

Herald 311

Chapter 311 Ophenia And Gelene (Part-3) (R-18)

"Did master enjoy our little show?" Gelene sultrily asked as she flicked a bit of leftover cum from Ophenia's nose, the two girls gazing at Alexander with lust-filled yonder.

"Hehe, master's cock certainly seemed to have," Ophenia giggled the answer for him, as she had noticed Alexander was already ready for the next round.

And this presented Alexander with the same dilemma he had faced a while back- who to choose first.

And the exact question was asked by Ophenia, who inquired, "Master, who do you want to eat now?"

And then, as if to help Alexander make that decision she sat up on her knees and started grinding her wet snatch against his cock, with his glans hitting against her clit piercing through the underwear, and making him moan.

'Arggh, her pussy is so wet,' Alexander could not help but remark, as clear, warm fluids soon started drenching his member even through the black fabric.

"Hehe, then sister you can go ahead," Knowing who was Alexander's favorite, Gelene knew it was pointless to battle against Ophenia, and thus appeared to graciously let Ophenia get the first meal of the night, hence appearing magnanimous in front of Alexander.

"Then I will not reject," Ophenia accepted quickly, not caring for such petty bedroom politics, not when the upside was her long-awaited hard fuck.

But then, as if to assert who was higher in the hierarchy, Ophenia sultrily asked, "Oh, sister, could you help me take off my underwear?"

A slight dark flash ran across Gelene's eyes at hearing this, as she felt Ophenia was using her like a maid, and while trying to think of a way to retort to this request quickly, she quickly hit on a solution.

"Ahhh, sister you are asking the wrong person here," Gelene produced a wide grin and then turned to Alexander with a teasing look and said, "I believe that honors should belong to the master."

"Oh yes," Ophenia cried out in joy, remembering how Alexander had eaten both of them just a while ago, and also how he had tasted her during her very first night with Cambyses.

And so, putting her fleshy ass towards Alexander's face, Ophenia slowly crawled backward, swinging her reddened butt towards her master's face, as she then wiggled it lewdly in front of his face and mewled, "Here, master, dinner is served."

Seeing this kind of play was a first for Gelene, who noticed Alexander grab the peachy, red ass with great alacrity, widely grinning and giving a loud spank, "*Smack*", lewd girl, haven't you been spanked enough? How dare you make your master work!"

This playful admonishment only caused Ophenai to lustfully moans, "Arggh, yes, master, spank my naughty ass more," as she moved her butt even closer to Alexander until her lewd fluids dripped onto Alexander's nose even through the black underwear.

This heat and smell coming from her sex proved too much of an allure for Alexander, as he then, at last, brought down the black curtain with a single, strong tug, was immediately graced by the beautiful sight, and blasted by that raw feminine smell of sex.

"*Sniff*", Alexander took in a large whiff of that familiar but much stronger heated smell of raw pheromones as he once again appreciated the beautiful organs presented before him.

Ophenia's vagina looked like just a slit, tightly closed like a flower petal and absolutely flooded, while her asshole was plugged by that all too familiar buttplug.

And lastly, her clit was peeking out of its sheltered hood and tempting Alexander to bully it with the chain hanging down from it.

"Ahhh, Sister Tayin's buttplug always looks so cute. I really want one too," Gelene could not help but marvel, as she then poked it, getting Ophenia to moan lightly.

But Gelene's light touch was not what Ophenia was looking for, as she hence danced her butt temptingly at her master's face, asking him to uncork her asshole and have his tongue twirling inside the hole or better yet, use his thick fingers roughly gouging her insides out.

'Ahhh, just thinking how master will love my ass and pussy makes me want to cream myself,' Ophenia expectantly thought.

But she got none of that.

"Kyahhh," She instead cried out in surprise as she felt a strong tug at her clit piercing, followed by a loud spank, and then another tug and a spank, as Alexander sneered, "This is your punishment, disobedient girl."

He hence evolved this into a rhythm, causing Ophenia to maddeningly howl, "Argghh, master ..Ohhh...too rough. My clit...my clit feels like it's on fire."

Ophenia's ecstasy cries at this rough play only fueled Alexander's lust even more, as he turned to Gelene with a smirk and said, "Gelene, Tayin's buttplug seems insufficient to please her dirty hole. Help her with that, won't you."

And this caused Gelene to return a similar smirk, as she insidiously grinned, "My pleasure master," and then did not foreplay stuck two of her fingers inside Ophenia's puckered hole, with her buttplug still in her.

"Argghhh, bitch," Ophenia grunted at this slightly painful insertion, which produced a sadistic glee on Gelene's face as she screwed her digits even deeper, while melodiously cooing, "Ohh, but sister, your asshole seems to be sucking me in."

And it was true Ophenia's experienced ass soon adjoined itself to the two fingers inside and seemed to be ready for more.

Her butt had taken stuff much bigger than this after all.

Pah, *Pah*, *Shuckkk*

And thus the man and woman tormented their helpless victim, spanking her beautiful butt till it began to glow red, scratching inside her asshole till it began to leak juices, and bulling her clit until it looked like an engrossed bean, thus making Ophenia sing the lewdest songs out there.

And then, noticing that her actual sex organ was empty, Gelene whispered, "Ahh, sister, you pussy seems to be crying with loneliness. Here, let me help," as she then stuck her two fingers inside and started pumping in and out of there, causing the octaves of Opehia's roars to rise to newer heights.

'Ahh, my butt feels like it's on fire. Every time master spans me, it makes my intestine walls scratch against Gelene's long nails. And also that bitch is constantly poking my G-spot, ohhh, soo good' Ophenia's eye rolled back in undiluted pleasure.

And soon she roared, "Ahh...coming...coming...ehhh???" Just as she was about to get her sweet release, Alexander suddenly decided to do what these girls had done to him just a while ago, and he stopped the play right at the edge.

And just as Ophenia felt the stimulation disappear, she cried out with tears eyes, "Ohh, no, no, master. Please, ahhh, I was so close, ahhhh, a bit more please," as she attempted to grind her ass against Alexander's face to achieve that last bit to stimulus, as she seemed to be in physical pain at having been denied her pleasure.

Ophenia's entire lower half was reddened up like it was fire, and her entire body was flushed a sexy pink hue as if the lust goddess herself had possessed her.

And that lust goddess wanted her orgasm.

Alexander only sent a smirk at the pleading, pouting face as Gelene giggled at her master's sadistic display. "Master is such a bully. She was so close too,"

"Now, you know how I felt," Alexander thus replied, after which he gave one last spank on Opehnia's sore butt, causing a loud *pahhh*, and said, "Now, get up and use that drooling hole to please me."

"Hehe, okay," Ophenia giggled at this command, relieved that her pleasure was about to soon continue, as she then slowly moved away from Alexander, still on all fours and being sure to let her master get a perfect view of her two holes all the while.

Alexander watched hypnotically as the white, or more accurately reddened globules move away from him, the clit piercing swinging lewdly under as she did so, as she then turned around, and slipped off her now drenched panty out of her legs, before adjusting herself over Alexander's cock.

"Ahhh, how I wanted this," Ophenia let out one last longing moan as she adjusted herself over Alexander's hard member, rubbing her pussy lip onto the glans and letting Alexander's little brother have a hot lewd shower.

And then without further ado, slammed her pussy against the rigid member, skewering herself fully with Alexander's spear, as she out in rapturous joy, "Arhh...so deep, it's directly hitting my womb."

And immediately afterward, Ophenia started to bounce on her fat thick reward, roaring with utmost joy as she tilted her head back and let her body be assaulted with waves of maddening pleasure.

And Alexander too was in a similar state, his dick twitching uncontrollably inside the wet, warm, flesh, feeling the exquisite bumps caress all his sensitive spots.

And this made him want to taste her more, as he started to flail his hips wildly, making Ophenia let out shrills of lewd ecstasy, "Aghh...so hard, so big...ohhh, master fat cock is destroying my tiny pussy. Yes, pound her harder."

Pahhh, *Pahhh*, *Pahh*.

And Alexander did exactly that, grabbing Ophenia by the hips and smashing into her, thus making the room reverberate with the lewd music of wet flesh hitting each other, as the two hips kissed and sprayed dirty fluids onto each other, while Ophenia's obscene nipple piercings danced wildly along with her magnificent boobs, turning his raw, act into a beautiful dance.

Chapter 312 Ophenia And Gelene (Part-4) (R-18)

As Alexander and Ophenia ravenously devoured each, smashing their hips against one another, a small pout formed on Gelene's face.

Being left out while the two drifted into their own world was not something she was willing to accept passively.

And so she decided to bring her master's eyes back to her, as she whispered to Alexander with a sensual breath, "Master, watch this."

Saying this she stood up, standing right above Alexander's face while still wearing her white panties, and then wiggled her ass.

This simple scenery was beautiful enough to captivate Alexander's attention back to the beautiful treasure dancing above his head, as he could see that Gelene's white underwear was soaked to the point that it had become transparent.

And thus he could not stop himself from poking his fingers through the fabric, as he marveled at the beautiful, translucent flower.

"Ahhh, master. Please undress your bitch," This gentle stimulation did not satisfy Gelene, but only fanned her desires even more, which was why she pleaded for Alexander to touch her directly.

And after feeling Gelene's dew coat his finger, Alexander consented, as he tugged down the garment to her knees with one swift motion, revealing Gelene's raw sex to the world.

"How is it, master? Beautiful enough?" Gelene shook her hips confidently giggling, letting Alexander see the marvelously blossomed pink flower and the damp puckered hole.

"Beautiful," Alexander dryly gulped as he looked up at the hot snatch decorated with downy pubic hairs.

"Is it wet enough?" Gelene squeezed her pelvic muscles as she asked, letting some of her juices fall like raindrops off Alexander's face.

"Mmm, yes," Alexander moaned as he licked off the juices, finding them sweet and musky.

"Hehe, then have all of it," Gelene thirstily growled at Alexander's answer, as she then imperiously sat on her master's face, causing Alexander to let out a muffled moan in surprise, "Hmm... Ahh.... Nnnph!"

While Gelene let off a low groan of ecstasy, "Ahhh! Mmmmm..." as she soon felt Alexander nuzzle his tongue up close to her backside, licking at the small public hairs before popping his tongue into her tight little entrance.

'Her taste is so strong,' Alexander remarked, while his tongue began to slither along her slit, causing a powerful tingle of pleasure that began to roll into Gelene's body,

Alexander buried his hot tongue deep into her slippery cunt, licking and sucking her insides, making sure not to leave any part of her untouched as he savored the thick, mature taste of a female ready to be bred.

But while two of the participants were very happy with this new play, one wasn't.

"Sister, that wasn't so nice," Ophenia sharply complained, while at the same time constricting her pussy walls even more and speeding up her humping.

She did not like the sneaky play Gelene used to block her master's vision and wanted to get her master's attention back.

"Hehe," Gelene only innocently giggled, and then offered, "Sorry, sister, but here, let me make it up to you."

Saying this Gelene quickly grabbed Ophenia by her nipple piercings and started to tug on both of them, while melodiously cooing, "Argghh, sister, I love these jewelry of yours."

"Ohh, yes," Ophenia loved getting her nipples teased, and as her breasts were pulled by Gelene and seeing them turn into oblong shapes, Ophenia was very turned on, causing her vaginal walls to squeeze even harder.

And then, feeling she should return the favor, Ophenia also caught Gelene's buds with a pinch and started strongly pulling them, saying, "Sister, your nipples are so big and obscene. Master would love to see them pierced and jeweled."

"Ahhh...sister, so rough," Gelene momentarily winched at how roughly Ophenia was handling her cherries.

So to retaliate also, Gelene too began to get wilder with her tugging, twisting Ophenia's nipples and whirling them around.

And this caused Ophenia to respond in kind, as a lewd play of two naked girls pulling each other's large breasts and moaning whilst straddling atop a man played out.

These girls were really pulling hard at each other, their nipples turning red and their breasts elliptical, while making them scream with ecstasy.

Hearing these lustful screams and moans, and feeling the flesh tunnel he was in clutch him even tighter, Alexander felt he was in heaven.

And thus to reciprocate this feeling, he decided to begin his own assault, as he then switched from simply licking and drinking Gelene's juices to directly nibbling on Gelene's sensitive bean, sending ecstatic shivers down her spine.

"Ahhhhh, master, more. Bite on it harder," Gelene cried out while squeezing her meaty thighs against Alexander's face, loving the sensation.

And what she loved even more was the feeling of her powerful, stoic master sniffing and sometimes even licking her ass.

'Ahhh, how I wish I could show this to the world,' Gelene said to herself, as Alexander's rough hands kneaded her round butt cheeks and her meaty ass gently clapped against his face.

And soon, Alexander was ready for release, which Ophenia could sense, and cried out, "Ahh, master, I felt your cock just swell and quivered. You are about to release aren't you?"

"Arghh, yes," Alexander grunted as he thrustured rapidly as he neared.

"Master, lick me too. No... bite my clit...ahhh, it's coming....Mmmmmm" Gelene was the one to come first, splashing Alexander's face with her cum, and was soon followed by Alexander himself and then Ophenia,

"Ahhh, master's sperm is the best," Ophenia arched her back at Alexander's release, better angling the sprouting cock and letting it hit her walls, dying them white.

"Sister, it's my turn now," As soon as Gelene recovered from her orgasmic bliss, she said this to Ophenia, basically telling Ophenia to stop hogging the prize and get up.

'Ahhh, I really want to go for another round,' Ophenia internally pouted, but reluctantly still getting up, letting Alexander's spear fall out with a wet *plop*.

"Ahhh, finally," Gelene rapidly scampered over to his freed organ, which was already starting to harden, as she was eager to finally get her prize.

But just as she was about to sit to devour her meal, Alexander's husky voice rang, "Wait, Gelene, not yet. You stand up."

"Eh?" Gelene was at first a bit confused by this, but nevertheless still obeyed.

And as soon as she stood up, her confusion was cleared, as she felt Alexander's strong muscular presence behind her, and heard the animalistic grow, "Ready?"

"Kyah," Gelene hardly had the time to let out a surprised yelp, as Alexander scooped her up by the thighs, making her assume a child peeing position and pointing his hard spear against her wet snatch.

And then without any further talks, lowered her into the waiting spike, making Gelene jubilantly cry out, "Ahh, yes, it's skewered my womb."

Gelene loved getting pounded hard and rough, and Alexander knew it.

"I'm gonna start moving," Alexander then stated, as he started to explore the unplumbed depths of Gelene's hot pussy, loving the bumps and creases of her hot moist walls.

'Argghhh, this girl really knows how to squeeze. Her pussy is killing me,' Alexander found the Gelene's experienced canal was really nice, not too oppressively tight, nor loose, but with just the perfect amount of squeeze and heat to it.

The only one comparable to it would be Mikaya's.

While Gelene too was loving Alexander's strong thrusts, her tongue rolling out at having her cervix repeatedly getting hammered.

The position that Alexander made her take, with her legs swinging off Alexander's hands, and all her weight on Alexander's cock meant that each thrust hit that much harder, causing her to moan and drool, "Ehhh, yes...yes, master, harder. Breed your bitch harder. "

And soon she felt a cool sensation in her lower parts, as she looked down to see Ophenia was there, licking between the two joined parts.

"Mmmh nnnmm, there's so much juice. So yummy," Ophenia desperately licked the juices off Gelene and Alexander, finding the taste lewd and lecherous.

"Ahhh, no sister..ohh not there," Gelene soon felt Ophenia attacking her clit and the stimulation sent her spine-tingling.

But this only made Ophenia only do it even more, driving Gelene to even higher peaks of pleasure.

And then her tongue started exploring downwards, as she began to again chomp on one of her favorite treats, Alexander's sack.

Suck, *Clench*, *Pound*

As the obscene sound decorated the room, after a while, Ophenia, giggled, "Hehe, master, your sack just tightened. Are you ready to cum?"

Alexander was close to another release and so he grunted, "Gelene, clench your fanny, I am going cum."

And Gelene rejoiced with sheer joy, "Ahh, yes, master. Paint this slave's dirty cunt with your divine sperm."

Splurt, *Splurt*, *Splurt*

Even though it was his third load, Alexander had shot enough to spill out of Gelene's pussy, causing Ophenia to gleefully announce, "Sister, you are licking master's precious cream. Here let me help clean you up."

Alexander sent spent a few more rounds with these ever-hungry succubi, tasting them in various positions.

He skewered them in their asses while the other sucked the other's sperm, he sandwiched them and plowed them while regularly switching between the two cunts, and he made both of them give him clean-up blowjobs, at the end of all of which, all three of them were totally and utterly exhausted.

They were in fact so tired that they did not even bother properly going to bed, but instead just haphazardly slept sprawled all over the bed, without a thread on them and with nary a care in the world, a deep contented smile plastered on all three of them.

Chapter 313 Workshop Security (Part1)

Next day, Alexander was scheduled to visit the workshops around his personal estate, which were the future lifeblood of his land in his opinion.

And to protect this precious blood from being stolen by greedy mosquitoes, Alexander had decided to enforce truly draconian security measures, which were almost reminiscent of some of the measures employed around US military bases like Area 51.

"Good morning, Lord Pasha," As Alexander approached the wooden walled boundary with his entourage, the two on-guard soldiers, both of whom were from Alexander's original first phalanx and had not participated in the sacking of Adhan, which was part of the reason they got the job, greeted Alexander with a bow.

"Good morning to you too," Alexander greeted as he then handed over a rectangular piece of iron plate that looked very much like an ID card.

"Thank you," The guard accepted it with another light bow and then quickly read the information.

Engraved on it was Alexander's name,

His designation that read Pasha of Zanzan,

The words P-A3-6, which was coded to read, P- for pasha, A3- for access to all available information, and 6- which was a special security level clearance that allowed one to visit all the workshops.

A 16-digit unique code number, and

Last of all, a thin strip of paper clamped to the iron card, on which was Alexander's fingerprint, next to which was Takfiz's signature with the word, 'Attested'.

"Umm, everything seems okay," These two knew Alexander very well and only glanced at the card, without bothering to verify every little detail, and passed it back to Alexander in a way that he found to be callous.

This flippancy and disregard for the protocols and procedures he had set made Alexander furious and if these men's loyalty were not unquestionable, he would have sacked them on the spot.

But since they were not, he decided to be patient and teach them how to properly do their jobs.

"Galipsos, remind me how to read the 16-digit code?" Alexander asked in a flat, neutral voice, his eyes calm and pointed.

He had designed the numbers to be unique and tamper-proof, or at least tamper-resistant, by using a simple mathematical trick.

The soldier who faced this emotionless stare felt his heart skip at this inquiry, understanding he had messed up by not following the instructions properly.

'Damn, I hope I don't get licked too badly,' He prayed as he endeavored to quickly reply to Alexander.

"My lord, the trick is that the addition of the first 13 digits must match the last 3 digits," He hastily answered, hoping that his fast answer would help stymie a little bit of Alexander's displeasure.

"Mmmn, and do my first 13 numbers match the last 3?" Alexander placidly asked while flooding his arms in front of him, a gesture that further alarmed Galipsos.

At Alexander's question, Galipsos and his partner quickly started to add up the numbers and predictably found that it indeed did not match.

'Damn, this is an inspection,' Both the guards only now woke up to the surprise evaluation, and cursed themselves for having flunked it so miserably.

"We are very sorry Lord Pasha. We have neglected our duty," The two knew that asking for Alexander's forgiveness was their best and quickest way of getting out of this situation, so they quickly kneeled and apologized to their superior.

'Hmmm, at least you are not irredeemable,' Alexander glanced darkly at the two, finding their repentance sincere enough.

And though he had decided from the start he would not fire them, he would not let them off without a stern scolding.

But at first, he decided to show them other errors that they had missed as he said, "Not only have you missed the verification number, but you also failed to check me for my fingerprint."

"And lastly," Alexander pointed to Takfiz's signature and said, "If you were sharp enough, you would have noticed that both Takfiz's signature and handwriting are fake, not matching with the other cards."

"...*Silence*..." The guards remained silent in shame.

Hearing no retort, Alexander then started by saying, "I employed you two as guards here because I trusted you two. Because I have known you two for a long time and believed that you were sincere enough in your jobs. Sincere enough that I could trust you to guard my most precious treasures."

Alexander paused at this point, glancing down, and noticing the heads of the two kneeling men droop even further.

After which he again resumed, "I have always thought you two were sincere enough to follow all my instructions of the tee. And it was my understanding that you two were meticulous individuals. People who would not let any lapses occur in their line of duty."

Alexander started by listing all the presumed good qualities of the men, while in his mind he remarked, 'These mercenaries are unruly by nature. And it will take some time to beat them into loyal, blindly obedient men.'

After which he pointedly asked, "So explain what happened just now?"

"My lord, it was only because it was you that we did not feel the need to go through every one of the procedures." Alexander's question was answered by Galipsos's partner, Jynumin.

And this statement was quickly followed up by Galipsos who promised, "That's right my lord. If it was anyone else we would have certainly gone all nine yards. We swear."

This flimsy excuse did not sit well with Alexander as he lambasted them in a harsh tone while swinging his arm, "Enough of these excuses. From the first day I told you that if the card number does not match, no one gets to enter the premises. I don't care if it's me, if it's Takfiz, if it's the king, or even if it's the gods themselves, no one means no one. Which part of those two words do you not understand?" Alexander asked fuming with rage.

"..." The two men knew it was in their best interest to just keep quiet and take this chastisement.

And Alexander's chastisement had not yet ended, as he continued, "I pay you two-three times the regular amount, six hundred (600) ropals a month. All to just stand there and guard a place that will likely be never attacked. And all while your fellow soldiers are out there in the training grounds working their ass off."

Alexander's tone then changed to a ruminative one, as he posed, "You know, many of them would jump at the opportunity to get your cushy job. Many would love to stand there and just check a few cards each day, and voila, 600 ropals at the end of the month."

As soon as Alexander indicated that he might be considering replacing them, the pair cried in panic at losing this easy job.

"My lord, we are sorry."

"Please give us another chance. We will never do it again."

They begged for Alexander's mercy.

'Well you guys are really not as easy to replace as I made it seem out to be,' As the guards groveled at Alexnader's feet, he lampooned at the fact that the number of men under him that possessed both the traits, educated and loyal, were as rare as phoenix feather right now, and he really could not replace them at will.

The current two guards were relatively well educated for their time, and that was why they demanded such exorbitant wages, not only because Alexander trusted them, for this checkpoint employed some pretty extensive bureaucratic measures.

After the two profusely begged Alexander, he gestured with his palms and simply ordered "Get up."

And after the armored part stood up and glanced at Alexander before quickly lowering their gaze, Alexander gave them an ultimatum, "Galipsos, Jynumin, this was your first error. Mistakes happen and so I will forgive you....this time. But never do it again."

Alexander said the last sentence in a cold, harsh tone, his azure eyes darkened as if it was covered by thunderclouds, sending a shiver through the hearts of both men.

"Thank you, my lord. You are ever magnanimous."

"We promise to never let this repeat itself,"

The pair cried out in fear and relief, vowing to regain the trust Alexander had once in them. "Mmmn, good," Alexander softly nodded, his harsh tone disappearing into the void, as he then instructed, "Now, verify my identity as per protocol."

After saying this, he handed over a new iron plate from his pocket, which was the real ID, and the guards quickly started going over it.

Galipsos quickly verified the card number against a large ledger that he carried, first matching the number in the ID card with the one in the recorded ledger.

This ledger also had a lot of other names of them, arranged alphabetically, and contained the same information as in each of the ID cards.

After confirming the name, number, and clearance level matched, Galipsos wrote Alexander's name and code on a second ledger, the time of day he was entering, and then gestured at Alexander saying, "My lord, please place your fingerprint here,"

Responding to this, Alexander strode over and found a small box covered with a thick cloth coated in black ink next to the ledger, on which he pressed his thumb and then again pressed on the column on the ledger, thus producing his fingerprint.

Galipsos afterward compared this pattern with the one on the ID card, and only then did he say,

"Okay my lord. Everything matches and you can enter."

This was the full protocol and this was only the first perimeter of Alexander's defenses, as more were enacted inside.

Chapter 314 Workshop Security (Part-2)

Alexander was pretty pleased with the layers of security he had created if he said so himself, feeling like the chances of anyone successfully stealing his technologies from here being close to zero.

This was because to do so one would require to attain a set of things that Alexander felt was very very unlikely to obtain.

First, he would need to get the iron plate, which was neither easy nor cheap.

Next was the name and designation, which, granted would not be too hard to forge.

But the next three hurdles seemed impossible to overcome without internal support.

The 16-digit number issued to each individual was not only unique, but it also had a trick to its numbering that few would find out, and even if they did, they still would have to match with the number in the roster.

Then there was Takfiz's signature and handwriting, which all the guards were familiar with.

And last of all was the thing next to this writing, the fingerprint.

Even if the other two were possible, even if somehow anyone had managed to get past the two hurdles by stealing or even memorizing the card number of someone else and perfectly or nearly perfectly copying the signature, Alexander was pretty confident that the last obstacle would be impossible to overcome, - The fingerprint matching.

Alexander had first shown this technique to Takfiz and all his retainers, and that had created quite the buzz as he recalled.

Instead of explaining how the fingerprint was formed due to reasons ranging from dietary to just the tiny movements of the infant in its womb, Alexander had simply declared, "From today, we will use this method to identify others," as he stamped his fingerprint on a piece of paper and asked if anyone else thought they might be able to produce the same pattern.

"You can try all ten fingers, and even your toes if you would like," Alexander had smugly proposed after which, the men, and one woman, Cambyses, did try to their credit, each using a few of their fingers, only to find that each of them was vastly different from all the others, and even with their own.

After some time, they finally decided to concede, at which point Alexander said with the same smug face, "The prints of your individual finger are unique. None will ever match another human being in this world. Not now, not until eternity," and thus showing off his vast knowledge.

The theoretical variation in the number of fingerprints was 7.47×10^{275} , which, to give some context was 10^{193} times greater than there are individual atoms in the universe for that stood at a paltry 10^{82} .

In fact, fingerprints are so unique that even clones and identical twins who shared the exact same DNA did not share this.

"Oh this must be why we are called god's unique creations. Truly my lord is blessed," Alexander recalled Theocles being particularly moved by this display, feeling this revelation about the human biology to be a gift from Gaia, the goddess of life, while the others, who were much less religious, marveled at how a simple method could be used to uniquely mark people.

Speaking of the gods, Theocles's rant about them made Alexander remember a colleague of his, who was a devout Muslim who had preached to him, 'You know the existence of the fingerprints was

revealed to us 1400 years, in the verse that says, "Does man think that we shall not gather his bones? Yea Verily. We are able to restore his very fingertips!" which, according to that man was a verse addressing the Day of Judgement and god's ability to perfectly recreate men even when he had turned to dust.

Alexander had then only politely smiled and nodded, which was the same thing he had done with Theocles as he then went ahead with the implementation of this identification system.

He knew that names could be faked, numbers could be guessed and Takfiz's signature forged.

But as long as the rosters were not tampered with, and the guards at the gate were not bribed, passing the fingerprint test would be impossible.

At least, Alexander could not think of a way to make all three, the one in the ID, the one in the roster, and the one a person would stamp on the visitor's ledger to enter, to match without significant insider help.

And only a very few handfuls of people currently had that kind of power, and Alexander trusted all of them to the extent that he was sure that they would not sell the technology out.

For he made sure that those people knew the risk of failure and earning his ire would outweigh any kind of reward for succeeding.

Many might argue that only the fingerprint method would have been enough for his cards, feeling the unique code to be redundant.

But Alexander had learned from that annoying two-factor security authentication which he used to get whenever he freshly logged into his email to know that relying on just one method of identification was not always foolproof.

And hence, to upgrade his security that bit more, he also introduced this numbering system which was helped by the fact that Adhania's numbering system was much like the Arabic numerals instead of the complicated roman numerals.

And even the way he would produce this number was quite unique, as for this endeavor, he had first ordered the specific creation of a ten (10) sided die, with the faces numbered from 0 to 9, corresponding to each of the digits.

Then the person being issued the card would roll this die thirteen times in front of a clerk, who would note down each of the results, and once this was finished, would later add all of them to get the last three numbers, thus easily producing a unique 16-digit digit code.

As Alexander thought back to all these, in many's opinions byzantine procedures, while he stamped his right and left thumb on the entry roster, his eyes wandered to look at the details of everyone who had entered and exited the premises that day, as indicated by the date on the top right corner of the page.

And on the very last column of this detailed record was written their reason for doing so.

For example, one name read Galiqk, next to which was his designation- Food deliverer, proceeded by all the other details, after which was written the time he entered the workshop district and lastly a short inventory of what he had carried inside and how much of it, which was in this case, a few tens of tons of wheat and a variety of vegetables.

And right below it that read the same name and number, except the time was changed to a bit later and now the comments were, 'Delivered. Empty cart.'

In this way, this camp was supplied with only a very few trusted men, who were told to stick to a very specific set of paths, so that they would not see anything they were not supposed to see, nor hear something they were not supposed to hear, or even smell something they were not supposed to smell.

As Alexander read the entry something that caught his eyes was the description of the time, the first of which read, "Just after dawn," instead of what a modern man might expect like 6 am, while the next one similar to its predecessor read 'Just after breakfast.'

Of course, this intuitive method was used due to clocks not being a thing yet.

'Hmmm, a pendulum clock should not be too hard to make,' Alexander absent-mindedly mused as he felt that the mechanical clock was a pretty simple tool, having just two gears representing the hour and minute hand in the ratios 1:12, that were attached to a moving object.

And he did this all while he flipped back the pages of the roster, looking for any discrepancies as he glanced at the various names that had gone in and out of his estate.

Yes, not only entering but even exiting the premises needed valid reasons, which were either issued automatically by the nature of one's job, or given out by a select few men, like the heads of each of the workshops.

Alexander was pleased to see that there were no glaring flaws in the roster, which helped to mitigate some of his anger, as completed his part of the roster by writing his reason for entering the district which was 'Touring the premises', and then before went to enter through the gate.

But just as he was about to, Alexander paused and then asked the two men one last question.

"I will enter the workshop district with my ten bodyguards. How should that be done?"

Galipsos understood this was Alexander testing him, as he quickly answered, "My lord, you can enter the premises with them. But please be aware as they do not have any ID cards of their own, they cannot stray away from you or enter any places unless with your express permission."

His warning was not a problem with Alexander's bodyguards as they would not leave his side anyway, but this protocol was specifically designed for any guests that might accompany Alexander in the future for a tour.

"Mnnn, good," Alexander nodded with pleasure, and after reiterating one last time about not letting anyone without the proper credentials in, even if it was god, he finally entered his personal workshop district which he liked to call 'The Rhinelands', named after the famous industrial part of Germany.

Chapter 315 New Paper Plant

Alexander was greeted by a waiting Takifz the moment he entered the boundary of the estate.

"Welcome my lord, welcome," The old man bowed at Alexander, to which Alexander smiled and replied, "Takfiz, it's good to see you. How are you, my man?"

"Good, good, all by the grace of milord," The old man with a head full of white hair repeatedly nodded to emphasize his answer.

The two then continued with conversation for a while, making small talk as Alexander asked about his caretaker about various things like the general situation of the workshops, the extent of the ongoing renovations, and lastly about his personal life and his grandson Kala.

"Kala is good, thank you for asking your Grace." Takfiz was excited when the topic of his grandson was brought up, as he quickly informed, "He can talk a bit now and even do some simple maths,"

Alexander noticed how Takfiz's eyes sparkled with joy and pride as he said so, the old man's heart ballooning with happiness as he reminisced how much the boy had improved.

Kala of course could not talk as Takfiz stated.

But only use some simple sign language to perform a few basic communications.

Alexander was also pleased about this, though for different reasons.

He was happy not specifically because of Kala's improvement, but because of the love Takfiz had shown for his grandson.

For it meant that Alexander would have even more leverage over the old man, and thus he would feel even more secure about letting him supervise this site.

"Hahaha, good," Alexander softly replied, and then moved on to the real reason why he was there.

"Takfiz, I want to tour all the workshops and see how things are going," Alexander announced and then gestured, "You lead the way."

"Yes, yes, my lord, right away," Takifiz hurriedly replied and he quickly strode ahead of the group to lead the way, with their first destination being the paper-making shops.

While Alexander made his way through the huge, busy, enclosed estate, he took some time to observe all the changes that had taken place in the month and a half under his directive.

He noticed that the most eye-catching change to the estate was the much-reduced presence of greenery, as much of the one square kilometer hunting ground was cut down and cleared to make space for all the new workshops and lodgings for the workers who worked in those workshops, with the wood gotten from those trees being used to make those very lodgings.

This cut wood was also being used for another major construction effort, which Alexander could see the presence of all around him, and that was the wooden walls.

These large, tall walls were not just placed along the perimeter in a single ring, but, as per Alexander's order, there were also several smaller wooden walls constructed inside the larger outer wall, forming several, almost concentric circles inside the premises.

And on each of these wooden walls, was painted a number painted, with the lowest number on one of the walls being 1 and the highest being 5.

This numbering procedure had come about when Alexander had decided to separate each of the workshops into independent zones, constructing a wooden palisade around each of the workshops to enforce such boundary and then designate each workshop with a security clearance level corresponding to the amount of importance Alexander thought that workshop was to Zanzan's future economy, with 1 being the lowest and 5 the highest.

For example, the paper workshop that Alexander going to visit was deemed to be of ordinary significance and as such placed lowest in the security level bracket, which was 1.

In Alexander's mind, the reasoning was that though paper might be a revolutionary invention, its manufacturing was very labor intensive, but contrarily had low-profit margins.

This meant that to make large profits, one would have to rely on large volumes, hence making papermaking mainly a quantitative business as opposed to the more lucrative, profit-heavy qualitative businesses like glassmaking.

Hence, as Alexander had the alternative to use his workers to produce things with far greater profit margins, thus he downgraded papermaking to a level- 1 craft, and was willing to sell its manufacturing procedure to certain people at a price.

While Alexander observed all the changes around him, and saw all the workers and slaves running with a determined purpose, his feet soon carried him to near his destination.

"Good morning, Lord Pasha, Sire Takfiz," As the group approached the walls that barricaded the paper workshops, the two men guarding the entrance greeted them, and then performed a slight bow.

They both were in full armor and wielded spears, and were tasked with overseeing the traffic in and out of the gate.

After accepting the two men's bow, Takfiz stepped forward, mechanically took out his ID card, and then handed it to the guards with the gruff utterance, "Here."

The guards also accepted the ID card with the same kind of mechanical rigidity, perhaps because Alexander was there and they wanted to show him their best side, and then performed the same routine that Galipso had performed with Alexander, noting down everything about Takfiz on a roster, taking his thumbprint, stating that his reason for visiting the paper workshop was to accompany the Lord Pasha, and finally, only after doing all that, did they allow the group to enter the papermaking workshops, with their last words being, "Please enter my lord and have a nice day."

Takfiz as the chief caretaker was given the security clearance code, CC-A3-6, in which the CC stood for Chief Caretaker, A3 was Access to All Available information, and 6 was Level 6.

This was almost identical to Alexander's own card, with A3 and Level 6 allowing free access to all the information about all the workshops, and the only restriction for the old man was that he could not bring guests to a tour without Alexander's prior permission, as his security clearance was that of a Caretaker and not the Pasha.

Consequently, other than Alexander, only Cambyses was given that privilege, as evidenced by the 'P' in her clearance level.

As Alexander entered the peened enclosure, he laid his eyes upon the once small shed he had designated to make the paper in, he found that it had been demolished and replaced with several huge workshops sprawled all over the huge area, with each of them seemingly dedicated just one step of the paper manufacturing process.

Homes

Alexander first observed that in one corner of the clearing, a huge pile of small branches and twigs was being dumped into huge barrels filled with water, after a while of soaking, once they had become soft enough, they would be taken out by a bunch of womenfolk, who would then very expertly use a carving knife and their nails to separate the barks from the branches, thus cleaning them.

These cleaned bits would then be taken to a clearing a bit further ahead, their fate to be pulverized, which would occur by using a new, innovative kind of wooden device invented by Alexander.

This wooden device was just like a seesaw, with the only significant difference being that one end was attached to an iron stump, which acted as the hammer, while the other end was operated using the feet.

The way it worked was that a person would press down on his end of the device and cause the hammer end to rise up, after which the man would let go of his feet and the iron mallet would come crashing down due to gravity, and thus splattering anything beneath, which was, in this case, the branches and twigs.

This was the basic idea, to which a few life-convenient additions were made.

First was the design of the feet end of the special seesaw, which was shaped almost like a slipper, thus allowing the feet to be inserted inside, and preventing the legs from moving around too much during the operations.

Next, was the shape of the iron mallet, which differed from the traditional cylindrical shaper to look more bulbous, made such to maximize contact with the twigs and branches.

And lastly, to prevent the twigs from scattering all over the place after each strike, a small pit was dug underneath the mallet end of the wooden seesaw, allowing for quick and efficient breakdown of the twigs.

After Alexander had installed these special seesaws, a few days later Ajijak had come running to him, singing its praises, in which he had said, "My lord, this special seesaw that you designed is amazing. Not only can it smash the twigs faster, but it can also even be used by women. We have tripled our output using it!"

Such a jubilant reaction from Ajijak was reasonable when one understood just how cumbersome the previous way of doing things was.

Before, to smash the literal tons and tons of raw materials to wood pulp, a sledgehammer needed to be used, which was slow, tiring, and even dangerous.

Slow and tiring because to use the hammer one needed to raise it high up and then bring it down again, and repeat, tiring one's arm and back muscles.

While it was dangerous because smashing one's toe caused by inattentiveness or just fatigue was a frequent occurrence.

Two problems that this device simultaneously seemed to solve.

Chapter 316 Different Clearance Levels

Alexander's special seesaw was made all the more special as it was not in any way restricted to just papermaking.

And in fact could be used to grind a variety of other substances, which given how expensive and location dependent the ball milling machines were, as it was required to be built near a water source or necessitated the construction of aqueducts to bring the water source near it, was a heaven send substitute.

Additionally, with its paddle-like mechanism, one could use their much stronger feet muscles to do the work, which was much faster and safer, as the toes were literally 10 feet away from the mallet.

Hence with this device lowering the physical requirement for the job of grinding, even women would be employed, thus freeing up the more precious resource, i.e- men for far more labor-intensive work.

Alexander's eyes lingered on this contraption of his for a while as he fondly ruminated on it, after finally which he moved on to observe the next step, the boiling of the mashed wooden fibers.

This he saw was being done in giant vats of boiling water, which were being constantly stirred by strong, muscular men, and would have to be done so for several hours.

Alexander observed that these men profusely sweating as they performed this physically demanding task, which was natural given they were moving what Alexander conservatively estimated to be a few hundred kilograms of water and pulp, all while being steamed by the large amount of water vapor being given off.

After this mixture was cooked for enough time, the pulps would be taken out of the vats and laid out in large open mats to cool in the open.

After which, as Takfiz led Alexander and his entourage inside a large new shed to see, the long dry fibers would be shredded using large, industrial scissors by a large team of womenfolk.

Alexander observed these women expertly bundling the fibers into small stacks and placing their cuts in such a way that the maximum number of small fibers would be produced using the least number of snaps, as they worked with such speed and precision that Alexander felt would put any barber to shame.

He hence could not help but marvel at how quickly these women were able to turn the long, windy strips of fibers presented to them into short, clean stacks, which they would pile up next to them, that then would be collected in use buckets and carried to the next workshop by specific workers present inside.

Alexander followed one of these workers into the next shed, which he could see had been lined with rows and rows of tables, atop of which was a series of water-filled shallow wooden rectangular buckets, next to which stood a team of workers 2m apart from each other.

All of them were seen hard at work, as they placed a sieve into this bucket, shook it, and then brought it up again, this time with a layer of wood pulp on it, which they would flip to deposit on a piece of linen and let it dry to form a sheet of paper.

Alexander had always found this last step of scooping the plate up filled with wet pulp very similar to the scene about the gold rush seen on TV, where prospectors would take a sieve or just a metal plate and shift through river water to look for that elusive yellow metal.

As these workers used up the wood pulp in the water to produce this wet, white thin sheet of not as valuable as gold, paper, the worker carrying the dry wooden pulp would regularly go past these tables, grabbing a fist full of his pile of very short wooden fibers and dumping some of it into the many of the rectangular buckets, thus replenishing their supplies.

"My lord, welcome. I didn't know you were coming," This was in this Azijak, the head of the papermaking workshop and who was currently supervising the most technical part of the papermaking procedure.

And he greeted Alexander with much alacrity, as he ran up to him and bowed, presenting a wide grin to Alexander.

He had genuinely pleased to see Alexander, as after the pasha had put him in charge of the papermaking process, his status around here had had a monumental change, changing him from a basic nobody, to among the elites in Zanzan, with even the ability to directly converse with the ruler himself.

And he had never forgotten the truth that it was all thanks to Alexander who appreciated his abilities and gave him the chance to shine.

'Well it would not be a surprise visit if you knew, now would it?' Alexander internally mused about Azijak's greeting, while outwardly, he chuckled, "Azijak, it seems things have changed a lot here. So many people and it's so busy,"

"Haha, indeed my lord, for the demand for paper has shot up the roof, all by the grace of my lord" Azijak replied with a light joke.

"Hahaha," This managed to get a small chuckle from Alexander.

The case was indeed like Azijak said, as in the past month and a half, Alexander's appetite for this thin, dried wood pulp had increased to a ravenous degree.

Just the creation of twenty or so roosters was quite a large order, and this was compounded by the fact that many of Alexander's reforms in the civil and administrative sector demanded far more paperwork and written records now, all of which had to be met by this sole paper plant here.

As Alexander chuckled, his eyes darted to the iron-plated ID card swinging by Azijak's neck which hung by a string, and as he observed it closely, the plate contained all the usual information along with his security clearance- GM-P-A3-1.

This meant that Azijak was a GM which stood for General Manager which was the highest designation for any worker in a particular workshop, P- to designate he worked in papermaking, A3 because he had access to all available information, and 1, which meant that he was allowed to enter and exit all level 1 workshop.

A fine point to note here would be that someone with level 2 clearance did not mean he was in any way superior to someone with a level 1 man.

The individual 1-5 clearances only meant that person could access that clearance-specific workshop.

For example, Azijak could only access the level -1 paper-making shops, Gajopk, who had level-5 clearance would only access the glass-making shops, and like that, all the other GMs could only access their own shops, with only people with level 6 clearance, like Alexander and Takfiz having the ability to access all the workshops.

So it could be seen that the only real difference between the different clearance levels was how much Alexander evaluated each workshop, as the security around all of them was equally strict, with none of the heads of the individual workshops being able to access any other workshop in the district..

And even in one's own workshop, a worker's ability to obtain more information was determined by his A clearance, which ranged from A1 which meant regular info to A2 which meant in-depth expertise, and lastly to A3 which meant all the information.

Of course, there were people who had no ID card, and they were mainly the slaves and manual laborers, and that placed them with A0 clearance, hence restricting them to only the general parts of the workshop district.

All these thoughts ran like lightning inside Alexander's head, after which Alexander turned his eyes from Azijak's ID with only a split-second delay, as he then quickly asked, "How are you coping with the demand? Can you keep up?"

And the papermaker hastily reassured, "It's all right now, milord, thank you for your concern. Though we were a bit overwhelmed in the first new weeks, with having to recruit new people, expand our workstations, and build new houses, all at the same time, now that has all been settled."

"That's good, that's good," Alexander nodded pleased, further asking, "How are the new recruits? Having any problems?"

"No, no problem sire." Azijak shook his head, saying, "These refugees are pretty docile now that they have a full belly and a job."

Alexander's dreaded refugee crisis had come at around the start of December, numbering close to fifty thousand (50,000) which was pretty close to his original estimate of sixty thousand (60,000), but due to early planning and preparing, in addition to Alexander's voracious appetite for more manpower, the shock of absorbing so many people was quite mild indeed, with all of them being snatched by him and his retainers into various sectors with a few days.

"That's good," Alexander breathed an invincible sigh of relief, and he then decided to move on to his next tour shop, he patted the papermaker's shoulder and said, "Well, Azijak, I'm pleased with the shop's condition. Keep up the good work."

But as he was about to leave the shed, Alexander was stopped by Azijak's voice, who proposed, "My lord, we have built another new shed. Why don't you come visit it with me? It's the bookbinding shop!"

Alexander turned to see Azijak was very enthusiastic would showing this new shop, and with himself being interested too, Alexander agreed, as he nodded and said, "Sure, lead the way."

Chapter 317 Price Of Paper

Alexander never knew exactly how the individual paper sheets were bound together to form books, notebooks, and such

And thus his interest was piqued at Azijak's request.

"Then lead the way," Alexander hence agreed to Azijak's invitation and was led to another large shed, located right next to the sheet-forming workshop.

"Please my lord," As they approached it, Azijak stood at the door and gestured for Alexander to enter inside first. to which Alexander complied with a light smile.

Inside Alexander could see the whole operation going on at full speed ahead, as a large team of women, were hard at work.

The first team would take the dried sheets and cut them into appropriate sizes, mostly into A3 and A4 sizes from the original A2, using knives and rulers, and then pass them to the next team.

This team consisted of a group of women sitting facing each other with a row of tables in between.

One row was seen stacking the fresh dried pages into a neat pile, then punching holes one at the top and one at the bottom of the papers using a special hammer and chisel.

After this, they would pass these punched stacks forward to the opposite row, where the women there would bind these papers by passing a string through the top hole and bringing them up from the bottom, and repeating this procedure a few times, until the string was tightly wound to the papers, after which they would tie the string ends with a knot.

This stack of paper would sometimes be used as is, with the top few pages acting as the cover page.

While at other times, for things like rosters and diaries, a hardback cover would need to be placed.

To do this, the bound paper stacks would be taken to another station, and then using glue, made mostly from animal fat like deer, a hard paperback, or even a leather covering would be installed over the thin paper, protecting it and giving it a better finish.

"Azijak, how many women work here?" Alexander had noticed up until now the majority of the paper plant was run by female workers.

"Here, about sixty. In total about a thousand my lord." Azijak seemed to know the number by heart.

And then, mistakenly assuming that Alexander was criticizing him for employing women in the workplace, he grumbled a bit to him, "The others had taken all the good men before me, so I could only get the women. If he had not, we would not have the hands to meet the higher demands."

The others here of course referred to the heads of the other workshops and in this way, he hoped to show that he was circumstantially forced to employ these women in the workforce.

Alexander was of course not blaming him, in fact, he was always glad to see more women representation in the labor pool.

Hence Azijak was pleasantly surprised to hear Alexander praise, "Mmm, you did well. Papermaking requires not much hard labor. So, women are perfect for this. Employ more if you need."

"I...I will my lord. Of course, I will." Azijak stammered a bit in his haste to reply, as he clenched his fist in relief and happiness.

"Mnnmm, so many paper sheets can you make?" Alexander then moved on to the next topic, now interested to know his production capacity.

"About hundred thousand (100,000) sheets of paper a day my lord," Azijak puffed up his chest as he said so, feeling the number to be astronomical.

And then, to show off his men's productivity, he further added, "Each of my men can make one thousand (1,000) sheets per day of that A2 size paper my lord gave the dimensions to."

An A2 page was round about 40 x 60 cm in dimensions, and to be able to produce a hundred of them an hour, or around 1 and a half of it per minute might sound impressive to someone who had no idea about the scale of demand for the product, but for someone like Alexander, he could only spookily comment in his heart with two words, 'So low.'

For some context, a modern American used around 200 kgs of paper per year, which came to 28 such A2 paper sheets a day.

And if such a value was to be placed on Zanzan with its current population of hundred and fifty thousand (150,000), the daily need would be 4 million sheets of paper or 40 times the current capacity.

Alexander could not help lampoon at this realization, though, to be honest, these numbers were not totally unexpected for him.

Alexander knew that paper had spread to Europe by the 1300s, but it was not before the advent of industrialization, that paper was made available to the masses.

The evidence of this could be found in that many of the books around this time were made from a mixture of paper and vellum, which was processed cow skin that was soft to the touch and thin, used because the latter was not as expensive as paper.

And thus the Hollywood troupe of noble lords and ladies crumpling up and throwing a paper away just because of a small mistake was a blatant historical inaccuracy.

They would have never been such a wastrel in real life, as in actuality, rag paper, which lasted quite a long time would be regularly recycled and when written on it, typically the writings on it would be really small, as the writer would want to maximize the space provided to him.

"100,000 sheets of paper is not bad, Keep up the good work," Alexander's said so in an anemic tone, his reaction being much milder than what Azijak had expected.

This deflated the papermaker a bit, thinking Alexander was not pleased with the numbers.

But Azijak did not have time to swim in these thoughts as Alexander then suddenly asked him a seemingly out-of-the-blue question. "How much firewood do we use every day?"

"Ummm, about ten tons (10 tons) my lord," Azijak answered with a slight confusion in his voice.

He was not sure what Alexnader's reason for asking this was.

The reason for Alexander asking this was because he was trying to estimate his cost of paper.

Up until now, Alexander had been happy to dump ropals into this paper plant without going into all the maths, but now that everything seemed to have settled, and the workshops were all operating at full capacity, he felt it was time to do so.

Alexander first calculated that on average the daily wage of the thousand (1,000) workers was 6 ropals, with some being paid more and some less.

Of course, Alexander made sure to include the food, housing, and clothing costs within them, so the workers did not actually receive the whole 7 ropals in raw coins.

But, in all, according to Alexander the workers needed 7 ropals worth of wages and materials every day to work properly.

Then there were the setup costs, which included all the tables, chairs, large vats to boil the pulp, stirrers, etc. the list could go on.

In fairness, all these things were relatively cheap compared to the running costs, and so Alexander decided not to be too pedantic and assume it to be zero.

Next, came the raw materials, which were breaches and water.

They cost nothing.

And lastly, there was the firewood that was used to boil water to cook the pulp.

Taking Azijak's number of 10 tons of firewood, fuel came to a thousand (1,000) ropals a day.

So, in total, Alexander would spend eight thousand (8,000) ropals a day to maintain this paper plant, which gave him a production cost of 12.5 sheets of paper per ropal.

That meant that a person could buy a day's meal at 2 ropals or get just 25 sheets of A2 paper.

Or to convert it into A4 sheets, 100 sheets of double A paper.

This was prohibitively expensive, as, if converted into US dollars, while assuming the median income of 1,800 ropals was equivalent to the US median income of 70,000, the 100 A4 papers would cost around 40 dollars.

Whereas one would be able to get 500 pages of the stuff for less than a tenner, making this handmade stuff more than 20 times more expensive than the machine-produced one.

And this was not even mentioning the higher quality of the latter.

For while the modern paper was smooth as a baby's bottom to the touch, Alexander's handmade paper was rough and coarse, like the mullet paper that was used to wrap books or used to make paper grocery bags.

And there were two reasons for this discrepancy in quality.

One was simply because a machine was simply more precise, able to shred the wooden fibers to a much finer pulp, and the second because the workers under Alexander were still new to their job, being only around a month old and still learning how to get the perfect amount of wood pulp from onto the sieve.

This was also why the A2 paper they produced was much thicker than the machine-produced ones from Alexander's previous life, weighing in around 25 to 30 grams as compared to the machine-made 20 grams.

Chapter 318 Inspecting Adjacent Facilities

Alexander kept the slight annoyance about the quality of the paper to himself, in addition to the sigh that come with the knowledge that the plant was already working to its maximum capacity by now.

Thus it meant that any further improvement in speed and productivity would need the introduction of machines and mechanization, and hence he once again wished, "Oh, how I wish I could start the industrial revolution right now."

But Alexander knew he was being greedy, for it had not been even two months that he had taken over a city that was still stuck in the bronze age, and so he soothed himself by telling himself to be patient and that changes required time.

With such thoughts Alexander bought himself back to the present, and then looking at Azijak, he remembered something this man had proposed before, and thus asked, "Azijak, I remember you saying something about using a kind of tree sap to prevent the wet paper sheets from sticking to each other. How is that going?"

"Oh, it has worked marvelously my lord. Please let me show you," Azijak then gestured to Alexander to follow him to another room, which he introduced as they entered it, "My lord, this is the drying room."

Alexander set foot inside the large wooden structure to find that this new room was plastered with wet sheets of paper all over the walls, as the workers there were even using ladders to reach the higher parts of the structure.

He observed these men would place one sheet of paper on the wall, the dampness of it helping it stick to the wall, then apply a coat of the tree sap that Azijak had mentioned, before placing another sheet of paper over it, thus repeating the process.

"My lord, this sap helps not only prevent sticking, allowing the paper to be easily removed once dried, it also helps give the paper surface a much better finish," Azijak informed Alexander as they watched the workers work.

These sheets would stay on the wall for a week as they dried, after which they would be taken to the bookbinding shops or be used straight away as loose paper.

"Mmmm," Alexander nodded as a sign of his acknowledgment to Azijak's commentary, as he took in the damp, thick, papery smell of the place, being there for some time to observe how the team of workers worked like busy bees to cover the walls with one hundred thousand (100,000) new sheets of paper every day, while at the same time taking down the same amount of dried ones.

"How many such sheds do you have?" Alexander then asked, making this inquiry after doing some maths.

Alexander calculated that as according to Azijak it took about a week for the paper sheets to be ready, hence he had to have the ability to hold seven hundred thousand (700,000) sheets of paper at any one time.

And with each of them weighing 25 to 30 grams, this equated to around twenty tons (20 tons) of pulp plastered on the walls.

And that was just the dried amount.

The wet paper would likely weigh twice or even thrice that amount, which came to around fifty tons (50 tons).

There was no way one shed could hold that much paper.

"We have thirteen such sheds my lord," Azijak replied, adding, "At first we had wanted to dry them in the open. But we found that the morning dew forms on them, And in the summer, there will always be the issue of rain. So, we built these sheds."

"Mmmm, you did the right thing," Alexander approved.

He had not ordered any of these, letting Azijak handle the expansion of the paper plant as he wished to test him.

And to Alexander's delight, the man had up until now passed it with flying colors.

"I have also seen that you successfully made the scissors. I'm glad," Alexander afterward applauded, remembering seeing the women in one of the sheds using them.

To this Azijak humbly replied, "No, no, my lord, I only followed your instructions." further adding, "It is only thanks to the lord inventing such high-quality, cheap steel that the blacksmiths were able to rapidly process so much steel into pairs of blades. They said it was like hammering through butter."

Alexander was sure Azijak was exaggerating the last claim about his steel being as easy to mold as butter.

But he nevertheless gave the man a soft smile.

Encouraged by this gesture, Azijak further went on to say, "The scissors have helped us a lot, my lord. It's much faster and easier to use, and even less noisy. Truly a revolutionary invention," He flattered Alexander.

"That's good," Alexander nonchalantly replied to this puffery, and as he quickly moved on to another topic, "Azijak, have you taken the necessary fire precautions as I requested?"

"Oh yes my lord," Came the affirmative reply with a vigorous nod, followed by an eager. "Please let me show you."

And thus the group exited the paper drying room and was taken to a nearby large well, around which were several huge wooden drums filled with water.

"As you instructed lord pasha, we always keep a large amount of water at hand. So that in the event of an emergency, we will be able to quickly put the water onto the carts and get wherever necessary." Azijak showed.

Horse-driven carts all around the workshop, bringing in and taking out various things all the time, so they were readily available, which was why Alexander did not bother to dedicate a horse just for firefighting.

There was already a severe shortage of draft animals in Zanzan, as animal-pulled carts were used to transport all kinds of materials every day, from hundreds of tons of bricks, cement, coals, etc. And so letting a horse just stand idle and eat oats and grass in the hopes that one day it might come in useful was the epitome of wastage in Alexander's eye.

No, a far better usage would be to employ the horses around the vicinity of the workshop doing work, which would be rapidly transformed to carry water in the event of an emergency.

"That is good," Alexander was glad to see that Azijak had heeded his advice, as in this time period, most neglected to practice fire safety procedures.

Thus he reminded the man again out of caution, "Azijak, remember that every day might be a normal day where nothing happens. But it takes only one day and a single fire, to burn everything here to ash. So always be very careful of even a tiny spark."

"Yes, my lord. I will keep my eyes open," Azijak seriously replied in a steely tone.

Alexander gave a short hum at this, and then further informed the paper maker, "Also, once the bricks and cement become more available, I will replace the wooden sheds with fully concrete sheds. That will not only make the structure fireproof but also much more durable."

Alexander had decided this because fire was not his only worry.

Storms such as typhoons and hurricanes, blizzards and snowstorms, and even earthquakes were all possible natural disasters that could greet the workshop, not to mention being near the coast additionally exposed oneself to tsunamis.

"Well let me thank you, my lord, in advance. We very much look forward to it," Azijak was very enthusiastic about this proposal.

This was because being able to work in a 'stone building' was certainly a dream come true for many, as in their minds, it signified something similar to working in a lord's mansion.

"Then Azijak, for your last task of the day, could you lead me to see the workers' homes? I want to see their living conditions," Alexander made this final request by raising his palms as he gestured to the paper-maker to lead.

He made such an inquiry because Alexander had ordered Azijak to make sure that his workers were given good, sanitary, conditions to live in.

And so wanted to confirm this.

Though it had to be said that Alexander had not done this out of a bleeding heart but to make sure these precious resources did not die prematurely,

The last thing that he wanted to see was another plague outbreak caused by squalid working conditions.

"Right this way then, my lord," Azijak thus led Alexander to the very edge of the penned enclosure, where rows upon rows of communal houses were constructed, much like the ones seen around the mines.

The groundwater around these parts was relatively near the surface, so there was no need to divert water through aqueducts.

Instead dug wells were dug that let one enjoy clean, clear, pristine water straight from the source, as well as letting them use it for cooking, cleaning and even boiling the pulp in.

Speaking of cleaning, Alexander was pleased to see at certain points were small clusters of restrooms dotted around the site, meaning all the filth was dropped underground.

'So that's why the air smell so nice,' Alexander happily remarked, glad that his nose did not sting with that spicy odor that he would occasionally get.

With this last inspection, Alexander felt he had inspected all the necessary parts of the workshop, and finding almost everything around the workshop to his liking, he praised Azijak,

"Good. I'm overall very pleased with this paper shop. You did an excellent job,"

And this managed to get a wide grin and an internal sigh of relief from the man glad to have passed the test.

Chapter 319 Commercial Uses Of Paper

Alexander overall was very pleased with Azijak after touring all the different workshops of the paper plant, finding everything to be to his satisfaction.

The only thing that he had ruminated about changing was instructing Azijak to replace the log cabins with buildings similar to what he had told Harun.

But on second thought, after finding the living quarters of the workers to be adequate for the time, and thinking that the bricks and cement could be better used elsewhere, he decided to hold off on that for the time being.

Alexander himself would be the first to admit that the communal worker quarters were no symbol of benevolence and generosity, as lots of families were still cramped into a large communicable space, with many husbands, wives, and children having to stay in that one huge shared space.

But still, it was at least better than what most others provided and not the abject horror show that many of the other places were.

Alexander would even be somewhat confident in saying these conditions were the best in Adhania.

And it was not like the workers had not found a workaround for these problems.

When Alexander had toured these currently mostly empty sheds, as almost everyone had gone to work and only left a few women to take of the children and infants, he had an additional decoration in many of them

They were huge curtains that were hung between many of the beds, acting as a kind of screen and thus allowing the family inside them to have some time alone away from prying eyes, while also making it possible for a couple to have some privacy and get intimate.

And so Alexander decided to let the workshop carry on with this slight inconvenience.

With these thoughts inside his head, Alexander was about to move on to the next workshop, when Azijak raised one last concern from the back, saying, "My lord, there was one last thing I wanted to let you know. And it is that we have mostly met all our orders. So, we really don't know what to do with the all paper we are now producing."

"Hmmm, this is indeed a problem," Alexander loudly admitted with a nod, as he then voiced out his thoughts, "At 10 A2 sheets a ropal, it is too expensive to sell to the regular public. And so our customers can only be wealthy merchants and the nobles."

Though, it had to be said that the regular public was never the target customer for this product.

Most of them were completely illiterate, only being able to recognize some rudimentary symbols for their day-to-day use.

So what use would they have for paper other than to wipe their buttocks perhaps?

Hence, from its very inception, Alexander's customer base for the paper was the rich and learned, who both had the dough to purchase this fine product, and also the literacy to appreciate its creation.

And thus the problem for Alexander was actually finding these fat sheep, for he was basically an outcast among the nobility, while the merchants were only just starting to trickle in as the news of the plague abating had slowly begun to spread.

'Hmmm, I should get to making that printing press as soon as possible,' Alexander once again reminded himself to not dilly dally and get on with that epoch-changing invention.

He just had not just had the time to design that new machine until now as he was so busy with everything else.

And he knew that once this machine was invented, the demand for paper would skyrocket, as instead of manually writing on it, entire pages could be stamped on it, making printing books magnitudes times easier.

While Alexander was spinning such new ideas, Azijak ruminated on his lord's loud musing, and then thinking Alexander was stuck on how to sell this brand new product, he thus decided to input his own thoughts about all this.

Azijak consoled, 'Master, I believe we only need to find the appropriate buyer for this paper,' afterward adding, "As a former papyrus maker, I know better than most how well this new paper will sell. So please trust me when I say that we just need to get this new thing out there and we will be able to sell it like hot bread."

This was a local phrase with the meaning being exactly as 'sell it like hotcakes.'

Azijak said the line as he thumped his chest, which admittedly surprised Alexander a bit.

He honestly had no idea about the kind of demand there was for papyrus, and was thus internally relieved that the market seemed to be large enough to accommodate his new product.

For according to the prices Alexander had set for himself, he would need to sell eighty thousand (80,000) sheets of A2 paper or its equivalent every single day just to recoup his running cost.

That was 2 and a half tons of paper products every day, which was no small task.

And decreasing production was also not really an option, as the workers would still need to be paid regardless, and the daily production of hundred thousand (100,000) sheets was very near the base necessity.

"Also, my lord, I think we can charge 5 sheets for 1 ropal. This new paper is that good," Azijak then additionally said, feeling that the rich customers would be willing to fork over much more coin to get this better, lighter, and much more durable product.

"Mmmm, okay, I will be sure to market this product accordingly," Alexander hence promised Azijak.

And then quickly some of that marketing idea came to his head, which he immediately let the man know.

"Azijak," He called to draw attention, saying "My wedding is in two weeks. And I want to showcase this paper in a number of ways."

Alexander then took out a piece of paper from his pocket and folded it like a napkin, as he said, "First I want to make some paper of this size which would be used as disposable napkins."

Then Alexander made a boat, using the skills he had learned at one origami orientation class, which made Azijak go wide-eyed as he could not help but praise, "My lord, what an ingenious way to fold paper. May I learn from you?"

"Haha, okay, see it again," Alexander chuckled as he showed the folding again, and then made another folding, this time of the famous crane, and then instructed, "I want you to make a few of these kinds of foldings and color the boat blue and the crane red. They will be used as wedding venue decorations."

"Ohh, that's genius my lord, absolutely genius," Azijak literally jumped up into the air as he said this, producing a smile so big that it seemed to threaten to spill out of his mouth.

The reason for such a reaction was not lost to the smart men around, as they all were certainly sharp enough to understand what Alexander had done.

He had taken a thing that was of relative distaste for the general populace and transformed it into something that was highly desirable.

And this feeling only increased as Alexander showed him more decorative designs, such as festive festoons, curtains made of paper, and vibrant chains constructed of the thin substance and held together by glue.

'These things will sell even better than hot bread,' Azijak's eyes glowed with the color of gold, as his ears seemed to hear the clanking of silver, knowing perfectly well how much the people would love these new inventions.

This was because, humans being the curious creatures they were, somehow always had a fascination with shiny and colorful things.

This was why gold and silver were so valuable, for they were rare and shiny, and which was also why people tend to decorate themselves and their houses with such objects.

But most did not have the means to decorate as such, leaving them to just suck it up.

Until now.

Now, with Alexnader's beautiful designs, Azijak was sure paper, which was a much cheaper alternative, would soon become the mainstay of every poor and less affluent household's marriage.

They could even become festive decorations like the new year's or other religious holidays, if Alexander pushed for them using his temple.

Alexander also knew these, which was why he soon intended to introduce such shops to Zanzan.

But for now, Alexander decided to show Azijak one last decoration.

"This last thing is called a fanush, or a sky lantern" He introduced, and then drawing a picture of it, Alexander helped describe it, "Basically it is a cylindrical piece of paper with a hollow bottom. There a wick with some wax is attached using metal wires, so even the wick is lit, the hot air makes the lantern fly into the sky."

"Oh, that's so cool my lord," Azijak could only imagine how nice such a scene would be, as anything that flew had always driven the human imagination for millennia.

"Mmm, I will send the appropriate people to help you make these. Just be sure to have the right sized paper," Alexander at last ordered, which got a rapid nod from the man.

'With it being the lord's wedding, I will need to be extra attentive' Azijak pumped himself up.

And finally, with all these said and done, and after trying to exit the paper workshop multiple times but getting held up every time, at last, Alexander managed to bid Azijak goodbye and make his way to the next workshop, the soap plant.

Chapter 320 Revisiting The Soap Soap

Alexander had to go through the same security clearance when he moved out of the paper workshop and into the soap-making plant designated with level-2 clearance.

The reason behind this level of clearance was because soap was not really a popular substance in Adhania.

Regular people did not have the financial ability to use it, while the rich lords viewed it more as a perfume or for scenting their bath water rather than using it on a regular basis for washing and cleaning.

Hence, with Alexander being not sure of its economic potential, he decided to put it relatively low on the clearance table, thus willing to sell it for a good price.

There was also the fact that soap was not easy to make.

The various reactions that Alexander used to produce the alkali used in the soap were simple high-school chemistry, but for the time period, it was closer to magic.

Copying that was not easy, and that was not considering that an appropriate amount of base would be needed to be added to the fat to start the saponification.

Too less and it will not be soap, just fat.

Too much and the soap will cause itching and even might burn the skin.

Taking all this into account, Alexander placed the soap industry at Level-2 clearance.

After Alexander and his group showed their ID cards and went through all the procedures, finally they entered the enclosed workshop and found that a similar expansion to the paper shop had occurred here too, enabling much more volume of both solid and liquid soap production.

"Haquim, how are you?" Alexander greeted the man in charge of this plant, and after some general pleasantries, he started the tour of the premises.

It was similar to what he had in the paper workshop and found most things to his liking.

The basic structure of the plant had remained the same, with it only expanding in size, with more men, material, and vats being full of boiling liquid.

There were only two additional buildings constructed that Alexander had not seen before and Haquim led them to tour both of them.

"Here is the drying room," Haquim first led Alexander to a huge shed whose wooden floor was covered with liquid soap.

Workers could be seen carrying buckets of hot liquid soap from the huge boiling vats and directly dumping them onto the floor, after which another group would use a long, wooden rack-like tool to evenly spread the liquid, caking the floor with the semi-solid soap about an inch thick.

This shed was huge, around 50m long and 20m wide, with a three-story height, and Alexander could see the semi-finished soap was laid all over the huge area in multiple rows, each row in a different stage of their drying.

"How long does it take the soap to dry?" Alexander curiously asked.

"This is lye (NaOH) soap, my lord. It hardens much faster, in only a few days," Haquim replied.

Then he pointed to one end of the shed and said, "Once the soaps have hardened enough, the dimensions are marked using long strings dripped with ink and then cut using those things."

'Those things' referred to giant cutter knives, which the workers would use by placing the edge onto the soap lines and slowly dragging the sharp edge through the soap, cutting them.

And this had to be done twice, once horizontally, and the other vertically, thus getting the rectangular product.

"It takes one day to cut the soap, And then a worker uses a special mallet to hammer in the logo," Haquim explained to Alexander.

After this Alexander was led to the storage shed, where literal mountains of soap were stacked in a hollow cylindrical pattern to dry and harden, arranged in such a way as to allow air to pass around them.

The soaps would stay like this for a month or two, depending on the outside temperature and humidity, after which they would be ready to be sold.

"How many can you make per day?" Alexander was a bit taken aback by the amount of soap there was.

"About one ton, my lord." Haquim sounded pleased with the number.

But for Alexander, it caused a slight headache.

He had not had any real sense of the scale at which soap could be produced and so seeing the amount of soap in stock waiting to be sold caught him a bit off guard.

"Of only lye?" Then Alexander asked a bit incredulously.

And was relieved to see Haquim shake his head, "No, my lord, of all the five different soaps put together."

This bought some relief to Alexander, as this amount of daily production was still within his ability to export.

And on thinking it over, Alexander found it foolish that he thought five tons of olive oil would be used every day to make soap.

There was certainly not that much in stock.

'Hmmm, but still, I need to find a buyer quickly,' Alexander said to himself while gazing at the soap mountain, but the only person that he could think of who might have a big enough pocket seemed to be Mikaya's brother and he was only scheduled to come in a month and a half at the earliest.

"How many men are under you?" Alexander then decided not to think too much and instead discussed whether to slash production, which is where this question came from.

"About fifty men, lord pasha," The number employed was minuscule compared to the thousand men in paper production.

And so Alexander did not think there would be much point in laying off some workers.

"Could you let me see one of those soaps?" Alexander then asked Haquim and was promptly fetched a piece.

"*Sniff*" Alexander took a whiff of the bar of soap and found that it was odorless.

'Hmmm, I have heard that olive oil soaps are fragranceless, but will it sell?' Alexander ruminated.

And found that it would likely not, as for most people, the allure of soap was in its nice smell.

'Is this odorless soap useless?' Alexander found his heartache when thinking about letting all this soap to waste.

"Could you bring me some water? I want to use the soap," Alexander thus asked, intent on finding how it felt to wash with this neutral-smelling soap.

Thus a pitcher full of water was soon bought to him and water was poured over his hands as he cleaned them using the lye soap, finding the soap not too rough or too soft, after which he rinsed and dried his hand with a towel.

The feeling of the soap was nothing to write home about, neither good, nor bad, just normal.

And thus it came down to smell.

"*Sniff*," Thus he took a sniff of his hands and was pleased to see that there now was a sweet, natural body scent that he quite liked.

'Hmmm, some people might prefer this,' Alexander reasoned that some would certainly favor the clean, fruity natural body smell over the gaudy, artificial perfumed soap.

But still, he knew that such people would be in the minority, with most preferring the scented ones, and hence asked his chief soap maker, "Haquim, from now on, remember to add some perfumes to the soap during the boiling process. Stuff like thymes, rosemaries, and various flower juices like do."

"Okay my lord," Haquim nodded.

Finished exploring here, Alexander was shown the storage sites of the other soaps afterward, where he found that the solid soaps were stored in huge stacks and the liquids in huge wine barrels.

Alexander tested all of the products and found all of them to have different textures while washing, which please him greatly.

"I can sell all of them using different brands, and thus artificially create comparisons," Alexander chuckled, knowing providing a variety of choices for one's customers was one of the basic psychological techniques of business.

Even if there was no difference, even if it was the same product with only a different label, the human brain was capable of making up imaginary differences.

"My lord, how are we going to sell these soaps? Like this?" Haquim asked a good question.

As a wholesaler, Alexander had no problem selling the soaps as is.

He could sell them to large guilds, rich merchants, and the temples like this with no problem.

But, there would be problems if he were to sell soap like that as a retailer, to individuals like a noble or a few men.

Or to just give some as gifts.

"Hmmm," Alexander traced his chin as he thought about it a bit, and then thinking back to how they were sold in his previous life, he decided, "I will ask Ajijak to design some wrapping paper and paper packets. The solid soaps can be sold in them. As for the liquids, bottles made of leather, metal, or glass can be used."

In this way, the hard soaps can be wrapped in paper and then sealed with glue, or be directly placed in hard paper packets, while for the liquid soap, depending on how fancy the buyer was feeling, containers of various prices could be used.

"My lord is ever knowledgeable," Haquim cheered Alexander's decision.

With all these done, Alexander felt he had seen everything there was and so decided to move to the next workshop, the weapons manufacturing plant.