mention of its abilities? Are you sure this is not just a legend the Inath people have created about their past civilization? The common person on the street has no idea the Sword even exists. I can help find the Sword too, even if it doesn't exist, any First artifact is likely to have something we can learn from.

I will support your effort to free the slaves. The descriptions are horrifying, I had not known this atrocity existed until now. Arrange a place on the shores of Illastein to meet the barges in security and I will do my best to smuggle you some support. The political situation where I am does not allow me to divert too much resources but I shall help you where I can. Money, food and weapons will move at your request. Enclosed within this message is two sets of magic circle threads and instructions on how to use them, as well as details on how to make spellcannons, shields and bowguns. This is the most I can provide through these letters.

I have written down everything I remember of Earth's science and mathematics and am working on rediscovering more. An index is enclosed, although obviously I can't send you a bookcase in a letter. If anything would help your war effort, I will provide a copy. I must ask you to keep these a secret until the time is right to release these books however, I am trying to build an industrial base for mass production in Inath and releasing everything would result in everyone trying to leap too far ahead without the industry to back them up. Of course, if you can remember anything to add to them, I will welcome any contribution.

Additionally, I have a strange condition where my lifeforce appears to be defective and not able to use magic and I don't feel magical damage. Full list of observations enclosed. If you know anyone who might have an answer to this mystery, I suspect that will greatly help understand what happened at your summoning.

Cato
Dated 19th day of 8th month of year 631

Dear Cato,

Your offer of support is encouraging. I accept your help! Illastein is currently undergoing a mana crystal rush after news of your find arrived, luckily your letter let the ISL pre-empt it and by my estimate, we are a little ahead of the Rawi's forces in mana stockpiles. Magic circles are harder to work with than your letter suggested, but we have figured it out, suggestions to improve the text attached. You clearly aren't fit for writing textbooks, ha.

One weapon you appear to have overlooked I can tell you immediately. Magically propelling an object appears to exert a constant force, lighter objects fly much faster than heavier ones. Lighter objects also benefit more from Resist enchantments, which appear to increase the 'weight' of an object by a quantity proportional only to the magic spent. So guns that substitute gunpowder with magic are nearly as efficient as guns in our world. The only drawback is the need for a magical power source and it's portability. If you have any improvements, please communicate them.

I propose we swap our communications to an encrypted form. I doubt you know how to work public key and neither do I so we will have to rely on codebooks or one time pads, you appear to have greater resources so you should propose how to make this work. Send the reply by secure channels.
Never heard of anything like your lifeforce problem. However, Inath is in possession of a Tsarian laboratory ruin that I explored some months ago, there may be clues there since they appeared to be working on lifeforce. From what I understood, the night cryers were made by them through a method called lifeshaping. I don't know the details but the location is near the Erushen special region, please find a rough map enclosed.

Morey,
Dated 3rd day of the 11th month of year 631

Amarante scowled as she read through the copies of letters her informant in the ISL had sent her. Both sides had sent more than one letter to make sure at least one arrived at the recipient, which also made them less than secure. More difficult than obtaining them was that after that last letter, all the next ones were in code, unreadable jumbles of letters.

Cato's attempts to send the letters via coastal barge from Duport hadn't been secure when the leak was at the other end, but the code was frustrating when only one codebook had been provided in a magically sealed box with a ludicrously complicated and certainly unforgeable seal that would self-destruct when the box was opened, to be compared to the seal described by the accompanying letter. Not to mention the wax and paper seals around the box too, in case that was defeated. There had been no way to steal or copy the book without letting Morey know the book was compromised. And after arrival, Morey had kept the book close to himself and destroyed all deciphered letters after reading them. In private.

The best spies in the country couldn't work out what the code was or even how it worked without the book. Which was something of a first, some of them expressed interest in knowing how the cipher worked in order to use the principle themselves. A cipher that could defeat the best letter counting and text analysis would teach them a lot.

It was not pleasant to know that Cato came from the same world as Morey, and was able to recreate some of the more fantastic things Morey had described. Nal's description of the history of Earth told to her by Morey sounded eerily like the history of the First and the Tsar, only their world hadn't destroyed themselves yet.

It was even more unpleasant to know that Cato was providing an outsider's view to Morey of his own actions. To Amarante's knowledge, Morey hadn't even attempted to set up any kind of information network since he arrived, now he was getting one for free. The thought of the two of them joining forces in Minmay after Illastein had collapsed seemed to spell disaster for the Federation.

How would she handle this? How could she convince Morey to stabilize the Federation instead of destroying it? And how to do the same for Cato?

At any rate, she wouldn't find answers to this quickly. She would just have to handle the other little problem first.

The door guard blinked. The street had been empty just now and now there was a short cloaked figure...

The last thing he saw was a huge twisted staff that was as tall as him. He barely had time to register its twisted shape and countless jagged edges and it's incredible magical strength.
Then the guard, the door to the compound and most of the wall around it suddenly caved in as if hit by a giant's fist. With a ear splitting noise of tearing stone and wood, pieces of the outer wall broke into large chunks of stone that landed in the garden and hit the manor with great shuddering thumps.

Shouts and screams rose into the night air as the hired knights rushed forwards to face a single lone woman. Her short stature and hooded face was unidentifiable, the slight slouch and relaxed pose as she stepped over the destruction was unnerving. Towering almost two heads above her was a magical staff.

Small rings of metal hung off it randomly, tiny gems dotted the surface here and there, strange and inexplicable protrusions jutted out at odd angles. Every now and then, a pulse of magic arose from the surface to wisp out into the night air. It was not a beautiful decoration like those used by mage nobles in court nor the spartan elegance of the steel staffs. This was a mess of incomprehensible alchemy and accessories that was simply chaotic.

There was only one person who owned a staff like that in all of the Federation.

"Selna! It's First Staff!" exclaimed one of the knights.

One of the younger knights, perhaps rasher or bolder than the rest, lashed out with a firebolt. The pulse of magic began to break up the moment it left the man's hands and had completely fallen apart more than three meters away from the woman. She looked at the man once and a massive forcebolt lashed out, smashing through his hastily raised barrier and squashing him into a red smear on the grass and wreckage of bushes. None of the others tried anything after that.

She continued to walk forwards without a word. The knights edged around warily, unsure what sort of opponent they were facing. As she approached, they noticed something faint in the air, a hint of magic that spread out from the woman's small form. No, from the staff. The field was weak and almost intangible, but it sparked and danced with magic, slightly brighter lines of activity coiling around them and their own wards.

There was activity from inside the manor, shouts of warning and hasty scrambling. Too late however, she raised her staff at the door and it blew away like a wet rag. Then the figure was gone inside the building.

"There goes our pay," said one of the battlemages outside.

"Better to live poor than to die," said his colleague, "and still be poor. We can't stop her." They carefully did not look at the bloody stain.

"That was First Staff? I didn't think we'd survive that," said someone from the spellstorm party, "that staff must weigh a ton! Who even carries a solid steel staff around?! And a fully charged one! That thing was stronger than a Ritual Summon!"

"Well, she wouldn't be called that if she wasn't so crazy about her staff," said another spellstorm, "we'd better get out of here before she destroys the entire place."

The woman known as First Staff walked down the hallway. There were disruption walls and even the occasional magic bolt trap that had been hastily created to stall her. She sniffed.

The field around her danced whenever it encountered another spell and a flick of disruption magic broke the offending spell down. She flicked one of the rings to disable the automatic forcebolt
reaction. If she destroyed the house, it would get annoying to confirm her kill.  

The weak magic arrayed in front of her posed little threat. No more than toys compared to her staff. How could these crude tools be compared to the staff she had worked on ever since she learned alchemy! It was almost insulting, the way they expected to slow her down.  

She simply continued walking down the carpeted floor, ignoring the stone walls, magic and arrows placed in her way. The ten meter wide deflection zone could handle anything these knights could throw at her and judicious use of forcebolts made obstacles simply... go away. She stepped over the last body draped over the wreckage of the wall and found herself at the back of the manor.  

The fat man was hurriedly running out towards the back gate, six knights jogging beside him in a defensive circle. Tsk. They were getting away.  

The First Staff rose in the red moonlight and then lowered.  

She squinted at the men and women lying on the ground, and looked up at the black clothed man standing in front of them.  

"Thank you for the distraction," the man bowed elegantly, a broad smile on his face.  

"Silent Night," she named him.  

"The one and only. You must be First Staff, I'm pleased to make your acquaintance," he bowed again. "Truly, you made it really easy to ambush them. "  

His smile was starting to look disgusting. Together with the all black outfit of tight fitting cloth, he certainly looked like the assassin he was. Not like Light's Edge, who was legendary for his unkempt clothing and wild hair. At least that man was honest and fun, like a big shaggy dog. This Silent Night felt slimy to her. Untrustworthy.  

"I'm enough," the staff wiggled, as if making a point.  

"Living up to your name I see," Silent Night's smile only grew wider. She wondered how he managed it without splitting his face in half. "How crude though. To smash everything with that raw power. "  

She narrowed her eyes, her staff inclining ever so slightly. "Do not insult the complexity of my work," she warned him.  

"Woah there, I'm not here to fight you," the man held up his hands, "that detection field of yours is based off the Summoning Stones I see. Truly, I cannot think of a worse match up for my skills. "  

Good that he wasn't going to be stupid. "Mm," she nodded and walked up to the crumpled forms. She kept a haze of unformed magical power between her and the assassin though, ready to turn into a shield the moment he did anything hostile. To understand the field for what it was, even if he didn't get all its functions, this man was dangerous. She didn't want to fight him either.  

The knights and the chancellor had only been knocked out, she saw. Some kind of dart had hit them, probably delivering a magical shock. Strange that she hadn't sensed it but she supposed that this man's magical shielding must be better than her own technique she used for her staff. He was called Silent Night after all. He probably had more darts on his body but she felt no magic from him at all. Probing him with the field would be impolite.  

"Kill or capture?" she asked the man. Clearly he had received the same commission. Duport had
been stirring up trouble trying to raise forces to take back his cities. Vorril wanted him gone one way or another.

"We have him already, so let's capture. Vorril'll have a dungeon or two to keep him in," Silent Night said. He bent down to pick up the limp body. "It's been a pleasant night to meet you, allow me to take my leave."

He bowed deeply to her and took three steps back, still carrying the unconscious chancellor over his shoulder. The moment the man touched the wall's shadow, he seemed to completely vanish into the darkness. And despite being less than ten meters away, she felt no magic at all.

The woman known as First Staff shivered in the night air. If she had to fight that man, she suspected it wouldn't be as easy as the man had implied.

She sheathed her staff in its shielding, stepped over the fallen knights and walked away.

The peacekeeping Knights arrived half an hour later, unusually slow for the noble district.

The rekis turned as one, following the lead of their pack like the good dogs they were. The riders on them rode on silently.

"The Riders of Ranra have suffered a defeat like never before," Zim, the party leader wasn't happy. Neither were any of the others, riderless rekis surrounded them on all sides. Two hours ago, they were at the limit of party members, now there was space to double their count. And empty harnesses to put under them.

Reki riding wasn't an unusual skill, far from it. Rekis were the Knight's best friend and transport and pack mule and so many other things besides. But the Riders were the premier reki cavalry party in all of Ranra. And when it came to Ranra, the whole federation knew of the prowess of their knight cavalry. For them to suffer a defeat like this was impossible. Except not, because it had happened.

"Where did the zombies get that weapon?" the second in command shook his head wearily.

"I wonder if this is the end for us," Zim muttered as the rekis loped onwards, carrying them away from their disaster.

"Zim?" his second said with some concern, "Are you alright?"

"My body, yes. Just a little sore," Zim said, "my spirit, maybe not."

"Why?"

Zim looked up at the sun shining brightly in the sky, the cheerful birds flying away as they drove hard through the rough fields of the Algami Plains seemed to mock him. "Perhaps it is time I bought that farm," he said.

His second looked at him as if he was crazy. "But we surely can do something! The past Leaders have faced worse than this."

"No, they haven't," Zim cut him off. And they didn't. Not since the Riders were founded had they lost so many members in a single battle. And the other parties were even worse off.

"Surely we can rebuild," his second said, pleaded even, "we can recruit the others, train them and
when we return, we will brush them aside like we always have."

Zim shook his head. That one devastating battle, as if the zombies had been waiting for them to unleash that new weapon. If he hadn't been half-convinced of it, Zim was now. There simply had to be some sort of malevolent intelligence behind the zombies. Nothing else could explain what they had seen.

He feared that the days of their party were numbered. And he feared that perhaps this would spell the end of days for the Federation.

"We ride for Ereti as fast as the rekis can hold out," Zim commanded what remained of his party, "the Order must know what we have seen."

And a terrible tale it would be. The zombies had been a single solid block, like many other armies they had driven away before. The Riders and the other parties who could answer the call had lined up in their charging formations as they had done before. Charging against cavalry with weak infantry like the zombies was complete suicide and the Riders had ridden many a zombie swarm to ruin.

Only this time it had been different. The zombies didn't charge back. Instead, those infernal beams came at them. And instead of the one or two that rumours had said, it was like a tidal wave of light. One that burnt men and rent stone. And not just a single salvo, the zombies had fired in waves, staggering their shots into a deadly hail that would break even the stoutest heart. The momentum of the charge was too much to stop and only the hasty casting of Mist spells had saved Zim's party from total destruction.

It was a trap. Completely a trap, Zim felt. The zombies had had this weapon for some months now and they had only shown a few of it per army. And now suddenly there was at least thirty, probably forty, of these beam zombies in a single army? One half the size of the usual? If that wasn't a trap, Zim would eat his own ears.

So, the Enemy had learned some strategy. That was far more dangerous than the light beams.
Evening

One week before leaving Minmay

Cato rubbed his forehead as the craftsmen started to argue again. The smoky sideroom of the Ironworkers experimental smithy held six master craftsmen, the best men and women at working iron in all of the Minmay and Duport territories.

And they weren't happy about each other's work.

"Clearly you made the ring too small, my axle is the correct size," said the woman. She took a ring from her own workshop and placed it over her axle by way of demonstration. It fit perfectly of course.

"Well, my ring fits my axle, so of course yours is wrong," said the male blacksmith.

These two were the most outspoken among all the masters that the Ironworkers had sent to the University to learn this concept called interchangeable parts.

 Apparently the term 'made to measure' was completely foreign to Inath, even when Cato was sure the First were capable of it. Well, it clearly wasn't story material, who wanted to read about a bunch of iron smiths trying to make sure their parts were built to a tolerance of a handful of micrometers. Painstaking, and expensive, experiments had determined that for a wagon axle to fit, they had to be built to within tiny tolerances. Or accept that the axles would rattle around in their mountings. To the naked eye, the shafts and mounting rings the blacksmiths had built here looked completely identical. A major achievement in Inath's society, but it still wasn't good enough.

Cato really had to appreciate the amazing patience those three brothers had paid to his demands, of which Cato was beginning to understand just how unreasonable they were. The bag of rimes might have something to do with that.

Of course, to even make those three interchangeable shafts, they had had to file the shafts down, checking every step of the way against the fixed gauges built specifically for the task. Of course, it didn't matter that the gauge couldn't even be calibrated against any standard since they only needed it for those three demonstration pieces. The Ironworkers were treating those three axles as if they were priceless artifacts.

Unfortunately for Inath, Cato was clueless about this part. His studies so far had been on the properties of materials and alloys, and general high school knowledge. He knew about the existence of industrial machines like lathes and milling machines but apart from the computer controlled one the tools shop had in another department, Cato didn't even know all their names. But it was clear that however skilled the Inath smiths were, manual methods weren't going to work. No one was going to pay a hundred rimes for wagon axles or screws. In fact, the idea of nuts and bolts was also foreign, people made do with wooden parts and nails if something absolutely had to fit.

Cato stood up, interrupting the argument heating up above him. "I think by now it is clear that smithing and filing cannot achieve the tolerance required," Cato said, "without working in the same workshop with the same gauges and serious work at hand filing."

They looked at him and frowned worriedly.

"No, please give us one more chance," the woman said, "I am sure I can do better than the Jacks
brothers."

"We, you mean. We can do better," the man nodded.

Cato frowned. They were just now at loggerheads and now they were all willing to work with each other? Or was it just pride speaking again?

"No, you've convinced me the last three times and all three times you've failed. One axle and ring pair that just happen to fit is not success when all the others don't," he shook his head, "no, your craftsmanship cannot achieve what is needed. And I doubt any Ironworker in all of Inath can do it. Your tools work by human hands, that is simply not good enough."

They looked skeptical. The woman even mumbled something about the capital branch in Izalice, the center of the entire Federation. She didn't sound very confident however.

Cato sighed, "I don't know why you are so resistant to the suggestion we should build new tools. Surely any Ironworker would jump at the chance to have better working tools."

They looked at each other and joined in his sigh. The man slammed the table in frustration, causing the demonstration parts to clatter to the ground. Were they only just now starting to give up? Cato shook his head, these master Ironworkers sure had been stubborn.

"Your tools don't even have designs," muttered the man, "and we don't even understand some of them. The planer is impossible I tell you. You can't cut metal with a sword, what makes you think you can shave an iron block? Besides, all you have there is theory and guesswork. The only one I understand is the milling stone, but nothing can make it spin fast enough."

"The steam engine can," Cato said flatly. That answer was always obvious. But their retort was as well.

"Bah, it hammers with strength but not with skill. You want to make it do precision work?" the ironworker shook his head, "a crude device can't do the work of masters. Besides, whoever heard of a spinning grindstone."

Those arguments weren't even making sense anymore, but Cato could see the woman nodding along with him.

"Look, either we design those tools or you succeed," Cato said, "and without the week long hand filing. I'm saying those tools in my world could make a square axle like this in hours. Not to mention all other other things like cutting identical gauge blocks to micrometer precision. I'm not saying we need that level but what we have here, millimeters with a week of work, is not acceptable."

He got up, leaving the papers of their plans and the speculative notes on what the machines might look like on the table. They looked at him curiously, wondering why he was leaving his personal copy with them.

Cato smiled, "I'm joining this trade delegation of Minmay's. I probably won't be back for weeks, but we can be in contact by courier."

The look on their faces was like children seeing their parent leaving the house and knowing they would have time to themselves. Cato shook his head.

"I'll post a formal request with the Minmay branch leader. I know he likes the idea of tools more than you do. I'm sorry it had to be this way, but your attempts have not worked out," and with that, he bowed out of the meeting.
Darn it, these master craftsmen were supposed to be the best at their job. Getting them to do a proof of concept for interchangeable parts was supposed to be a simple matter, not herding cats!

Present

The journey to the Central Territories was rather uneventful. It was almost like his expedition to the Snow Wall, only no magical science was allowed by Minmay. They didn't want to risk things exploding, so Cato had to confine himself to drawing more complex magic circles. Chakim, sharing their carriage, was much happier with the experimental circle design, much more harmless than trying to refine Landar's outlandish weapon ideas into something resembling sanity. The last one she had fired was supposed to be some sort of cluster bomb on a ballista bolt, test field he bought for her was starting to look a bit small.

It was at least occupying. Landar was starting to come around to the idea of doing computation with magic and some of the most complex circles they had drawn were starting to look a little bit like baby Turing machines with magic threads for tape. At least they would once they could refine one of many possible memory storage schemes.

So it was to Cato's great surprise when they drove up to a long low wall. It was topped with slanted red slate tiles and the large wagon gate also held a simple doorway with the same slanted tiles.

The difference with the city they had passed through was obvious. Inath style layout involved a central corridor that branched into rooms and ended in staircases. Powerful nobles like Minmay had a garden around the outside but the garden was for showing off, it made no sense to place a brick wall between the garden and the outside world.

And the tops of the buildings he could see all had the same slanted slate roofs, with the corner tiles running a line from each corner of the building to the central raised line that both sides met at the top. It contrasted with the flat roofs of Inath style and not even the nobles like Minmay would tile their roofs in that fashion. It had a vaguely oriental feeling, in Cato's opinion.

The biggest clue however was how Landar started vibrating next to him.

Cato couldn't describe that motion in any other way. She had a mix of anger and fear on her face and seemed to run through various emotions and facial tics in a dizzyingly short span of time. Her shaking legs was making the coach rattle so much that the driver had glanced backwards curiously not a few times.

It made Cato want to laugh, that was how ridiculous she looked, vibrating in her seat like a buzzer.

"I take it this means we've arrived at the Iris clan?" Cato asked.

Landar shot him a look that could kill.

"We're with Minmay this time," Cato patted her shoulder gently, "you don't have to get so worked up."

She winced, "it was a mistake for Minmay to pick this place for the meeting. My father will find some way to mess it up. Just to get at me."

"Surely you're exaggerating," Cato said, "your father is not out to harm you."

Landar just shook her head and hunched her shoulders.
What was Cato to say to that? This girl wouldn't listen to anything he said. Yes, Cato had no trouble seeing Landar as a little girl scared of her parents at this moment.

Surely her father couldn't be that bad? Right?

Or perhaps he could.

Landar walked through the garden path. No, stalked was the more appropriate word. Flowers and bushes waved in her wake as she slammed open doors and trampled over the small stone paths. Cato noted how her hands were shaking despite the strong front she projected.

"I'll be all right, Landar," Cato tried to reassure her. Her robe-like Iris dress flared angrily and her hair swished left and right in time with her steps. She looked like a bird that had fluffed up its feathers to appear larger. So was this what it would have been like to have a sister throwing a tantrum in the family? It was actually a little bit cute but Cato was quite certain he wouldn't live to see another day if he said that.

"It's never all right," Landar scowled, "my father never wants anything good from me. He probably wants to test my power again."

When the summons was to one of the many indistinguishable indoor gardens? Cato didn't think it likely. The gardens apparently had names and Landar knew them all like the back of her hand, while Cato could hardly remember the strange routes they had taken between each little enclosure around the long houses. The Iris clan's estate was a literal maze you had to have grown up in to understand, it would be all too easy to get lost and never see the real world again.

Landar lead him to another non-descript wooden partition and threw it open.

Behind it was one of the bigger gardens. The same sky blue flowers on the sole tree arching over a tiny stream gave it a refreshing look, and the little footbridge over the stream was as decorative as it was useless. More of the same weird Iris style.

The man standing under the tree looked up at them calmly as Landar bristled.

"I came with Chancellor Minmay's delegation," she snapped acidly, "why do you have to pull me away from them?"

Ugh. Her 'rebellious teenager' act was completely perfect now. Hey, you're supposed to be only a year younger than me! Cato kept his silence however.

Her father didn't reply, instead looking at Cato in the same ineffable calm. He eyed her father warily. With how different the Iris were, culturally, Cato didn't know if he was supposed to greet her father first. ... Screw it, if he stepped on a landmine then so be it.

"Greetings, I am Cato Lois," Cato held out a hand, "I am very privileged to have your daughter working as my partner."

The man ignored his hand, probably didn't know what to do with it, and instead studied him. Cato could feel his palm growing sweaty again. Landar was off to one side making some inaudible grumblings but they were both ignoring her now.

"I am Yan Iris, head of the third branch family," Landar's father inclined his head ever so slightly. Cato glanced at Landar who had subsided into biting her lip.
"I hear you managed some small achievements in Minmay," her father continued after an uncomfortable pause, "I also hear from Chakim that you are completely unable to use magic. Not just not having learnt it but completely unable to do so?"

Cato nodded warily, "that is so. I think there is something wrong with my lifeforce but we simply do not know enough to say why. "

"A cripple, then," her father said, without even a trace of pity or condescension. As if he was noting down a simple boring fact.

Cato winced but still put a hand on Landar's shoulder to forestall the inevitable explosion. "I may have a disadvantage but being able to use magic is not the only factor for success," he said, "in fact I think it can help focus the mind in certain ways. "

Her father merely raised an eyebrow. Landar was looking at him worriedly now, Cato patted her shoulder again.

"In a way, learning magic requires huge amounts of time. I have observed people being taught magic, trying to improve the teaching process, and I doubt I could have achieved what I have now if I had spent the time trying to learn magic," Cato explained, "in fact, I think learning magic costs you a certain perspective. Like how a brick maker doesn't build a good house. "

The analogy wasn't perfect but it was the best he could come up with on the spot.

"Or do you think my achievements aren't enough?" Cato asked when her father didn't reply, "If you still insist on talking about pure magical strength, I would like to point out that Landar has a set of steel staffs in our wagons strong enough for her to use Tempest Bolt all by herself. The Iris family should remember that as much as your services as summoners earn you, the Minmay Guards are a potent force and will only get stronger. I wonder how long before someone discovers how to power a summoning stone with a spell cannon?"

That finally got a reaction from him. The slight narrowing of his eyes said that he hadn't considered that threat.

The man considered him for a long while then turned to go, with only a short parting phrase. "Do as you wish, Landar. "

Landar glanced between Cato and her father walking off with a complicated expression.

Cato sighed and let go of the tension that had built up between his shoulders. He didn't really understand what her father wanted but Cato felt that he had proven himself. A little bit anyway.

There was a knocking on the partition door and a maid came in, dressed in an Inath style apron over the Iris robes. "Cato? You are needed by Minmay in the Central Hall. King Ektal is here. "

Landar looked back at the door her father had disappeared behind and back at Cato again.

"What?"

She frowned and took a step away, "I have to go talk to my mother. Please go to Minmay without me. " She waved at the waiting maid, who bowed her assent politely.

Cato couldn't help but sigh again, her father was beyond cryptic and now Landar was acting the same way. Was it him that made all these Iris go strange in the head? Judging by how crazy the Iris compound was, and how Landar generally acted around magical weapons, perhaps they were
already strange.

He nodded at the maid to lead him on.

The two men sat on the floor, on opposite sides of the low wooden table.

King Ektal was known to be a tolerant man, but now he seemed to emit an aura of palpable pressure. Cato, sitting at the back of the room, could almost swear that his skin was prickling. Or perhaps the air in the room was vibrating like a tightly wound string.

The Iris maid served the King his tea first then to Chancellor Minmay. The King nodded once at her. The maid squeaked in fright and scurried to the corner next to the teapot like a startled mouse.

Despite her timidity, Cato had spotted a Sword stone hanging from her necklace under her shirt. Somehow, Cato did not doubt that this crazy clan had maids powerful enough to kill all seven of the Minmay Guards in the room. He didn't want to think of the three family heads listening in, who were all much stronger than Landar. Probably strong enough to singlehandedly flatten both Minmay's and Ektal's delegations at once.

A tiny smile tugged at the corners of Minmay's mouth but Cato wasn't in a position to see that. The tension dropped by an imperceptible notch.

"Let us be frank here," Ektal said finally, breaking the silence, "do you have intentions to secede from Ektal and form your own country?"

"That depends," Minmay said smoothly, as if he had practised the lines. Which he probably had. "Of course, we would like to remain as part of Ektal. The country's political clout is important to Minmay, both as a shield and an interest in unity. But we will defend ourselves if we have to."

Ektal frowned, "and you do not have designs on the throne yourself?"

"Maybe when I have a grandchild?" Minmay smiled, "unless you happen to have a spare prince hidden somewhere. If I recall, Aruki's already taken by Chancellor Centra's daughter."

Ektal looked at Minmay flatly, as if trying to tell if the chancellor was for real. Whatever he saw must have satisfied the king, as Cato could see him relax a little.

"In that case, I believe we have some ground in common," Ektal said, "and don't discount yourself too much. If you stop sending the Lady Minmay off to faraway places, you might still have a son."

Ektal's daughter was of course too young to be engaged. Yet.

But the fact that he was talking about such things, even if it was in a joking manner, meant that the king was also seriously working towards peace. The tension between the guards on either end and the trio of summoners to the side dropped enough that the sparks between them stopped dancing.

Minmay shook his head, a visible smile on his face now, "the needs of the country come first, my king."

"Glad to hear that," Ektal said blandly.

"Now then," Minmay took a breath and adjusted his teacup into a perfectly formal half a hand width to his right, then sat up with ramrod neatness, "Mikal has attacked my territory, his longstanding
ambition towards my lands and people make his greed unmistakable. The country cannot afford misbehaviour in such times, I have taken the duty on myself to see him punished but he yet eludes me. I must beg the pardon of the King in refusing his summons as this matter was of utmost importance. Based on reports of neglect and mismanagement from his territory, of which I have taken many steps to avoid in managing my own, I also petition that Mikal be stripped of his court rank and his lands be placed under interim rule until I can find a suitable successor."

It did not escape the notice of everyone in the room that Minmay had referred to the Chancellor Duport with his birth name, not the formal name the nobles were supposed to adopt on inheriting a governing position.

"Additionally, I have the pleasure of presenting a most valuable personage to the King, Cato Lois, Head of the Minmay University. He has pioneered many changes that I have derived great benefit from. He holds such profound knowledge that I am sure his works will one day change the face of the entire Inath Federation. For this reason, I ask that the King allow me to represent him in the Greater Council of the Federation as an independent seat for the benefit of all."

A Greater Council seat didn't have much power, unlike the Lesser Council reserved for national leaders, what with it being diluted by favours and special interests. But whoever sat in one was placed on the face of the world map, all the nobles in all the countries would know them at least by name, and once given, a seat was for life although not inheritable. If Minmay obtained a seat, he would have the opportunity to make formal international relations and thus could not be removed as Chancellor without causing Ektal much embarassment.

It would also leave a backdoor for Minmay to secede entirely if Ektal became hostile in the future, with an opportunity for international recognition to lend legitimacy to Minmay, who was already working on a government.

Minmay nodded and sipped his tea formally.

Ektal shared a sip with him. Now it was his turn to put the tea cup in its holder.

"Surely you don't believe that you have no part in the matter of Chancellor Duport, do you?" Ektal said, "while the fault clearly lies with him, Duport's aggression must have a reason. It is too bad that he is not present for us to question. Nevertheless, I am generous enough to forgive any transgressions since. Let it all be water under the bridge and we will return to how it was before without any bad blood between us. I will make sure to control the Chancellor to ensure this will not happen again."

Minmay shook his head gently, still smiling. He began to make another butchering of the facts that retained just enough resemblance to reality.

Cato couldn't help wincing. Was this how Inath was run? Despite the flowery words and torturous circumlocutions, Cato could tell they were haggling over the terms of the peace treaty. Like hawkers over a piece of fish.
Nightfall

Dear Arthur,

I would like to ask you to perform a task for me in my absence. This letter has been vetted by Minmay personally, he has signed it below.

Please gather some local blacksmiths who are not affiliated with the Ironworkers and some untrained peasants. I wish to experiment on a workforce who are not Ironworker qualified and attempt to produce some iron products.

I believe that the current culture of the Ironworker masters are inhibiting the adoption of standardized measures and quality control. You can find some preliminary ideas for plans of this experimental workshop organization enclosed. For minor issues, I trust that you can resolve them satisfactorily, otherwise, please write to me.

Beginning with wood, I want to see if unskilled workers can be trained to build complex and precise parts using the relevant tools when given instructions from set procedures. For the time being, I have included plans with Kalny's input for a waterwheel powered planer and grinder that I hope will eventually be able to work for iron as well.

For help in setting up the workshop and powered mechanisms, I have secured Kalny's help in exchange for help setting up the same manufacturing processes for Kalny later, please work with him.

Cato

"Come in Landar," her mother nodded at her.

Landar shuffled into the room and sat at the end of the low table warily. Her mother brushed back her dark hair and poured a cup of tea for Landar. The woven straw mat under her tried to get her comfortable, but she would have none of it.

"Have you met your father?"

She nodded mutely, not touching the cup of tea. Her mother gestured for her to take a sip, but she refused to budge.

"Are you getting enough to eat?" her mother asked her gently, "you look thinner than last time. You are taking care of yourself?"

"I have more than enough to eat," Landar frowned at the cup of tea, wondering where her mother was going with this.

"I have more than enough to eat," Landar frowned at the cup of tea, wondering where her mother was going with this.

"Then do you need money?" her mother asked, giving up on getting Landar to drink. She poured a cup for herself.

Landar shook her head, "I have more than enough money. Both from my own work and from the University. "

"I suppose Cato is responsible for most of it?"
Landar nodded. While building magical art pieces with her alchemy was fruitful, Landar knew that Cato's work had them commanding far more money than any single alchemist could, no matter how talented. Sure, most of it was in terms of bank loans and consultations with guilds and companies, but more money had passed through the CaLa Consultancy's hands or at its words than she had ever seen.

Her mother sighed, "clearly you are wondering what your father is thinking. The University of Minmay is getting powerful, and I believe he wishes to secure ties with it. From what I understand, you wouldn't object too strongly."

Ties? Landar must have let some of her confusion leak onto her face as her mother started to giggle. "What is he planning now?" Landar said sharply.

"Ho ho," her mother smiled and took an annoyingly long sip of her tea. Then she dropped the bombshell. "I believe he will offer your ring to Cato."

Landar could feel her eyes trying to pop off their sockets. Her father was going to try to marry her off to Cato?! Of all people?! But... but... wasn't he irritated at Cato? And Cato wasn't even an Iris! Anyone from the sixth branch and up never married out; and offering her as subordinate in the relationship?! Landar ran out of words to describe how unthinkable that was.

"Why didn't he say anything?" Landar asked. Never mind how absurd the notion was, her father could at least have asked her first! She brushed aside her uncertainty with the fire of anger. If her father wanted this, it was going to be for some dastardly reason. "And don't think I'm just going to accept it without a fight!" she left a warning for good measure.

Her mother shuffled her way around the table and sat right in front of Landar, looking seriously into her eyes. The black eyes and black hair that so mirrored her own were filled with a gentleness that ate at the fire in her chest like waves destroyed a sandcastle.

"Landar, my daughter. You look so much like me but the inside is so much like him," her mother sighed, brushing the stray strands of hair from Landar's face, "the two of you are really father and daughter."

What? "Can you explain more clearly?"

"Proud, willful, you always want to have your own way. And you can't accept anyone deciding your life," her mother raised a hand at her obvious retort, "but for those you really care for, you can sacrifice many things to help them. Even the chance at understanding each other."

Landar felt her eye twitch. So her mother was saying that her father was just misunderstood? That all he wanted was to help her? She felt her anger rise again. "How stupid do you think I am?" Landar snarled, "all he has done is try to tie me to Iris every step of the way! He never understands what I want and always always tries to make me into some kind of magical doll so that he can make me dance in family politics. Even you have to live in his shadow all the time, I hardly even see you do anything-"

"Landar," her mother interrupted her, "I have seen you two attack each other for years. I always hoped you might see past each other's differences some day but it seems that nothing will change if I do not make a move."

"What move?" Landar eyed her mother suspiciously. Her mother? Actually doing something? Since when did her father ever give her mother enough lee way to act on her own?
"Ho ho ho, I've already made it," her mother's eyes were twinkling above her smile, "and you underestimate your mother if you think she's just a doll meant to dance for your father."

Landar gulped, not knowing whether to be afraid of this unknown side of her mother she had never seen.

"Come," her mother patted the straw mat for Landar to come closer, "let me tell you the story of a lonely girl from the second branch family and a plucky young boy from the sixth."

"Is this going to get sappy?" Landar asked warily.

"Since it ends with you being born, yes, it does," her mother smiled. She didn't mention her hope that telling the story might help matters along, she knew her own daughter far too well to make that sort of mistake.

Cato sat in front of the cup of tea nervously. Being called away from the war of words between Minmay and Ektal, Cato had expected the worst. And he got it.

He had been shown into a compound outside of the guest zone. It was obvious how the architecture changed, from stone to aged wood, and the sliding wooden doors set into the carved pillars were in fully Tsarian style instead of the odd fusion with Inath outside. He had also been directed to change his shoes into a floppy cloth so thin that he could feel the grain of the wood flooring through it.

The place felt even more isolated than usual. The immaculately pruned gardens and spotless wooden floors of the corridors held the same maze like quality that seemed to stretch on forever. Cato had even spotted, or smelled in some cases, kitchens and toilets that would have been placed outside in Inath style.

Inside the Iris clan, Cato had been brought to a room as well decorated as any of the others. Across from him sat Yan, Landar's father, quietly sipping his tea.

"Why did you want to see me?" Cato asked, finally breaking the silence.

"What do you think of Landar?" Yan asked in return.

Cato sighed, "what answer do you want?"

Yan merely raised an eyebrow, "an honest answer."

"She loves ideas. More than alchemy and magic, Landar wants to make her ideas come to life. I respect her for that," Cato explained. He tactfully didn't comment on what sort of ideas a certain mad alchemist was known for.

"I have heard worse from others," Yan muttered.

Cato smiled a little, "I'm sure. She can be a little over enthusiastic in applying them before the ideas are workable. But I do not deny that her help has been extremely valuable. Your daughter is an excellent alchemist."

Yan nodded and sipped his tea. Was he a little happy about the praise? Well, Cato had never subscribed to Landar's world view that her father was out to get her.

"Tell me, is she more than just a helper or a friend to you?"
Cato blinked and kept his hands carefully still. Answer wrong and you'll have one angry father searching for a shotgun, Cato thought to himself. He took a few breaths to compose his reply. From what he could see, Landar's sour relationship with her father stemmed from a lack of communication. On both ends. Best not to make the same mistake.

"If you are asking whether we have a relationship like lovers, the answer is no," Cato said, "but I admit that our goals align and our personalities are similar. We may share a little more intimacy than just friends, but there is nothing more than that."

Now it was Yan's turn to take his time thinking. He sipped his tea slowly, letting the silence drag on. The stony face was impassioned, not letting Cato read even a trace of the man's intentions.

After his cup ran dry, Yan was out of excuses to delay talking. He finally started to speak. "Landar is headstrong and untraditional," Yan sighed, "a most unfavourable personality. Within the Iris clan, it would be impossible for her to find a suitable partner. Much less happiness."

Cato was holding his breath now. If this was what he was thinking of...

"And you are the leader of an organization of some power, even if it's new. You have helped the Iris indirectly by asking us to keep the books you wrote. So there is some merit after all," Yan continued to talk, "therefore, I would like to propose that you take her ring."

"Is that an Iris way of asking me to marry her?" Cato asked. It would not do to misunderstand this point. Even if Cato thought it was fairly clear.

Yan nodded solemnly.

Cato looked at the man pouring out another cup of tea. Characters in stories, when this sort of surprise was sprung on them, tended to get flustered or panicked. Somehow, Cato didn't feel any of that. Maybe it was the way her father resembled a stern tiger assessing the worth of a new piece of meat.

"I shall think of it as earning your approval for any prospective relationship between us," Cato said slowly and carefully, "but I should emphasize the point that we do not have any relations of the romantic nature right now. Furthermore, I will not tolerate any such relationship without both of us wanting it. I will not ask, nor expect, her to enter one just because you say so. And if you do somehow coerce her into trying to start one with me, I will not accept. Please keep this in mind."

There was a short pause before Yan nodded his assent. Landar's father sighed and added, "I know her well enough to know that such things will not work. In fact, you should keep this talk secret from her or she will reject you just to spite me."

From what Cato had heard here, the harsh remarks out in the garden was probably just her father putting on a strong face in front of her. He certainly didn't hate her, quite the opposite it seemed. But did Landar hate her father that much? Cato thought back to her antics whenever her father was mentioned. Okay, maybe she did.

It was Cato's turn to sigh, "I will keep your advice in mind. But even though I am an outsider, allow me to say this. Perhaps your daughter is hostile due to poor communication. I will not presume to know what your disagreements are, but if you will not explain anything to her, she will never understand. I am not saying the fault lies entirely with you, but I do not think your actions so far have helped bridge the gap."

"I hear your words," Yan said, giving no indication whatsoever that he agreed or disagreed.
Cato studied his face but that yielded no clues either.

"If she does give you too much trouble, I shall have to discipline her," Yan sighed.

Drat this stubborn man.

"And so that's what your father said," Cato explained to Landar.

She whispered back, "my mother said the same thing. That my father was trying to matchmake us." Cato noted that her hands were clenched so hard that her knuckles were turning white. "He's gone too far this time. How dare he bring you into our problem!"

"You know," Cato whispered, "I think you are misunderstanding something. Your father-"

"-does not mean well," Landar hissed. Then she licked her lips and grinned, "well, if he wants a fight, he can get one. I have a way to cheat now. Let's see how his so called Iris pride stands up against our best Alchemy."

"You're an Iris too you know," Cato said, which earned him a derisive look.

"Excuse me. I believe this meeting is for your sake," Minmay rapped his end of the table, "are you going to listen?"

The gathered merchant representatives looked carefully neutral. Cato wasn't obtuse enough to not realize that they were trying to avoid angering either Minmay or himself. He nodded an apology, "sorry. Could you please repeat the last topic?"

"Come find me after this," Landar whispered and got up to leave, "I've got some preparations to make."

"Wait, what?" Cato tried to catch her sleeve but missed. She slipped out of the room.

"Ahem," Minmay cleared his throat meaningfully.

"Sir," Cato could only turn back, "I hope I'm wrong but I think Landar is about to have a fight with her father."

"And?" Minmay raised an eyebrow.

Shouldn't Cato go do something about it? He thought the answer was obvious and said as much.

"She fights with her father all the time," Minmay rolled his eyes, "the Mad Alchemist and the Iris don't get along. That's quite well known."

Geez, even the nobles knew about their family spat. Cato shook his head and sighed, "I think it might be bigger this time. Allow me to go find her. I promise I'll catch up with what happened in the negotiation later."

Minmay watched as Cato got up and left the room after Landar, wondering how such a routine thing could turn into a reason to miss an important briefing.

"Well, we'll continue without them," Minmay said to the representatives around the table. "The gist of the peace treaty between us and King Ektal is simple. Duport remains under our temporary administration until Ektal finds a suitable replacement for the post. I doubt he will choose someone
too friendly with us. On the other hand, I have managed to get Ektal to agree to give me a seat on the Greater Council in exchange for setting up a similar university in Ektal Capital City.

That means as I work on the Greater Council, Cato or his representative will be spreading our influence in Ektal itself. We have to build friendly relations with the Central territory if we don’t want to get boxed in by Duport again. Luckily, we already have a friendly partner in the Iris. We just need to convince the rest that working with Minmay region has much benefit to them. The best way I see is for you to help me conclude a trade treaty with them when the mayors meet next week, so I need to know what agreements would best help you.

Cato followed Landar's trail, by way of asking the servants where they had seen her. He managed to track her back to the carriages for the Minmay delegation but she had already left by the time he got there. Not for the first or last time, Cato wondered how the Iris managed to navigate their way through their own compound.

No time to worry about that though. The carriage that had held Cato and her luggage was open and one of the short steel rods was very conspicuously missing. Shit.

He turned back to the curious manservant who brought him here and asked, "Are there any places where the summoners often fight each other?" Surely she wouldn't just start a magical battle in the middle of the Iris home, would she?

The servant nodded, "there is the dueling grounds. It is often used for tests and displays of power."

"Are there more than one?" Cato prayed that there wasn't.

He shook his head, "there is only one."

"Lead me there."

He got there too late. Cato stepped through the gate in the low wall to find Landar's father already standing in the middle of the wide open field, facing off with Landar. Landar's anger on her face was emphasized by her fist clenched around a dark metal rod. The bands wrapped out the end she wasn't holding were familiar to Cato.

"Landar!" he shouted across the dried dying grass.

"Not now, Cato!" Landar shouted back, then turned back to her father, "you have your summoning stones, I have my alchemy. I don't know what you have planned for Cato but you leave him out of this! Fight me and when I defeat you today, you will stay out of his life!"

Her father looked back calmly and snorted, "it's too early for you to even talk of defeating me. I was thinking of checking how much you have grown this last year, so go ahead and show me your power!"

Cato could only sigh as both Iris lit up with magical power.

"It's all right, sir," the servant reassured Cato with a friendly pat on the shoulder, "this happens all the time when Landar visits the clan."

"Is there any way to stop them?" Cato asked.

They looked at the magical blasts flying around in the field. "Sir is strongly recommended not to try,"
the servant replied.

Cato sighed again.

Landar dived to the side as the Sword raced past her, with barely a handspan to spare. The dirt sprayed up onto her dress as she poured her magic into the rod in her hand.

The rod glowed in her magical sense, the power running through it was shaped by the residual enchantment left in the steel. Like a spell plate, the banded end of the rod spat out a fully formed forcebolt.

This was the solution to her slow casting speed that Cato and her had created. The rod could shape magical power in much the same way as magical circles or a spell plate, only it was more durable and flexible than the fixed magical constructs. The study of magical circles had given him the idea of configurable spells, the three bands at the tip allowed up to three parameters of the spell to be changed.

The fourth band controlled the path of the entire circuit, giving the rod access to more than one pre-programmed spell.

She angled the rod slightly and fired off another forcebolt, without having to concentrate at all. Pouring magic into the input end was as easy as breathing after all those Iris exercises. The first forcebolt shot off as the second formed, arcing to the side where she had aimed it. A mental tweak nudged it onto a more correct path and it slammed down towards her father as the second began its acceleration and the third was forming.

Landar kept a figurative eye on the Sword swinging around to attack her again. Her father had shielded easily against the first forcebolt but his Phantom was still coming after her. Taking advantage of his distraction, Landar stepped back to get her forcebolt arcs to line up and began to attack the Phantom directly with disruptive magic.

As it swung past her again, only a desperate shove of disruption magic managed to destabilize it enough to move the Sword out of the way. The misshapen lump of magic immediately began to reform but it had slowed a little. Enough for Landar to click the second band into the direct fire mode.

The forcebolts popping out of the end were delayed by a few seconds, she tweaked the first band to get it right and poured a fresh surge of magic down the rod while running along, keeping the rod pointed at her father. Six forcebolts trailed behind her, spherical lumps of magic hanging in the air.

Again, Landar was reminded of the folly of the summoners and their emphasis on brute strength. No knight would remain in the same spot even if they could shield. Then she was forced to attack the Sword again, this time crushing it from existence.

Panting a little, Landar looked up to find her father generating a new Sword already. The six forcebolts fired sequentially, forcing him to reinforce his shield. Hopefully that would delay things a little. Landar clicked the fourth band and thrust the rod at the pebble near her foot.

The pebble stayed suspended in the air by the magical force emitting from the tip. This spell had taken some time to make, compensating mechanisms for rod angles had never been required by casters and seemingly simple questions like determining which way was down cropped up everywhere when they tried to make it.
The magical power built up into a spell enveloping the stone and Landar leveled the rod at her father. Then adjusted the aim to his leg. Just in case.

The Sword flew at her, meeting with her flying pebble halfway. The pebble shattered into a scattering of shards and her father was forced to throw up another deflecting shield. Landar took the chance to smash the Sword again.

She gulped and wiped away the sweat pouring down her forehead. This was getting bad. She wasn't even doing as well as the last time. She hadn't used the same spell hijacking trick this time and had been forced to meet his Phantom head on with disruption magic. Even if she had grown a little from all that alchemy, she was still clearly weaker in strength.

Landar clicked the fourth band into the third and last position. She hoped the rod would hold up under this much magic, if it burned out, replacing this would be troublesome.

The downside of the rod was that stuffing that many spell plate equivalents into such a tiny rod simply wasn't possible without magical circles. And the circle that had created this little rod had taken up the floor space of an entire warehouse. And had be redone sixteen times before they got it correct, and the first ten rods had blown up when they tried to power them. Well, no one could be expected to draw a magic circle right the first time, not when it was a circle that imprinted other circles in compact form into the target object.

This last function hadn't really been tested in battlefield conditions yet.

Twin columns of magic spread out from the tip of the rod towards her target, with a solid disruption magic bolt sitting between them. Landar dug up her reserves, throwing all her remaining power into this last spell. The rod just had to work for one time! Her father was already firing up his Sword stone again and she had to fire before he was done.

The power was split between the disruption bolt and the columns. The magic in the columns to either side served the same function as the barrel of the spell cannon, the magic in the columns shoving the spell between them forwards at speeds that couldn't be achieved with the usual bolt style. With half the power in the columns, the disruption bolt screamed downrange at speeds that no Iris had ever seen or could expect.

Speed wasn't usually a thing most casters focused on. After all, conventional wisdom and low speed trials had shown that in a battle of disruption shield against bolt, the stronger spell usually won, much diminished. But Cato's experiments had shown you just had to go faster.

The highly compact disruption bolt swept through her father's dome shaped shield, carving out a neat circular hole. This wasn't enough to stop the bolt and it slammed into his shoulder and discharged.

Landar could scarcely believe her eyes as he toppled over soundlessly from magical shock. The half-formed Sword dispersed into the air as the summoning stone rolled out of his loosening fist. The rod in her hands sparked and spat out some magic, it was probably malfunctioning after all that stress she put on its circuits.

By all the light of Selna. She had won?!

"I won!" Landar coughed as her stomach disagreed with her reckless expenditure of power. She swallowed and glared at the two domes of disruption and deflection shields around the body. Landar didn't have enough power left to do much of anything, much less get rid of those powerful shields. Gloating would have to wait.
But she had won! Finally after all this time! She had won!

She sank down to the grass as the magical exhaustion began to catch up to her. Cato was running up to her, shouting something but the buzzing in her ears turned his voice into a blur. The burning sensation in her nose to all the way down her throat was the same symptom of forcing too much power out at once. But this time it smelled of sweet victory.
Landar lay face down on the fluffy feather stuffed cloth. Her body was on fire again.

A gentle hand stroked her hair down her back in a way much reminiscent of the same event one year ago. Only this time, she wasn't bitter.

Her mother sighed, "so, are you satisfied now?"

Landar hissed as her mother rubbed a raw spot on her legs. Winning still hurt just as much as losing.

Her mother sighed again, "if you were hurt, you should just have said so. " Her mother unveiled the bottle in her sleeve and dabbed at her wounds with a light cloth.

Landar winced, only partially in response to the stinging alcohol on the back of her ankle. She hadn't seen any medicine when she came in nor had she asked for it. But her mother seemed to know that she wouldn't say anything.

"I won, finally," Landar said.

"He won't count it as a real victory," Cato said, from the corner where he was sitting, "if you say he's concerned about power, a shield penetrating bolt certainly doesn't count. "

"Are you trying to help solve this or not?" her mother snapped at him.

Cato frowned, "I'm just pointing it out. "

Her mother shook her head.

"What are you talking about?" Landar asked, "isn't this the first time you've met?"

"He understands," her mother said, rubbing more alcohol on her ankle. Landar bit down a yelp.

"We're both trying to solve this misunderstanding with your father," Cato explained. Good, he knew that keeping things from her just made her annoyed.

But that made no sense. "What misunderstanding?" Landar demanded.

"You have this strange idea that your father is trying to make your life difficult," Cato said.

"It's not a strange idea," Landar snapped, turning her head to face him, "it's the truth. "

" Doesn't look that way to me," Cato said.

"Your father just isn't honest with himself," her mother added.

Cato paused and looked at her mother in surprise for a moment. Then he shrugged, "I guess that's one way of putting it too. "

Landar could feel her breath escaping between her clenched teeth in a very unladylike hiss. Something her father would definitely scold her for but she was beyond caring. "Huh? How could you even say that!" Landar half yelled then coughed as her lungs disagreed with her exertion, "So what about all those times he drags me into a fight just to assess my power? What about his unreasonable demands trying to run MY life?!"
She meant to state that more forcefully but her magical exhaustion was getting in the way. That last part came out as more of a strangled squeak than she would ever admit.

"You aren't completely wrong," Cato said, tapping his fingers and looking at her mother, "how do I say this?"

Her mother looked back, "he sees things differently."

"Ah! Yes," Cato nodded, "you and your father value things differently and even express what you want differently. But you misunderstand his intentions if you think he's out to get you. Just that both of you have different definitions of the term."

Her mother considered the words then bowed shallowly from where she sat, "a good summary."

Landar stared at Cato, trying not to feel as if her entire world was crumbling under her. What... what in the world was he talking about?

"Imagine you had a son," Cato said to her, waiting until she nodded as she engaged in his little thought experiment. "Now imagine he's growing up nicely, learning alchemy from you and starting to make his own inventions," he waited for another nod, "and then, suddenly, he finds a nice girl in Inath, say the daughter of a prince or something, and throws away all his magic and runs off to Izalice to court her. What would you say?"

"I would let him go," Landar stared.

Cato thought for a moment then nodded, "and then when the girl doesn't pay attention to him, he comes crawling to you asking you to use your position as say, the most famous alchemist of Inath, to help him get her attention. Maybe he wants a nice magical toy for a present. Then what would you do?"

"Huh?" Landar wondered if she appeared like that to Cato. No, no way, she never asked her father for even a single telin. "I would ask him to make his own toy," Landar said, "don't come crawling to me if you decide to go your own way."

"Ah, but you see, there's the difference in values," Cato looked at her mother again for confirmation as he talked, "if you did that, your father might grumble about your choice in nobles, maybe he would prefer you focused your attention on an Iris boy from the main family, but he would support you. And if say, the noble took exception and decided to abuse his position to get you in trouble with the Knights, you would find the political weight of the Iris clan behind you. Even now, even when you clearly don't like your father, he will still back you in the Order of Knights if you truly got in trouble."

It was starting to make a twisted kind of sense but how twisted it was! Landar snapped at the invisible lines that pulled at her but her simmering anger found no purchase, not when they were lines of logic and she hadn't mastered the art of deceiving herself. She didn't need Cato to lay it out for her, her mind would fill in the gaps all by itself.

But, but! She frowned into her bed, each little scene of her father she recalled to fuel her anger was met with a chattering little voice, a traitorous voice, that filled in the blanks that she hadn't even known existed. Landar sighed, she would have to do a lot of rethinking.

She glanced up at her mother and saw her looking almost predatorily at Cato.

"Amazing," her mother said. What. Her mother looked down at Landar with a smile, but continued talking to Cato. "I knew she would find someone who could understand her," her mother sighed.
happily, "you do in ten minutes what her father couldn't in ten years. I'm impressed."

Cato smiled back, "we have similar styles of thinking. Your husband doesn't."

"Mm," her mother looked Cato up and down, "speaking of husbands and hypothetical sons, when am I going to get a rebellious grandson to whip back in line?"

Landar could see Cato's smile freeze in place.

"I wonder what the price for bird eggs are like this year," her mother wondered.

"Mother!" Landar yelped, only to meet Cato's sudden confusion. She kindly explained, "an Iris tradition. We boil the eggs in red dyed water and eat them to celebrate a girl's p-pregnancy."

"Just make sure that you actually get married first," her mother's smile didn't touch her eyes, "I would hate to have to use my Sword."

Cato blinked and looked at Landar, "is that another figure of speech?"

Landar shook her head, "mother's more powerful than I am too."

Cato gulped and nodded, "I'll... keep it in mind."

Dear Minmay,

Borehole has reached a depth of one hundred meters. Progress on the easy parts has been quick and we have set up the first steam engine to pump the water out. This is the first time a steam driven water pump is being used in mining operations and the experimental setup has taught the miners a number of new techniques they say are usable to reach deeper iron ore deposits. The commercial viability of depending on a steam engine to get plain iron ore might be questionable however, the engine at the top of the borehole consumes fuel at a ruinous rate.

Cast iron casing support for the walls has begun. The percussive driller design Cato helped introduce at the university has been most instrumental to the bracing works.

Magical density measurement has shown a definite increase. A little below Cato's projection but within range. Enough to net a small positive output from the 'pipe' enchanted into the wall, but not enough for commercial output.

Labour rotations have met with some dissatisfaction. It is getting dangerous at the bottom and I am being asked for more pay. Do I have permission to use additional funds?

In your honour,

Arthur

Dear Cato,

Wood planer is a success. I myself have never seen such identical tables being produced by people hardly qualified to be apprentices. Even if they're really just four sticks, four nails and a board.

I still can't work out what's your secret though. The woodworkers in Minmay, who don't really have a guild as more a loose association, have tried to replicate your work but even when their planers are better than this experimental factory's unit, they can't get it either.
No seriously, what manner of magic are you using and how do I get it to work for my canning operations? Interchangeable table legs might not sound as shiny and awesome as bowgun shafts but you have no idea how much money I will save if I could just get my can lids to fit all the time.

Kalny

Dear Kalny,

I suspect the planer has nothing to do with it. It makes manufacturing easier but the real improvement is in the process. I think.

You have to thank the Recordkeeper at the university for giving me this idea.

The Recordkeepers have dedicated training methods for standardizing how their records are kept. You are surely familiar with how an Inath Record looks virtually identical to one written in Minmay. They even teach their apprentices how to hold their quills.

I took the same idea for the table making process. A woodworker outlined the steps and refined the process, then we taught the process to the workers, who you note have only very basic knowledge of woodworking. As long as they follow the steps and perform the measurements and calibration appropriately, I see no reason why the entire table factory would require more than one woodworker in total. Who only has to be there in an advisory and quality control role.

You should have seen the processes. They're a small booklet almost forty pages thick and there should be at least six copies in the factory. Of course, your food canning operation would require it's own distinct process documents.

I expect that as the workers get more familiar, the woodworker might not even be required. It should be possible to document and train a quality control operator just as well as the normal workers.

I shall proceed with the ironworking factory when I return.

Cato

Oono, head of the Iris clan and the Chancellor of Minmay sat across each other, smiling in the polite way that wasn't really smiling.

"So, I am given to understand that you are proposing a mutual reduction in import taxes. How does that benefit either of us?" Oono nodded at the businessmen lined up against the wall, and a separate nod at Cato, "I can understand they would owe you a favour for that but to give up a primary source income must be insanity for a mayor. It is impossible."

Minmay put down his cup, "import duty is no longer a primary source of income for Minmay and most of my region."

Oono merely raised a grey eyebrow. His greying hair and slightly hunched back made him look old, but the confidence in his power was anything but frail. And he wasn't that old anyway.

"Cato over here has described to me a system of taxes based on land leasing and earned income," Minmay continued, "it does cost quite a bit in supplies and personnel for Recordkeeping but the good records make dodging the tax more difficult. Furthermore, it has also helped grow my finances
along with the demands of an expanding city."

"The mayor does not require more income, this town is not growing, unlike your city," Oono pointed out, "to take more would invoke unhappiness."

Cato shuffled forwards along the floor as Minmay looked at him. "Sir, the farmers in your region have not brought in their primary harvest yet, but I am sure you have already received news of the size of the harvest in the Minmay region. The same applies to the farms in the Central Territories."

"Indeed, we have noted the new price of food and are positioned to buffer the volume," Oono noted, "however, you are mistaken if you think those are my farms. My second cousin is the mayor, not me."

"Which is why he is not here, yes?" Minmay smiled.

Oono smiled back, "he might owe me some uncountable number of favours for letting him marry out of the Six. But come, we should not be talking of this with the King so nearby. So, why do you think this bountiful harvest will result in our town growing again?"

"When the price of food crashes, and the farmers find that they can't sell their excess," Cato explained, "they will come to look for work. Peasants who usually worked on the farms for their living will be out of one. Minmay city has already experienced this. When your internal markets begin to grow, import tariffs will not be enough to cover what is needed to administer the towns of the Central Territory."

Oono looked at Minmay, who nodded, "that is also something my city has experienced, at great cost."

"I have heard of the Firestorm, yes," Oono nodded, "but what of the other problem? This town cannot implement such a thing that you call income taxes. Property tax is doable, perhaps with great difficulty. But a tax on earnings is impossible."

"It depends on an expanded recordkeeping service," Minmay said, "the Recordkeepers of Minmay have been recruiting."

"Perhaps some expertise could be shared," Oono countered.

The Chancellor and the head of the Iris clan eyed each other.

"Shall we discuss the details?" Minmay said finally.

Cato scribbled another equation across the pages, trying to coerce the numbers into making sense. Some simplification and substitution later, he ended up with a positive number equals to zero. It didn't require calculating the number out of the constants to know something had gone wrong.

"Bah," Cato threw down his pen.

That caused Landar to look up and wiggle over from where she was lying down to peer at the sheets of algebra. She recoiled faster than a wound spring. "What happened?" she asked, putting away her algebra practice exercises.

"The Ironworkers sent me the results of the latest experiments on the steam engine," Cato explained, "lifting force, fuel consumption and temperature measurements. I've been trying to calculate the
conversion rate between heat energy and magical energy and therefore the energy content of magic. And it's not making any sense."

Landar raised an eyebrow, "so what went wrong?"

"Well, when I tried to factor in the back pressure the compressing magic exerted on the enchanted walls, then based on the heating value of magical power units, the equations get all messed up," Cato ran over the series of equations checking them for errors. But they were unlikely to happen after three separate calculations on different days with different starting points. And they all ended up in the same contradictory result.

Landar shrugged, "I'm still learning algebra, so I'm not even going to pretend to understand your thermodynamics."

Well, he wouldn't expect any help from her anyway. Not yet.

Cato rolled over on the straw mat flooring. He had been skeptical of it at first, but the packed straw had been woven tightly and didn't have the same prickly feel. Plus, the mats were soft and warm, compared to wood or stone floors. It wasn't quite like a carpet but Cato supposed this was Inath's equivalent.

That was why Landar and him were lazing on the floor in one of the smaller buildings of the guest wing that had been allocated to them. The gentle rays of the sun shining past the doorway and gentle breezes going through the room would have lulled many people to sleep, the quiet chirping of birds in the garden accompanied by the bubbling of the artificial streams only added to the peaceful atmosphere. Cato could almost understand why the Iris were so crazy about these indoor gardens.

Cato was having none of it however. This last problem provoked by the Ironworkers' letter was causing him to almost tear his hair out. The peaceful environment had muted that to vague grumblings and lazily rolling back and forth on the floor.

"You know," Landar said after he threw away the fourth attempt, "from what I understand, these equations are the same as logical statements, yes? So if the equations don't work and you haven't made mistakes, then clearly the problem is in your assumptions." She put away her practice book and faced him directly.

"Yes, but which assumption is wrong? That's the key question," Cato said, "one of the equations here is wrong but I don't know which."

"Anything you know based on experiment cannot be wrong," Landar pointed out, "that's what you wrote on empiricism. Are there any assumptions of yours that aren't based on experiment?"

"You mean, I can place as much confidence into my measured results as I have confidence in my experimental setup," Cato clarified, "but even taking it from that direction doesn't help. How do I know..."

He trailed off as he mentally examined all the equations again. There was one that he hadn't run an experiment on actually, he had inherited it from his high school textbooks after all. $\delta U = Q + W$. It was just too hard to run an accurate calorimetry experiment without proper tools.

"Thought of something?" Landar said, seeing the twitch under his eye.

"Yes," Cato sighed, "I never quite thought of it that way, but perhaps magic doesn't conserve energy."
He started to work backwards across the equations, starting from what he knew about magical power and the steam engine, and meeting in the middle where the equation would have existed. The same error popped up of course.

That equation was a description of the first law. But if that equation didn't hold, then... then the only thing preventing the Ironworkers from generating free energy was the fact that their steam engine was rather inefficient. Atmospheric engines tended to be that way, but neither Cato nor the Ironworkers wanted to risk using high pressure boilers without sufficient hardened steel. They were building one, carefully in an isolated site far away from Minmay city, but the last Cato had heard, they were still trying to get it to work.

Free energy was a tempting idea but Cato had better make sure it was really free before he started to abuse it. After all, if one didn't know where oil came from, fossil fuels were like free energy until they ran out. He didn't want the world to 'run out' of magic. For that matter, the same thing applied to his hole in the ground.

Hm, by Noether's theorems, the first law of thermodynamics was related to the time symmetry of the system. So either the system was open and energy was coming from somewhere else he hadn't considered, or magic really contained a non-time reversible process. Well, if he could find a non-time reversible process, then that answered the question.

"Excellent, I have another test for them to perform now," Cato grinned, "or at least, once they have a high pressure boiler efficient enough to actually try to generate infinite energy."

The gardener looked out the rows of trees and sighed. The unnatural quietness of this experimental field made him uncomfortable. He scratched his head and sighed again before heading out.

The compost he added to the roots of each of the bushes wafted their pungent smell but that was not what was bothering him. The jagged leaves of the bushes were hard and stiff, sticking out from the short central stem in a protective shell of sharp edges.

Leaves wouldn't cut through gloves though, so the group of kids moving their way down the lines reached through the leaves to pluck off the hard tiny globules wedged in the center of the plant. Part of the daily harvest.

It was these pearly droplets that the palace wanted. The gardener wondered it was for, the Queen hadn't said other than that this plant had been mentioned in some of the more obscure and older stories. It had been found from some unknown place and given to him to grow.

Maybe it was for a necklace but why would anyone want so many beads harvested every day was a mystery. Still, the kingly sum of rimes that was his budget bought a very precise number of questions. Zero.

Vorril grunted as he examined the crate of oblong droplets. The magical signature was weak but definitely noticeable when gathered into a large quantity. The milky white balls had been mentioned as mana drops in the ancient recovered texts. Some kind of failed Tsarian experiment to gather natural magic. Vorril hadn't seen how the plant had been a failure but he supposed that such a tiny amount of magic must be a pittance for the Tsar.

It had been a good idea to send out those parties to look for the plant. Finding it growing in the
conservatory in an ancient Tsarian ruin was only possible due to the meticulousness of Flowers of Arcia. That party might not be the very best at combat but they wouldn't miss even the tiniest clue. And they were still good enough to take care of themselves. To be frank, they would have done a better job than the Hero at finding the Sword. And not get pulled into slave rebellions.

Amarante was getting rather insufferable though, now that one of her stories had turned out to be useful. Sure, the story had correctly placed the ruin at the Tevan Volcano in zombie territory past the Passage of Kirita. Sure, it was even correct that the plant was magical. But Vorril would rather eat his own sword than admit her stories had done some good.

All the other stories that had send River of Light and Vesant Ball on wild dangerous chases deep in hostile territory weren't mentioned.

Still, they now had a source of magic. Mana crystals were well and good but they were a small and limited resource. This bush wasn't.

Vorril let the handful of pearls fall through his fingers, a grim smile on his face. Magic circles, spell cannons, bowguns and those guns Morey was making. The military applications of these devices were endless and Vorril was quite sure the Academy alchemists could come up with some new ideas.

It was long past time the Order of Knights got their own toys.
"Come in," the voice came through the door once they knocked.

Cato glanced at Landar, her face was still screwed up with tension. She nodded once, eyeing the door as if it would catch on fire. He reached out and pushed the wooden sliding door to the side.

"Father," Landar nodded curtly as they entered and sat down opposite the table from the stern faced man.

Yan gave a slight bow of acknowledgement but otherwise didn't show any further reaction. Cato bowed shallowly in greeting but let Landar talk.

"Since I won that duel, I will have you agree to not interfere with my life," Landar continued.

Cato instantly regretted leaving it up to Landar.

Her father closed his eyes and seemed to brace himself. "What do you mean by that?" Yan asked.

"I mean you don't push me and Cato into marriage or anything else," Landar said. Cato could feel her beginning to heat up and patted her shoulder to calm her down. She nodded and settled back down.

Yan glanced at Cato and looked back at Landar, "is that all?"

Now it was her turn to look hesitant. She scowled down at the table for a long while before speaking, "what were you thinking when you proposed to arrange a marriage for me? Why do you insist on testing my power all the time?"

"Your magical strength is an indicator of your dedication to Iris, without a strong spirit, no one in this family would accept you," Yan then sighed visibly, raising eyebrows on Cato's side of the table. He continued, "but I suppose that doesn't matter anymore. By now, the rumours of your relationship will have ruined any chance of you finding a husband among the Six."

Yan looked at the table, if it wasn't for the man's stoicness, Cato might have thought he even looked a little sad!

"I would never want to marry someone from the Six, knowing what we Iris are like," Landar retorted, waving a hand in her father's direction, "and I'm not even required, since you still have my older brothers."

Older brothers? Cato blinked, then realized just how little he knew of Landar's family life. How many brothers did she have? And why hadn't he met them yet?

"Indeed, their performance at Algami Plains has been very satisfactory, I hope to have Riki marry the second daughter of the second branch family," Yan nodded.

"So, give me your word, say that you will not interfere with me any further," Landar demanded.

Yan looked bitter but closed his eyes and nodded, "fine. You have it."

Landar blinked for a long moment, as if she couldn't believe it. Cato sighed mentally, she probably thought she had won somehow.
"Landar, I don't think you understood what I meant," Cato said, he turned to her father, "we haven't heard his reasons, only an explanation. Tell me, sir, what do you want to gain?"

Yan looked at Cato levelly, "a stable and happy life for her. I do not trust you can provide the stability she needs."

"Perhaps she does not want it?" Cato ventured, pushing down on Landar's shoulders, "no Landar, I know you're going to say you don't want it but are you sure you're not saying that just because you don't like your father?"

That gave her pause for thought. And seemed to stun Yan into silence as well.

"I will not pretend to understand your relationship," Cato said, "I cannot when I do not share any of your history. But I think, as an outsider, that both of you have not understood each other. Maybe your relationship is beyond salvaging, I wouldn't know, but I think it would be sad not to try."

They were still silent, but at least Landar wasn't glaring at her father anymore and his face wasn't looking like a stern icy cliff.

"I can't do this," Landar said softly, "I don't even know if I want to understand. I could walk away from all of Iris and not look back, I have my own life now and I don't want to have to justify it to him."

She got up and opened the door slowly, "I'm sorry, it's just... too hard to go back now."

Cato looked at her father, who was now doing his best to look like a statue.

"She may just need some time," Cato said, "I doubt feelings can change so quickly after so many years of bad blood."

He got up to go.

"Cato, please stay," Yan said to him.

"What is it?" Cato sat back down.

"I know I said I wouldn't interfere but I have to know if you are planning to marry Landar," Yan said.

Cato looked at the man carefully. He sat behind the table, straight as a ramrod, still looking strong despite his recent loss in the duel. Or perhaps... Cato had a thought.

"Are you worried about her?" Cato asked.

His cheeks twitched.

"At present, we have no such plans," Cato sighed, "besides, isn't jumping to marriage a little too quick?"

"You would have to get engaged first, according to tradition," Yan said, "marriage is after one year."

"Thank you for telling me that. Where I came from, we called it a dating period."

"Then you will do that? Dating Landar?" Yan asked again.

"In our tradition, both of us agree to date, it is not something arranged," Cato explained.
"So is there some reason you have not agreed to date?" Yan asked, as if wondering aloud, "if you need money, the Iris clan can provide -"

Cato shook his head, "Money is not a problem for us, believe me. We earn more than enough to live luxuriously. In fact, if it wasn't for our experiments, I wouldn't know what to do with all that money."

"So you just haven't asked her?!" Yan said incredulously, "you do know there are rumours that Landar has been sleeping with you? You are lucky that those rumours are not credible."

Cato winced. He had not known that.

"I will not have Landar suspected of sleeping with you for advantage." Yan said coldly, "ask her and put the rumours to rest."

He glared at Cato with no small amount of anger in his eyes. Cato did not think bringing up the promise not to interfere would do any good right now.

"Give me some time, I don't even know if Landar or I want such a relationship," Cato sighed.

What were they anyway? Friends for certain, but was there something more?

Cato didn't have an answer for that.

Yan snorted, "looks like it's not just me who has to think about our relationship."

Cel Inci in Minmay descended from the Inath tradition, inherited from the First. The entire city had descended into a commercial frenzy of special offers, special goods and festive sweets and snacks. It reminded him of the Christmas rush back on Earth, but only one day long. Minmay simply wasn't big enough to support a month long run up to Christmas like modern Earth.

It was also without the decorations and mythological tradition, Cel Inci was just a way to mark time for the First, supposedly the first day after Cel Inci was the day humans first arrived on this world in their legend.

He had been too busy with the soap factory of Kalny's to really appreciate Cel Inci in Minmay, but now he had the time.

The Iris dominated town celebrated Cel Inci in Tsarian tradition, which was a wholly different affair.

The streets had been decorated with red coloured lanterns and streamers of every colour flew in the wind from rooftops. The two roads of the commercial district were seeking to outdo each other and over the three days leading up to the Cel Inci festival itself, the town and roads became more and more garishly decorated.

Cato walked down the road with Landar, wondering if he had somehow stepped into yet another world.

The hawkers lining the street shouting their wares at the top of their lungs, the paper and cloth strips each of a single vibrant colour hanging off every available wall or hawker stand, the large red paper lanterns that were hanging from lines thrown across the street. This evening, the town was virtually unrecognizable.
Cato didn't know how the hawker stalls seemed to form their own little corridors that didn't seem like they should fit into the original street. And probably the entire population of the town was out in force, percolating through the narrow twisted spaces between the choking crowd of hawkers.

The dim red light from the lanterns above shone down between the roofs of the hawker stalls, and their own lanterns bathed the street in a mesmerizing shifting of a red tinted world.

Landar was wearing her formal gown again. The dark blue material was completely black under the red light, and the glossy waves played with the eyes under the flickering red light, concealing her body shape. Even her pure black hair seemed to fade into invisibility below her shoulders. It seemed as if she was dressed in mysteries, fae and unknown.

A mood that Landar broke the instant she opened her mouth. She tugged on Cato's much less formal sleeve and jacket and ran straight to a hawker stall like an excited child. Cato straightened his plain sleeve and followed her. No one was ever going to stuff him into those frilly things that Minmay and the delegation were wearing.

Landar grinned at Cato, her words missing the bath of sound around them. Cato stepped to the side as a man squeezed past then quickly returned to the middle of the corridor, away from the sharp smelling... things the woman in the stall next to him was selling.

"What did you say?" he half shouted over the din.

"I said! This! Is what! Cel Inci! Should be like!" Landar raised her voice even further.

Cato sighed and pulled her close. No sense ruining his throat shouting all night. "It is lively," Cato agreed.

Landar laughed and pulled Cato forwards, dragging him through the crowd by the upper arm to a stall selling yama cakes. True yama cakes, the flat slabs of dark yama jam mixed with only just enough wind eye flour to keep it solid, and a lot of alcohol.

After haggling for a bit, Landar bought one and broke it in half to share with Cato. The sheer sweetness and the clear sting of the alcohol was luxurious for this world, like a cream cake with the consistency of jelly.

Cato let her pull him along, everything here was unfamiliar but she strode through the crowd as if she owned the place. And from the bubble that formed around her, it seemed that she did. Cato noticed one or two others who were avoided by the crowd too, all of them sporting the pure black hair and face of a full blood Iris.

Landar proceeded to drag him to any stall that caught her attention. Showing off festive foods and stalls selling carved souvenirs or toys, Landar had him try the fried piyo strips and boiled yama balls in a thick sweet and salty soup. Somewhere along the way, he had picked up a strange feathered cap that made Landar giggle every time she looked at it.

As the night wore on, the festival got more drunken and noisier. The alcohol loosened purses and telins changed hands quickly, or not as Cato noted most of the low cost trades weren't settled with coins, instead promises of value and even the odd barter trade changed hands. The coins weren't very well used, despite low denominations being present. Low denominations weren't low enough for peasants after all.

Then, as the bells began to ring, Landar lead Cato out of the commercial area along with many of the other merrymakers. The crowd wound its way along the streets to the east side of the town, near the
Iris clan's homes.

In the grassy open area stood a row of Iris men and women, each holding a glittering summoning stone that danced with an inner light.

"What's going on?" Cato asked.

Landar smiled, "every Cel Inci, the Iris clan conducts a ritual of summoning. It's not like the legend of First Landing, it's just an old tradition. We use the summoning stones to act out a story."

"Ah, you mean like a play," Cato said.

"Instead of actors, we have summons though," Landar pointed, "it's starting."

The music from the flute group started in a calm measured tune. The lights drifting up from the summoners were part of the dancing lights summon, little wispy balls that illuminated the field under the dark sky. Then ghostly reki-like animals and birds joined them, dancing across the ground in synchrony.

Then the summoners off to the left who had stayed quiet lit up with magic, a veritable wall of Swords bearing down on the animal figures. The sound swelled and crested, speaking of heroic legends and brave deeds. Swords and animals clashed with each other, until the last animal, a large floating image of a serpent, fell over and faded away. The Swords took up the dance in victory.

"The animals are the ancient spirits, Swords represent humans," Landar explained.

Then some of the Swords began to turn into animals, a bewildering variety of shapes and forms. Once again, the Swords and the animals faced off, only this time the animal side had Swords too. The battle dance started anew, with animals and Swords fading left and right, the collisions between the summons fierce and full of power. In fact Cato could see the ground being gouged by flashes of fire and force. This time, the music was halting and tragic.

"In the second and third act, the animals represent demi-humans," Landar said.

By the end of the second act, the number of summons on the field had dwindled to a sorrowful handful of Swords, and one each of the two animals surviving, a Reki-like creature with a long furry tail and a bird. The survivors danced slowly to a lament of loss and horror. The short third act danced across the field and disappeared off the edge.

"Not bad," Landar said, "better than five years ago, trying to incorporate a Ritual summon didn't work out well."

"Isn't this just another retelling of the First and the Tsar?" Cato asked as the play wrapped up in a shower of light, receiving a nod from Landar sitting beside him. "Don't you tell any other stories?"

Landar shrugged, "there are many, but all the old traditions are about them. I mean, they are the First and Tsar."

Cato looked back at the pockmarked field, wondering just how much history had been lost in that war. And how apocalyptic the war must have been, for it to so completely dominate their historical tradition.

Landar jerked him out of his thoughts. "Don't be so down, it was a long time ago. Let me see if Haru's stall is still open," she pulled Cato to his feet as the crowd began to disperse, "her drinks are one of the best and maybe she can sing you a song or two. She knows all the funny ones."
Cato decided to play along with her attempt to cheer him up. Well, the night was still young and the festivities looked as if they were just about to heat up. And looking at Landar enjoying herself, Cato wondered just who she was to him.

"So what did you want to show us?"

Minmay stood on the Iris duel grounds, flanked by the entourage of curious merchants. Landar had called him to witness a demonstration, as well as her father and some Iris relatives. The two groups, Minmay and Iris, stood apart from each other, a subtle but significant gap between them.

Cato nodded to Landar as he screwed in the pair of spell plates into the carefully placed brackets of the makeshift spell cannon and connected them to the steel staff powering the whole thing.

On hindsight, Minmay forbidding them to bring spell cannons along wasn't ever going to stop them. With Landar's 'sewing box' full of threads, and a cart full of charged steel staffs, rigging up a deadly device was not that difficult.

The pair of steel staffs strapped to the wooden board in front of the two spell plates was in standard spell cannon formation. Pointed at a target, a singular powerful magical shield generated by a steel staff, the setup was exactly like the spell penetration tests Cato had done. Except this time, there were two spell plates.

"This was the spell I used against my father during the duel," Landar explained, more for the benefit of the watching Iris, "with additional refinements. Since a disruption bolt can punch through a disruption shield, with firebolts and forcebolts having more difficulty, by placing a disruption bolt leader, you can make a firebolt go through a much stronger shield."

She gestured at the extremely powerful wall generated from the steel staff and nodded at Cato. He pressed the metal contact and the spell plates wove their spells into a two part bolt. A disruption penetration head, with a firebolt behind it, molded into a single spell, with a single spell boundary to keep them apart. The 'barrel' then formed the acceleration field between the two steel staffs doubling as guide rails and catapulted the composite spell forwards into the shield at ludicrous speeds.

The bolt punched right through the shield and flew just long enough to confirm that the firebolt was still stable before flashing into a gout of flame at the metal target plate.

"And the second part was this," Landar held up a metal baton. In fact the very same one that she had used in her duel. She and Cato had re-enchanted it after determining that fixing the thing was impossible. The circuits were just too tightly packed for even Landar's expertise to deal with.

She clicked the spell selection into the last position and aimed it at the shield before pouring her power into the rod. It would survive this time, she wasn't trying to cram all her power into it.

The same dual part spell and twin 'rails' formed in the air before throwing the bolt through the shield.

Despite the impacts, the shield was not appreciably diminished in strength. Only a small percentage of the shield's power intercepted each bolt, resulting in an easy penetration.

"Of course," Landar added to their complete silence, "like all enchantments we make recently, we have a magic circle diagram that can create both the high power spell cannon version and the personal rod version. In fact, with the complexity of the bolt and acceleration fields, I doubt any caster can cast this spell in any practical time. "
But the rod could be powered by portable power sources, truncated steel staffs had been a proposal for powering Morey's guns so the Guards could use them. And without the aerodynamic ammo requirements of Morey's gun. Not that his gun couldn't also double as a man sized spell cannon, a sort of rechargeable wand. Complex enchantments were made possible with magic circles.

Landar shared a look with Cato, a barely concealed grin on her face. This had the potential to obsolete the use of all basic shields! And possibly allow accelerated disruption bolts to punch through the zombie's black mist too. With disruption shields penetrated by accelerated bolts and deflection shields by Morey's bullets, the Guards would be practically unstoppable.

Minmay frowned instead however. "Have you released any of the magic circle designs?" Minmay asked. They shook their heads. "Then keep it a secret for now."

Cato didn't have to see to know the look of dismay on Landar's face. But there was probably a good reason for that.

"Think about it, one person with a bowgun or modified gun that shoots these shield penetrating bolts," Minmay explained, "they could walk up to anyone and simply fire a lethal firebolt and that person will almost certainly die. If a shield can't defend against these weapons no matter how well trained, any mage who buys one of these can assassinate just about anyone."

Minmay sighed and pointed at Landar, "therefore you must not release this magic circle design until you have devised a method of defending against this weapon. The principle that a quickly moving disruption bolt can punch through shields is already known, let's not make it easy for any would be assassins, yes?"
Both parties so signed agree that, pending the agreement of the Central Territory towns, the following terms of trade apply:
That neither party will levy more than a total of one tenths tax on any goods originating from the other party's region above and beyond the tax on substantially similar goods originating signing party's region.
Tax on passage of goods originating in other regions are exempt from this restriction.
Detailed criteria for the determination of origin is elaborated in subclause A

That the Minmay region agrees to lower the total tax on imported grains and textiles of all kinds and variety from the Central Territory regardless of origin to no more than one twentieth.
That the Central Territories will not levy a total tax greater than one twentieth on imported steel, steel machinery or magical devices of any kind from the Minmay Region.

That the Central Territories will allow the Bank of Minmay to establish an independent branch.
That financial loans to the Mayors of the Central Territories will be provided at no more than the lowest rate of interest offered to any guilds, companies or commercial interests within the Central Territory.
That the Central Territory agrees to underwrite the loans so taken with assets and tax income.
That the Central Territory as a whole will create a mechanism to guarantee the loans made by each town within one year.
That the Minmay region and the Central Territory agree to a future meeting no later than six months from this day to create an official set of currency coins with a defined value and fixed gold or silver quantity.
That said coins shall include the range from one hundredth of a telin to one rime.
That said coins shall by law be accepted across the two regions and may not be refused as a means of settling a debt incurred.
That said coins shall be accepted by both parties as a means of paying taxes.

That the Minmay University shall create a branch in the Central Territories, and expend reasonable effort to ensure the branch provides training and expertise to the Central Territories guilds, companies or commercial interests of comparable quality to that received at the Minmay University.
That said branch shall share information and technologies freely with the Minmay University.
That said branch shall provide education and training at no cost to no less than ten persons a year so named by the agreement of the Central Territories.
That said branch shall involve no less than thirty persons named by the agreement of the Central Territories in research, education or training, in a position or manner no less favourable than equivalent employees in Minmay University.

That the Minmay Guards will provide support and training for a period of one year to an equivalent organization in the Central Territories.

That both parties agree that the other party shall receive equal or greater tax, tariff or technology advantages that any future treaty, agreement or understanding with a third party would grant.

Minmay Region Chancellor
Central Territory Representative

"An anti-penetrating shield, huh?" Landar mused, "come to think of it, the shield penetration works
because the power at the point of impact is much lower than the bolt's."

"The tests did show that more power is required for penetration for denser shields, after all" Cato nodded.

"So all we need to do is make a shield that concentrates its power at the place where the bolt hits," Landar said, "I'll run the standard disruption detection lines used in firebolts and space it across nine squares on the surface of the shield. Set the magical power to concentrate in the square being hit. Nine is still too easy to break through but we can make more for the real version."

She casted the spell as she thought aloud, taking her time to build it right. The wall of magic glittered with lines, crisscrossing the front of the wall.

At her nod, Cato leveled the spell cannon at it and fired a low powered but fast disruption bolt.

It punched right through.

"Huh," Landar mumbled to herself and repaired the wall, making the lines denser. Poking at the front with a thin tendril of power, they observed the power travelling into the central area in the rough shape of a square. "It's working," Landar frowned.

"Again?" Cato asked, aiming the cannon. Landar let her power go and waited for the wall to settle down into a uniform evenness before nodding.

The fast moving bolt still went through the wall with just as much ease as the first. Even though the bolt was weaker this time.

"Again, and weaker," Landar snapped.

It took nearly five tries before they managed to stop a single bolt. And the penetrating bolt was so weak that it wouldn't penetrate a normal shield anyway.

"Do you think perhaps the magic just isn't moving fast enough?" Cato asked, he touched a disruption rod to the wall, a simple magic tool that held a low power and very precise disruption spell at the tip. The magic flowed into the affected panel visibly but quickly. But not as quick as an accelerated bolt could move.

"So we have to detect the bolt earlier!" Landar perked up and nodded to herself, "I'll have to make the spell cover a larger volume and run the lines further forward. Let's see it."

The new shield was the shape of an odd box. The active side faced the spell cannon with control lines on the surface, while most of the shield power was concentrated at the back. When the front of the box was hit, the shield would concentrate power into the corresponding square at the back. Cato could already see potential failure modes with angled fire but went ahead with the test anyway.

He leveled the makeshift spell cannon and fired a normal penetrating bolt. And it still went right through.

Landar stared at the penetrating bolt plowing into the ground in the distance. "What in the world did we build?" she said, a complex mix of pride and frustration on her face, "and how does it do that?"

He raised an eyebrow, was she picking up some of his expressions? "You wanted to weaponize the bolt that we used to penetrate the shield, so now you have a shield penetrating spell," Cato said, "I don't really think it's as dangerous as Minmay says it is though."
Landar raised an eyebrow, "but it is true. I mean, if someone pointed one of those at me and I didn't have time to prepare a ridiculously strong shield, even I'll get killed. Just the fact that I could punch through my father's shield when it was already casted means that no normal knight could survive a surprise attack with this spell. It doesn't take much fire to kill you."

"This is very much like a gun on Earth. Or like one of Morey's guns, which I might add is already known," Cato explained, "point a gun at someone and fire a few shots, and people die. Mostly. Getting away with it is much harder and I don't think Inath tolerates murder any more than Earth does. For the same reason, even though theoretically someone could walk up to anyone else and kill them, doesn't mean it will happen very often."

"I can think of a few people and nobles who might just disappear one day if I sold this design," Landar mused, "making magical weapons more deadly wasn't what I want... well, what I mean is that Minmay has got a point."

"He can't stop you if you did sell the design though," Cato said, "the Order of Knights will certainly back you."

"Only because they won't have any choice but to be first," Landar retorted. They looked at each other but Cato didn't find anything else to say.

"Let's just see if we can make the shield work. We have the entire journey back to Minmay to do that in."

Arthur took Minmay's heavy travelling coat and passed it to a waiting servant to be cleaned. He narrated the report as Minmay changed out of his travelling wear.

"And so the Borehole is stalled at 170 meters after a wall collapsed three days ago. Three miners were killed and the clearance work will delay the project by a week. The Ironworkers are showing off their new unidirectional flow steam engine after work on the valves was completed, they're using it to drive an elevator between the top and the bottom of the shaft so the miners can get down more quickly."

Minmay nodded, "delays are not unexpected. I trust there have been no problems in organizing the repairs?"

"None sir, only minor scheduling or supply issues within expectations."

"Alright, I'll keep an eye on it."

Arthur followed Minmay into the dining room, pulling out the seat and serving the plate of roast piyo strips waiting on the trolley. Truly, Cato's design of the castor wheel was a mark of genius and perfect for light loads indoors. The maids in this house used their three trolleys for meals, hauling cleaning buckets and laundry... just about every single bit housekeeping work in the large mansion. A number of larger workshops had also ordered them.

Arthur idly wondered when Cato's promised vacuum pump could be completed. His description of a vacuum cleaner had the maids practically begging Arthur for one.

After the short meal, Minmay nodded at Arthur, sipping at a glass of wine. "Anything else?"

"The first round of income tax was assessed. The workers are unhappy, a number of smaller guilds
and companies have submitted protests. They claim that a twentieth is too high and the workers can't survive."

Minmay sighed, "any that I should be worried about?"

"Probably not. All the major guilds had agreed to it, with the Minmay Guards bearing witness to formal contracts, they have not raised any complaints. Yet. In any case, with the Guards around, I doubt anyone will attempt anything drastic."

"Give me a list of everyone who gave the collectors trouble or protested in some way, I'll look at it later. Anything else?"

Arthur nodded, "Cato's experimental workshop has moved on to making wagon wheels and axles now. They have been making spare axles that require no fitting with any of their wheels."

"That's more useful than cheap furniture. I think the Minmay Guards could do with some, the supply team will be happy to have it." Minmay said.

"Sir, there might be some issue with that," Arthur noted, "a number of carpenter workshops have started a trade war with Kalny."

"Any reason why Kalny doesn't just absorb them? He's big enough to do that, the carpenters aren't very well organized," Minmay pointed out.

Arthur paused then said, "Cato told him not to do that actually. He specifically instructed Kalny not to employ any master craftsmen. Part of the complaints, besides undercutting the market and accusations of inferior product, is that Kalny is stealing their apprentices."

Minmay looked up with a frown, "you're telling me Cato's experimental workshop has been building tables and now entire wagons without a single master?"

"Not precisely, there are two master craftsmen on retainer by the firm. However, if I understand it correctly, they are advisors and consultants only, none of them are involved in any production, did Cato not tell you?"

"He complained that the masters didn't want to follow his procedures, but no, he never actually said he wasn't employing them," Minmay mused, "hm, to be honest, I never thought he could pull it off. The idea that you can just write down whatever a master knows and have untrained people make things is just too preposterous. But now that he's succeeded, that could get to be a problem."

"A problem? The woodworkers are too disorganized and too few, like you said. The Minmay Guards can keep them in control, and Kalny can hold his own against them," Arthur said, "besides, the work is too shabby to be a real threat."

"Is there a sample?" Minmay asked.

Arthur nodded and gestured for the two waiting servants to bring in the table.

The small square thing was a plain angular affair with four rectangular legs fixed to the corners. In contrast to the delicately carved dining table with its wavy lines along the edge and down the legs, Cato's workshop table was crude. But according to Kalny, the true cost of the table was a third cheaper than the common simple ones sold in carpenter shops, and it was getting cheaper.

Minmay couldn't tell whether the poorer city dwellers would actually buy such tasteless tables but if they did prefer the lower cost, things could get ugly.
"I don't see how any person would want one of these," Arthur said.

Minmay rapped the surface, which rang with surprising solidity. The table didn't totter when he tried to shake it either. He huffed and hopped up onto it, much to Arthur's surprise and alarm, but the table held under his weight with only a slight creak.

It was well made, surprisingly. Maybe all those procedures Cato insisted on checking every little thing actually worked?

But the table was still as ugly as a Reki's face.

"It's built solidly," Minmay noted, looking down the dining from his high vantage point. The roof was much closer from here. He stepped down and noted with some amusement as Arthur began to breathe again. "If a family is not too well off, they might buy it."

"May I ask what has you worried?"

"Was I that transparent?" Minmay smiled at Arthur.

"I have served you for more than ten years, sir," Arthur replied, "since before the time we still held Ode's Corridor. It's not like you to take such risks. " He pointed at the table.

Minmay waved all the other servants out. Then had Arthur check if any were loitering around to listen in.

"Indeed, you know me too well," Minmay sighed and grew more serious, "please arrange for meetings with each of the major guilds in Minmay. I wish to speak to them, individually, without the presence of Cato. I need you to arrange private settings. And for those that can be influenced by such, food and minor gifts of no more than one Rime in value each. Remind me to give you a list tomorrow morning."

Arthur's expression didn't change but Mimay knew him well enough to tell that his butler was very surprised. And even more concerned.

"I may not be a visionary like Cato," Minmay explained, "but I am not completely blind to what he is trying to do."

Minmay sat down at the dining table again and gestured for Arthur to take a seat across from him. "Cato envisions a world where every transaction down to the lowest peasant is not mediated by trust but by an exchange of currency. I know it sounds crazy but it is true. Furthermore, he thinks of a world where each person can purchase more than just their own food, where each worker is a specialized craftsman... no, not craftsmen. Workers are organized into production units with each worker specialized into their own small tasks, which produce a greater whole."

Minmay looked at the square table meaningfully, "I did not truly believe this was possible until I saw this table. Now I know it is. More than just tables, the idea of fixed, interchangeable processes to produce a consistent product, this idea I feel will change the face of everything more than flashy weapons like a better bolt launcher or the best assassination weapon under the light of Selna. More than even the Borehole project. Already, we see signs of this in the Ironworkers' steam engines, all working examples are built by multiple teams working on each part. They are even being called the piston team and the boiler team and so on."

"It will not be without its enemies," Minmay said, staring at the table and trying to see into the murky future and why he was so apprehensive of what was to come. "The idea that untrained peasants can be trained to produce well made finished products, even if not decorated, will be a threat to many
people. Or is it the fact that craftsmen will no longer be the masters of their craft, only slaves to a process? There is a reason why none of the master craftsmen managed to achieve his goal of interchangeable parts for months when twenty hardworking peasants did it in three weeks. And when these craftsmen are threatened, the guilds they comprise... oppose the companies or organizations of the new workers."

"I will move to preempt this. The guilds can be controlled by their leaders. Not completely, but the leaders can be promised bribes and positions in the new arrangement. They stand to benefit from it and with their cooperation, they can push the new ideas and silence the ranks. The Guards were built from the ground using the same principles, I see that now; the Order of Knights will be a threat, or a potential asset."

"Minmay was thinking as he spoke now. "I cannot predict what will happen, or which trade will be most impacted. But I have to act now. Once the threat becomes visible to me, it will be too late. That is what I feel, preparing the ground to gain the support of the peasants and the workers will be required and cannot be done quickly. It turns out Aesin was right with her feeding the poor."

Arthur sat there stonily until he asked in a quiet voice. "Why are you doing this? What does the Chancellor have to gain from spreading these ideas?"

"Change is coming," Minmay muttered, "for better or worse I cannot say. But I have to survive it, the Chancellor has to survive it. And regardless of what Cato says, I at least want Arisacrot to inherit a Chancellorship that is more than just a title."

Cato looked at the empty notepad on his desk, tapping it with a crude pencil.

It wasn't often he got some free time. Returning to the University meant returning to the endless meetings between merchants, guilds and other people who all seemed to want his help. Honestly, Cato didn't feel as if he was helping all that much.

All other times, Cato would find himself in Landar's lab, where they and the two alchemist assistants drew more magic circles for just about every magical device anyone could think of. And some that only existed in Landar's head, which often didn't work.

But tonight, Landar was sleeping after spending too much magic again. And so Cato found himself alone in the University office with nothing to do.

Hmm, well Landar might need some help... nah, who was he kidding? Landar was better at this magic business than Cato would ever be. Her years of training and familiarity, as well as her own sharp intellect, made magic as easy as breathing for her. With the kind of power that only the summoner clans had.

Speaking of Iris... Cato recalled the words of her father. Just who was Landar to him anyway?

A friend? Yes, definitely. But a lover? Definitely not. But was it that simple?

Romance stories always made things sound so simple. Lovers always seemed to swoon or blush or get giddy feelings when they thought of their partners. But did he feel anything like that? No, not really. It would make the answer much simpler if he did.

But was she only a friend? Somehow he couldn't bring himself to just say yes. Were they something more? Again, neither yes or no felt correct. Feelings weren't going to help here apparently.

Cato looked down at the paper and wrote "Friend vs Lover". As a friend, they worked well together.
A plus, yes. Romantic tensions might hinder magic research? Cato tapped the pencil. Maybe.

Did he even look at her in a romantic fashion? An image popped into mind, of the wagon ride back from their expedition. And the few times she stamped her feet and pouted in front of her father. Cato snorted. Alright, she was cute, in a way. But not really beautiful, Landar was not famous for her personal tidiness.

He tapped the pad again, any more points?

Landar could be surprisingly childish when it came to her parents. She was intelligent, strong-willed and independent, traits that her father did not appreciate when he was trying to arrange a comfortable noble-like marriage. But Landar's single-minded opposition to her father's control... that probably stemmed from her younger days. Hm. Cato smiled and tentatively marked that as a potential issue.

What about Landar? Did she look at him as a friend or something more? Cato thought a bit, trying to recall any significant events.

Landar reacted to the twin-flowers. A positive for that end. But she was also rather unmindful of Cato. Well, not that Cato could point at her when he was also guilty of unintentionally invading her personal space when they were engrossed in drawing diagrams or building something.

Well, no answers there without asking her directly. And Cato hadn't even decided if he wanted to or not.

Cato blinked and looked down at the pad he had unknowingly filled with scribbles. He sighed. The sun had gone down without him even noticing, leaving only the dim candlelight in the room.

Ah well, some other time. Tomorrow was going to be a busy day.

Landar knocked on Cato's office door and pushed it open when she got no answer.

Standing on the desk was a folded up sheet of paper with the words "out for meeting" scribbled on it. Oh, well.

Polankal had told her she hadn't seen Cato leave last night and Landar was about to scold him for sleeping in the office again but it didn't look like he had done that.

She glanced around the office before the open pad of paper caught her eye.

Polankal sighed mentally, reminding herself that the alchemist sitting across from her poking at the sandwich plate was her employer's wife. Even if they hadn't really admitted it yet.

"So what is wrong with this?" she said, indicating the sheet of paper.

"I don't know but I don't like it," Landar sighed and finally chose a bite sized piece of sandwich to stuff into her mouth.

Polankal suppressed her urge to tell her off. Employer's wife. She repeated that to herself again. "So Cato has been thinking about who you are to him," Polankal took a bite of her own, "what's wrong about that?"

"Ah, so that's what it was," Landar brightened and snapped her fingers. Polankal blinked, that action
was something that didn't exist until Cato had been seen doing that a few times. Then Landar wilted visibly, "does he think we shouldn't be friends any more?"

"I don't think that's going to happen," Polankal said mildly.

Landar glared down at the paper then shrugged, "why am I so worried about this?"

"Maybe you see him as more than friends?" Polankal ventured. Would she? Would she not?

Landar tilted her head and thought for a very long while, other sandwich pieces lying ignored on her plate. "I don't know," Landar said, "they say lovers do things like kissing and sleeping with each other... but I've never thought about Cato that way."

Oh. Polankal paused halfway through her sandwich. Were they really not? She glanced at Landar. The woman did seem to be genuinely confused, she was even frowning at the bread as if it was about to get up and walk away.

Hmm.

"Why don't you write one as well?" Polankal said lightly.

Landar drummed her fingers on the table and nodded, "mm, I think it might help."

No, it won't, Polankal kept that thought to herself.

"It's only logical to get my priorities in order. Cato's done the same and I think I should as well," Landar nodded to herself again.

Polankal suppressed another sigh.

The carpenter looked suspiciously at the handful of coins the Guard had given him. It was one of those new coins the Bank had minted. One of the first rounds of minting, since it was so soon after the announcement. So they were paying the Guards with this new?

"You know it is the law that the coin has to be accepted right?" the woman said.

The carpenter sighed and pocketed the coin. The law said that the coins had to be accepted in cancellation of a debt, not in a trade. But he wasn't about to argue in front of a Guard. While they were not as scary as a knight, they did have a lot of friends. He picked out the most rickety stool he had hidden away in a corner and gave it to the woman. Curse his luck.

At least he wasn't one of those bartenders who allowed his customers to run up huge tabs. They must really be cursing the Chancellor now.

Or one of the Guards, who were now all paid in coins of such tiny value. The carpenter didn't know if anyone would accept a hundredth telin coin. What could you buy with that? Maybe a single piece of bread, and only because bread was ridiculously cheap nowadays.

"Oh, the Chancellor has told us to say this," the woman continued, "um, he says that he will be collecting all taxes from next month onwards in these new coins. Only."

The carpenter felt the blood drain from his face then stop as he had a thought. That wasn't actually too bad. It was a way he could get rid of these worthless things for something like their face value. Ha, the Chancellor really was screwing himself over now. Fine, let him have the worthless coins.
He just had to find a way to persuade his customers not to use the coin too much or he would end up with too many of them.

Or... he had another thought. Then looked up at the Guard with a smile and a nod. She left.

After all, he could just raise his prices a bit more for those who insisted on paying coins. And pay the woodcutters with his excess coins.
Morning

Dear Cato,

I did not encode this message because this warning has to be carried as far as possible. A copy has been sent to Amarante and every noble whose name I know of.

Followers of the ISL uncovered something that looks like a First military fort and we explored it. The only surviving scrap was a heavily damaged journal by one of the soldiers. While most of the content is mundane, the entries contain hints of past technology that is very worrying. I have enclosed a copy of the important parts in what I think is chronological order. I have enclosed a full copy of the original text annotated with page numbers and relative position, maybe you can make something out of them.

-The concept is simple. So simple and elegant. Yet I cannot help but feel that some element of understanding is missing.
-project is complete. This will end the Tsar once and for all. My tappy dislikes the project papers. She keeps trying to eat them. Perhaps she is-
dribbons dumped a load of Dust on the enemy and collapsed the outer shield wall. The last enclave of the Tsar has fallen. They are scattered to the winds, the end of their horrendous experiments. The war is over! I wonder if Mirya will agree to see me now-
power sources failing. Great drifts of Dust piled up outside our shields are straining even the massive taps that were considered inexhaustible. Soon there will not even be sufficient magic to read at night.

-our works undone. We will have to leave, this is the end. Everything that we can salvage will travel with us, the taps will collapse soon and the Dust will have the rest. This journal I will leave in my room. Maybe someday in the far future, someone will read it.

I don't know what the Dust is but it is incredibly dangerous if it is related to the destruction of the First. Unfortunately, the ISL doesn't have the time to research this. Not that I think it is possible without more information from the First.

Morey

Landar bent over the magic circle, very carefully correcting a single thread in the mess. Not because it was dangerous, magic circles disconnected from power supply were inert, but because the pattern below her was very complicated.

She wiped a bead of sweat rolling down her cheeks. In some ways, this was more complicated than even the casting rod, the name she had decided on for the magic tool that formed spells for her. The casting rod had more lines by raw count true, it had four spells, power trap and channelling mechanism. But this spell was their latest attempt for the anti-penetrating shield.

Cato had pointed out that by the time the power arrived in the hit section, the bolt had already torn through the shield. So the solution was obviously to make the power move faster, so Landar was building little acceleration tracks into the spell like the spell cannons had.

These had to go in all directions from all points on the shield surface, which posed a layering and
routing problem all in one. The tracks could overlap so long as only one overlapping acceleration track was active at any point or the flow of power would split. Finding that out cost her quite a few attempts. And those faulty spells had exploded.

Getting a pure magic disruption spell to explode was quite a feat in itself. But the less said about those cases the better. Cato might never let her near a testing range again if he knew just how close she had come to killing herself.

Landar paused and sniffed to send the thought away. Cato wouldn't do that.

Maybe she ought to ban him from the test range.

She edged backwards and got up to examine the new network. The acceleration lines would now be laid in multiple layers, with each layer consisting of tracks going in a single direction. Of course, this made routing between lines more complex. Some points of the shield needed to be accelerated down more than one track to get to their destination, a consequence of the minimum size of an acceleration track she could make, slightly smaller than two centimeters, and could be bothered to make.

She took another step back to examine the full diagram again and walked right into Cato as he came in the door. He caught her on the shoulder to steady her.

"Oh, Cato," Landar said, feeling the towers of her understanding come crashing down in her mind. Suddenly the diagram on the floor just looked like a huge impenetrable tangle. The folding cards they used to organize the parts they didn't want to look at were scattered on the ground where she discarded them.

"Quite impressive," Cato walked along the edge of the warehouse. His footsteps echoed in the empty space. "Are you sure it works? You know how complex spells always have bugs."

Landar frowned at the term. She didn't quite understand why Cato called them bugs but she knew it meant the spell not behaving as she intended it to. "I knew what I was doing until you walked in," she waved over the expanse of twisted lines laid over the sheets of paper. An area the size of Minmay's mansion. "I was sure it would work, but now I'm not so sure."

Cato managed to look apologetic. "Well, if you thought it was ready to test, then let's do it," he pointed at the nondescript cube of wood sitting the center of the formation.

From where they were, the cube was only the size of her thumb.

Landar nodded and bent down to the power storage cube sitting on the table near the door. She bridged the gap in the circuit and watched the stored power flash down the lines towards the center. A good tenth of the power ended up just running the circle instead of doing any enchantment.

After the bewildering flickers of magic died down, she walked down the thin line kept clear of threads to the steel test cube. With a poke, the shield wall manifested above her, right in the path of the spell cannon set up at the end of the warehouse.

The wall was much more complex than the simple ones she previously built. Structured magic crisscrossed underneath its surface, layered into a dizzying complexity that blurred the details into a solid mass of lines. In front, the thin filaments of detection lines snaked out from the dense wall towards the spell cannon.

"What in the world is that?" Cato whispered to her.

"Our new attempt at the anti-penetrating shield," Landar said.
"I went to a week of meetings, I didn't expect to see something like this," Cato said, still staring at the magic.

Landar grinned, "and unlike your demonstration cube, all of this actually does something." She waved an arm grandly at the magical construct hanging in the air.

Cato nodded and walked over to the spell cannon, "then let's test it."

The spell cannon built up the disruption bolt and hurled it at the shield.

"That... it actually works!" Landar jumped as the disruption bolt smashed into nothingness on the shield. She felt the grin on her face and saw it mirrored with a smile on Cato.

"That it has," Cato said, scooping up the magic detector and walking up to the shield, "how does it work?"

"I simply applied the same acceleration principle for our spell cannon to the shield to make it move the power faster," Landar said, "it took quite a while to make the shield work."

Cato frowned and pushed the detection head to the shield, "and how much power does the shield normally have?"

"I put in about two hundred power units," Landar said.

"There's less than a hundred now," Cato estimated, running the detector over the shield, "the spell cannon was configured to fire how much?"

Landar could feel her heart sink. "Thirty units," she said.

"I suspected as much, the acceleration tracks cost power to move magic," Cato said, walking back, still thinking, "with so many tracks and having to push the magic almost as fast as the incoming bolt, this makes the shield really inefficient."

"It costs a lot because you have to run multiple tracks from all over the shield," Landar said.

"Do we have to pull power from all over the shield?"

"There's not enough power otherwise," Landar nodded, "I tried that first."

"But once you concentrate the shield's power using the tracks, can't you just move that around then?" Cato mused, "why not create a shield that is already concentrated..."

Landar cut in as Cato trailed off, "you can't do that because the power concentration is temporary. It will drift back to the normal boundaries of the spell."

She blinked as a thought occurred to her.

"Then move the boundaries together." "We can move the entire shield."

Cato and her spoke over each other. Staring into his eyes, she could see that he had made the same connection! This was it! The solution! In the familiar heady rush of a new brilliant idea, Landar whirled back to the threads scattered across the floor of the warehouse, the new circuit already appearing in her mind.

"In fact, we don't even need a shield," Landar said hurriedly, "if we concentrate all the power into a tiny square area inside an internal boundary and built the acceleration tracks in a circle and straight
She was dimly aware that her mutterings didn't make much sense but it made sense in her head and that was what mattered.

Besides, Cato seemed to understand and that was enough.

"No, an independent mobile shield makes sense," Cato nodded, grabbing the pencil and pad of draft paper from the work table, almost knocking over the power source cube. Landar paid it no mind, the cube was empty now anyway. He sketched out the plan.

"You'll need to define an area that the shield will defend, probably defined by the detection filaments. So the filaments connect to the main power of the shield there and the shield moves to the closest filament that is activated," Cato said, drawing as he went.

"Since the shield will bring it's own acceleration track along with it, we'll have to make some way to control the movement. The shield will keep moving after the acceleration stops," Landar pointed out.

"The acceleration will have to run in reverse. Suppose a fixed expenditure of power for acceleration over time, the shield accelerates half of the way to the target point and decelerates for the second half," Cato sketched a short graph, "and for distances less than this formula depending on the power you spend on acceleration, using the innate movement of magic without acceleration will be faster."

Landar peered at the design, "what about the angled shots that you said was a problem with the current design?"

"When the incoming bolt crosses the next filament, the shield will track it, as long as the bolt doesn't move sideways faster than the shield, it'll always intercept. And well, with that kind of steep angle, the shooter will have to be right in your face," Cato said, drawing the lines.

Landar grinned, "for all round protection, you could have multiple shields that move in a sphere centered around the origin point. Or multiple layers of shields so you can try to intercept multiple times."

"At that point, you might as well detect and shoot down incoming bolts," Cato said.

Landar felt that lightning bolt of inspiration again. They looked at each other and she felt the grin get crazier. And all was right with the world.

Corbin woke up in the early pre-dawn when her window rattled. Something had hit it. On the second floor, this was likely just a bird, but she was finding it hard to sleep. Might as well go see what it was.

Ignoring that she was wearing only her thin shift, she strode over to the window and levered it open. There was a rope hanging outside her window.

Huh.

She got an even bigger surprise when a man seemed to fall out of the sky along the rope. Dressed in pure black, the man seemed to be swaddled in loose concealing robes.

"Who are you?" Corbin asked, scrambling backwards as her heart leapt into her throat. Had Minmay finally decided to get rid of her?
The man swung on the rope and landed lightly on the stone floor. "Sorry for the entrance, I had to dodge Minmay's guards," the man said cautiously.

Not from Minmay then? "Then who are you from?" Corbin asked.

"A friend, if you would have us," the man bowed, "you will find us of service."

"The only way you can be of service to me is if you give me back my town," Corbin snapped. So what if she offended a potential ally? There was no one left who could help her, not when the opponent was Minmay and his Guards.

"That could be arranged," the man said smoothly, as if he was expecting it.

Corbin could only raise a skeptical eyebrow.

"Plans are afoot, there is dissatisfaction whispered among the people. If Minmay continues to let the University trample on the lives of common people, certain issues could arise," the man explained, "all we need is safe habour and your support, when our plans succeed."

"I can't help while I'm in here, however," Corbin gestured towards the gate where the Guards kept her pinned in her own mansion.

"Your name and promises are enough," the man said.

She considered the proposal. If this movement, whatever it was succeeded, the leaders would reinstate her to gain some legitimate noble support. Corbin was still nominally the mayor after all. Only the Chancellor had posted an aide to filter all her notices and commands to his own liking.

Of course, the leaders of the movement would then have large leverage on her afterwards. But anything was better than being a puppet to that hated man.

"Fine, you have them," Corbin nodded, "go tell your leaders that they have the Mayor of Corbin. Then tell me what all this is about."

"Your guys gave me a lot of trouble in this Cel Inci."

"So did yours. You stole our checker pattern weave!"

"Shut it both of you. Or do you want to be fighting while Minmay takes away all of our territory?"

The two men and one woman were silent in the dimly lit room.

"We are all in agreement that Minmay has to be curbed?"

"Yes."

"Obviously."

"Then we need a ceasefire. No more invading each other's territory, no more stealing patterns or covert price wars. Not until we have crushed this new threat."

"But that checker pattern is ours, we cannot let you have it when you clearly stole it from us."

"You were the one who started the price war first."
The third man, lone voice of reason or so he liked to think of himself, sighed as the other two weavers began to argue again.

"But we all agree to the necessity of a ceasefire?" he asked.

The other two paused and then nodded.

"Very well, you two discuss your terms first, I will review it and add my own input later," he got up.

"Where are you going?"

"I'm late to another meeting because of you two. Be glad, I have found us other allies. Now I have to go."

"Ah Willio, come in," Minmay said brightly, gesturing for the man to sit in the chair opposite his own dining table.

"Chancellor," the Ironworker Minmay regional leader nodded a greeting.

"Don't stand on ceremony," Minmay said, "the previous person didn't finish the wine so we get to enjoy some."

"Who were they?" Willio asked curiously, "rumour has it that you are meeting guild leaders and persons of importance from all over Minmay. For what purpose, no one knows. All the people you supposedly met either haven't seen you or are strangely silent."

"Not an hour ago, I met with the leader of Yunis Wood," Minmay said lightly, "a beautiful woman. If one looks only at the surface."

"That leader of woodworkers has nothing below her appearance," Willio agreed with a smile, "but I will admit she is a sight indeed. What could you possibly want with such a woman? Anything Aesin ought to be concerned about?"

Minmay snorted as Arthur served the wine. A flick of his fingers and the liquid chilled down to a pleasant temperature. "Of course not. And it was nothing important. Just getting to know the ground."

"Right, so did you call me here in utter secrecy to discuss nothing important?" Willio said lightly.

Minmay ignored the barb and just smiled, "for you, I have something of greater weight. " He took a long drink. "I have reason to suspect that the lower ranks of the Ironworkers may foment resistance. Especially once you begin to shift to Cato's industrial style of production."

Willio paused for a short but significant moment, "noted. Any course of action you might recommend?"

"Just keep an eye on them for now, you are in a better position than I to track potential troublemakers," Minmay said, "there is no evidence of their existence yet, but please keep an eye on sources of dissatisfaction. What Cato does not see yet is that creating the world he envisions will require a large social shift."

Willio thought for a long while and made his conclusion. With an ever so slight trembling in his fingers, he sipped the wine lightly. "So he is not going to include my master smiths then? I have been
keeping an eye on his new wood factory and thought he was going to move to master Ironworkers soon. Are you telling me he will now try to bypass the Ironworkers guild entirely?"

"Not if you cooperate with him," Minmay said.

Both men paused at the implicit threat.

"There is no pride in his works, no names or reputations to protect," Minmay noted, "there is only the steel."

"But it will be profitable," Willio said.

"That it will be," Minmay nodded.

Another pause.

"Minmay will need steel. And steel it will get," Willio sighed, "I must go, there are arrangements to make."

"Arthur please show him out," Minmay said, "and send a message to the Recordkeepers to send their representatives now."

Danine looked up from her worktable as the mercenary guy walked up to her. Um, what was his name again?

"Ah! Klaas?" she said hesitantly.

"Oi, did you forget me already?" the man shook his head in mock sadness, "ha... I guess you're just a kid after all, to forget me so quickly."

"What did you want?" Danine asked.

Klaas jerked a thumb towards the overseer's office, "you and me, the leader wants to see us."

Danine frowned. Was it just her or was she remembering him wrongly? Somehow she had the feeling that Klaas was supposed to behave very differently. Oh well, she hardly remembered his face anyway, maybe it was just her.

She looked back down at the scattered pieces of sponge iron on her table. "Give me time to remove these," she said and Klaas nodded.

The experimental work pieces undergoing examination were formed via a direct reduction process that Cato had described but was assigned to the Corbin branch for experimentation. The Minmay Ironworkers were rather... hostile to either demihuman race and it turned out that their ability to literally see magic was rather useful to the new processes.

Danine packed away the sample pieces she was assigned to check, more as practice than actual work, and deliberately walked past the process tanks. The watertight wooden barrels contained elemental Water saturated with iron. Bubbling through it was fuel gas from the coking furnaces. The slag was less soluble in elemental water than pure iron and so as the iron ore feedstock was gradually consumed, the byproducts settled to the bottom. What was the word Cato had used? Ah yes, precipitation.

Once the pure iron had built up to saturation, the elemental water would be drained into the blowing
tank, separating it from the slag precipitate and pure air would be blown through the elemental water to displace the pure iron out. That part required a high pressure steel-reinforced wooden tank to... Danine frowned as she recalled Cato's words... to 'shift the solution equilibrium towards the air gases'. The pure iron was thus retrieved as a spongy light mass and the highly expensive elemental water could be recycled for another round of purification.

The whole process was still more expensive than the blast furnaces but Cato and the Ironworkers had high hopes that it could be made cheaper as it required much less heat and fuel. And could tolerate even heavily contaminated ore, which would open up the range of useful mines. Phosphorous and sulphur contamination still needed work however, as they were more soluble in the elemental water than iron and so remained in the final product. Cato had plans to get rid of that with a post processing stage too.

After the major disaster in Minmay, the Ironworkers were treating the barrels of elemental water with serious respect now. Sponge iron production had its own building and the barrels were checked hourly by Fukas. Kalny's expertise and the substitution of steel with wood also helped curb erosion. The direct reduction reactors had to be managed just as carefully as the blast furnaces they were intended to replace.

She inspected the barrels again, the blue glow of the elemental water in her magic sense could be seen clear through the barrels. Good, the bubbles were going fine and erosion on the walls was still in control. It was with their unique magic sense that the Ironworkers had found a use for the Fukas. They could see magic with the same precision as if they were looking at it with their eyes, while humans were stuck with blind sensing of 'structure'.

In exchange, the Ironworkers in Corbin agreed to protect the Fukas and teach them how to grade and work iron. To be honest, Danine still felt as if they were treated less well than the apprentices but it was a step up from trying to make do in a slum.

"The tanks will be fine," Danine nodded and let Klaas lead her away.

Klaas brought her to the office, which contained Elma, the leader of the entire Corbin branch, not the overseer Danine had been expecting.

"We are here, sir," Klaas swept a formal bow as they entered. Danine blinked but decided not to comment on his sudden change of image.

"Good of both of you to meet me under such conditions," Elma said, gesturing at the two chairs set out in front of the overseer's desk while seating himself behind it.

Danine eyed the much more comfortable seat the branch leader settled into. Klaas asked, "what would you have us do?"

"I received a secret message from the Minmay branch," Elma said, "the Chancellor is suspecting that certain elements are unhappy with our progress. And the Minmay branch of the Ironworkers concur with him."

"And which elements are these, may I ask?"

Elma deliberately did not glance at Danine, "our own. Ironworkers. It is said that the licensed blacksmiths in Corbin and Minmay are plotting something."

"Indeed? That is surprising news. You wish us to find out more?"

"Very good Klaas, I knew I could count on you," Elma nodded, "and Danine too. The Ironworkers
will not easily forget your proficiency at sneaking."

"Do you have any leads for us? Suspects?" Klaas asked.

"None, otherwise I would not have need of your expertise," Elma said, looking and sounding apologetic. Danine did not so easily believe it however. "My position as branch leader restricts what I am informed of and from the difficulty Minmay has tracking them in his own city, they have been very careful. Willio hopes we can find some loose ends here to unravel their net."

"Understood," Klaas bowed a little.

"Any question, Danine?" Elma looked at her.

"Will we have to fight?" she asked.

"Not unless absolutely necessary. Find the agitators and the Guards will handle the rest. Best if they never knew you were there at all," Elma said.

"I don't want money," Danine said.

Elma shrugged as if he expected that already, "two more apprentices, and we'll teach your man, uh..."

"It's Toal, sir," Klaas reminded him.

"Yes, Toal. I'll teach him how to make steel," Elma offered, "and any of you who work for us will be offered positions as apprentices, if they want it."

Danine considered it. Well, he did say that he didn't want her to get in trouble, and she thought she could be pretty sneaky. And he was proposing lifting the Fukas in his employ, all twenty of them, up to full apprentice status. Although that was a reduction in pay, they would learn how to forge.

"Fine, I'll do it."
The stormy footsteps marching up to his office mostly gave it away, but Cato had the dramatic sense to act surprised as his secretary slammed open the door and thrust a folded sheaf of papers onto Cato's university office desk.

Seeing quiet and meek Polankal get angry would be a matter for some comment but Cato merely tilted his head questioningly.

"They... they're printing such... licentious rumours!" the peasant turned secretary sputtered, hissing like an angry cat.

Cato put down the latest report on the woodworker adoption of standardized manufacturing to pick up the paper.

The dense words printed on cheap rolled paper resembled that of the early newspapers in Earth's history. In the entire paper, there was only one image, and that was merely a line drawing copied from Muller's still too crazy plans for the Tine river bridge. Pictures had to be laboriously hand carved onto printing plates and were a luxury only afforded by the Minmay newspaper. The nascent journalism section was still losing money compared to the weekly goods price listing but Cato had wanted it and people listened to him.

The woman stuck a finger at the offending article at the bottom of the page and Cato squinted to read the badly spaced text. The printing press had not moved beyond fixed width type yet and the text was compressed to save paper and ink.

"Head of university relationship confirmed, Iris alliance possible" said the article title.

Hm. "I don't see how the editors thought this was worthwhile piece of news," Cato sighed.

"I only knew of this article because I overheard the maids gossiping about you," Polankal snapped. She lifted the sheet to reveal an older clipping from the stack, "they've been running this for weeks now." 

"Um, to be honest, the situation with Landar... it's complicated, but I can always ask them to write a retraction," Cato shrugged. Who cared about what a newspaper said? Although if they were wasting space on such frivolous things, that meant that the region was getting more peaceful.

"They've been writing lies!" Polankal hissed again, "the article last month claims Landar only got where she is because she's sleeping with you. And two weeks ago, they even dared to claim that I too..."

Cato frowned. It was disturbing yes, but he was loathe to suppress the printing press on a matter of principle. The freedom of the press, wasn't it one of the important elements of a civilized country? Abusing his influence as the center of the university could do bad things further down the line.

"Let them," he said, "it's not doing any harm."

Her furious face shifted to one of surprise. "Aren't you angry they're writing these lies?" she exclaimed, "some of the other presses are even copying them!"

The existence of those uncontrolled independent presses, run more for interest and fame than profit, had been a major sticking point between Cato and Minmay. Minmay wanted to control the spread of
the printing press but Cato had argued for letting them be. Beyond just selling copies of books and encouraging literacy, the smaller village and towns ran their printing presses to promote interesting news, inter-town gossip and political awareness.

Only the fact that almost all of them viewed Minmay in a favourable light had convinced the Chancellor not to crack down on them with the Guards. He had settled for funding his own newspaper which had a permanent column following Aesin's charity work in Duport and the various improvements the university was making. Cato had discreetly slipped them an endowment, with the support of some of the minor guilds, and by now their sales were keeping them financially independent of the Chancellor. Minmay still had major influence though, ten rimes a week was serious money after all.

Finding out that the 'official' paper was printing tabloid articles about Cato was an unpleasant surprise but in the greater view, inconsequential. It could be interpreted as a good thing in fact. That enough common people had disposable income enough to want to buy newspapers, and read them, that popular opinion articles like this could attract sales.

After all, the rural nobility and Central Territory merchants who paid for the version with high quality paper couriered at great expense were unlikely to be interested in gossip.

Cato shrugged and gave the papers back to Polankal, "let them write. I'll tell the newspaper not to go overboard but I don't see anything to worry about."

Polankal looked at Cato as if he was crazy, clicked her tongue and walked out.

Two weeks later, Minmay called Cato to his mansion for a discussion.

"Cato," the Chancellor said, "why haven't you suppressed these articles? It's gone beyond just the Minmay News now. I was waiting for you to take action. And don't give me that excuse about an independent press, if you wanted to, I know you could do it."

Cato looked down at the familiar newspaper cuttings. "I didn't see a need to," Cato said, sipping the cold wine Arthur had placed in front of him.

Minmay seemed just as stunned as the secretary had been, then he frowned, "Cato, aren't you even a little angry about these rumours? What about your reputation?"

"I didn't think forcing the newspaper to write what I want was worth the damage that action could do to the independence of the press," Cato leaned forwards, "I've read it, Chancellor. It is just a frivolous article full of nonsense made to sell more papers, I doubt anyone could believe whatever was written. And yes, I am trying to keep the newspapers independent of the university."

"Cato," the Chancellor said seriously, "this is not just your reputation at stake. I know Landar could care less about what other people say, throw her into a room full of magical toys and she'll be happy enough. But you are the face of the university."

"But."

"The university can work without you, yes," Minmay held up a hand to forestall Cato, "but when people think of the university, they think of you. Like it or not, what you say carries weight with me, with the merchants, with the Ironworkers. You might have been a commoner in your world, but here you are an important person. If you do not counter these lies, people are going to get the wrong idea. They will think that you can be bribed with beautiful women and will try."

"It won't work," Cato pointed out.
"But they don't know that, Cato," Minmay sighed, "and what would the Greater Council think if the university acquired a reputation for being easily influenced?"

He looked at Minmay for a long long while.

"If you don't write a letter to the newspaper and get them to retract it, I will march a squad of Guards down myself and make them," Minmay snapped as he ran out of patience, "understood?"

"Understood," Cato could only sigh as he got up to leave.

"Arthur?"

"Yes, Chancellor?"

"Find out the source of these articles, whatever Cato claims about gossip and sales, I cannot believe the peasants want to read this filth enough to pay for newspapers. "

Aren hurried down the street, his light flickering in the freezing rain. He was getting late but the rain was not letting up. The man hunched in his heavy oiled coat and struggled against the rain, shouldering his way into the wind. His boots were already soaked through and his feet were freezing and he was getting thoroughly miserable.

But he wouldn't miss this for anything.

He came upon a heavy wood door with a large brass knocker. Above it was a metal star burnt into the wood itself with fire magic, the sigil of the Academy.

The chief alchemist examined the enchantment on the door and nodded as he reached out with his magic to knock on it.

A metal plate opened at eye level and the gatekeeper looked out. "Who goes there?"

"It's me, Aren, just let me in already, this Little Night grows cold," he snapped with a bit more irritation than normal.

The gatekeeper eyed him for a while longer, lingering on his face, then the eyehole closed and there was a sound of the bolts being drawn back. More importantly, the enchantments on the door shifted into quiescence.

The Academy did not take kindly to those attempting to intrude on them and no thief dared to challenge the door or walls. The sort of thief who was willing to try had long since died off. Not even Aren would dare to try forcing his way in and he had a hand in making some of these enchantments.

This branch of the Academy was in the Magic Town Tirien. And now, the Academy was facing an new upstart. The University of Minmay had appeared seemingly out of nowhere and inventions were pouring forth. What's more, they were even starting to build their own branches in the Central Territory and in the Ektal capital! The King had the gall to demand Minmay share this newcomer, as if the Academy wasn't enough to make the magic he needed!

Worse, the inventions had started out small and comprehensible, like the bowguns and linked
batteries of wands that the Academy was receiving huge orders for. Then they rapidly grew more and more complex, to the point now where even with the supposedly complete diagram in front of them, the best Tirien alchemists still couldn't figure out how the enchantment worked. The Academy had only finally admitted two months ago that the magic circle was better than any alchemist.

They were starting to feel a bit redundant.

Today, the top alchemists were trying to duplicate Landar's spell forming wands. She called it a casting assistance device but the similarity to the traditional stored spell wands was obvious. Functionally, they were wands that used the caster's power to fire the spell instead of its own, so the knights had insisted on calling it that. The alchemists knew better, the spell forming wand was much much more complicated than a bolt spell bound to a stick and placed in abeyance. But of course the muscle brained idiots couldn't be expected to understand the subtleties of alchemical enchantments.

The alchemists still hadn't managed to replicate the wand yet. To say that they were having trouble was a criminal understatement.

Chief Alchemist Aren, now dried, warm and clothed in his livery, strode into the inner atelier to face the chaos.

The word 'circle' was getting rather stretched. Bits of the magic circle ran all over the floor, under and over tables, and even delicately hung on pins in the walls. They had tried to segregate the sections logically but the design was interconnected and lines ran across the floor in all directions.

The primary atelier of the Tirien Academy was too small. He remembered scoffing when the Minmay observer reported that the Mad Alchemist loaned an entire warehouse to build her circle. It didn't sound so ludicrous anymore.

Three of his colleagues were peering at a table on the far corner, arguing about something.

"I'm here now," Aren said, jerking them out of their thoughts.

"Did you get it?" asked Parer.

Aren nodded, holding out the oiled bag in his hands, "ten sets of threads, direct from Minmay by courier."

"Give it here," the old scrawny alchemist snapped and snatched the bag out of the air when Aren tossed it to him. He bent back to the table, already fussing out a single line from the tangle inside the bag.

Aren said nothing about his attitude that he might have previously. After two weeks of working together, they all knew each other's quirks. And Parer might be a surly old geezer but he did good work.

The chief alchemist didn't want to admit it, but he would accept just about anything at this point if it would make the circle work.

"You're late," complained Yimiss.

He shrugged at her statement, "it's raining cats and dogs outside."

"What's that mean?" she asked, confused.

"It means it's raining heavily," Aren sighed. Easily sidetracked Yimiss. The daydreamer alchemist
woman. Why were all the best alchemists the crazy ones? Except himself of course. "I heard that from a merchant, I don't know who he got that from," Aren anticipated her next question as she opened her mouth, "I just thought it sounded interesting."

The woman nodded and brushed her light yellow hair back before returning to the table.

They reviewed the connections again and consulted the published diagram. Everything seemed to line up, all the colours in the correct position.

"All right," Aren nodded finally and released the stored magic.

They watched the magic zip down the lines and leap into the rod placed in the center of the circle.

The enchantment finished but none of them made a move forwards immediately. One too many burned hands and scorched lifeforce had taught them caution. He pulled another trigger when it was clear the rod wouldn't explode immediately. More stored magic raced down a set line and up into the rod.

Nothing happened.

"Darn it! What went wrong now?!" Aren gritted his teeth and glared around the room. The worst part of Landar's inventions was that even the slightest error could sometimes make a huge difference, or an entirely missing line might not do more than delay the workings slightly. It was nearly impossible to tell without first making the mistake. And when you made more than one, a mistake might cover the effects of another so you didn't find out until you fixed the first one.

That also meant that when the final product didn't work, it was hard to tell where the problem was in the magic circle.

He stalked over to the rod and glared at it, daring the magic to... oh, the power was clogged in one of the compressed circles, an error in the power line section of the internal circle template?

He whirled over to another table, this one in the middle of the room with lines hanging off every edge. An error in this tangle was about enough to make him want to tear his hair out. Surely the Iris alchemist did not face problems like these, were the Academy alchemists really that poor in their art? Was he really that untrained?

"What's a cat?" Yimiss asked, breaking his concentration.

The Chief Alchemist turned to her with an eye that promised bloody murder and shrugged, "who knows?"

Willio strode down the catwalk, earning nods and bows from the ironworkers hustling around the furnaces below. The leader of the Minmay branch of the Ironworker's guild had a stern controlled visage, his mere presence driving the smiths and apprentices of the Ironworkers guild to greater industriousness.

The ironworks area downstream of Minmay had changed massively. Where individual forges and workshops had dotted the hillside for a generation, there now stood a veritable army of giants. Steel wrapped around limestone bricks, the blast and Bessemer furnaces spewed a never-ending plume of choking black smoke into the sky. The ironworks never stopped now, it cost far too much in fuel to reheat a shut down furnace and they were only taken offline for maintenance. Even at night, the glow of raw molten iron and coal-gas lamps kept the site lit.
Individual blacksmiths had once pounded their hammers to drive out the slag, not anymore. Shaping by hammer was still done but now relegated to the upstream and upwind team workshops. Bulk hammering and tempering was done under the massive steam driven drop hammers, and recently, a rolling press. Hot metal flowed from the furnace taps into the casting beds and were fed into the massive pair of hardened steel rollers that steamed them flat, like Razzi's paper. Pressing steel like paper was a ludicrous idea that would have gotten the proposer laughed out of the Ironworkers but in half a year since Cato broached the subject, here it was.

Not all of Cato's strict process requirements were impossible to implement. While Willio's people were not able to achieve the frankly insane tolerances Cato wanted, the production capacity they were building here was incredible and his step by step manuals had at least made the batches between different furnace teams at least somewhat comparable.

Ahead, a blast of heat heralded a new pouring of a batch of steel, the glowing molten metal hissing and spitting into the casting pans. The deep groundshaking thumps of the drop hammers beat in time with the quieter roar of the steam engines. It was a sight that swelled his heart every time the branch leader overlooked his domain and Willio took the time to tour the place. An industrial army, his army, that poured out one and a half tons of first grade steel a day and ten times that of cast iron. There weren't any other grades of steel being produced any more, why settle for less when the furnaces could make first grade? And while an old Ironworker might have thought the ludicrous quantities of steel would not find buyers, as the price dropped, more and more people wanted to use steel.

Now it seemed that whenever anyone ran into a problem of strength, where wood and stone failed or a design was too heavy, they turned to steel and iron. Willio thought that the wagon makers and builders were even getting lazy! Some of Muller's revolutionary designs for bridges, sewers and water towers simply assumed steel reinforced concrete as a base material, instead of a substitute at key loading points. It was a train of thought that any good businessman took care to cultivate in his customers. Have a problem, just use steel!

But today, the Ironworkers guild branch leader was here for another demonstration. One smaller but just as or even more groundbreaking.

The workshop off to the side was in the walled off experimental area. Colloquially called the Blast Zone by the main plant workers, the name was quite justified by the number of accidents, explosions and even magical spills that occurred here. But the expense was all worth it.

Today, Cato and Bashal were about to demonstrate controlled steel composition.

In front of the workshop crucible, the brilliant Ironworker alchemist and Cato watched as an apprentice ironworker lowered a length of steel wire into the tiny pool of elemental Water. It dissolved the steel wire quickly.

The saturated pool was then quickly transferred into the pressure chamber. The chamber was sealed and pressurized by adding raised counterweights outside, an expensive but smaller scale substitute for a steam driven pump. As the gas pressure rose inside to each preset level, the ironworker watching the dials opened the valves that drained the Water into the steel holding chamber while opening the pressurized test chamber.

The silvery silicon powder was removed and the Water pumped back into the test chamber again, pressurized to a yet higher level and the process repeated more times, each time yielding a different elemental powder. By Cato's equilibrium theory, this process could separate the components of the solution with nearly one part in two hundred purity. While not quite good enough yet for creating pure iron without multiple rounds of purification, one part in two hundred or even up to one in one...
thousand for certain well separated elements was quite good enough to determine the content of the element in the source iron.

It was a significant step that this entire contraption had been designed by Bashal's team, with Cato's only contribution being the calculations for the gas pressures required.

Displacement of the dissolved elements by pressurized gas, also neatly separating the component impurities the steel and allowing the Ironworkers to know exactly how much of each was in their steel. Using the process at production scale instead of for analysis was the responsibility of the Corbin branch, once they got the direct reduction process working first. Let that man Elma deal with the dangerously large quantities of elemental Water where they wouldn't risk destroying the steelworks here.

Each of the ten crucibles here contained iron sourced from different mines across all of Ektal. Each mine had its own subtleties and sets of impurities, the Ironworkers had collated extensive knowledge on which sources were good for which applications, and how much of what to add to make each grade of steel from them. But here, not just each source, but each batch of iron could be examined for carbon content and other impurities, letting the Ironworkers calculate the exact amount to add to make the desired steel mixture.

The dream of all smiths. Each batch of steel thus made would have the same contents, the same properties and the same reliability. They would know what their steel was made of and capable of. Gone would be the cracked sheets, over stressed beams and the dreaded failed batch. If it took a special set of quality control workshops equipped with this new magical device, then Willio would pay for and build it.

As the finished steel bar quenched in a fiery gout of steam, Willio smiled. The bar was retrieved, a high carbon steel ingot with hardness surpassing that of even first grade steel.

Complain about losing the old ways? Nonsense, every smith would see this and bow down in respect. The days of hammering to remove impurities were gone, the ancient laborious practice of folding and layering was gone, the uncontrollable art of steel forging was gone. Here came the new steel, built for its purpose and function. The age of designer steel.

Without a word, Willio strode from the workshop, obvious pride in his every step. In his eyes, he was already seeing the new addition to the steelworks of Minmay.

A twitchy pair of ears popped up over the rooftop, their owner crept silently along the tiles. The flap in her cloak was closed to hide her tail, which tended to stick up at odd moments, though right now no one was likely to see her.

Below in the evening sun, three women walked through the empty street, unaware of their shadow. After some gesturing, one of the three split off down a side alley.

Danine raised a hand signal and saw a tail wave on the opposite side of the street in acknowledgement. Ikine would follow their straggler. The fuka girl continued her stalking across the rooftops, leaping over the roof wall of the next house with an improbably high jump, Em powered of course. She made sure to keep out of magic sensing range of the two women.

Recently, a number of residents had lined their roofs with walls raised along the edges in an attempt to keep out the rumoured roof-running Fuka thieves. It didn't help but she was extra careful not to show any sign that she used those houses. The current Danine could make the leap between the
noble houses inside the Corbin wall. Let them have their false security, she wasn't interested in pilfering anything anyway.

Below the two women wearing prominent yellow arm bands continued their unhurried stroll. The colour gangs of Corbin were one of the troubles that constantly plagued the Fuka community. Even after the Ironworkers kept to their word and hired knights that exterminated the already decimated Redwater gang, another 'red' gang had filled the power vacuum within three weeks.

Stalking potential troublemakers was part of what kept the Fukas safe and Ryulo was rather insistent on Danine keeping up with her training despite being an Ironworker apprentice.

If that also overlapped with what the Corbin branch leader of the Ironworkers wanted, then so much the better.

The yellow women met with a lone blue ribbon man. Without attempting to scratch his eyes out. That was worrying.

Together, the three now proceeded to the backdoor one of the many shop and house combinations in Corbin. They paused outside for a moment after knocking, then another person let them in.

Danine frowned, who could these people be meeting? The Yellows and Blues were not outright enemies but they weren't friends either. She flexed her gloves and slipped down the wall of the nearby house to the narrow alleyway.

Pressing herself against the wall of the shop, the Fuka girl's sensitive ears picked up voices from the room inside. The shop wasn't very large and the quiet evening worked against them.

"I don't care what sort of deal he's selling, I can't trust this Blueleaf guy."

"Oi, don't kick me, I'm not even going to try anything. " That lower voice was probably the blue man.

"You're thinking about it."

"Stop fighting now, both of you."

There was a clap and a new fourth voice, a deep rumbling tone, said, "good to see you all here."

"It's not good to see him-"

"Hush now. Let's just listen first. Hey mister, I don't know who you think you are, but if you mess with either of us, the yellows will have your balls. On a stick."

"No need for unpleasantries, we are all reasonable people here, are we not? Let me start. We have a common enemy. I'm sure you all have experienced in some way, the problems that have swept this land ever since the University spewed forth its poisoned gifts."

"Cut out the flowers, man, I can't understand you."

There was a short silence, then the deep voice spoke again. "The university is the source of your troubles. The things it has created have driven you from your lands and work that has been traditionally yours. Surely you agree at least that Cato is our common enemy?"

The tail struggled to get free under her cloak, fluffing up in anger. This was bad. That discontentment Elma had told her to watch for was actually real!
"I think it's the Fukas, they have been stealing our work ever since they joined up into that slum of theirs," the blue man said.

"They are Cato's allies, we know this. So what we would like is for both of you to start giving them trouble."

"This talk about allies and enemies is fascinating, but if you want us to smash something, then you've got to pay. A woman's got to eat."

"Of course, we are prepared to recompense your people handsomely."

"We may have different ideas about what that means."

"Let us settle the details later. There is another thing we want you to do. For the duration of our work, we want you to not attack those colours who are also working towards the same goal. Can you do that? This is important, if you cannot work with us, then you are against us."

Another silent pause.

"We're not scared of these blues. You try siccing them on us, we'll cut them to pieces."

"Just give us the word, and money, and the yellow flowers can be out of your hair."

"No! We don't want you to kill each other and will not pay for it. Never mind, if you cannot work together, then can you at least refrain from killing each other?"

"That depends on whether the new reds keep to their turf."

"They're already one of ours. I'll have the GreenNine by next week."

"Ah. Hm. The blues will agree then. But my boys will have to talk it over. And if you have any hits on the Fukas, we want those first."

"Understood. We will consider those conditions. And you?"

"We're expensive."

"But the yellow flowers are known for their vicious and honourable fighters. We have harder targets in mind for you. Things that only the yellows can achieve. A band of sisters who are just enough for some knight parties to tolerate will carry a lot of weight."

"So who are you then, and how do we know that you have enough money?"

"We come from the Ironworkers. And we have ears in very high places. A certain caged bird even."

Danine nodded, just as she guessed. She had her target now. But who was the caged bird? The gangmembers didn't seem to need clarification.

"Interesting. We want more than money. We want weapons, and magic."

"And you shall have them."

"We want it too."

"You all will get weapons, on top of your money. It is our intent that you become more than just gangs."
The more reasonable yellow woman added, "party registration?"

"If possible."

Danine adjusted her threat assessment of that Ironworker upwards rapidly. They were sounding more dangerous every second, how did he intend to manipulate the Order of Knights? And just the fact that they were willing to spend the money to acquire magical weapons was very worrying. Arming the gangs like that could spell doom for the Fuka community here.

She fingered the bowgun under her grey cement coloured cloak, the reassuring solid wood wasn't so reassuring anymore.
Broken Clock

The pub reader held up his broadsheet theatrically and cleared his throat. The circle of listeners around him held their silence politely.

"Ahem, let's see," he squinted at the tiny font, "the Chancellor of Minmay today accepted a formal initiation into the Greater Council of Inath. The honour was bestowed for his achievements in battle against the traitor Duport..."

A small cheer went up at the mention of that battle. Bards and storytellers had earned plenty of meals by simply telling and growing the tale of the legendary battle.

"Quiet now," the reader hushed the crowd, "and the spread of beneficient knowledge to all mankind. The King Ektal proposed his lifting to the Council once the prestigious University of Minmay completed construction on a branch in the capital territory."

This portion of the news was met with a more mixed reaction. Anxious murmurs met hopeful whispers.

"Those people at the University, ruining our land and lives," spat one of the older men. An old farmer, one of the rare few who refused to use the new techniques and were now being forced to by the barons. After that first massive harvest, everyone had to use it to earn enough money to pay for the new farming tools.

"Now look here, Minmay has done right by us and he said the university was good," another man spoke up.

"Easy for you to say, you're a piyo farmer," the first snapped back. Piyos hadn't dropped that much in price, but the cheapness of windeyes had made the exchange of piyos for bread very favourable.

The piyo herder shrugged, "hey, you're growing them now, aren't you? And isn't your life easier too? I don't hear you complaining too much about your back with those new seeders."

"I give up nearly a third of my harvest, and so do my neighbours. Just to keep that thing and the plow working," the farmer grumbled. He glared at the blacksmith sitting at the back of the crowd, "those Ironworkers. Getting fat off our backs."

"I'm not an Ironworker," the tough woman spat back, "and that the new steel everyone wants? I have to buy it from them. Can't even make my own iron any more."

The reader coughed to head off the impending argument, "I still think it's good to have these new things."

He was immediately drowned in a chorus of boos, although most farmers seemed to distance themselves from the loudest protestors. And some looked as if they agreed with the reader.

"You sit there all day offering to read those fancy words, how would you understand our troubles?" the complaining farmer snapped. But he didn't leave, they had all paid to hear the latest gossip after all.

The reader flinched but recovered admirably by changing the topic to a letter from the neighbouring village's sheet. The crowd gathered around eagerly, the drama of the paka milker's daughter and the mayor's son was good stuff. The raised tensions dissipated slowly. But not forgotten.
"This is very disturbing news."

The Chancellor rocked back on the chair. Rocking chairs were a new product but of course the Chancellor would have the newest ones.

"Yes, it is," the other man in the room said, putting down the letter. "Ironworker masters stirring up trouble," he said with a shake of the head, "the peasants are especially bad news. The fact that the gangs are growing cannot be ignored."

"I was already aware of Ironworker discontent," the Chancellor said, "it's not really a secret any more, Willio has turned a few apprentices into spies in his own guild and even they know of the conspiracy."

"The Ironworkers are a distraction. The root problem is the peasants. I had no idea why so many of them are angry at the changes when we have helped the peasants so much."

"Cato," the Chancellor cut in, "the Ironworkers are powerful. Even if they are not influential masters, they are still masters. More than a tenth are directly implicated. There are indications that this conspiracy goes beyond the Ironworkers guild too. Some of the carpenters refuse to meet me at all and the rival weavers have stopped making any complaints. Very unusual when those weavers pound on my door every week."

"But how many people is that? They may have money, Minmay, but the only way they could hire so many people," Cato waved his hand over Danine's increasingly frantic reports, "is if the peasants they are arming also have grievances."

"The peasants don't matter Cato," Minmay shook his head, "the Ironworkers are rich, and even though the Order of Knights is being obedient, they can still be bought. I've controlled the distribution of the new guns and spellcannons, as well as steam engines. There will be no rivals for the Guards."

"You can't rely on the Guards, Minmay, they were recruited from the peasantry! Plus, your own spies agree that a number of alchemists have completely stopped showing up on Academy grounds," Cato sighed, "we have to give them something before it all blows up."

"Then I'll just hire the Knights. Without magic, the peasants are not a problem. In fact, I should start accumulating retainers now."

Cato looked conflicted and he frowned down at the table for a long moment, "Minmay, I have told you those stories from my world before. Perhaps this is a good time to give some voice to the peasants."

"You should recall I never agreed with that point of view, Cato." The Chancellor sat still in his chair, meeting the younger man's eyes. "Some checks might be required, to ensure future Chancellors cannot abuse their office. I hope to turn the Knights into that, but peasants?" He shook his head derisively.

"Does the Chancellor not have a duty to the people of his territory?"

"I don't see how letting uneducated peasants make decisions can help with that. The Chancellor has a duty to lead, the people have a duty to follow. Why do you care about the peasants so much?"

Cato whirled to face the Chancellor, "because I wish to improve the world and our technology."
Through education and an equal opportunity for everyone, including and especially the very numerous peasants. In the end, the power of a state comes from its people."

"Those same peasants are the ones who are going to riot! And if the Ironworker dissenters are the agitators, they will be targeting that same technology you love so much. I will need to convince them to go along with it. And if they will not listen, I make them."

"And you are going to pay the price in lives to do this?" Cato was almost shouting now.

Minmay's voice was still level but the hardness in it could cut stone. "I will, if I must."

The two men looked at each other for a long moment. Then Cato got up and turned to go.

"Cato," the Chancellor said from his chair as the other man reached the door, "your University is the best way of improving our chances against the monsters. It is the best chance we have for a better life in the future. Deal with the technology, let me handle the politics."

Once the other man had gone long enough to not overhear, the Chancellor raised a tiny bell and rang it.

A tall man in an elegant uniform appeared in the doorway to the private study. "Chancellor?"

"Arthur, Cato does have a point. Please arrange for informants in the Guard as well. We need to identify who we can trust."

"Sir?"

"Once the contracts for Knight retainers have been responded to, all the dissenters in the Guard will be arrested and purged. Please also create a list of key conspirators from the guilds to be arrested on that day as well. We will have to be fast and thorough to dig this out before the traitors can sink their roots more firmly, time is of the essence."

"Yes, sir."

"Oh and I shall need the services of Nightshade, please contact the party."

Minmay tried not to wince at the look on Arthur's face. He merely closed his eyes and nodded. That group of people had a certain reputation after all, and most decent men and women did their best to avoid them. Whether as employers or... victims. Information sources, that group called it. No, Aesin would not be happy.

Alone in the room, the Chancellor poured himself a glass of strong spirits. "Aesin, my wife. I am sorry but it looks like your popular charities have not been sufficient. I hope you'll understand I do this for our daughter."

"Damn that chancellor! May the monsters burn his university down around him!" the old man slammed a fist into the table. The woman and much younger man sharing the room flinched from his anger.

Wearing the wooden brooch and long robes of the formal uniform that identified them as master Ironworkers, the three of them were sitting in one of the larger buildings in Minmay. There were a lot of big nameless buildings now and the old man had taken care to not have his stand out too much.
It wouldn't do to have the Chancellor know they were fomenting rebellion after all.

"Hadra, we got less than fifty pledges at yesterday's speech," the young man said, "the new soup kitchen seems to have persuaded some peasants that the Chancellor isn't so bad after all."

"It won't last, it can't," the older Ironworker snarled, "no one lives on charity. If they cannot find new ground to farm or apprenticeships in guilds, they will still be unhappy."

"He just needs it to last long enough, Cato set up two new firms last week and they're hiring peasants. Lots of them. " The woman said timidly.

Hadra's words were still acidic. "Isn't that just more charity? What can the peasants do unless he has a farm up his sleeve?"

"Word is that he's getting them to spin thorndown and do woodworking," the woman said, "they say he's paying them in coins. By the week."

"Pah, more charity," Hadra snorted.

"They say he's planning to make them do ironworking next," the young man added. Too casually. The woman winced and they braced themselves.

Surprisingly, the old grouchy Ironworker did not explode. "You two youngersters think I have a loose temper, eh? Narvo and Tinard, you two are too new to know the business," he growled, "they're no threat. Ironworking is an art, one peasants cannot understand. No one will buy anything they build."

"Will we be making sure of that?" the woman, Tinard, asked.

The old man grunted, "if need be."

They did not point out the contradiction in his statements. The young man might like to prod his senior in the guild but they were not suicidal.

"We have to step up our recruitment efforts," Narvo said, "the peasants know each other, we can use that to seek those who are dissatisfied."

"Indeed," Tinard added, "but if you have a way to recruit faster without Minmay noticing, I would like to hear it."

"It is too early for that," Hadra cut in, "we need more weapons and the gangs need to train with them first. Without a solid core, it will not work."

The deliberations were rudely interrupted by a loud hammering from the front door. Metal on wood, someone was banging on it with an armoured fist. "Open up in the name of the Chancellor! Open up or we will break down your door!"

The commanding voice from below didn't give them any time, it was immediately followed by a loud crash. A mini ram. The three Ironworkers froze for an instant, then they burst into a flurry of action. Then they froze again.

Tinard smiled, "nuh uh. You're not going anywhere, either of you."

While the two men scrambled towards the door of the room, she had instead drawn two pistol bowguns from her concealing sleeves and was now pointing them at the men.
"What treachery is this?!” Hadra hissed.

"You sold us out to the Chancellor?” Narvo exclaimed. A bit too late to notice that.

The woman gestured with her bowguns, indicating that they should move away from the door. Instead, when the barred front door of the workshop cum residence below smashed open, Narvo bolted. With a crack, the woman fired the bowgun at him but the dart missed and exploded a brick in the doorframe. He took the chance to disappear.

The older man glanced towards the short corridor outside, as if contemplating the same action, but Tinard still had one bowgun. Then the Guards had charged up the stairs and shot him down with a disruption bolt wand.

She dropped the bowguns and raised her hands as they came into the room, "quick, one of them ran, he might have escaped out the back already."  

The leading Guard waved and the rest of the team continued down the corridor and began checking the rooms. There was a shout, the young conspirator had escaped through a window. The team began to give chase.

"Why... why did you... betray us?" the older Ironworker twitched on the ground, unable to move from the magical shock. Although the Guard sitting on him might have something to do with that. "Where is your pride as an smith?” he spat through gritted teeth.

She looked down at Hadra and shrugged, "every woman has her price."

Kupo popped her head out of her apothecary-clinic. The reason for the noise became apparent with the torches and marching crowd. A lynch mob or riot.

She wiped her sticky fingers on her heavy work clothes and began to change. War or riots always brought a flood of injured people and it was one of the best times to make money, and also one of the riskiest. The Oath of Pastora dictated that healers could not turn away anyone who could afford the cost, regardless of race or affiliation. Even a lowly Fuka slave of Illastein would be treated if someone presented the money.

However, warring sides were not always reasonable in allowing healers access to enemies.

Kupo wasn't bound by the Oath, having been kicked out of the Order and not yet formally reinstated, but she thought of herself as a healer. And her clinic was one of the few who had a documented higher survival rate. Her cures for the death-heat worked far more often than anyone else's.

Cato's antibiotic program was slowly bearing fruit. Tulore's curse-breaker could be concentrated with Kalny's expertise, and Kupo had tested it on sufficient desperate patients to work out a dosage range between the original curse-breaker formulation and high enough to kill even the patient. She and Cato were still collecting statistics on dosages and responses, trying to find out how much of the precious and expensive antibiotics was actually required.

The other new antibiotics were not yet ready for human testing. They had been broadly classified into three classes, based on which combinations had cumulative effects, but all the new antibiotics from bacteria or fungi were toxic in one way or another. Kupo and Tulore were working on chemical modification but it was slow going.

She put on a clean full body apron and began to sterilize the stone altar in the operating room with
disruption magic. Sanitary practices sounded insane and a waste of time and money, until Cato's statistics showed that surgeries conducted under clean conditions suffered far less infection.

The first patient staggered into the waiting room, leaving a trail of blood from where his broken leg bone punched through his skin. His friend held up him from the shoulder. The Pastora healer waved him into the operating room. She had gotten no further than putting the man to sleep with alcohol when a pair of women hobbled in.

She glanced over them and shook her head for them to wait, they had only light wounds, arrow punctures in leg and shoulder.

Kupo managed to set the man's bones, after cleaning the wound with alcohol. She dosed him with a mild concentration of curse-breaker, collected the payment from his friend, and looked up to find five injured people waiting for her.

It was going to be a long night.

Landar huffed as she tweaked the line again. Making the tiny shield mobile was not too difficult. But the controlling circuits to determine where the shield moved were problematic. They had to be aware of where the shield was to determine which active line was the closest.

But that was the fun part. The part which created the spell forming circle inside the experimental iron cube was getting tedious. It was fun to build the first hundred or so times, when she was still learning new things and working out the bugs. But the design had more or less stabilized now, so it was boring.

And every time she built a new circle for enchanting objects that performed the function of casting spells from an external power source, she needed to reconstruct it. While Landar had more or less memorized the entire thing, she still made mistakes even when looking at a diagram copy of past circles. Two hundred threads was too much to expect anyone to build correctly the first time.

She looked out over the open floor of the warehouse. The threads and sheets of thick paper spacers were almost a carpet. Yes, while she was concentrating like this, Landar could keep the entire circle in her head, point to any section and dictate what it did.

But how much more could she keep in mind? Already, it took hours to get started and Landar was loathe to break her concentration. She hadn't stepped out of the warehouse other than to wash for the last week, working from the crack of dawn well into the night just to make a little progress. Maybe she was lacking in intelligence, but Landar felt that she would soon hit her limit.

Just thinking about what the interceptor spells would require gave Landar a chill. A magical power sensor could be restricted to a single cone by surrounding it with magical barriers, and to determine distance and speed, she would need two preferably three sensors linked and computing the intercept. Add a way to track and calculate change in position over time. Link all of that to the circle that automatically cast disruption bolts at incoming attacks.

Or she could design a disruption bolt that had a sensor at the top and would home into any source of magic signature. And the launcher would have to gauge the power and direction of incoming attacks and create an appropriately powered disruption bolt, only the launching spell itself would be as complicated as a spell forming wand while itself being casted from a spell forming wand...

No, there was no way she could build that. It would be easily twice again as large as the circle she
was building now, probably more since it was more than just two spell forming circles. The logical links required would be insane.

Finding the problems in the design, another impossible task. Oh, with a lot of testing and work, and perhaps months of time, she could probably do it. But the circle she built would be the only circle able to create the final device. Building another enchanting circle would take the same months to test.

What she needed for some substitute for these threads. They worked decently for what Landar had built them for originally, repetitive and simple enchantments. And while they had grown to handle hugely complex tasks, mere multi-function threads meant as useful shortcuts were reaching their limits.

If only she could keep the tedious well-known parts out of her mind, and not have to think about them, maybe Landar could handle more complex circles.

It was theoretically possible, she supposed, nothing stopped her from baking an entire thread pattern into a block of steel, with little hooks for her to tie incoming and outgoing threads. Threads were huge, from the perspective of the enchantments, like how magic circles were huge compared to the final enchanted object, and the steel would let her build much more robust enchantments that would last longer. But a steel block was not easily changed, unlike threads, and every spell you wanted a spellforming wand to cast obviously required a different casting process and therefore a slightly different spell forming thread pattern. That was why she used threads in the first place.

She didn't notice that she had stopped working on the shield test. Of course, to... what was that word Cato said?... to abstract out the process of a spellforming wand, to create a steel block substitute without needing to rewire anything, Landar would need to have a thread pattern that could create the power transfer and spellcasting sections for a spellforming wand for arbitrary spells, given an input to control what spell was casted by the final wand.

So the block would thus need to receive instructions on the precise steps of how to cast the desired spell, probably best done with new special threads for the control of the spellforming template block, ones that told the block what to do, rather than normal threads that told the circle what to do. The information was all there, it was possible. It would probably be hideously complicated, but she could do it. There was a certain elegance in the way that Landar was going to make a magic circle to build the thing... she would call it a spellforming template for now.

Landar looked down at the doodles on her notepaper and saw the parallels to the magic circle. The magic circle abstracted away the process of the alchemist personally casting the enchantment, so that the alchemist only worried about the design of the desired circuit and not the process of making circuits. This spellforming template abstracted out the process of creating a spellforming section, so the alchemist only worried about the design of the spell the spell forming wand was to cast, and not the mechanics of the spell forming wand itself.

In fact, Landar swept her eyes out across the massive circle laid out across the floor, she could abstract other things too, virtually all functions of a spell could be logically grouped and abstracted out. Movement, spell boundaries, magic power detection, even logical control circuits!

She jerked forwards and began to tear apart one and a half weeks of work. This was more important than some lousy shield.

Landar looked up in a daze. What? Her arms felt like lead and her skin was sticky with sweat. The gentle midday light had been replaced by the dim glow of liquid Light lamps. Against one wall, a
table held a dinner plate with food that lay forgotten and ignored.

She stood in the middle of the warehouse floor, surrounded by a veritable carpet, with a large black rope in her hand. The main control line, with so many activation threads running out in all directions that she couldn't see most of her hand.

No no, she couldn't be distracted now! Not now! The template wasn't anywhere close to done and Landar had to keep the image of the circle in her head. If she lost it now, she would take all day to get it back and... Landar mentally scrabbled at the thoughts, but they just scattered like rats into the dark corners of her brain.

Landar stumbled a little, feeling the tears building in her eyes. She was so close! Er, well, not really but it was so frustrating to lose her thoughts like that! There was a sound, something outside the warehouse. People shouting?

She dropped the control line and stormed towards the door, whoever had disturbed her would get a firebolt to the face. Tears flying, she flung it open, a ball of fire building in her hand.

Landar squeaked in surprise as Cato rushed in, followed by more familiar faces. Omal, the alchemists, even the cook? Wait, university staff?

She turned to see them spreading out over the floor and-

"No!" she screamed as the idiots began to trample over her circle threads. What if they broke it! She would have to recheck all the lines! "Stop it! Get away! What are you all doing?!"

Landar jumped into the circle, landing in a clear spot, brandishing her ball of fire wildly. "Back off! Get out!" she yelled wildly, the crowd drawing back. There was more shouting and commotion from outside the warehouse and the crowd surged forwards again, pushed from behind.

"Landar!" Cato ran over, running over her threads! Somehow that was even worse than seeing the Recordkeepers do it. They were just clueless, Cato should know better! He knew how sensitive circles were. The sting in her chest made the world turn blurry and she tried to wipe away the tears, futilely.

Landar snarled at him but he caught her hand, "sorry Landar, but this is an emergency. I know you'll have to build it again, but-"

"But what?!" Landar shouted. She tried to twist out of his grip, this was so unfair! How did Cato get so strong? And why... why... the threads were already breaking under the outdoor boots the staff were wearing. It was over, she had to rebuild.

"This circle was important!" she yelled into his face. Her anger seemed to be running away with her, filling her with an unbounded rage at his sheer insensitivity.

"More important than a civil war?" Cato said, facing her levelly.

"Yes!" she snapped reflexively. Wait. "Civil war?" she blinked, as all her thoughts seemed to crash to a halt, "What? No, wait, don't distract me, this circle is the most important thing!"

"Have you even left this place in the last two weeks?" Cato asked, "the peasants are rioting out there, we needed a place to take cover and this test range was the best choice."

Indeed, with steel reinforced concrete walls, enchanted with disruption shields, barred and meshed window slats, and heavy cast iron doors, the magic testing warehouse was impenetrable without
siegel weapons or lots of magic. The tendency of the creations inside to explode was famous, and this 'warehouse' was probably the strongest structure in all of Ektal save the fortification walls of the border forts themselves.

"But... but how?" Landar muttered. Peasants? What about the Guard? Or even the Knights? And why?! Landar looked down and saw the ball of fire still hanging above her hand. And the large berth the university staff was giving her and Cato.

Oh Selna, did she just threaten the entire university with her magic? And even Cato too?

Landar's anger washed away like a candle in a breeze, replaced with sudden horror. She dispersed her firebolt with a pulse of power. "I'm sorry," Landar gulped. The tears in her eyes spilled over. It was all she could do to just apologize over and over. Oh no, how dumb could she get?

Cato just hugged her, patting her hair soothingly. "It's all right," he said, "you didn't shoot anyone. It's all right."

He continued to hold her as she cried unintelligibly. After some time, Landar's crying had subsided into a leaden weariness. Seated in a chair at the side of the warehouse, she had one of the few seats. The rest of the staff squatted or sat on the stone floor, her ruined circle folded up in one corner. She just looked at Cato dumbly, the fog in her mind dulling any thoughts.

Cato glanced at her condition, eyeing her up and down. Landar coloured in embarrassment as he lingered on the stains on her dress. "And how long ago did you eat? Or even drink anything? You sound terrible," he asked, he traced a gentle finger on the black bags under her eyes, "you have been missing sleep too. How long?"

Landar thought back, but all she could remember was a maze of lines and logic. Sleep? Um. She gulped and looked away. "Two days?" she whispered timidly.

Cato shook his head at her, "Landar, I warned you the last time you did this and you promised me. I still think shutting yourself in here is unhealthy but you were at least keeping yourself alive last week. What happened? I haven't seen you for three days and you're half dead."

"I... I was building, a new idea," she said weakly. Oh, yeah, that promise. She had even broken the promise to take care of herself. The tears threatened again but he hushed her with a hand on her head, the other hand still holding hers.

Cato looked back out over the messy threads, it was impossible to read now of course, if anyone but her could even understand the thing at all. "What were you building?" he asked, "did the mobile shield work?"

Landar shook her head, "I wasn't building that. It's... a magic circle for magic circles. " She cast about for an easy way to explain, but the scurrying thoughts didn't want to line up in her head. "Make spell forming wands by instructions on how to cast spells. Abstraction. Special threads to control spellforming template. Movement templates, logic templates, everything templates! Abstraction, that's the key idea. New threads, new patterns."

There was another deeper idea, one that had come to her in her frenzy but now just lurked unseen. It was even bigger than her initial abstraction, but it didn't want to surface now. "Abstraction," Landar whispered to herself, trying to coax it out, the idea returning to her in more detail as she spoke, "no more threads. Just special new threads only. Circle describes function, not design. Everything template? Template for templates? Need more abstraction. Abstraction of the abstractions, no control line, templates talk to each other. Templates talk using templates, pass template as message. Live
input, automatic testing. Find errors immediately."

Cato blinked and frowned, "Landar, were you trying to build a compiler?!!"

"I... compiler?" Landar blinked up at Cato. She was dimly aware that what came out of her mouth made little sense, but it all lined up in her head. That was a new word though.

He proceeded to give a short explanation about Earth computers and their programs. Yes! That was it! A spell compiler! Sort of. A template for making templates was analogous. The fog lifted as her excitement blew it away but Cato caught her hands as they twitched towards the rolls of thread on the table. Landar relaxed again.

But it wasn't the end of her idea. "The idea of templates," Landar hurriedly explained, "you can use templates as messages between the templates of the spell. Spell functions and messages are the same thing. All are templates. Templates to manipulate other templates and even themselves!!" This wasn't working. She bit her lip, "I don't know how to explain it! But it's needed for the other idea, the big one, to put many interceptor launchers on the wall and coordinate them so they don't all shoot the same thing. Things and interceptors are represented by templates, you pass them around to track them, the launchers and detectors create them."

Cato seemed to understand though, as his eyes were incredulous, and more than a little bit respectful. Landar shrank back, not sure she deserved that after she had broken that promise.

"That's a parallel of object oriented programming!" Cato was clearly amazed but Landar didn't understand why.

She just blinked at him dumbly. She knew it was exciting but Cato seemed to already know what she was talking about, there was no way she could have explained her thoughts in any coherent fashion. She had to build something, or at least write it down. Her hands twitched again but Cato was still holding them.

"That can wait," Cato sighed, he went to the table that held her untouched dinner and pushed a cup into her hands, "drink that and try to rest."

"But-"

"No Landar, even geniuses need to sleep," Cato smiled, "you will still remember this in the morning. It can wait. Trust me."

He stroked her hair again, like how her mother did. Her agitation was replaced by a serene calm. She was floating in a sunlit pond with nothing to disturb her. Landar nodded sleepily and drank the water. All the while, he continued to whisper gently and pet her. It felt like she was a child again.

Yes, she could sleep.

Cato looked up as Landar's breathing evened out into a deep sleep. She lay on the thin mat, her peaceful face contrasted the wild unstable mood swings just a few minutes ago. He really had to pay more attention to her or Landar could easily kill herself. She hadn't even realized how weak she had become, for Cato to so easily hold her. And that mental state couldn't be healthy, no matter how brilliant she was when in it, seeing Landar act with a mental maturity of a ten year old was disturbing.

"Is she always that crazy?" Omal asked, "I thought the Mad Alchemist was just obsessed but this is..."
Cato saw the university alchemist shaking his head, "she hasn't slept in two days. Some emotional instability to be expected."

"Well, you're in for a hard time. Do you just like the crazy ones?" Omal nudged Cato conspiratorially, "better you than me though."

"We're not like that," Cato shook his head.

"You two are the only ones saying that now," Omal grinned, "an Iris daughter will certainly do the university good. Is that why the Central Territory branch is starting first?"

"That's because it's closer, you should know that that article is nothing but lies," Cato rolled his eyes, "and I believe we have something much closer to worry about now."

They looked up at the small windows, where a fire's light flickered across the roof. One of the university buildings was providing that light.

"I know the Guards have a reputation but that's a lot of rioters. I do hope we can get out of this alive," Omal said nervously.

"Me too."

"Sir, Fountain street is being cleared, most of the fighting is now concentrated at the east near the lakeside," Curasym said, watching the recordkeepers move the little red flags across the diagram map of Minmay.

The Guard command center situated in the middle of the city was the perfect place to receive and send orders. Guard messengers ran to and fro, dropping off reports and ferrying new ones.

Minmay, the Chancellor, sat in his chair with a stony face. His nod at Curasym's report was the barest of fractions.

"The Guards are facing stiff resistance. Somehow two entire platoons had joined the enemy and they managed to steal a spell cannon," Curasym narrated as a particularly frantic report came in, "don't worry, sir, the University is locked down tight. The division there will hold the line."

"That is very worrying news," Minmay said.

"Don't worry, sir, we can win this. There are only a thousand badly armed peasants and perhaps forty ex-Guards. We seem to have caught them unprepared, if the conspirators had time to arm the crowds we would be facing much worse."

Minmay sighed, "it was my idea after all."

The Guard commander shook his head, "a very good one, sir. A mass arrest with deliberate escapee plants to instigate the gangs and crowds into attacking early? You even have the perfect excuse to deploy the Guards. I must bow to your foresight."

"It didn't take much to convince the dissenting Knights to change sides, especially when I was paying them to do what they were always going to do, just a bit earlier than they planned. The few Ironworkers though, I had to promise them pardon and a high place in the new order."

Curasym read a new report and observed the flags being updated with new positions. He snapped
out a new order at the Recordkeeper who scribbled it down and handed it to a messenger who sped off on one of the priority bicycles.

"No planning, few magical weapons, no mobility," Curasym shook his head, "trapped in the city streets between first division from the lake and second in the University at the outskirts. The third division are moving from Fountain street around the outside. We'll surround them soon and overrun them. And that will be the end of it."

"Not the end of it," Minmay said flatly, "we still need to dig out the dissenters who did not participate. Gangs, guildsmen, merchants, even a few Knights. The list is long and only growing longer."

"Well, I hope you have good questioners, the Guards are only good for fighting. Point us at a target and we kill it for you. Beyond that?" Curasym shrugged.

Minmay nodded but said nothing. His expression grew darker and grimmer as more messengers arrived and the red enemy flags began to be taken off the table.

Curasym was accurate that the rioting peasants were being overrun. What else could it be, when the Guards could just unleash salvo after salvo of magic into the hapless crowd? Eventually they would surrender rather than be killed. Minmay knew what else it could be called.

A slaughter.
The Purge

Danine winced at the yells of panic when she tossed a stone over the barricade. The exploding pebbles that Cato had supplied them in reply to her reports were deadly and now everyone was terrified of small round objects. Just throwing ordinary pebbles generated mass panic.

She crawled behind the stacks of wood piled up in the street leading to the Fuka part of the slums. Ryulo was just a few steps away and busy activating a real exploding pebble from their dwindling stockpile.

Danine managed to get three steps before yet another human crested the top of the makeshift barricade. He spotted her and she kicked him, channeling magic down her leg to harden it just before impact. There was a bonecrunching snap as the man's ankle was smashed and he toppled back screaming. Ryulo tossed his pebble over the side, ducking down just before a loud bang and more screams added to the noise. He must have held it until the last moment of the three second trigger timer.

The piled up furniture, wood and excess bricks rattled as stone shards rained down around them.

She got over to Ryulo. He nodded towards the barricade and she nodded back. Together, they popped up over the top to take a look.

The street on the other side was covered with a fresh coat of blood. The gangs were already retreating, taking their dead and injured with them.

One more wave they had survived.

"Will they come back again?" she asked Ryulo, who merely shrugged.

Two days ago, it seemed as if the entire town of Corbin had gone crazy. The gangs had suddenly sprung into action, even when the Ironworker spies had reported that the dissidents were not ready to revolt.

Besides the gangs, entire crowds of peasants were rioting, most of whom had recently immigrated from the outlying villages. At least two gangs were outright hostile to Fukas and from the shouted curses and riotous yells, the rioters also seemed to blame the Fukas for... something. The shouts and accusations weren't coherent. It was a very bad time to be a Fuka in Corbin, though humans didn't seem to fare much better.

After the first battle in the street, in which Ashild had managed to get her arm broken, Ryulo had directed the Corbin Fukas to build barricades at both ends of the street that ran through their section of the slums. Other areas had been plugged with smaller blockades and the rooftop patrol was in constant rotation.

Cato's stash of weapons was all they were going to have until the siege was broken, and they would run out of wands, bowgun bolts and pebbles eventually. The Fukas were lining up to learn Ems now but that was also going to take too long. Food and water was fine, it was in the nature of marginalized Fukas to stockpile supplies and the Ironworkers had paid well for the months they had worked.

Messengers couldn't risk leaving, with the streets of Corbin ruled by the gangs and rioters. They just had to hold out with what they had until relief came. Not for the first time, Danine wondered what was going on out there. Why weren't the Guard or knights responding to this?
Or did they somehow lose?

The streets were filled with utter chaos. The knights and Guards still loyal to Minmay were holed up in the town square and the Academy buildings, under siege by the roving gangs, rioters and rebel knights. Or knights hired by rebels, some parties were known to be mercurial in their loyalties.

Kobel crouched under behind the abandoned pushcart enchanted to block magic by a friendly knight. He aimed his new gun at a yellow-ribboned gang member hiding behind the opposing barrier. There was a loud crack and the bullet instantly punched a hole through the stack of empty barrels. The man he had aimed at collapsed screaming.

With that, the enemy barricade was unmanned. Kobel and his scout group could finally get some much needed rest—

Or not. There was a chorus of yells as another differently coloured gang, red this time, charged the Guards. Kobel was still setting a new bullet at the start of the acceleration track when the spellstorm sitting beside him snapped off a salvo of six firebolts. The charging red gang suddenly turned around and began to run the other way, except for a group of four behind them who blocked the firebolts with a shield. More enemy knights.

Kobel took aim at the enemy battlemage and pulled the trigger. Trying not to pay attention to the sudden scream, he dove below the enchanted cart just in time to feel it shudder under the impact of a forcebolt. The front handle exploded into tiny splinters.

He was strongly regretting accepting the mission to Corbin now. Sure, it was supposed to be a simple sentry duty, an off-duty post for the scouts that participated in the Duport campaign, but Kobel knew his luck wouldn't hold up. Ah, if only he was safe and sound in Minmay.

On open streets and without much cover on either side, the first battles were brutal and deadly. Then as both sides found themselves unwilling to risk too much danger, attacks like this became rarer and rarer. The enemy and whoever was commanding them, had boxed in the Guards and knights loyal to Minmay and seemed to be content to let them sit there.

What they all desperately needed was information. Where was the enemy and what they were doing, how long until Minmay came for them, and what made the entire world go crazy with no warning.

No, this was not going to be a simple sentry duty.

Corbin sighed as she threw down the letter. The Guards keeping her in her mansion had run away at the small army of rioters that had 'liberated' her, and she was once again free to govern her town as she felt like. Darn that two-faced Selabia, he had never faced such humiliation as house arrest, only the comparatively greater one of crawling to Minmay for mercy.

Such obvious opportunism did not earn any trust but Minmay couldn't get rid of him as much as she couldn't get rid of Corbin herself. And that man had dared to write little messages about joining the conspiracy against Minmay. Yet she had no choice but to take what help she could.

One river over, Selabia had quelled his own rebellion amazingly quickly, within a single day. How he had done it was still unclear. Did Selabia promise the rioters better conditions? Did he really agree to everything the guilds had wanted? No, Selabia was probably hedging his bets and preparing to jump either way when it became clear who would win.
After all, his latest letter about the fierce fighting in Corbin town was full of nothing, once one looked below the pleasant surface of rhetoric and empty promises. Promises he wouldn't have to keep if Minmay won.

"How did this turn into a siege? They're just fifty Guards!" she snapped as she threw the latest report onto her desk.

"Minmay has apparently anticipated the riot, we think he sent his most loyal supporters large caches of weapons which they then distributed once the fighting began," the Ironworker smith explained.

"And how did the riot start six months early? I may be eager to be rid of Minmay but even I know we are not ready!" Corbin said through gritted teeth, trying not to scream, "we might barely scrape by here, but if Minmay still has control of his city and all the Guards there, this is all pointless! We were sowing discontent so nicely and the peasants were getting ready, but we haven't even started making enough weapons!"

The man at least had the decency to look apologetic, "I'm sorry Mayor, but we don't really know what happened. A number of guild members received communications from Minmay contacts saying that it was an emergency and to launch the attacks immediately before they were caught."

"I find that hard to believe," Corbin said.

"But Minmay branches really were under attack, we have verified that three days ago a number of high profile Ironworkers were arrested by the Guards. That Minmay had spies were present was obvious since he can't have identified so many of ours without them, but that only helped fuel the panic," the Ironworker said.

"It's a lie," Corbin tapped her fingers, thinking, "what were the messages like?"

"Chaotic. Many of them seemed to have only gotten the warning of Minmay's purge out just before they themselves disappeared. Some said that Minmay was coming for us too. Once the first craftsman broke and starting recruiting the gangs for themselves, it was impossible to stop."

"A lie," Corbin repeated. She was sure of it now. May Selna's light strike that man down! She snarled and threw the report at the window. Papers fluttered through the air, marring the Ironworker's shocked face. "It's all a lie!" she screeched.

"What... what did you figure out?"

"Did it never occur to you that perhaps Minmay faked those letters? That maybe his spies wrote them?" Corbin shook her head, "or maybe there are spies here too. You expanded too fast, recruited too loosely. He has surely bought out your colleagues with promises of pardon and wealth. In fact, I am starting to wonder if the first of the guild craftsmen to panic were actually paid to do so! Just to force our hand!"

The man sputtered, "you can't be serious! There has to be a limit to what the Chancellor can do. We know he has spies, but you can't believe he has spies everywhere or we'll be too terrified to move!"

"Then where does that leave us? With a bunch of rebels doomed to fail and our necks exposed? The fighting in Minmay is dying down and I'm quite sure we're next," Corbin snarled, "at least we still have the crossbows from the last battle."

The one that she lost. To normal knights, not even these terrifying Guards.

The Ironworker didn't say anything, there wasn't anything to say.
Minmay watched as the last cartful of unclaimed bodies were dumped into the mass grave. The Guards standing next to nearly full hole began to shovel dirt in grimly. Closer to the city was the much smaller row of neat graves for the fallen Guards.

The air was clear after the light drizzle but to Minmay's nose, it stank of death. So many had died in the slaughter before the rioters had finally surrendered. The rioters, provoked by Minmay's own plants and spies, were a leaderless mob, each crowd had to be surrounded and convinced to surrender on pain of death. Often at high cost, both in the lives of the rioters and Guards.

On Minmay's right, Arthur stood respectfully, still looking as neat and ready as a Chancellor's butler should be. But the hardness around his eyes betrayed the man's uneasiness. And on Minmay's left, stood Curasym, the Guard Commander who had lead the battle. The man still looked unruffled, Minmay wondered how that man could look at this and not feel anything.

There was a scramble from behind them as a messenger's bicycle ground to a halt. The metal wheels skipped harshly over the stones but the boy only grunted. Curasym turned to address the boy, Minmay continued to watch the grave fill.

"Sir! Sir! The Guard post on the northern gate of Lakeside road is under attack!"

"What?" Curasym's surprise was evident in his voice. The man spun to look at Minmay.

Minmay merely shook his head slightly, still looking at the Guards shoveling soil.

"The message, boy, what did the on-site commander say?" he urged the messenger boy again.

"He only told me to say that rioters were attacking! They have wands and at least three spellstorms! I thought the fighting was over, sir?!" the boy sounded almost panicky.

"Calm down boy," Curasym said. His voice deepened into a commanding tone, "messenger, I have an urgent task for you."

"Sir!"

"Message to Third Division Barracks, gather two companies and advance along Lakeside, orders to engage only if necessary. Third division proper to make way towards the fighting. Now go!"

There was a clatter as the bicycle disappeared.

"Messenger!" Another two young voices stepped up.

"Message to First Division, stand ready as relief force, go! Message to Headquarters, send messengers to all Second division patrols, proceed to nearest street junctions and lock them down. Shut all gates to the city. Go!"

"Sir!" "Yes, sir!" The boy and girl mounted their bicycles and pedaled off.

Curasym turned back to the Chancellor, "Sir, is this your doing again?"

"No. But I can guess what happened," Minmay sighed, "these are the remnants from the first wave of arrests. They know that I will come for them eventually. Those who blame me for these deaths will join them."

"Sir?"
Minmay winced at the Guard Commander's tone, that man could be perceptive. "When we crush this wave, a new set of grievances will be generated. The new deaths will fuel yet more resentment," Minmay said.

"We can't fight this endlessly," Curasym said.

"We will convince the dissidents," Minmay said, "if I can gather enough supporters among the peasants, clear away the root cause, I should be able to maintain control."

"You will dismantle the University?"

Minmay could see Arthur glance worriedly at him out of the corner of his eye. "No, it is not possible now. But every man and woman has their price, this includes peasants. The changes in trade in my region must be causing them to riot. Cato's book said to use their hearts and minds. So I will use the peasants themselves to cut off all support to the dissenters," Minmay's smile was mirthless, "and promise a better way of life. One the University will provide. Why, it is the very thing Cato was working towards!"

The irony was not lost on Arthur and Curasym, judging from their expressions.

"What about Corbin and Selabia?" Curasym asked.

Minmay closed his eyes. "I cannot overlook their actions any longer. After securing Minmay, the First division will march to Corbin and capture it," he opened his eyes and saw the commander's unspoken question, "when the Guards seize the town, they will secure all communications from the mayor. After capturing Selabia town, seize both mayors and execute them. I trust you to leave the task to your most loyal unit."

The two men blinked.

"I have thought this through," Minmay sighed, "I don't like it any more than you do, but I will focus the blame onto them and the guilds. Which has the advantage of being true. If I gain the support of the peasants, I can remake the entire political landscape. I will remove the post of mayor and administer all towns directly from Minmay. Centralize all government functions, as Cato said, absorb the Recordkeepers into the government and end our disunity."

Curasym asked, "will Ektal even allow you to do that?"

"We nobles never considered the peasants a real threat, this riot has shown me otherwise. The Hero's gun is immensely deadly and we were very lucky I did not give them time to arm themselves before provoking the riot. Imagine what would happen if peasants were conscripted into an army wielding the Hero's gun and supported by spell cannon. If enough peasants support me sufficiently that I can conscript say, a third of the population?" Minmay shrugged, "the goodwill of the people has just become a whole lot more important. And I dare say the majority of us nobles are ill-prepared for the change.

Of course, if I fail to gain the support of the peasants, then we're back to where we were, only a lot poorer. And the Mayors Corbin and Selabia will have been killed in a desperate last stand."

"You already knew all this, didn't you, sir?" Arthur said quietly, "that it would come to this?"

The Chancellor didn't answer. There was no need to.

Finally, the Chancellor turned away from the mound of loose soil. "We should return to the command post. And get those Guards to dig another hole."
"... second wave of riots attacking the barge docks on Minmay's lake," the reader picked the unfamiliar words off the broadsheet. The sheet had come direct from Minmay city at a high cost, one that he expected to make back. Being the only reader left in this village had its benefits. "and... oh Selna, the Chancellor's house was been burned?! They burned the Chancellor's mansion!"

The announcement produced a series of growls from the crowded tavern. Farmers, the village blacksmith and the mayor's mistress hung onto the reader's every word. Even the barkeeper had stopped pretending to be cleaning his countertop, no one was buying anything anyway.

"The Chancellor?" "Is our Chancellor alright?" "Those bastards!"

The reader held up a hand to stem the tide of questions and peered shakily at the sheet of paper. With baited breath, the crowd let him read for a few seconds. The tension in the room was thick enough to touch, and somewhere a young child burst into tears before being quickly hushed and bundled out of the tavern.

"The Chancellor was fine, he wasn't there and all the staff were evacuated before the rioters hit. The rioters were all suppressed on the same day, over two hundred were killed in the fighting. He has told his wife and daughter to remain in Duport under guard of the Fourth and Fifth division until the troubles are over."

A sigh of relief ran through the gathered peasants. The Chancellor was safe.

"Wait, there's more. A... general letter from the Chancellor!" the reader froze and scanned the next few lines before reading slowly.

"To all Minmay citizens, by now you have all heard the news of the fighting in our city. A conspiracy between the guild craftsmen sought to seize the Chancellorship and instigated rebels to attack our lives and homes! But we have weathered their storm. As your Chancellor, I assure you that there is nothing to worry about. Minmay city remains secure and the rebels have been caught.

This blood filled week has brought to my attention your cries and your hardships. My heart goes out to my loyal citizens who labour for my sake, for it was my lack of foresight that caused the recent upheaval in windeye prices. I propose a new deal between the guilds and all of us citizens. The University will provide for new technologies that all of us can share in, work and produce that you will all benefit from. To those who wish for change, for a better life, training in new skills and new jobs will be provided! Factories where all can work will produce furniture, food, sugar and more! Work with us and we will help you change your world!

But to do this, we must ensure that these rebels do not destroy our work before we have even begun! The last holdouts in Corbin and Selabia remain, the brave Guards will meet and force them to submit. Yet the danger still remains in our midst, hiding amongst those who would pretend to be your friends! I call upon all good men and women to rise up in arms and defend our land! Minmay needs Guards to keep the peace and you can help. Cooperate with your barons, cooperate with your friends. Stand with me and we shall see Minmay through its darkest hour!

For my loyal citizens, the Chancellor Minmay."

Whispers had already broken out after the second paragraph and the crowded tavern exploded with discussions the moment the reader put down his sheet.

"The Chancellor supports us!" the piyo farmer said.
"How can you know that?" said the other farmer sitting next to him, "he's still working with that University."

"But he's controlling it now, see, he said he will make the University work for us, instead of hurting us!" the piyo farmer exclaimed, "I, for one, can believe that these jobs the Chancellor said he could provide will pay lots of money."

That got a round of thoughtful looks.

"We should aim to get them first, before he runs out of slots," the other farmer noted.

The looks gained a distinct gleam of speculation. "How about using our press? If we write a letter in favour of the Chancellor, maybe he'll notice us first?" the piyo farmer suggested again.

"Maybe I can make some lead castings," the blacksmith standing behind them said.

"No we should send a messenger to Minmay directly to express our support!" "Hang a banner from our gates!" "We'll build a new house for him!" "What noble would want to live in a shabby hut?"

The piyo farmer leaned back. It looked like the avalanche had started. And if Minmay was happy with his support, then he was promised a headstart in these jobs. Maybe he might even earn enough to become a freeholder! He lifted his wooden mug in a salute to the Chancellor and drained it.

Propaganda by mass media was relatively still unknown, despite Aesin's prior attempts, and the letter sparked a wildfire amongst the peasants and village presses. No noble had ever written such a letter that seemed to speak to every person in the region. The exhortations did not move many but the Chancellor's reputation allowed them to feel that the Chancellor was speaking to them directly. Not even their local baron had treated them as if they were any more than interchangeable peasants, good only for producing food and maybe alcohol. The Chancellor had heard their dissatisfaction and was making the University do something for them! And he had even apologized to them, though indirectly.

It was echoed again and again as messengers running through the territory actively spread it. And when Minmay's proclamation was immediately followed by textbooks printed from Cato's notes of standardized production and concrete funding for providing training from the school in the city to everyone, peasant or not, they began to take him seriously.

Follow up letters, reporting actions of the First division, citing bravery and freshly issued medals and naming villages or even families for particularly distinguished actions, capitalized on the goodwill. Throughout it all, the Minmay region was emphasized as a single unit over and over again.

Change still wouldn't come for a long time of course, but that day was the time a new spirit dawned over the region.
"Scout squad fourteen, Kobel reporting!"

"Report Kobel. And you better have a good explanation for those Fukas," Curasym asked the Guard standing in front of him.

The squad leader looked at the three Fukas standing at the back of the debriefing room and sighed, "These are Ryulo, Aleas and Danine. They're the effective leaders of the Fukas in Corbin and were a great assistance in our efforts."

"You better start from the top then," Curasym leaned back in his chair. The secretary on the side desk shuffled in a new sheet of paper pointedly.

"As you know, my squad and three others were in Corbin on light patrol when the riots started. Corbin used the chaos to trap us into the central square of the town. As Ryulo tells me, the Fukas had also barricaded their section of town in the north and were under attack. This lasted for four days until the siege on us in the central square lifted enough for us to break out. This allowed us to escape encirclement but we were pursued through the town and broken up until we reached the Fuka blockade."

"We weren't going to let them through at first but Kobel explained that he was working under Minmay," Ryulo said, "he offered to be disarmed and held prisoner to guarantee his squad's behaviour."

Curasym nodded at Kobel to continue his narration.

"So, the three squads following me joined the Fukas on their defenses. We repelled four separate attacks and nearly eighty attackers until the First division had occupied the town and relieved us," Kobel said, "in our defence of the Fuka street, we estimate about twenty of the rioters were killed and more injured but no confirmed counts. You already have our injury list. Luckily no one on our end died after the escape from the siege."

The Commander of the Guards nodded again. "So, how does that explain the Fukas?" he asked.

"Sir, during the brief defense of the Fuka's barricade, our Guards received six injuries, one serious. During the entire defense of their own barricade, the Fukas suffered only one serious injury. No deaths," Kobel glanced at Ryulo who nodded in confirmation, "to be honest sir, the Fukas are incredible fighters. They're all masters at using Em! And Ryulo's bow here has penetration that rivals the new model guns.

I recommend we recruit them into the Guards. They are a formidable fighting force now, and will be
an incredible asset given training. Cato is partial to the Fukas, I'm sure he will support this if we need to convince Minmay. "

Curasym raised an eyebrow, "are you sure? They're just Fukas, you know? Maybe they got lucky?"

Ryulo looked at Aleas who clapped a hand on Danine's shoulder to stop her from speaking up. Curasym noted the action but chose to ignore it.

Kobel coughed. "Sir, the Fukas are beyond capable. They have inhuman reaction times and Ems give them strength and durability beyond anything you can expect. And they have incredible fighting instincts. Even young Danine here will easily beat any man in a bare hand fight. I saw her tear a woman's face off with her fingers. We have to have them."

Kobel drew a small hand crossbow, a light version captured from Corbin's forces. With a nod to Danine, he pulled it to half draw and fired a dart. The dart shattered on her arm at point blank range and peppered the wall behind her.

Danine merely rubbed her arm and grinned at Curasym's shock, her tail twitching proudly. Kobel smiled back, "the same trick allows them to jump across roofs and scale walls with ease. I personally saw feats like this performed routinely. Ryulo himself has caught blades and knives with his bare hands and pulls a bow so powerful that it can only fire iron arrows. Their hearing and eyesight are better than humans too, I think. They will be excellent independent operators for scouting and special missions."

"You want them to be scouts?" Curasym asked.

"Yes, sir. I believe they have much they can contribute," Kobel nodded.

Curasym rocked back in his chair, considering the request. After a long moment, he adjusted his formal Commander's jacket and shrugged, "alright. I will get the required approvals from above to accept Fukas into a special scout unit. And you, Kobel, are going to be responsible for it."

Kobel bowed formally in acceptance.

"Um, we still haven't discussed the terms," Ryulo interrupted, "and you can't just conscript us. I won't allow it."

"It will be voluntary, like your employment with the Ironworkers," Curasym waved a hand dismissively, "take your time. Despite the fact that active operations are still in progress, we have no use for people not trained in our procedures. Since he likes you so much, I will let Kobel discuss the terms."

Aleas calmed Danine down with a squeeze of her hand. Kobel nodded gratefully at her as they left. No point antagonizing the Commander when he was already prejudiced against Fukas.

The Guard looked at him nervously, "are you sure you should be here, sir?"

Curasym just looked at the Guard until she wilted and ducked back behind the spell cannon barrel.

"That's Corbin's mansion?" he asked the on-site commander. They really had to work out some form of rank structure. He couldn't just keep calling the person in charge a commander when it was also his own formal position.
"Yes sir, she has about two platoons by our count defending the place. Wands and bowguns. They're her best armed people. We've surrounded them and the adjacent streets have been evacuated," the commander said, "they'll be expecting us to storm the place or give terms."

"Spell cannons?"

"Three here, concealed and signature screened," the commander confirmed.

Curasym paused before giving the order. He was about to personally command the deliberate killing of a major noble of Minmay's region. This would be the first true strike against the old aristocratic order, the first step towards fulfilling Minmay's reforms. But he knew Minmay and the Chancellor would always take responsibility for his actions.

Not that it would help any of the first platoon of the First Division if the King got his hands on them.

Curasym inhaled and nodded at the commander. "Load forcebolt in the spellcannon and target the foundations. Once fired, our platoons will storm the place. Take no prisoners."

Messengers sped away to inform the squads picketing the streets in the wealthy district. It was time to drastically reduce the value of the property here.

"Fire when you're ready, commander."

"The last six villages have declared for you, they even attacked and forced the last remaining rebellious group in their area into submission," Arthur read.

"The Guards are deployed on every street corner and more arrests and interrogations are being made," Minmay muttered. He considered the situation for a while longer. "I think the rebellion is effectively over. If the peasants themselves are attacking the rioters, I can say that we have the support of the majority."

Minmay put down the reports and gestured at the teapot on the nearby trolley. The butler bowed and poured a cup of steaming tea that Minmay received gratefully.

"How are the barons? Will they accept the changes?" Minmay asked.

"They are unhappy but they accept it. No one can stand up to the Guards now," Arthur said.

"No one other than Ektal, you mean," Minmay said, "the King is raising his own army. Even if they're still mostly knights and don't have the new model guns, he's still dangerous."

"Do you think he will attack you, sir?"

"No. He can't afford to. Our power is still evenly matched and if he does try, any battle would be disastrous for either of us," Minmay mused, "he may suspect that the peasants supporting me can be recruited into a militia. If so, I am actually likely to win any such battle in the short term."

And in the long term, who knew what else the University might invent? Landar was a veritable gold mine of magical weapon ideas.

"What about the Order of Knights?"

"The Order are not going to move," Minmay put down his half empty cup. Arthur refilled it and added just the right amount of yama jam. "Their participation in the rebellion has heavily damaged
their reputation. I can force Hino to restructure the way the Order works in this region. I will replace the commission system and hire all the knights on permanent retainer, there will be no more hiring of swords and spells. Instead, the knights are expected to keep the peace and cooperate to defeat monsters. If need be, I'll abolish the entire Order and absorb any who want to continue as a separate Guard division. With the power the Guards give me, I will force them to obey."

"Doesn't that violate the Rule of Arms?"

"At this point, I think everyone is violating the spirit of the Rule, even the queen herself. The Greater Council will protest and declaim but no one can effectively move against us in the short term. In the longer term? They'll have peasants to worry about and if they don't break the Rule of Arms themselves, I won't have to worry about them afterwards," Minmay tapped the table, thinking. "I am considering placing the knights under the command of a different office. This rebellion has allowed me to consolidate power into the Chancellor's position. There are no more Mayors, and the barons are nothing more than local governors I can replace at will. The towns and even the cities of Duport only have administrators whose power stem from me instead of an aristocratic position."

"There is no counterbalance to the office of the Chancellor," Minmay concluded.

"You are going to create one?" Arthur looked a little worried. Anyone would be worried, no noble would normally give away power.

"Yes. Cato explained to me before, the various styles of government Earth had used and I think now I understand the lesson he was trying to impart. While the Chancellorship will have to remain the most powerful office, one person cannot rule an entire region by themselves," Minmay nodded, "indeed, during the Firestorm, Cato explained that Minmay needed a government. I understand now that he did not mean that more Recordkeepers were needed, although they have been helpful. Simply that I alone have only one perspective, and I cannot account for all the factors that governing a region requires."

Minmay paused to sip his cup of tea.

"So I will create a Lesser Circle," Minmay said, "a group of people who have a specific domain of work and manage the day to day business of making sure Minmay runs smoothly. One of those seats will be the administrator of a police force, in charge of commanding what is now the knights. The knights’ duties will be to uphold the law and will thus be armed just like the Guards. While the Guards perform an overlapping function, the knights are not under the direct command of the Chancellor and will remain separate. Indeed, I will expect the knights to focus on enforcing the rules of the Circle itself, even against the Chancellor, if need be in the future."

"The Greater Circle will be the governors and barons of each of the areas?"

"Indeed. In a way, this will be a smaller version of the Federation Council, but with more power in the office of the Chancellor. A structure that everyone is familiar with, but still different."

The Chancellor drained his cup. "I will call the prospective Lesser Circle soon, we will need to draft rules and create a vision for what Minmay will be like. Including what our stance towards Ektal should be."

The Chancellor nodded. Then he winced as he thought of the upcoming conversation, "but first, I'm sure Cato will have something to say about all this."

"So. The peasants don't matter? Because you can kill them any time you want?"
Cato's voice dripped with bitterness. Minmay sat in his chair looking back with a stony face.

In between them, the plate of sandwiches cut to picnic size was untouched.

The Chancellor sighed, "I ordered them to be killed because they do matter. If the rebel guild craftsmen were allowed to arm the peasants, they would have destroyed everything you worked for."

"The slaughter was excessive, you did not have to order the Guards to shoot at innocent civilians," Cato said flatly, "and what about the guilds? And removing the mayors?"

"An opportunity like this will not come again," Minmay closed his eyes, "the guilds were the original instigators. And the position of mayor is less important now. Killing Corbin and Selabia was a trade, their lives for stability. It was a choice that only the Chancellor could make."

The Chancellor took a long pull from his drink before continuing, "and I wonder how you can consider the peasants innocent. They took up arms, they burned buildings, they shot and killed the Guards. That was the only way to stop them."

"You were the one who put plants to instigate them into rebelling!"

"And they would have rebelled sooner or later," Minmay said, "the Ironworkers were bribing the gangs and stirring up discontent. Not even I can believe that developing these new factories of yours can solve the shortage of work in a sufficiently short time. Many of these disaffected peasants are already returning to the countryside to settle new villages. And this problem will only get worse as the farming tools increase beyond one set per village."

"Shooting peasants with military weapons isn't going to solve the problem. On Earth, what we learned was that shooting people with guns leads to them shooting you back," Cato sighed, "I could tell you more about real political events and what happened there."

"This isn't Earth, Cato," Minmay countered, "your notions of justice aren't applicable here. Of course the rioters were killed, this has always been the law. Rebellion is treason, for which the penalty is death. And you should note that the very same peasants also support me and citizen informants pointed out where trouble spots were. The faction loyal to me is large, and most of the rest are indifferent."

"They were civilians. Rioting yes, but not enemies like how your Guards treated them. I can understand the use of the new model guns but spell cannons are not for suppression. They're army weapons!"

"They were armed sufficient enough to inflict casualties on the Guards. Surely you don't think the Guards should risk their lives to coddle armed criminals, gangs and worse," Minmay snapped back, "the moment they picked up weapons, they turned into enemy combatants and should be treated as such."

The two men glared at each other. To a large extent, Minmay knew what Cato was talking about. Escalation of force lead to casualties, which lead to further hate and divisions. And they both knew what each other were thinking.

"Let us take a step back," Cato said finally, "tell me, what do you want to do with the Minmay region? What is it you envision for the future?"

"I want to make the territory stable. You told me of the structure of Earth's governments after that Firestorm," Minmay said, "that was when I realized that this feudal power structure we have is a
recipe for disaster. The lack of unity prevents us from getting anything done. Each noble aristocrat has their own agenda, their own political goals. This leaves little concern for the peasants and general population. With the peasantry soon to become a powerful force, this is not a good thing.

"Doesn't the concentration of power into the Chancellor's position run counter to your original goal? A corrupt Chancellor in your position will do massive amounts of harm. It might even take a peasant revolt to unseat him," Cato pointed out.

"I have plans to mitigate that. I will create a government based on the model of the Federation's Council," Minmay explained, "the Chancellorship will represent the region and the people, and command the Guards. But I will create a Lesser Circle that will wield real power, including command of the knights. The Circle will advise the Chancellor and ensure the Chancellor's decrees are carried out."

"The power will not be balanced," Cato said, "you just brutally massacred a riot with the Guards. How can mere advisors and administrators oppose military power? The knights can't stand up to you. Not even if they were united."

"Then we can fix it later, once everyone is used to a centralized government," Minmay snapped back then took a few calming breaths. "I'm giving you a seat on the Lesser Circle, your input as to how to do that will be respected."

"Working with a Chancellor who can casually order the deaths of his own citizens-"

"Don't! Don't provoke me Cato," Minmay interrupted with a snarl, "you might have your ideas about how the countries of Earth respond to unrest. But I know how this world works. Inath is not Earth and leaving rioters to run amok will not work! Those wimpy theories will only serve to encourage them by making the Chancellorship look weak! And then we really will have a civil war!"

"Are you going to object to the clearing of the criminal slums too? To centralize my power, I cannot tolerate a criminal underground funded by smuggling, theft and worse. Are you going to say that letting those hooligans continue to terrorize my citizens is the correct thing to do? The Guards are strong enough for me to finally clear the cities and towns of organized crime, are you going to object to their inevitable death sentences?" Minmay jerked an accusatory finger back down to his side, still fighting to control his temper. "And don't you think for a single moment that it was easy seeing the results of those orders."

The two men stared at each other across the table. It was only now that the full gulf between their philosophies was becoming clear. And to both, it was apparent that the gap was very large.

"I think the riots have been very stressful to both of us," Cato said finally, "the structure of a state should not be discussed behind closed doors like this. I will see what advice I can give on the Lesser Circle."

Minmay swore and bit into a sandwich piece as the door swung closed.

"Was that wise, sir?" Arthur said, appearing behind his Chancellor. Silently, like any good butler.

"Cato is too idealistic," Minmay sighed finally, "he has vision. But sometimes I doubt what he sees in his mind can be real."

"He has great accomplishments."

Minmay glanced at his butler. The man was replacing his cup of tea with a new steaming hot one. "Technical and scientific brilliance does not translate into an ability to understand how to govern a
country," the Chancellor crunched down another bite of sandwich, "I understand why those systems happened in his world, or at least I think do. But even a universal rule of law that he views as fundamental can be impractical depending on circumstances. And ours are one of those. I'll never get the cities safe and crime free if I had to prove criminality in trials. It's a system of his world, of his circumstance. Not a universal principle."

"You think that Earth is a much more stable place?"

"Yes. Even with my newfound power, I doubt I can make Minmay as safe as the worst of their cities. Cato is never afraid to walk after dark, he doesn't think of eliminating competition by using organized crime. It simply doesn't occur to him that such things are possible. " Minmay sighed as he finished the much needed cup of tea.

Arthur refilled the cup silently.

"How much in debt are we?" Minmay asked finally.

"We owe the Minmay Bank nearly three hundred Rimes."

"And that's not counting the amount of favours I had to trade just to make this happen," Minmay sighed, "and the number of enemies I had to pressure or just eliminate outright with the Guards."

"The monthly income tax and the upcoming off-harvest should pay it off."

"Indeed. Despite the debt, I think I will not have cause to regret promising to subsidize the factory training programs," Minmay noted, "I hope at some later date, the Chancellor won't have to resort to using bribes just to make his city work."

The Chancellor ate his lunch without further interruptions.

"Prepare my carriage, Arthur, I think I need a walk to clear my thoughts."

The graveyard was somber and quiet. Minmay wandered through it, stopping to examine a treasured belonging here and there. Placing an item the person had treasured in life was a gesture of respect for the dead. For those who had relatives to grant them any.

Despite the black mood, the weather refused to cooperate. A brightly shining sun and twittering birds formed a mismatching backdrop to the long trench of the mass grave. In front of it, the rows of graves containing identified bodies lay out in neat lines with fresh green grass growing between them. A complete counter to the chaos that had enveloped the entire city. And in front of that, lay a row of smaller rectangles. Thirty four children dead in the fighting. And this was only in Minmay city.

They weighed upon the land like a blight. A stain, and a price.

Minmay continued his walk into the rioters' section, cheered on by the birds. The two thousand dead were laid out in a vast square of graves. The regular mounds of earth blended together into a mass that stretched all the way to the east road.

"Chancellor?"

The speaker was an old wrinkled man, hunched over a simple wooden cane. The dirt on his clothing told the Chancellor that he had just been kneeling in the grass. Judging from the hammer placed
against the grave mound, the old man had been visiting.

Minmay looked at the grave, just one out of many. One unimportant person on the wrong side. But no less human for it.

"Who was this person?" he asked.

The old man turned back to the grave. "My daughter. Ironworker senior apprentice."

"How did she die?"

The old man paused before replying, "burnt by firebolt. A shot to the head."

Minmay winced internally, glad that his political experience kept his face neutral. Fire was one of the most painful ways to go, and you didn't even leave a presentable body afterwards.

"I wonder if this cost is worth what I am trying to do. But even facing all of this," he gestured out over the graveyard, "I think I would make the same choice again, given the chance."

There was a patter of feet and a younger woman approached them between the rows carrying a bracelet.

"You!" the woman glared at Minmay.

Minmay held up a delaying hand at the same time as the old man whacked her with his cane, proving to be rather less frail than Minmay imagined.

"Pay some respect to the Chancellor!" the old man snapped, stopping her from approaching the Chancellor.

She shot back hotly, "he's the one who got little sis killed!"

"And if you haven't noticed yet, the Guards have been watching him from all sides. I will not have him add another grave to this place."

Minmay lowered his hand. Just when he thought she was beginning to cool down, the woman burst into tears and collapsed onto the grass.

Without any expression on his face, Minmay watched the woman cry for her dead sister while her father hugged her and comforted her gently.

After a long time, the old man got up warily onto his cane. "I would not like you to have misunderstandings, sir," the old man brushed back a hint of tears, "hard decisions had to be made, and you made your choices. My daughter made hers, and it turned out to be the wrong one. You are the Chancellor, so I hope you can make the right ones, for all of us."

With that said, the old man helped his daughter place the bracelet on the grave next to the hammer and led her away.

Minmay watched them go until they left the graveyard. Then he turned on his heels and made his way back to his waiting coach.

"The peasant uprising in the Minmay region has been quashed."
"Well, it was a long shot, and too far away to meddle with much."

"My king, what will you do?"

"Nothing. Remove our tracks, make sure nothing can be traced back to us."

"Already in motion. What about Minmay's Guards?"

"At least we know better what they can do. What these new weapons can do. And that peasant rebellions aren't as scary as Minmay thought. ... You may go."

Cato looked at the Borehole. The depth had reached the targeted five hundred meter mark yesterday. Unceremoniously, the construction was hastily completed despite the arrests and general panic.

A major project completed, probably the most important project even if its importance had been diminished by the Ironworker's magic compression steam engines. And without the fanfare or grand opening day that Cato had envisioned.

The walls had been magically enchanted using spellplates specially made for this purpose. The metal tube extending downwards had been sealed at the bottom with an experimental welding technique but he couldn't see it, the metal walls just seemed to go down into the inky blackness.

Cato could faintly sense the stream of power surging out from the five meter wide hole in the ground. To others with better magic sense, they might actually feel it pushing on their lifeforce. It wasn't as if any particular section was dense but the constant flow out of the ground was like a slow and steady river.

Such an achievement should be acknowledged, the people and miners who gave their effort and sometimes blood to build this should be appreciated with more than just money. People ought to know what they had done here, how much this would change things. But the riots had shown certain University projects to be unpopular and the Borehole was one of them, for taking away the easy money of the magic power trade. Minmay wouldn't risk having this expensive thing get damaged, although how one damaged a hole in the ground was hard to imagine.

The problem now was how to use this. They had a renewable source of magical power and when the metal cover was placed over the release hole, it generated enough power to cast a ritual summon every ten minutes. Anyone could easily see how the new machines currently powered by magical crystals could benefit from using the Borehole.

Getting the magic there was more difficult than he initially imagined. They could start enchanting the ground, no difficulties in getting the power to do that, but a power line quickly ran into problems. Namely, the speed of magic was only about ten meters per second, and this applied both to moving spells, signals and raw magical power. And distance caused losses as the power drained away over time like any normal spell.

Storing the power by binding it with alchemy incurred huge losses, magic circle alchemy was still not as efficient as what humans could do, but even the human best record of about two thirds loss was still high. The same losses would be incurred if the power was bound and then transferred via enchanted ground. Losses that Cato wanted to avoid if possible.

"Oh, Cato, you're early!"

Bashal's ever cheerful voice cut through the morning quietness. Cato turned away from the hole and
looked at the Ironworker... researcher? Bashal's position might as well be that now. Still, how was this man so cheerful even after the recent disaster?

"You called me here to show me something?" Cato asked, "I recall you said you could solve the power distribution problems."

The big Ironworker loomed over Cato as the cart approached. Even his arms were easily half the size of Cato's thighs, bigger than most Ironworkers despite the understandable workout they got. He gestured at the cart and his apprentices began to unload metal pieces off the cart, tube sections, rings and other more esoteric pieces. Some of them glowed with magical power.

"Indeed, rejoice, for we have our own solution!" Bashal grinned, "without your help this time."

He jerked a head towards the steam engines that had been running the drainage pumps up until yesterday. Three apprentices began to disconnect the piston from the pump and the others began to assemble a new contraption beside the steam engine.

They efficiently assembled a magic compression engine right there beside the Borehole. While they did that, Bashal explained, filling the air with waving arms and exuberant gestures.

"You see, I was investigating how to improve the efficiency of our compression engine. As you know, high magical density allows us to generate power, the higher the density, the more magical power generated. So the obvious thing to do was to compress the magic as far as it would go. We discovered that the denser the magic in a container, the harder it gets to compress it further and the more power we get out of it. In fact, I suspect that the force required is exactly proportional to the power gained. Naturally, this means the most inefficient part of the compression is when the density of magic is the lowest, we lose virtually all our power to friction in the steam engine.

Well, in any case, I was using compressed magic from one steam engine as feed for another when I realized I had your solution instead!" Bashal pointed at Cato dramatically.

Cato nodded, this much was making sense so far. But Bashal hadn't yet explained what this had to do with transporting power.

"What is that?" Bashal shifted his finger to the stream of magic escaping the Borehole, "it's dense magic! Just like the compressed magic that comes out of our magic compression engines!"

Bashal swung back to the half-assembled magic compression engine, "and what we have here, is an engine that will compress ambient magic and shove it out the side here, into any container you want. Even a steel bottle! It is simple, magic density itself stores power, you can just bottle it up and transport it by cart! You can just put the high density magic from the Borehole into bottles and use it."

Cato frowned. It was a good idea, but there was still one serious problem. "The magic density of the Borehole isn't high enough," Cato said, "from what we know, this level of magic density in a spell cannon's power box only generates a bit more than eleven power units. That's not nearly high enough to transport it by cart."

"And therefore, what we will do is use the Borehole as a source of medium grade magic density! As feed for the compression engines!" Bashal gestured at the engine, where the apprentices were trying to coax the enchanted intake pipe into the Borehole. "This will let us skip the most inefficient portion of the compression and allow us to use the least fuel for the most magic density gains! And we'll sell compressed magic, instead of raw magical power."
Cato had to admit it, Bashal was on the right track. "So, have you tried compressing magic density? How high can you get it?"

Bashal grinned and went to the cart and brought out a small hollow cylinder, not much larger than a half liter soft drink bottle. It had an input hole that had been melted shut to seal it. "I've compressed magic into this bottle as far as it will go, by some very expensive staging. Any more and the enchantments start to break."

Cato could certainly see that. The steel cylinder was glowing with power, all of it building a ridiculously dense magical barrier. The enchantment was at the limit of what steel would support without losing power.

"This magic density, if used to generate heat, is about the same as shovelful of coal. It did cost me nearly an entire cart to fill this but hey, we don't need this level of compression," Bashal said, "there will need to be some experiments, to find a good balance between the fuel efficiency and the density of energy, but I am confident this can solve the problem. And as far as I can tell, bottled magic density does not leak. Not quickly anyway, I noticed no change even after leaving this bottle for a week. We could store power for years without losing too much."

Cato thought for a moment, estimating it in his head. A soft drink bottle sized container held about five hundred power units plus or minus a hundred, factoring in inefficiency in heating with coal. And obviously commercial use would deliver it in larger containers. Yes, it was workable if the compression efficiency wasn't too bad.

Or he could just sidestep the problem. Contained magical density didn't bleed energy? That was a perfect way to transport it.

"Or what we can do," Cato swept a hand over the city, "is enchant a small pipe to contain the density from this Borehole and just pipe the magical density around the city. We can just piggyback on Muller's water pipes. Enchant his pipes before he lays them and have them carry water and magic. We'll need to dig them all up again though. Who cares if the Borehole density isn't that high, you can just tap it continuously. Or request a larger pipe if you're not getting enough."

It was almost like gas piping on Earth. He glanced at Bashal and noticed the man looking a little sad.

Cato smiled and clapped him on the shoulder. "Don't look like that, the idea is still good!" Cato said, "have you noticed? This little cylinder contains more power than steel staffs can store, for less weight and size. That has more applications than just powering factories. The Guard will be interested in it, and anyone who needs a mobile power source. Power for spellforming wands? Or portable machines like mining drills? Lights? Firestarters? With a pipe from the Borehole, you can still run your magic compression engines using the Borehole's magic as input."

Bashal smiled back. Yes, portable magic density as power storage was still useful where the grid could not reach.

They looked at the Borehole with new eyes. An infrastructure like a cross between gas and electric power. A magical infrastructure, even if it wasn't quite like the enchanted ground Cato had imagined. This would change the world. Again.

"I'm thinking about how to build a spell compiler, a template of templates so to speak," Landar said, trying to twirl the pencil around her fingers but failing. "We have a thread to generate each type of
magical effect and we can tie them to each other to chain them but the threads already abstract the process of doing all this."

She dropped the pencil and stared glumly at it. "It was all so clear, I knew what I had to do, but now all I can remember is little bits and snatches," Landar sighed, "if only I just... go crazy on demand."

That earned her a glare from Cato sitting across the table.

"It'll only take a week to make one, at most," Landar pouted.

"A week of that is enough to kill you," Cato retorted.

And the worst part was that he was right, she hadn't even felt exhausted until he made her sleep. And then Landar had proceeded to sleep through the entire first portion of the riot.

"What I think we need to do is to abstract the placement and logical links," Cato said, "currently, we put effects in a specific spot in the enchantment by making sure the effect the thread creates reaches the correct enchanter with the correct depth signal reaching it at the same time. As you know, this timing issue causes the majority of our problems. So if your spell compiler could allow us to just put the effect, location and depth signal you want next to each other, like a paired instruction, then that would make creating spells much simpler."

Landar nodded, "indeed, enchantments would become just row after row of threads, no more tangles. And the threads themselves are just signal threads, no need to make threads that can create effects. The template creator can receive the effect type, location and depth signals, create the effect and send it to the correct enchanter accordingly. Some effects would need additional inputs for parameters, like length or size."

"Instead of endless rows, I was thinking about your template of templates while you slept," Cato said, "what I'm thinking is this term we have called a pointer. We already use it in the main control line, but instead of a single direction from start to end, I'm thinking of giving a group of effect instructions it's own control line. Then the active point of the line can be passed around between individual groups to execute a group of threads over and over again instead of requiring one group per time you want to run it."

"I don't see how that helps. The threads won't change, so you'll just end up with identical effects on the same spot," Landar pointed out, "which won't work. They'll just interfere with each other and break down."

"Ah but there's the beauty of it, I'm thinking that the threads that control the location, depth or even parameters of the effect can be relative," Cato said. He picked up Landar's dropped pencil and began sketching, "a special thread that says, take the number stored in a special place that I will call a 'register' and use that number to determine the location, depth or parameter. We'll have to decide what numbers make sense and how to store it but it can be done. I think the circuit diagram would look something like this."

Landar looked at the diagram. For spells that re-used a single group of effects, like spell boundaries, timers or firebolt warheads, this could be helpful to further simplify matters. Oh, but then they'd have to be able to change the numbers inside with an instruction thread, like a thread that meant add one to the number, which you could stick at the end of the group of effect threads.

In a flash, she realized what Cato was building towards. This was the same idea he had brought to her all those weeks ago!
She sighed and smiled at him, "alright, you win. Fine, I see the point of that... 'computer' you wanted."

Cato looked her blankly.

Landar blinked. Surely he hadn't forgotten? She shot a glare at him.

"Right, yes, that. The computer," Cato gulped, "I recall you saying it was not feasible."

"Certainly not then," Landar said, "do you have any idea how difficult this register will be to make? The compiler will need to access it. And I doubt a single number in the register will be enough, there will be more than one stored number you need access to. Without magic circles, we had no hope of making a compiler and I suspect a register will be impossible without a compiler."

Cato nodded in agreement.

"Still this doesn't explain what I was thinking about, with the template of templates. You said that was similar to 'object oriented programming', what does that even mean?" Landar asked.

Cato scratched his cheek and frowned, "we'll have to start from the idea of a call stack first. I don't really know how this thing works in our computers, I wasn't a computer scientist, but I do know how functions work in our programming. So let me work it out as we go along."

He began to draw and explain.

Ten minutes later, Landar was regretting asking. Her buried genius side might have seen it all in a flash of inspiration, but this tower of logic was too big to fit into her normal head. And Cato was saying that this was just functions and not really true object oriented programming.

"Wait wait Cato," she held up a hand to interrupt him, "you're going too fast. You want a... register of registers? So that the groups of effect threads can 'call' each other like the brackets in those algebra equations you had me do?"

It all made sense, in a almost too big to understand sort of way. Landar had no idea what sort of twisted and sick problem required this much abstraction but she sure didn't want to meet it. She must have said as much, because Cato raised an eyebrow.

"You had those self-aiming wands back in our house right?" Cato said, "now imagine you can't use those precalibrated sensor tiles. You have two magical power detectors, which report the angle they point and the amount of power they detect. You know how far apart they are and the angle the detectors are pointing in. How would you detect, track and calculate what angle to shoot your disruption bolt?"

And this was a problem Landar had posed to herself too. She hadn't really known the answer then, she only knew it was solvable. But... in the clearer light of normality, Landar was beginning to see the true magnitude of the problem she had set herself. She could calculate the range and direction using geometry Cato had taught her, but that required at least a timer and two measurements, and that would have to be fed into the...

"Yes, I see, I have to use the same calculations over and over, that's where the functions come in," Landar said. And it would help a lot if a big controlling function could call the smaller ones, like a function that rotated a sensor. "But that means you want to put a stack and the... calculator, into the final spell?!" she asked.

Cato nodded, "yes, indeed, eventually we'll have spells so complicated we need to do that."
Landar could feel her own stack in her head getting smashed. She tried to think of all the layers that would be needed and literally lost track. "I... I can't even think of everything needed at the same time," she whispered, feeling a little horrified now.

"Neither can I. That's why we'll have to build things upwards. And this is peanuts compared to object oriented programming," Cato said, a little too smugly.

Landar shook her head helplessly, "you know, I'm tempted to call on my better half just to make sense of this." 

She winced at the look on his face.

"No Landar, you really shouldn't do that," Cato sighed, "I mean. Do you even know what it does to you? You were so weak that day you could barely even stand straight!"

She tugged on her hair stubbornly, "but everything was so clear. I could just see it! All of this! It was all so easy and I could just build and build. " And it was so much fun! Landar always regretted the tiredness and hunger when she came out of her trance though, that part wasn't fun at all.

"But you go off into your own little world when you do that, you don't see anything other than the project you are working on," Cato said, "it feels like you have been replaced. That you're not... you."

Landar sighed. It was true. She didn't feel like herself when she was in that state. And honestly, she knew it was very bad for herself. But that clarity and sheer boundless energy, the certainty that everything was right, was intoxicating. She still wished that she could feel it again.

Should she tell him now? People always called her weird in the past, she was the Mad Alchemist after all.

"What if I can't stop it?" Landar asked, more softly this time, "I mean, I don't know what triggers it. If anything, this planning we just did for the compiler should have brought that inspiration. But it didn't."

They sat there quietly for a long moment. Then Cato took her hand, "I'll be there to make sure you survive it."

His hand was warm. And reassuring. "Cato," Landar gulped and continued, "I've actually had this for a long time. Um. You know the Knights talk about my 'specials' and there was that robot I tried to build? It wasn't this bad before I met you, I never forgot to sleep. But I occasionally go a little bit... crazy and make complicated things that sometimes don't work."

"That explains certain things, yes," Cato nodded, "has it been getting worse?"

"I haven't had an episode this bad until last week," Landar said, "but no, I have still been getting smaller bouts. I just didn't mention them."

"I'll be here," Cato said, "and I hope eventually, we'll know enough about chemistry to make mood calming drugs too. Don't hold out for them though."

It was amazing, how much his words reassured her. Landar suppressed a smile, feeling mischievous. "You'll be with me, always?"

Cato nodded earnestly. He was still holding her hand across the table.
"You know that's basically a proposal?" she grinned.

"Oh sure, why not?" Cato said casually.

They laughed as he tossed the joke right back at her.

"We don't exactly have a normal relationship, you know?" Cato noted, once the laughter was over. And he was still holding her hand!

Landar smiled back, "I am the Mad Alchemist after all."

"And I am a wanderer from another world," Cato shrugged. Then he paused to visibly gather some courage. "So what are we?"

Landar thought. And thought some more. She had no idea actually. "I don't know," she said finally.

"Neither do I," Cato added.

And they were silent for a moment. And still holding hands across a table covered with work notes.

"Think about it another way, can you imagine us with children?" Cato asked suddenly.

Landar started to consider the image but something about that blew her stack again. She frowned and shook her head.

"Neither can I," Cato sighed, "well, any suggestions?"

Landar thought for a while, "you know, the stories have couples that aren't even half as honest as we are being now."

"I could say the same for Earth's stories," Cato said, looking for her to continue.

"Maybe that's our problem?" she ventured hesitantly.

"But the stories always turn it into drama, so many of them could have been solved just by a good honest talk," Cato pointed out.

True. "I think we don't have a relationship in the romantic sense, then," Landar concluded. It definitely wasn't at all like the ones in the stories anyway and she didn't have experience.

"So the question is, do we want it that way?" Cato asked the obvious question.

Landar considered the question but her feelings were not being helpful at the moment. Where were all the easy answers that were supposed to happen according to the stories?! She only felt mild annoyance at having to trash so many things she had 'learnt'. She was just completely lost without a reference point.

"We could try it, just do the things that couples do," Cato said, "in my culture on Earth, there was a custom called dating. Maybe we'll find out then. And no worries, dating doesn't carry any expectation of marriage, unlike engagements."

"That could be a way," Landar said, half glad that he had suggested that. The same thought had occurred to her but an engagement here carried a bit more weight. For an Iris daughter of the core six? It could be extremely significant.
She nodded and finally took away her hand.

A tension Landar hadn't even known she felt popped like a bubble. She met Cato's eyes and felt a grin on her face, which he mirrored. Then they were both laughing at the craziness. The stories might be crazy but that episode just now surely topped them. Who ever heard of prospective lovers discussing the issue like this? They might as well have been discussing whether to buy paka or piyo meat for dinner. Then the moment of synchronicity passed, and Landar realized that she could no longer tell if he was thinking the same thing as her.

Cato got up and nodded to her, "I have a magical infrastructure to build."

"And I, a compiler," Landar smiled back.

Tinard ran a hand over the worktable feeling the bumps under her fingers. To the left, on the wall, hung a series of tongs and hammers. Her blacksmithing tools.

She had a workshop now, her own workshop. And outside, in the bigger space, she had a small gang of workers ready for her to command. Nominally apprentices, but neither they nor anyone else expected Tinard to teach them ironworking. They were her employees, here to do whatever she told them to.

The bigger area was an old warehouse next to Willio's ironworks, bought and repaired over in the two weeks after the fighting had died down. Tinard's own ironworking company. Minmay's payment for her full cooperation and success, she was given the first set of new ironworking machine tools.

And in that warehouse was a set of shiny new metalworking tools for her workers to test. A metal lathe, meant to cut wrought iron or untreated steel. A grinding wheel of varying coarseness. A small hammerer for precision work. All of them driven by magic. And clamped to their steel holding beds were a series of jigs, guide rails and pre-calibrated gauges, installed to position and guide the workpiece along a fixed path.

Tinard went through the procedure in her head. She had memorized all the steps by now, after lecturing the peasant workers on it for the past week. They were to buy steel rods casted by Willio's company and cut them into screws. It was literally all she was asked to make, her company was called The Screwmaker after all. She made a mental note to rename it later.

She had orders for screws of certain lengths, screws of different widths, with different heads, different thread spacing. Taps to cut the threaded holes for her screws. A side order of nails. And this thing called a screwdriver.

The ex-peasant workers Minmay had sent her way stood to attention as she walked onto the workfloor. Tinard was reminded again that they were not smiths and saw nothing wrong with using these new tools to do nothing but make boring screws all day. There was even one person whose sole job was to check for obvious defects and pack the completed screws into their crates. As long as they were paid, they didn't care.

Tinard faintly recalled the admonishment. Where was her pride as an Ironworker? But then Tinard believe in the University's techniques and the offer to jump ahead of everyone else was too good to pass up.

She wasn't afraid of the guild. The Ironworkers guild didn't exist anymore, not when most of the upper leadership spun off to form their own companies employing the same practices that had torn it
apart. And a significant section of the lower smiths had been arrested, Tinard had no illusions that she would ever see them again.

Maybe she'd get to make some nuts and bolts once the workers were used to it.

"All right, we've studied the protocol steps, so let's do this for real now," Tinard said.

The first group dragged a thin metal rod as long as his arm over to the cutting machine. As metal shavings began to fly, Tinard wondered at the sheer extravagance of shaving down first rate steel. But then she had kilograms of rods to cut and could order it by the ton if she wanted. Speed and precision of running the machines were more important than minor material savings that could be sold back to Willio as scrap anyway.

There was a loud screeching of tortured metal and a snapping sound. The two workers managing the lathe jumped back hastily.

"Stand back and let me look," she said. Tinard strode forward and saw the deformed screw threads. Good, her tool wasn't damaged. Then again, with Resist magic to reinforce the tip made of tool steel, it was hard to imagine the lathe being damaged by the pliable iron.

Hmm. The metal rod was slightly off center and the tip had bit too deep. Tinard unclamped it and gestured for the workers to bring a new rod. She showed them again how to clamp it in the exact center, emphasizing the position of the rod against the markings.

Then she unclamped the new rod and made them practice it another ten times before they proceeded. Everyone on the workshop floor had to watch and take a turn. The second rod nearly ruined her lathe when they tried again. Tinard cursed and began to hunt for the next problem.

With fits and starts, both her and the workers learning as they worked through the process of making screws. Many rods were broken that week, good tools failed and their patience tested. Replacement tools and new jigs and gauge designs were ordered from the University tool making shop. Tinard had to complain many times when theoretical designs failed in practice, and she even managed to get an audience with Cato to rant about the clamps on the rotary jig breaking.

But at the end of the three weeks, she finally held in her hand the first ten screws that all fit into the same threaded hole. The workers cheered and Tinard felt a smile on her face, a sense of accomplishment just like when she had completed her masterwork qualification piece.

Maybe this wouldn't be so bad. After all, the workers would be the ones filling the order for one thousand screws. She was just there to lead them and solve problems. It was her company and she didn't have to do boring work if she didn't want to.

She should start on those screwdrivers now. Time to do it all over again.

"Yeah!"

A round of cheers went through the table. Mugs and skewers raised in celebration. The group was lively and noisy, as befitting their newfound wealth.

"Where was this job three years ago?!" exclaimed the peasant woman as she chugged her mug full of choko juice. Non-alcoholic of course, they had another shift tomorrow morning.

"Yeah, I needed this free money," the older man sitting across her said as he bit into his piyo meat
skewer, "I mean, getting paid to just stand around and push levers and turn handles? I don't know who found a way to make doing this earn money but that person can have all my thanks!"

"You still have to do it without making mistakes," said the younger man next to him.

"Pah, if you can follow instructions, you can do it," the first woman said, "your problem is that you can never pay attention to all the little bits."

"Those little bits are the problem! Who ever heard of an instruction where you have to put it just so exactly or pow! The machine blows up! There has to be a better way."

The woman shook her head, "you leave that to the University. Just do your job and you'll enjoy your money."

There was a lull in the festive cheer at the mention of the University.

"Good thing the Chancellor made them invent these 'jobs' for us, eh?" the older man said as he tossed away the stripped skewer.

A bang from the door interrupted them as a fourth man entered the tavern. He was dressed in a different uniform, with a crudely sewn image of a bolt of cloth on his sleeve.

"Guess what, I got hired for this crazy new job to spin cloth and they're paying me in cash!" the new weaver bounded up and joined his friends.

"Good for you!" the older man said, calling the waiter over. He ordered another round of skewers after confirming they could still afford it. "And while we're waiting, let's have more drink! For the Chancellor!"

"For the Chancellor!" the rest echoed. Quite a few of the other patrons joined them by tossing back their drinks too.

"And down with the rioters!"

"Down!"

That got a more muted reaction. But no one was going to break the cheerful mood of their first paycheck.
And here now we gaze upon,
the sands of Illastein.
For the flames of war now arise,
the struggle has yet to come.

Beneath the boots of those we toiled,
but now we say, no more!
Unfurl the flags! Beat the drums!
the rebellion has just begun.

Yana crouched down, sifting through the sandy soil. She thought she had seen some green. There!

Her thin fingers scraped the soil weakly and the root revealed itself, two tiny nodules clinging barely
to life in the dry sand. It was yama! With desperate hands, Yana tore the nodules from the exposed
roots. This was good! The sweetness would make the soup much better.

She looked up at the sky, almost to Little Night now. No more time. The few herbs and edible
grasses was all she had but it was better than nothing.

She half ran and half stumbled back to the village. The Little Night had started and the shadows hid
rocks that scraped her feet but she felt it not at all. In another few minutes, Yana ran into her house
through the doorway. The caked mud and straw bricks were flaking already. She would have to get
papa to fix them, later of course. Yana nodded to herself.

"Papa! Papa!" she shouted weakly, "I have some food! I have yama!"

There was no reply from the deserted kitchen. Yana put her rickety basket on the clay floor beside
the stove, gently. A small sound attracted her attention to the main room that her family slept and
worked in.

Yana crept around the door and saw her mother crouching over the place where her father had laid
sick for the past week. Her older brother was beside her. Her father still lay there, unmoving.

"Mama?" she asked timidly.

Her mother just sat there, softly crying. Yana looked at her father sleeping on the straw and back at
her mother in confusion.

"I even found some yama," Yana said, even more softly.

Her brother got up and hugged her silently, a pale face and shivering arms hiding her father from
view.

The hole in the ground looked too small for what Yana remembered of her father's size. Her mother
knelt over the sandy pit, throwing clods of dirt over her father, still crying all the while. Strangely,
despite her brother's cold arms around her shoulder, Yana didn't feel anything other than a slight
sense of shock. Shouldn't she be crying? Or even a little bit sad?
Yana recalled the last words her father had said, just the morning before he had died. "You should live to eat, not eat to live," he had said.

Yana didn't understand that, but she understood that food was important. Everyone knew that, everyone wanted to eat after all. That must have been what her father wanted to tell her. It wasn't that he was hungry and wanted to eat, like she had assumed.

Her brother hugged her as the grave was covered up with the last of the dirt, leaving only a single mound. Yana felt his tears staining her hair and let him hold her. It lifted the numbness a little. They walked back to the village painfully.

The commotion ahead of them made her look up.

There was a band of men among the dirt houses. Their armour stood out, dark brown leather over faded green cloth. Painted with a red moon surrounded with three red stars. The emblem of the Rawi.

"... between ages ten and thirty here, right now!" The leader of the group was shouting at the villagers huddling in the central clearing.

The big man glared at them as the villagers looked at each other in confusion.

"Hurry up!" he shouted, "this is the express order of the Alawi Zain's draft! You have been given the honour to respond to his call!"

Yana immediately disliked the grin on the man's face. Nor did the woman behind his shoulder look friendly.

"You over there! " One of the group shouted at them. Yana felt her brother flinch and squeeze her tighter. There was a crunching in the sand as two of the knights came to her. Two women in thin leather armour and swords that seemed to pulse with an unseen glow.

"Take the boy," said the woman.

Yana had no strength to even resist. No power came to her limbs and despite all her older brother did, screaming, crying, thrashing, the other woman knight simply peeled him off her mother and dragged him back to the center of the village by his arm.

The same was happening to the other villagers. The knights fanned out through the village and dragged more of them out of houses amidst cries and protests. A few of the older boys made a dash to escape but the leader waved a hand and a single bolt of magic burned them into twisted charred corpses. There were no more would-be escapees after that.

Yana and her mother sat where they were placed, on the doorstep of their house. Her brother squatted in the central clearing and looked at them sadly. Her mother was crying again beside her. She still felt nothing at all.

After almost thirty boys and girls had been collected, the knights seemed to be satisfied. They were joking and laughing at each other, the word 'slave' was mentioned.

Then the village square exploded. The knights reacted first. A trio of unseen things flew out from one of doorways of the huts and exploded into sudden red blossoms in front of the knights. As quickly as the first, another salvo arrowed out, men and women charged in from the sides wielding farming implements, hammers and kitchen knives. The farmer, the woodcutter's wife, and others.
They were all people she knew, wearing angry expressions that she hadn't ever seen before.

Yana watched numbly, squatting in the doorway of her house, as the knights fired back with a spread of magic. That was what the invisible bolts and those things on their swords were. Magic. For all her short life, Yana had only heard stories of magic told. The knights fired indiscriminately, bolts flying wildly in all directions.

The charge was short lived and futile. The people who she had grown up knowing, the village she knew all the time, they burned. Burning in a haze of magic, screams of rage and the smell of roasting flesh.

Before her mother pulled her back into their house, Yana saw her brother being yanked up from where he lay flat and dragged away in front of another knight. Then she was pressed flat to the floor, with her mother lying on top of her, crushing her to the dirt. She could still hear the screams even though her mother's hands clapped around her ears and hugged her tight.

It took an eternity for the screams to stop. But even when her ears fell silent, the smell of burning straw, mud and human flesh remained like a miasma around her.

Yana lay still, not daring to move under her mother. But when air began to turn bad enough for her to start coughing, she wriggled out to find the house burning around them.

Her mother... Yana looked away reflexively from the horrible wound on her back.

The thought skittered across her mind but it disappeared down the same numbness that had been creeping over her lately. She had to find her brother.

Yana turned and tottered out of her burning house. The village outside was a sea of flames, bodies and fire everywhere. The sunlight on the clearing had been blotted out by a grey column of smoke, leaving only the flickering fire light dancing across the ground in a grey background.

The knights were gone. Yana ran across the square, checking the bodies for her brother but he was not to be found. Here and there, the odd survivor knelt or wept, dragging the bodies of their relatives.

"Where's my brother?" she asked a man who was kneeling over a half-burnt body.

He looked up at her blankly. His face was streaked with soot and baked red down one side. She knew this man and the dead woman... Yana made the thought disappear again.

"Where, my brother?" Yana repeated her question, pointing at the square the knights had gathered them into.

"They... they took the people and ran," the man said, "down the road... towards town."

Yana looked down the dusty road. Her brother was gone that way. She nodded her thanks to the man but he was already turning back to the unrecognizable body on the ground.

She looked at the road again and simply walked out of the village.

The boy looked up from his post, trying to stay awake in the warm midday sun. A stern hand rapped his paka leather armour, jerking him awake. Without even waiting for his apology, the squad commander was gone already.
He looked up to the deserted road. No one would brave the curfew to leave and who knew what else lurking outside these walls. So why was there someone walking towards him? Ah, they collapsed.

The boy shot off his seat and peered closer.

"What happened?" the commander snapped.

"There's a person out there," the boy said. "Sir," he added belatedly.

"I don't see anyone," the man replied, "the sun bake your brains?"

"I did, sir," the boy said, "by your leave, I'll go take a look."

The man considered the action for a moment before nodding. There wasn't anything better to do during a curfew anyway.

The boy approached the collapsed figure when he realized it was a girl, younger than him by a few years. "Oi! Over here!" he waved to the other mercenarys manning the gate.

She was aware of a light covering above her. A sense of dark coldness, or just less light outside her eyelids. A pounding heat stayed inside her head, trying to get out.

"You're awake," a boy's voice said next to her.

Yana opened her eyes to see a stone ceiling. Where was she?

The boy who spoke came into view, "here, drink this."

He helped her up and pressed a cup of weak alcohol to her lips. She drank greedily. The boy refilled the cup and fed it to her again. The heat receded a little.

"Who are you?"

He looked older than Yana, not an adult though, more like her brother. But he wasn't her brother.

"Yana."

She looked at the boy questioningly.

"You're in the gatehouse. We're on watch and found you collapsed on the road just outside."

Yana nodded her thanks. She remembered now. The two day walk, feeling the sun wring her dry and glue her eyes to the road until there was nothing in the world but endless dirt and dry grass. She remembered walking until the walls entered her view, the flood of relief at seeing it, and then nothing. Yana got up.

"So where are you going?" the boy asked, holding her back on the wooden bench.

"Find my brother."

The words came out clipped and broken. It seemed like forever since she had talked and her lips had forgotten how to make sentences.

The boy looked at Yana, he didn't believe her. "Who is he? Is he here in this city?"
She gave him the name, "don't know. Knights took him for slave, headed this way."

"oh," the soft sound and look of pity on the boy's face burned her. Yana avoided his gaze.

There was a scraping noise as the wooden door swung open to admit an adult man. A big man, like that slaver who... Yana halted that thought once again. She was getting good at this.

"Hey, you're up now. Glad to see that."

Yana saw the man eyeing her speculatively and decided that she also didn't like him. His eyes were like those slavers, wondering how much she was worth.

"I've decided, you'll join our group," the man said. There was a smile on his face. Yana didn't trust that smile.

"What?! You can't make a kid like her fight!" the boy exclaimed.

Yana just blinked stupidly at the man.

The man's smile turned cajoling. "Shut it, boy. We just need the numbers. It doesn't matter if she can fight. None of us are worth anything next to a knight anyway. One more pair of hands to collect the nobles' coin is always welcome. So, little girl, want some easy money?"

Yana shook her head. She had to find her brother. She couldn't join them.

His smile faltered. "You don't have parents? Join us, its best thing for you. You get food, a place to sleep and even earn some money. All we do is watch this gate, just don't sleep in the sun."

"She has to find her brother, he was taken by slavers," the boy explained for Yana.

"Slaves don't get released," the man shook his head. The oily smile turned into an equally oily pity. She was still not liking him. "Give it up. You're too young to do anything. Maybe if you join us, you'll save up enough money to buy him back when you're older. If he's still living."

But her brother wasn't supposed to be a slave! "Not sold. Knights just took him," Yana said. How could he turn into a slave just like that? They had no debt, no one would even lend them money.

"I meant what I said. Slaves don't get freed," the man was frowning now, "not if a kid like you protests. Who's going to believe you? They'll just take you for a slave too. Plus you can't even find him right?"

Yana stared at the man. That... yes, she did understand. If she just walked up to the slavers and ask for her brother, she'd turn into a slave herself. No, she had to find her brother! But it was impossible. Where would she go? Who would tell her how to find her brother? Was he even here in this town anymore?

All the doubts that had been ignored during her mindless trek surged him like a black wave. Her eyes felt dry and scratchy but no tears would come. She just wanted to cry into her mother's arms. But that was impossible now.

The tide of darkness rose in her mind- Yana caught her breath and slammed the door shut on her memory. No, don't think about it. She only had to find her brother, that was all, then everything would be all right.

"I... have, find him," Yana said dully, "find my brother."
The man snarled something unintelligible.

"But-" Yana shook like a leaf as the man grabbed her shoulder.

"If you want to find your brother, you will do what I say," the man said forcefully, "join us, grow up. Save your money. Then you will find your brother."

Was it really that simple? And that sounded like it would take a long time. Yana said so.

"Yes it will, but you will find your brother afterwards, all right?"

Yana blinked away the remnants of her tears. Could she really find her brother after this? All right, then she could do it. Yana nodded.

The man bowed a short welcome, "then it's good to have you. I'm the squad captain. Boy, wash her up and show her where to sleep."

"We got a job!" The commander raised a cheer.

The rest of the gang didn't respond.

"Ahem, today we attack this merchant. Chase away his guards, free the slaves, show them out the back door," the commander glared around. The gathered men and women nodded.

Yana shifted under the heavy and oversized cloths she had been made to wear. The dagger strapped to her waist was longer than her hand, but she could not even use it. No one expected a little girl to fight, the weapon was just to fill a number.

The commander led them down the busy market street and turned into a dark alley. "And remember, we're pretending to be ISL, so if you see actual knights, run!" the man hissed. That got another round of nods.

"Yana, come here. You go to that shop and look inside, tell us how many guards are there," the man said once they reached the alley next to the target.

Yana walked forwards without saying anything. The boy scurried along behind her, glancing worriedly at the commander. But the man didn't stop him.

She peeked around the corner, seeing the three men outside the shop area. She held up three fingers.

"There's three of them," the boy called back.

"Easy enough, all of us at once!" the commander shouted. The entire gang came barreling around the corner, yelling all the way.

The three guards looked up at them and raised their weapons. The first three bolts out of their bowguns slammed into the woman in front and she went down screaming. Then the howling gang reached the guards and it devolved into a melee.

Screams of shock and panic filled the air as pedestrians cleared out of the street. A smell of smoke drifted past Yana's nose as flickers of flame licked the edges of her vision. The town... it was burning.

A hand on her shoulder snapped her out of the memory.
The boy patted Yana, trying to be reassuring and charged out behind the gang. Yana didn't move. She couldn't move. The smoke was coming back.

Crouching in the alley, Yana crawled backwards and slipped into the space between the rows of buildings. The back alley between the shops was a dark place, filled with looming knights and slavers.

Ahead of her, the back door of the shop that was their target flung open, five people wearing collars tumbling out. There was a cart waiting for them. And men carrying swords.

"Get in," the armed men ordered, kicked and pulled the slaves into the cart. Into the cage on the cart. Yana squeezed herself into a gap in the walls, trying to turn invisible. It didn't work. One of the men came up to her, licking his lips menacingly.

"You there, come here!"

She shook her head mutely. Her tiny knife was in her hand, trying to put the point in between them.

The man advanced on her. Yana wanted to run away but her trembling legs weren't cooperating. "Put that down and come here, or I'll hurt you," the man brandished his sword threateningly.

"Oi, she's mine," a familiar voice growled. The commander was standing in the back door of the shop.

The slaver looked at him and clicked his tongue. "I just wanted some extra money. No hard feelings, eh?"

The commander shrugged, "you got what you wanted, so pay up."

The slaver nodded at the other men around the cart and they tossed their swords to the dirt in front of the commander followed by a bag of money. "There, your weapons. The Lawi will pay us for replacements once he sees his new slaves and a ruined competitor."

The commander smiled back and the cart trundled off. Yana saw one of the women in the cage staring out at her. The eyes followed her all the way until the cart left the alley.

"Come Yana, we're heading back," the commander snapped at her.

Yana turned away from the empty alleyway to see the rest of the gang nursing their wounds behind the shop. And the three bodies laid out on the ground. One of them was the boy.

His entire left shoulder was missing, a hit from a forcebolt. His empty eyes looked up at the dark sky above them, not seeing the sun.

"Darn boy ran out without orders," the commander sighed, "there goes my drink money. If you don't want to die like him, Yana, you just listen to my orders. You'll be fine. Understood?"

Yana just stared the corpse. The darkness grew a little deeper.

"We're done here, move!"

"What about the bodies, commander?"

"Leave them."
"You see that warehouse there? That's our target," the squad commander whispered to them. He pointed at the rundown wooden building.

The hot afternoon air had emptied the streets. Especially this salty dockyard near the sea, the few coastal ships languished in the desultory heat.

"The False Hero uses that warehouse to smuggle for the ISL. We've been told to burn it down," the commander looked around and got a series of nods. "We have eight to their four guards, and I don't feel any magic," the commander said. The eight did not include Yana. "We'll charge in from the front, kill them quickly and torch the place."

Yana tugged on the man's sleeve questioningly.

He looked down at her, "um, you go round the back. Take this lamp and sneak in. Set a fire and get out."

Yana wondered what she would do if there were guards at the back. Perhaps she would just sit down somewhere and wait instead, no one was expecting anything from her. She nodded.

"Yana, you go first," he said and pushed her forwards. The commander did not watch her walk away. "Get ready, we'll attack on my signal."

Yana walked down the side alley, dully noting how the dirty children and beggars avoided her and her dagger.

Three weeks since she walked to this town. And no closer to finding her brother. Only the prospect of getting paid enough to hire out a request from the same order of knights kept her here.

She looked at the back entrance of the warehouse. There were two men sitting down in the doorway with cheap wooden spears leaning against the brick walls. She couldn't get in like this.

Yana sat down across the street to wait. They would leave eventually or she would just wait for the others to come find her.

What was she doing here? Her brother wasn't in this town, not in the slave markets nor had any of the slavers seen him. But there was food, and a bed. The others left her alone. There was a little money.

But her brother wasn't here. There was no one here...

Yana shivered in the heat and brushed the darkness away. The action was starting, there were yells and the unique sound of firebolts detonating from the other side of the dockside warehouse. A faint whooshing noise she would never forget. The guards at the doorway abandoned their posts, grabbed their spears and rushed to help.

She lifted the covered lamp and walked into the building.

The bales of cloth wrapped food lined the walls and were stacked to the roof. She could smell the dusty weight of wind-eye flour and the salty earth of preserved meats. There was so much food in here!

Food that could have made her life easier, that could have fed her village for a year or more. An image rose in her vision, the miller, the blacksmith, everyone in the village was dancing and enjoying
the food. So much food here. Her parents- Yana jerked away from the raw memory.

Why did she have to burn all of this? Yana looked at the paka oil in the lamp. Just pour it, set the fire and get out. But her hand refused to move. We live to eat, not eat to live. She recalled her father's last words.

Yana put the lamp down. No, burning the food was not right, it couldn't be! What sort of person would she be, to destroy food that could feed hundreds of people? There had to be something wrong with doing this!

"They know where we are, we'll have to find a new warehouse," a voice came from the front of the warehouse. A man concealed by the stacks of food. Yana crouched down and squeezed herself in between the sacks of flour.

"Do you think we'll need it, Morey? Will Cato really send us more supplies?" It was a girl this time. High and young.

"He will, Nal. Minmay's peasant rebellion is over and they still have too much food. Cato pledged to send more and I'm sure he'll keep his word, he's as opposed to slavery as I am."

"As long as you're sure. ... It was hard, not seeing you for so long."

"It's only been two months, what's made you so clingy?"

A pair of boots appeared in her view. Another more familiar man entered the warehouse from the back door. "Yana?" the commander asked incredulously.

"Who's there?" the man shouted immediately. There was the sound of running.

"Set the fire, Yana! I'll hold them off for a moment! Then we run!" the commander drew his sword. Streaks of blood drying on the metal drew Yana's eyes. "What are you doing? Move!" the commander shouted at her.

Yana struggled to her feet and picked up the lamp. Burn the food? She hesitated.

The running man and another young woman came running around the corner of the stacks. "Halt! Lay down your weapons!" the man shouted.

"Oh Selna, that's the Hero!" the commander shouted, "Yana?!"

Yana trembled, the lamp shaking in her hands.

"Give me that!" the commander grabbed the lamp from her as the Hero charged towards them. He grabbed at the refilling cap.

"No," Yana whispered. The vision danced in front of her again. No, she couldn't let him burn it! Her father appeared and shook his head sadly, repeating his last words. We live to eat. She grabbed the commander's arm, "don't burn it! We can't burn the food!"

"Get off me!" the commander threw her off with a shove. He swung his arm and a flash of metal buried itself in her stomach. "Obey my orders next time!" he growled, not even noticing he had stabbed her in his panic.

"Nal! Stop him now!"

Yana felt the metal hit her like a solid block that blew out all her breath. She slid down in shock as
more shouts came from above her. She couldn't breathe. There was a flash of magic and a rain of blood splashed all over her.

Boots ran up to her and hands grabbed at her. "Shit, she's a kid!" Yana blinked dumbly up at them, feeling her blood drain away through the hole in her. The pain crawling up her guts made her want to scream but she couldn't draw enough breath. Even pulling in air sent pain burning into her lungs.

Hands tore away her clothing around the wound and tried to press it shut, but the hole went all the way through her. "She's been stabbed! Nal, can we use a firebolt to stop the bleed-"

"Morey, that wound..." the young woman shook her head.

Yana still struggled, trying to draw breath but failing. It was too painful. She was going to die. "Brother..." she whispered. She was never going to find him now. Somehow that hit her worse than the prospect of dying. Yana shut her eyes, squeezing out tears that ran down her cheeks. The wound flared again with heat, somehow she sensed that the man was trying to save her. She didn't want to die! But trying to stay awake was so tiring now.

"She's just a kid! Damn it!" hot drops of liquid hit her arm but Yana didn't register it. Already feeling in her arms and legs had gone away, leaving her with only the clawing fire in her stomach.

"What's your name?" the young woman asked, "where do you come from?"

She was going to die. Yana choked but managed to draw enough wind to whisper back, "Yana. Rist village. " She could at least tell them who she was.

The noises above her floated away as she sank down into a dark painful sea. Maybe they'd find her brother for her.

Morey smacked the floor, the Em in his fist cracking the brick. The girl had stopped moving some time ago, despite his desperate attempts to seal her wound and reinvent CPR. It wouldn't work, he wasn't trained, but he had to try. It didn't work.

"Child soldiers," he snarled, "they're using child soldiers now."

More ISL people came running up to them, Morey didn't look up to see who they were.

"Two of them sneaked in the back, trying to burn the food," Nal said, "both dead."

"Is Morey all right?" that voice was Ereli.

"We're not injured," Nal said, "one of them's about six to eight years old."

Ereli gasped and ran up behind him. She was probably staring the girl from behind him. Probably too horrified for words.

"Harlos, you here?" Morey asked without looking up from the tiny hand he was holding.

"I'm here. " The Fuka, central figure of the ISL, stepped up.

"What happened to the slaves we recovered from Rist village? I remember tracing and raiding an underground auction a week ago. Was that them?"

"That was them," Harlos's voice was quiet, "was this girl from that village?"
Morey nodded. "She was looking for her brother, taken from the village," Morey explained.

They all went silent. Some crazy alchemist had enchanted metal collars with a spell that blew up on a signal. None of the slaves from that raid were recovered when the alchemist had killed them rather than let them be freed by the Hero. Completely crazy.

"That alchemist is still a hostage, right?" Morey asked.

"We have him kept half-dead by magical shock," Harlos confirmed, "the Lawi hasn't responded to our ransom demand."

"Chop his head off and stick it on a pike in the main square. I want a new poster explaining what he did."

Ereli's gasp from behind Morey was painful to hear but expected.

"It will be done," Harlos snarled viciously, happily. She had hated that man with a white hot fire and had constantly protested exchanging the noble's retainer for mere money until Morey shouted her down. He was sure she would carry it out.

"The Lawi will come down hard," Nal said, "she'll squeeze the population searching for us."

"So be it, we have enough guns and hands. It's time we met her on the battlefield," Morey breathed out and stilled his trembling voice, "find out this girl's story too, Harlos. I'm sure she has one to tell."

Unseen by him, the Fuka nodded. It wasn't fair, that he was going to turn this young girl into a martyr. It wasn't fair that she had to die, unable to even scream in pain. Her death was pointless and tragic. He should honour her and let her rest, but Morey also knew what this story could do. He peeled off her stiffening fingers.

"And we'll need a special grave," he choked, "and someone clean up the blood."

All historians of the Illastein Slave Rebellion know the tale of Yana. Told by the singers and gossip, variations and embellishments have eroded her account through time. Some accounts don't include her father taken by sickness. Some add an obviously false romance with the boy in the mercenary company. Others never include the boy at all.

Many historians have noted the way that her trials seem to echo the grievances and struggles of the population at that time. Which are true accounts, it is hard to say. But that Yana existed is a fact beyond doubt, that her story played a pivotal role in sparking the general uprising is a fact that is engraved into the future history of Illastein.

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