



# Arcadia

By Obscurica

# Table of Contents:

Chapter 1	3
Chapter 2	13
Chapter 3	24
Chapter 4	34
Chapter 5	45

# Chapter 1

“‘Kira,’ in the old tongue, meant ‘glitter’ or ‘sparkle,’” said the ancient matron of the clan as she stroked her granddaughter’s hair affectionately, nearly a dozen cycles ago. “To glimmer like the stars. Our purpose is to inspire, little Mayuya, my dear little twilight star. Be the glimmer of hope that guides us on this long and endless voyage.”

Did she, perhaps, take to heart the kind words of a woman long since reclaimed by the Sacred Communion? Did it drive her to excel as she has – the comet-like speed in which she soared up through the academic ranks? For one so young, two shy of her twentieth Cycle aboard The Heavenly Seed of the Faithful, The Colonial Ship Arcadia, she has claimed great mastery over the fundamental technologies that ensures the continued existence of this vessel of 1,046,527 souls – the esoteric command and use of unseen machinery. But for a few professors, well into their hundredth Cycle, none have her depth of knowledge of nanotechnology. And but for one and one other alone, none at all have her sheer talent in its use.

For one so young, Mayuya has gained great prestige. And prestige is a dry and distant thing.

You could see the distant concave farmlands from this section of the Core Shaft’s corridors. At this point, it was a good twenty kilometers from the nearest service elevator – one of the massive spokes that connected the central Shaft to the interior surface. The areas around the Spokes were almost perpetually cloud-covered, even as their control surfaces dilated constantly to maintain an idyllic climate through the rest of Arcadia. Here, it was all clear skies and green pastures above - and many, many couples and social groups were appreciative of it, here in the Core Shaft’s null-gravity garden-observatory. It was a popular gathering area – the chatter of good friends and the scent of picnics was a constant refrain and sensation here, growing dimmer only with the colony’s artificial lights, or with ceremony... or apprehension.

Mayuya was not aware of any lessening of ambient sound as she floated by, nose-deep in her digital reader. The quietude was a familiar companion – such as it always was for her, since the day in her youth that she was chosen as the Princess’s own, personal, apprentice. The bows of respect, and the shying away of her nominal peers, have long since become nothing more than part of her everyday background. From her other instructors, there was slightly more familiarity, but only just – even without the Princess’s influence, her surname alone carried much weight amongst academic circles.

The Kira were a clan of scientists, and one of the oldest and most respected. They traced their lineage back the distant depths of time to Earth itself, the blue marble planet (a convex surface!) nearly a legend and myth now. Was the clan’s eldest and only daughter hunched over from intense study, or the weight of living up to her dual obligations? Or was it to hide from those that would judge whether she’d lived up to her worth?

It was almost definitely the first, actually.

“...thousand-year banishment for treasonous acts up ranging from attempted regicide to illegal biotech experimentation,” she muttered to herself, unconsciously drifting from grassy arch to grassy arch, the one frumpy governmental jumpsuit in a garden of bared limbs and clinging false-kimonos that was the Core culture’s compromise between fashion and the necessities of low-gravity environs. “But no details on what exactly she was working on. Only something called the Six Harmonies, but... ‘Six Harmonies?’ I’ve heard that before...”

“You ask her! It was your idea!” hissed a voice nearby. It wasn’t until the speaker cleared her throat that Mayuya looked up from her notes. “Ah... Lady Kira? Lady Kira! We... were wondering if you received the invitation to Salome Selene’s soiree this afternoon?”

“Oh, uh...” Mayuya was tense and uncomfortable, looking around wildly as if only now realizing she was in a high-traffic area, and eyeing the exits. “Sorry! Um... I’ve a lot of studying to do. Duty and all. I... I gotta go! Maybe next time!”

She pushed off recklessly against a stone and moss arch, a clumsy comet of purple shooting down towards the exit corridor leading to the royal

libraries, pretending not to hear her peers mutter “all the time in the world for a datapad, but not a second for *people*...”

It couldn't be said that she ran all the way to her residence in the royal archives, a sprawling labyrinth of concentrically arranged servers whose innermost depths, oddly enough, was that of a set of environmentally preserved oak shelves and ancient tomes as old as the ship itself. And it couldn't be said because running in low-gravity was not only frowned upon, but entirely too difficult to bother with, given the reduction of friction without gravity providing a steady pressure between the runner and the ground. Traversing the untold kilometers length of the Core Shaft, the administrative and academic seat of the Arcadia, was a matter of leaps and bounds through hexagonal corridors, of graceful brushing of footholds and handholds. An ancient writer once described it as a warren of moon rabbits, the pale white limbs that distinguished a long-term Core occupant like the snowy furs of the celestial legends.

Mayuya wasn't totally human. Nobody in the Core was – or, with one solitary exception, was anybody else throughout the Arcadia. Perhaps the idea of a “celestial” race was what inspired the phenotype engineer behind her bloodline, half a dozen or more centuries ago. Pale skin, as if untouched by a single ray of ultraviolet radiation, and a certain natural litheness – or, in her case, more like a certain gauntness, aided in no small part by her tendency to skip meals when engrossed in research. The most distinct trait of her subrace, however, was the prominent, glass-marble “third eye” upon her forehead – not a wholly natural growth, but an electromagnetic transceiver she, and many others, were literally born to utilize, their very neurological pathways altered to best accommodate it.

There were clear drawbacks to this. The entirety of the Core was a carefully monitored sterile environment – even its gardens were rigorously cultivated in such a way as to minimize contaminants. It wasn't just the polished crystal teardrop upon her head that served to distinguish her and others from what would be considered “baseline” human, but a full range of cellular-level machinery, and their corresponding minute, yet vitally important, adaptations and genetic tweaks made to accommodate them in turn. A sterile environment was necessary – for the compromise to the massive suite of augmentations made to their cognitive capabilities was their very health. Their immune response was deliberately suppressed on a

genetic level so as to prevent their own bodies from rejecting itself wholesale.

Was the tradeoff worth it?

To Mayuya's eyes, the Core Shaft's corridors were a prismatic streak of ordered light. Dark veins of blue highlighted service shafts that were not currently a priority to her concerns. A thin, red and shifting line designated the optimal route, changing as traffic warranted. Her mind raced with cross-referencing and note-taking, update pings from the ship's archivists alerting her to subjects of possible interest, themselves a colored web of concerns reaching deep into a virtual aether. By the time she made it to the central archives, a mere five-minute jaunt from the gardens, she had skimmed and viewed untold terabytes of raw information, a parallelized research effort that would've won her doctorates in any era prior to the fleet's utilization of genetic and nanotechnological augments amongst its Core staff.

It was a capability necessary when the historical archives of the colonial vessel was such that, for all of her superhuman, even *supercomputer*, efforts... only served to frustrate her with how little she managed to find out.

By the time she made it to the dilating doors of the archives, she was mentally wrung out, even sweating from both the mental labor and the physical effort of getting home. Endurance: also something sacrificed.

*How long ago was it now? More than a thousand years. Her stewardship as Admiral of the Third Colonial Fleet of the Heaven's Faithful predated her ascension as sole monarch of the Arcadia. It predated the civil strife that nearly upended even the ship's massive banks of redundancies and failsafes. She knows, more than any alive, how much was lost – how much has been forgotten, sometimes deliberately, in these intervening centuries.*

*She was, after all, the last human standing.*

*Does she still remember the cold, stinging spray of salt water off the coast of Portugal? The taste of Wagyu steak in the Japanese consulate before the Lean Years set in motion her father's and his allies' far-reaching plans? Did she miss the feel of a natural sun shining high above, as opposed to*

*the artificial glare of a few million solar lamps? When her time as a natural, unaugmented child of the Earth was for not even a percent of her total life, was there enough memory at all of her homeland to warrant nostalgia? But perhaps there was. There are some memories that define you, be it for a year, a decade, or an eon since its time. There was... yes... a cathedral in a land that's outgrown its comforts, once proud, and made proud again, but for many a year the home of a lonely minister and father. Children playing amidst abandoned pews. A song – no, a duet... of the shining golden sun... of the peaceful silver moon...*

*She shook her head, stirring herself out of millennia-old recollections, irritably brushing aside flowing locks of pale hair. It was an inconvenience, even hazard, but in an era of peace, a certain image was expected of a mother-figure and leader. Perhaps a little electromagnetism could lock it into place – her genetic heritage, that unique marker hardcoded into the ship's recognition suite, allowed her both great leverage and even greater finesse, and in her youth it was joy enough to explore the possibilities both grand and, yes, even silly.*

*But now her chief of security was before her, the stern and scarred guardian – still a child in her eyes, the same moonfaced quality he held as an ambitious youth – requiring her attention. There were a number of secrets privy only to the innermost council, and now six of them were reaching the culmination of a long and carefully sculpted plan...*

She had resorted to the old texts. That is, the *physical* texts. It would've appalled a historical archivist to see her chuck them haphazardly onto the table – whether the shock would be in her treatment of old texts or even older *furniture* would be dependent upon the historian, though Mayuya knew that they were regularly maintained by a small fleet of repair nanites indigenous to the server room. She had a hand in designing a number of variants.

“No... no, not this either... no... Spike! Spike, I can't find Eberworth's *Collection of Historical Myths and Tales, Vol. 3.*” Her bun of hair was starting to frazzle from the frustration – even as the physical texts comprised only the centermost section of the archival room, it was a sizable collection, and manually reading the covers and contents was so slow. “Spike, where are you?”

“Just a min-“ A flung book, a muffled crash. “...ute. Oh, darn.”

Robotic Yeoman Utility Units, colloquially known as “dragons” for their serpentine appearance, modeled after pre-Arcadian myths, were once the literal movers and shakers of the Arcadia, and one of the few examples of “true” artificial intelligence that could be found aboard, even within the high-technology palace of the Core Shaft. The most common image of them is that of immense, hulking beasts of steel plates and tungsten claws – shapers of mountains, rivers and lakes, sculptors of the grand vistas of the Inner Surface, and rumored to patrol the silent night of the Outer.

They were sparse now; the original dragons’ labors were, for the most part, complete, with only a handful taking it upon themselves to utilize their skills as the macroscale equivalent of bonsai artists. The rest were dreaming but not dead, awaiting that long and distant day when their heuristically developed talents would be turned on a far vaster canvas: that of an entire planet.

But some do die, either willingly, entropically, or during the ancient times of conflict and unrest. And the needs of a closed-system vessel in both long- and short-term were strict indeed. It was a sign of privilege and honor to be given custodian of a newborn RYUU – an intelligence that starts no greater than any human, and is for a time perhaps even lesser than what would be considered an exceptionally bright mind. The heuristic development of a “true” AI is a slow process – and a black box, though whether by ancient custom or technical necessity, none but Her Majesty could say. They start off as diminutive helpers... they end up as titans.

Spike was definitely more on the diminutive side – barely waist-high to Mayuya when standing upright on hindlimbs, currently looking despondently at a smashed ceramic doll covered in wrapping paper.

“Spike, do you know where I shelved that... what are you doing with a pile full of ceramic dust?” asked Mayuya in irritation as she reached for a higher shelf.

“Well, it was a present for Selene’s soiree,” said the chrome-and-verdigris serpent as it carefully picked up the shards that’d fallen out of his claws. He tilted the package back... and swallowed it whole. “Hmm, nice use of cobalt glazing. Tasty. I’ll have to remember that maker.”



“Oh, bah. You know we don’t have time for that kind of stuff,” said Mayuya. “Anyhow, the book! Do you remember anything about the ‘Six Harmonies?’”

“The Six whatsits?” parroted Spike skeptically as he pulled out a ladder leaning against a shelf. “That’s just an old wives’ tale from the civil war over a millennium ago. And weren’t we supposed to be on a break?”

“This is important!” said Mayuya, dismissing his complaint with a wave of her hand. “I was researching the Princess’s ancestral history – just before the onset of the Arcadia’s dark ages, there was experimentation into nanite-boosted longevity projects, funded by a royal personage aboard the escort ship ‘Kaguyahime.’ I think it might’ve been a *cause* of the civil war, Spike!”

“Yeah, so?” asked Spike as he rummaged through the upper shelves. “That’s *literally* ancient history, Mayu. Heck, do we even have records going back that far?”

“That is *also* because of what happened a thousand years ago, Spike. Did you pay attention at all during my history lecture last week?” complained Mayuya as she grabbed the book out of his hands and waved over it. A faint brush of unseen force gently pulled the dusty, time-ravaged pages apart, revealing dense blots of microprint. “The Core was actually inhospitable for most of the first century. The ship’s repair functions were already overburdened with life support maintenance, so it wasn’t until late into the second century that the Archives and internal communications systems were fully functional. Thus, well, these books...”

Mayuya frowned as a lacquered nail settled upon a dot. An embedded camera did its work, and her vision was partially obscured with the magnified text.

“...oh, *shit*.”

Spike gaped. It was... *exceedingly* unusual for his mentor and guardian to resort to profanity.

“Both ship and captain were referred to as the ‘Kaguyahime,’ for at the time of the war, it was pointless to distinguish between the two. Her feats were as such to spark terror and nightmare for the war’s ten years’ duration – the raising of the dead in her service, the enslavement of what are now called the ‘Kirin’ subgroup of humans, and most frightening of all, a form of immortality that no weapon devised could extinguish. She would, quite literally, consume everything that was used against her – an endless tide of darkness that threatened to choke out life aboard the Arcadia,” read Mayuya with growing alarm. “The final attempt against her nearly destroyed the ship –using the immense powers afforded by the Six Harmonies of the Heavenly Host, the hull was said to have been *outright breached*, ejecting Kaguyahime into the unfathomable depths of the Outer Night, encasing her in a permanent cocoon of ice miles-thick.”

Spike looked blankly at her. “...I don’t get it.”

“Spike!” protested Mayuya. “Don’t you see? She could *hijack nanotech*. If the tales were right, she *was* nanotechnology – a living, sentient, all-consuming nightmare with an appetite bigger than... than... well, yours!”

“...oooh,” gulped Spike. “That *is* pretty impressive. But she was kicked out, right?”

“Though the absolute cold of the outer void, and the gathered power of the Six Harmonies would have killed anything less, the Kaguyahime’s departure included a dreadful promise – it would take her a thousand years to rebuild her capabilities, but *return she would*,” continued Mayuya quietly. “That the very day of her exile shall be her day of triumph.’ Spike, we need to contact the Princess.”

A pause. “...what, *now*? But she’s busy with the Solstice Celebration in Hopesville the day after tomorrow! And... well, it’s just a *story*, Mayu. I don’t think she’s going to take it too seriously.”

“Hmph!” Mayuya waved a hand over the book, making it close over the pages of dense microprint slowly and carefully. “I am *quite* certain of my findings, Spike. The day after tomorrow *is* the millennial anniversary of the Kaguyahime’s banishment from Arcadia. And there is certainly too much truth to merely discount the threat. For the paramount safety of the ship, the Princess *must* be alerted of this threat!”

Spike sighed as claws waved over an invisible sequence of commands. "Right, right... I'm interfaced with her secretary suite. Ready to record."

"Ahem. Dear Princess..."

*In her teens, her father – now a great and well-beloved man – found it fit to apprentice her and her younger sister to a close friend. There were only two problems with this: it required their relocation to a distant, unfamiliar land...*

*...and his son was an arrogant jerk.*

*The remnants of the isles of Japan, devastated by the encroaching floodwaters, had driven a high-tech nation to desperation. A land already scarce of resources found it nearly impossible to feed its cities – much less its increasing population of disenfranchised and poor.*

*It was because of a biotech thinktank organized by Kira Shinichi that they survived at all. Japan's Miracle Year was the first of many to spring up across a ravaged planet. The cheap reconstitution of any and all discarded biomass into edible, fully nourishing, protein made Professor Kira an international hero and a famed philanthropist, even as the invention's initial and unappealing appearance (a semisolid dark brown) made a running joke amongst the poor that they should just cut the middleman and "recycle" it naturally.*

*His son was quite happy to bask in his father's glory. To drink from whatever spillover from his father's brimming cup. To, in fact, spend his father's money. But if he was just a galling, idiot brat, it might've been alright – her studies and her sister's care left her little time for niceties, even for her beloved mentor's son. While she was quite happy to share Professor Kira's enthusiasm in the esoterica of scientific research – though she never quite understood the appeal that academic administration uniquely had to him – she felt that he would've understood if their familial relationship stayed in the lab.*

*What was unfair was that his son was actually nearly as brilliant as he was reckless. He lorded over the labs like a medieval magistrate's scion – a wolfish, leering, conniving and distracting presence.*

*And the worst thing? The absolute worst thing?*

*As he was quick to remind her, late into his life... she owes him.*

*It was him that dragged her out to play nice with the other teams and team leaders, or taught her to appreciate good wines and even better seafood, or how to not talk about work when amongst other people. Friends she would've never met if he wasn't so galling, so pushy and so... charming.*

*The great and terrible things that've happened in her life since. The riots she's survived. The harmony she's helped birthed and nourish. Most importantly, the relationships she's cultivated. That brash, greedy not-quite-idiot taught her that life was worth loving. Even if she didn't agree with the means in which he loved it.*

*When it became apparent that there was no time and no hope, when it became obvious that not everybody could be saved from the harsh judgment of the sun...*

*He took a bullet for her.*

*She still owes him.*

“...while you know that you have my fullest trust and appreciation for your admirable diligence, you simply *must* take a break from those dusty old books!” repeated Spike. He paused as his mentor groaned unceremoniously as the high-speed transport capsule roared its way down the electromagnetic rails of the Shaft. “There is more to a young woman's life than studying, dear Mayu! So I am assigning you to oversee the Solstice Celebration's preparations in Hopesville, near the southernmost Spoke, along with an essential task: make some friends!”

Mayuya could only bury her face in her arms disconsolately as fluffy white clouds and vivid green pastures crawled by above.

# Chapter 2

They were called the “Kirin,” because some braggart poet amongst their ranks made himself a minor name, centuries ago, by composing an ode to them – arguably, to himself – comparing them to the virtues of the heavenly beast. The crystalline node upon their heads like the Kirin’s horn; their augmented intelligence like unto the wisdom of the guardian of sages. And were they not graceful as they flitted through the Core, their feet never harming a blade of grass?

It was, in Mayuya’s eyes, mostly dross. Some of other Kirin clans had, in her opinion, far too much time on their hands, and should be seriously considered for reassignments to more important tasks – assuming that they still retained the intellectual capability to be of some use to administrative, judicial and research purposes. At the very least, she supposed, their neuralware could be borrowed for the runtimes of some of the algorithmic studies – certainly, nanotech augments to their intellectual *potential* hasn’t made geniuses of some idiots she could name. Or diligent, nor critical, thinkers out of the slothful.

She was a bit stuck up about things like that.

As for graceful? In the Core, maybe. A lifetime of living in low-gravity environments adapts one to the quirks of traversal within such a framework. While it’s true they rarely crush grass underfoot, that fact had more to do with the matter that garden-observatories weren’t common, while the rest of the Core assembly was a pastiche of ceramics, steel, aluminum and taut carbon fiber.

And when they were out of the Core? Their continued care and avoidance of flora and fauna of all shapes and sizes was not due, despite the claim of some of the clan matriarchs more susceptible to the flattery of ancient poems, to their innate nobility.

It was because it would be easier to list the things they *weren’t* likely to have an allergy to. Or pick up an infection from. Or just get roasted by the ultraviolet glare of the solar lamps pointed outward from the Core Shaft.

“Item one: go through Core Immigration immunization process,” listed Spike as their maglev carriage stopped at a Spoke station. Mayuya groaned. “What? It’s just a short session.”

“Easy for you to say,” sniffed Mayuya as she reluctantly pulled her luggage crate along. “You’re mostly inorganic. They just flush you with cleaning solution and UV rays on your way *back*.” She nodded inattentively to the two royal marines snapping to a salute at the entrance of the processing clinic – their duties, in this day and age, were mostly ceremonial. “*I’m* going to have a couple dozen needles stuck into me. Apparently, the doctors out here think it’s more reliable to stick a barbaric length of metal into you than use non-invasive delivery units.” She sighed miserably. “And I’ll still be sniffing when we finally reach the Surface, no thanks to the ongoing pollination efforts. Ugh. This is such a waste of time!”

“Oh c’mon, it won’t be that bad,” consoled Spike. “Besides, the Princess’s putting you up at the local library! There’s supposed to be a bunch of rare texts on rotation at the Hopesville community center. I’m sure you’ll have a great time.”

“...yes, yes you’re right.” Mayuya perked up, a steely glint in her eyes as she signed the waivers handed to her by the registrar. “Hopesville’s library has a collection on folklore and historical accounts. Not quite as good as the royal archives, but I’m sure it’ll have the evidence I need to *prove* that there’s a legitimate threat to the ship!”

Spike sighed. It was going to be a long couple of days.

---

They were winged.

It was the first and most obvious thing about the Alkonosts, so named after the winged heralds of Russian folklore. It’s rather hard to miss the five-meter wingspan, framing what was often a small body, dark with eumelanin, drifting lazily in the thermal drafts amidst the solar lamps and Spoke towers leading between the worlds of the Surface and the Core. They were the products of the dreadful algebra of necessity – the *least* human of the three subraces... and arguably the most vital to the colony’s continued survival on its endless voyage.

Once, upon a distant time, there was a war. Though the details always shift, it was really no different from any other: the predominant theme, as always, was “sacrifice.” And what was sacrificed was “hope.” Many lives were lost – more, really, than could be spared. The fragile balance of a closed ecosystem, no matter how thoroughly redundant, is easily shattered. Were there enough, just barely, to grow food for the survivors? Was there medicine left for the sick and wounded? Perhaps – the ship was large, well-stocked, and well-engineered.

But the ship was designed to be *maintained* by an equally large, well-stocked, and well-prepared crew.

How many hundreds of thousands of square kilometers comprised the Inner Surface? How many *millions* of tons of biomass does that account for? With the war’s terrible wracking, how much of it was now slowly decomposing, choking the air with rot and disease?

And there was the matter of the forty-seven Spokes connecting the Core Shaft with the Inner Surface. Each could be measured in kilometers – and each was host to what remained of the ship’s climate controls and mechanical life support systems.

Necessity, they say, is the mother of invention. But desperation and, frankly, *madness* are good stand-ins too. They needed people that could survive regular journeys up the shattered Shaft to maintain what systems worked and repair, over decades, those that have ceased. They needed those sharp of both mind and reflex, adept in mechanical work and with more than a hint of a daredevil in their souls.

They, frankly, needed somebody *mad*.

Crazy enough, *insane* enough, to climb tens of kilometers to manually wrench open a stuck gas vent with the very real, very deadly risk of getting knocked off by the atmospheric turmoil naturally generated by *massive, multi-megaton superstructures* rotating at high speed through turgid, smog-thickened atmosphere. Prior to the war, the risk would have been mitigated by the Spokes themselves, their climate panels and vents and endless banks of fine-tuned sensors working in synchronous harmony to offset the perilous fluid dynamics with almost atomic precision. Now, only those that

would dare the hurricane, and the fireballs of faulty solar lamps, need qualify.

Volunteers were treated as the walking dead. Respected... but given distance.

They had, to the estimates of the scientists that survived, roughly forty years to get it right before the environmental imbalance exhausted their oxygen reserves. And so they labored desperately against the fey winds. Parachutes were of no help – either shredded by the gale, or doomed by the fact that it was not “true” gravity dragging you in a predictable and exploitable direction, but the victim’s accelerating drift through low-gravity space towards a *rapidly rotating, high-kinetic surface*. Gliders fared a little better – *if* they survived the storm, it allowed greater control over their flight path, though much trial and error was required to learn how to fly along a rotational frame.

And then, one day, a technician looked up, half-crazed by the endless winds and scorching heat, and saw a vision of birds...

But that’s ancient history for Vaiva Kaptsov, Weather Modification Specialist (Moisture) II. The old war, her ancestor’s sacrifice of her very humanity, the role it had in the trifold formation of Modern Arcadia...

Dude, who cares?

Learning all that old stuff isn’t going to keep the aerosolizers running. Nor – more importantly! – is it going to help her figure out how to pull off that trick with the magnetized pinions and thundercloud she saw the ‘Bolts pull off!

Vaiva squinted as she took a plier to her aeroframe’s support arms, a critical eye judging the curve of the aluminum as it tapered into a construct of lightweight ceramics and electrically managed rotors. A grunt of grudging satisfaction, and she hoisted it over her back, two sets of shoulder blades shrugging into customized grooves as fasteners hissed into position. Many Alkonosts in the weather management industry were fond of the wing extension packs – the increased length and flight control support of the standard pack allowed extended coasting periods, better load limits and superior stability.



Vaiva preferred to modify hers in a completely different direction. Speed and agility were what she craved – mostly *speed*. And if you had a Kirin buddy that owed you favors, a little tweaking here and here of the ceramic pinions, some software modification to the onboard computer... and, oh, yes, the flight goggles.

She adjusted the strap, wincing and pulling at chromatic hair pinched by the leather, and clicked it on. ...*there*. Huh. So this is how Kirins saw the world. Lots of otherwise meaningless squiggly lines... except for the electric-blue concentric arcs crackling over the immense entirety of the Hopesville Spoke. That would be the electromagnetic field of the Spoke – one generated *en masse* by the powerful machinery built into it.

And that thin red line, weaving through the rings, plotted after days of careful observation and calculation, was her flight path. Pulled off right, and all of Arcadia will know this as the *Kaptsov Corkscrew*. Screw up, and... well, she'll think of something. She had her wings, after all.

A ripple of tensing back muscles, her shuddering visible through her skin-tight, light blue worksuit. Alkonost fashion was, to the eyes of others, immodest – but wind drag, weight, and minimal flight performance was a bit more urgent than the judgment of people thousands of meters above and below you. Or ahead and behind you, as was the case as Vaiva stared down the length of the Spoke.

A timer seen only by her ticked to zero... and she lunged forward. A smooth, almost feline motion that sent her hurtling over the side of an alcove along the thickest part of the Spoke just as a supply carriage roared past, wings flapping once, twice, then folding tightly in as the wake dragged at her viciously.

Glee rose within her.

This... was going to be *awesome*.

---

Mayuya grunted. The thing about the false gravity of a rapidly rotating surface – it was discernible from the real thing only by virtue of theory and calculation. About forty-five kilograms of luggage is a bit awkward in low-

gravity due to inertia. The same amount of mass on the Inner Surface is a downright burden.

And the most embarrassing thing was that all she was carrying was a handbag – merely a data reader and the day's supply of immunoboosters and miscellanea. Not that vials of nanites and their primers weren't deceptively dense, but...

"Are you sure you're alright, milady?" asked the concerned guardsman as he carried maybe twenty times the piddling amount of weight she was burdened with. His dull yellow uniform, a partial carapace of ceramic plates and cloth, was polished to a gleam. "I could take the load off your hands–"

"That... that will be quite alright," said Mayuya tersely. "The carriage is not far from the station, yes?"

"Hmm. Just outside those doors," said the guard, nodding down towards the far end of the corridor. "The Princess's assigned a number of guards in town to help prepare with the festivities. If you wish, I can signal ahead so somebody can help you."

"That *will not*–"

"We'd *absolutely* love to have some help," interjected Spike. He glared at Mayuya and pulled on the long sleeves of her robe. "C'mon, the guy's helped Kirin before. It's his job. And *I'm* not carrying all that." Mayuya flushed, angry and embarrassed. "Besides, it's your fault for bringing so much stuff with you."

"I forgot that they'd weigh so much down here!" protested Mayuya. "And besides, what was I supposed to leave behind? Hopesville's an agricultural zone – there's almost no infrastructure here!"

The guard coughed politely as they exited the attached building. Non-commodity traffic to and from Hopesville was minimal, though the multi-g lifts, traveling well in excess of hundreds of kilometers a second, made regular trips back and forth along the Spoke. Mayuya winced as the bright lights of the lamps intruded upon unattenuated eyes. "*My hometown*," he stressed. "Prides itself in its technological autonomy. We attempt to be as close a simulation as possible to the agricultural practices to be used post-

colonization. There is infrastructure, but it is cautiously utilized – though our hospices and quarters for Kirin fully meet standard quality guidelines, I assure you.”

“I’m... I’m sorry. I didn’t mean to suggest...” started Mayuya. She glanced at the cloak on the guard’s back. It was clearly designed to detach at-will, and behind it was two large masses, trailing down nearly to his ankles. “You said you were born here?”

The guard noticed her glance and nodded as the horse-drawn carriage clattered to a stop in front of them, to Mayuya’s clear fascination and trepidation. “It’s mostly a Kuguzan town, yes, as are most agricultural settlements. But weather affects agricultural work, so it isn’t uncommon for Alkonost engineers, such as my parents, to take up residence here. I take it you’ve never been on a carriage before?”

“This is a... horse, right?” asked Mayuya, dredging up dusty old biology lessons. “Is it... sanitary?”

The guard tried not to laugh. “Probably not. Horses tend to roll in the dirt, miss. She’s a fine and healthy specimen, though, and Hopesville’s not terribly far away. You’ll be safe in the carriage, no doubt.”

---

*She was on her deathbed, surrounded by her dearly beloved... dearly warped... children. Would it be fair to call them victims of a madwoman’s retrovirus? They had gone under the proverbial and sometimes literal knife willingly. For some, they had sought her out in desperation. There were... it would not be inaccurate to call them nests, high above the clouds, high above the once-palatial Core. A small and growing heaven and refuge for the deviant, the maverick, the wild and the desperate.*

*They say that she would take anybody, anybody at all, under her... wings. And through her acceptance, you would be... reborn.*

*She was on her deathbed, and surrounded by ten thousand loved ones, up here in the weightless skies. For one said to have been driven mad, driven visionary her followers assert, by the clawing winds and reeking heat, by the once-endless hurricanes that dried the lands and wasted the farms,*

*driven mad by the loss of all she had once loved in the war of all against all...*

*She was happy. Not yet into her sixth decade of life, as time was once measured, and she was happy for things to end this way.*

*"I don't know whether to canonize or demonize you," she once said, during geneticist turned life support guru Petra Velox's last days. "It would've taken longer, maybe too long, to reach equilibrium if you didn't make a lifestyle out of recklessness... but we did, and you did."*

*The woman wheezed a laugh, skin like parchment from constant exposure to the revived lamps, at least where malignant tumors did not yet claim domain. "As a child, I once saw you plunge into the very core of a wildfire, burning white hot and reeking of poison. I remember vividly that a child was saved that day. And you call me reckless?"*

*"There are... resources afforded to the Royal Family," she had replied coolly, a hand gently holding the old woman's clawlike fingers. "I... can extend your time. Were I at the height of my power, I could do more, but my capabilities are diminished, Petra. But you deserve this. You deserve a whole lot more."*

*The old woman's breathe caught, and released slowly. She stared out at an unseen distance, breathing quietly. "No... no. Hasn't this old woman earned her rest, your Majesty?" A languishing arm waved at the many around her. "My children... are they not adequate? They will serve, Princess. Though their forms cause fear amongst those of the False Ground."*

*"But... for how long?" asked the Princess. "How long without their Matron?"*

*A low, knowing chuckle escaped from dried lips. "Shall I entrust you with a lifetime's work? They call us Albatrosses and Stormbringers, fearing us not just for our terrible visage, but for the bad news we bring when we deign to dirty our feet upon the False Ground – and perhaps it is my own mistake, to treat the alarms of failure as a generosity to those, hah, below us. You tempt me with the gift of time, and perhaps..." A weary silence passed. "Princess... a boon."*

*"Anything, Petra," she had said earnestly.*

*They said that Petra Velox died in peace and comfort, and that the strain of years of abuse by the winds and the hundred-thousand small suns had miraculously drained from her upon death.*

*They said that the whole ship rang with the songs of her wake. They sang in mourning of her loss, and in celebration of her life. Her ashes were strung through the once high and churning winds, so that all of Arcadia would be claimed by her touch.*

*They say she was the first Alkonost. She was the first to have sung a melody of flight and dreams, the first to have been freed from the memories of loss and tragedy.*

*She was mother and inspiration to a new and slowly growing race. The first of the three to have been touched by Divinity... to grow and flourish into modern Arcadia.*

---

The path from the southernmost Spoke to the town of Hopesville was a sequence of meandering switchbacks down the steep sides of a massive wall of dirt and rubble, weaving between an ancient and well-maintained system of lifts stretching from the station to the town. Laden cargo pallets and bright-orange overalls of workers and engineers floated on steel supports overhead, with only the faintest creaking as winds pushed against the meandering structure.

Hopesville existed along a wide and shallow basin, protected from the occasionally tempestuous winds guided by the 47th Spoke. There was little of interest about it, this far from the nexus of command, but for the idyllic agrarian scenery. The foothills gave way to a wide expanse of grass, stretching out to a distant lake. Further yet was a solid sea of green – a roiling forest curving sharply upward to a perpendicular angle from the small township at its foot. You could see, even from far out here, how Coriolis forces affected the untamed forest's growth – the splay of unkempt trees that narrowed and straightened the closer it was to the Core Shaft, and the weird, twisting zero-g vines that wrapped the around the Core at the center.

The Everfree Forest was considered too dangerous to develop on. Even the Core Shaft adjacent to it was only lightly maintained, and remotely at that, its tunnels and compartments sealed off for as long as anybody could remember.

The town beneath its vast bulk, however, was so quaint that “cute” was the only other word that justified it. The locals’ adherence to a limited set of technologies gave it what would’ve once been called an intimate, “small-town” dynamic found nowhere else in Arcadia. What roads were paved were done in naturally found cobblestone and gravel, and but for a few grudging accommodations to necessity aboard a long-term starship, even the buildings lacked the uniformity of the larger districts.

Mayuya sniffed – not out of contempt, but a growing realization that, yes, it was the smell of fresh flowers and grass she was getting through the open window, and, yes, she *should* probably close it, as strange and intoxicating as the rarely experienced scents were.

“Oh, drat,” she muttered as she rummaged through her handbag. “It’s already started. Spike, do you remember what I did with that handkerchief? I can’t seem to-“

“Whoa! Mayu, look! Look!” The dragon tugged excitedly at her sleeve as they made another turn around a switchback. “Open the window! Stop the carriage! There’s something around the Spoke!”

“What? Spike, we have to get to Hopesville as soon as-“

The dragon gesticulated wildly. “I’m serious! Look! I think it’s a person!”

“What do you mean ‘a person?’ There’s no scheduled maintenance crew today.” The carriage creaked to a halt, and Mayuya stepped out, treading carefully around recently watered grass. “Spike, what are you going on about?”

She squinted up, uttering a subvocalized command. Vision filters sorted through the spectrum, cutting through the glare until... yes. Yes, there was something moving. From the looks of the guard, it was even visible to those used to the bright lights. Though the filters dimmed it, there was an

impression... a streak of bright, flitting colors, making shockingly quick, degenerating orbits around the Spoke.

Was it *accelerating*? What was it? The spiraling orbit suddenly broke, there was this growing dot, and a weird, high-pitched noise-

Wait.

It...

No. No way.

Wings, desperately flapping. *Screaming*. It was a person, and... and it was *headed right this way*.

Vaiva blinked. Mud. Ground.

She sat up and took her bearings. Wings, alright. Gear... uh... gear could use a bit of fixing. No broken bones! Always good. Man, rotating reference frames are *hard*.

"Miss Kaptsov," said the guard, nodding down from the driver's seat of a horse-drawn carriage. "You seem to be doing well."

"Oh, hey. What's up? Didja see my new trick?" beamed Vaiva to her distant cousin. "Almost got it right! A degausser went off at the end there and messed up my flight plan, but-"

"Vaiva Kaptsov, you knocked the Princess's personal protégé senseless. Her dragon too."

"What are you talking-" A faint groan from under her. "...oh, *damn*."

"Indeed."

# Chapter 3

There was a water pump by the side of the road, used for field work. That slogged off the worst of the mud. It also got her hair soaked. Vaiva had wings – huge ones that, this close, seemed to dwarf her, which wasn't especially hard given her short stature. But, no, air-drying didn't make things much better. It did, however, turn Mayuya's short bob from wet hair to wet, *disordered* hair.

Vaiva was failing at suppressing her mirth.

"I-I'm sorry!" she managed to choke out. "Look, seriously!"

"Uh-huh," deadpanned Mayuya as she wrung the water off her hood. "Sir, could we get going soon? We're wasting time here."

"Look, I'll make it up to you!" insisted Vaiva. "You're new to town, right? Well, I've lived and worked here all my life. I'll show you around!"

"Thank you, but that will not be necessary," said Mayuya flatly. "Look, I'm very busy today. The weather has to be cleared up for the ceremony, the libations have to be inspected, I've got *research* to do--"

"Hey, you wouldn't happen to be Vaiva Kaptsov, would you?" asked Spike, knocking water out of what passes for his ears.

"Huh? Yeah, what's up?" replied Vaiva, a blank look on her face.

"Item five on the list was to talk to the person in charge of atmospheric conditions," said Spike, reminding Mayuya.

"Oh, that? Pssch. That won't be a problem," said Vaiva, flapping off and settling on top of the carriage, ignoring the guard's glare.

"Oh, *really*," said Mayuya disbelievingly. "Given that you're the only technician on duty today, it ought to take you *hours* to get set up, and all you've been doing is playing around!"



“Not playing,” corrected Vaiva, leaning back and enjoying the radiant heat from the lamps. “Training!”

“Huh, you think you have a chance this time?” interjected the guard casually. “That’s a tough gig.”

“Dude, did you see that corkscrew?! Well, the bit before the degausser, I mean.”

“Ehhh... I’ve seen faster.”

“Faster?!” asked a shocked and scandalized Vaiva. “...oh, right, the Spitfire Dive. W-well, I’ll just-“

“Excuse me,” interrupted an exasperated Mayuya. “But what are you even talking about?! What are you even training for?”

Vaiva sat up straight in excitement. “The *Blue Bolts*! They’re performing at the Solstice Celebration! I’ll use it as my chance to show off. They’ll be sure to give me a tryout after I show them what I’m capable of!”

Mayuya gave the winged girl a flat, skeptical look. “...the Blue Bolts. The Princess’s personal flight attendants. The Arcadia’s *elite* flight demonstration squadron.” Vaiva nodded enthusiastically. “I don’t think they’d take on anybody that can’t do a basic weather pattern shift.”

Vaiva raised an eyebrow as she stared down at Mayuya. “...you don’t think I can finish on time?”

“I wonder if you have the... right stuff,” said Mayuya, critically eyeing her nails. “Anyhow, I really have to be goin-“

“Hey, cousin! How long has it been since I crashed into Little Miss Kirin here?” called Vaiva.

“Hmm... fifteen minutes?”

“And that flight time along the Spoke?”

“Couldn’t have been more than ten seconds at most.”

Vaiva licked a finger and held it into the air. “...aaaaand now.”

The wind blew.

By the time Mayuya was able to pick herself back up, still dazed by the experience, Vaiva was floating back down, laughing loudly.

“But – what...” stammered Mayuya. “When did you! The spillover effects! How!”

Vaiva tapped her headgear. “Wireless, duh. I keep the equipment well-maintained, so I just fed in adjustment metrics as I flew by the corresponding gear. Easy! And the Everfree’s like a sponge for this kind of stuff anyhow, so don’t worry about spillover.” She beamed. “Like I’d keep Hopesville hanging. They don’t call me Vaiva Victorious for nothin’!”

The guard snorted. “I thought it was the Kaptsov Catastrophe.”

“I-I have no idea what you’re talking about!” laughed Vaiva nervously, looking askance.

“Or was it the Kaptsov Crash? Pretty sure it was – ow!”

---

The Command Center. Way at the far end of the Arcadia lies the center of it all – its culture, its technology... its nervous system. It starts just a little past the sudden break in green grass and forestry that encompasses the rest of the ship, roughly at about where the final, or first, Spoke holds the immense weight of the Core Shaft up towards the sky. Its actual influence propagated throughout the entirety of the vessel, linking every node and town, even as far as Hopesville, within its unseen, unfelt, but entirely ubiquitous network.

And it all funneled here, into the throne room.

At least, it should’ve been a throne room. The young sensors officer on duty at the moment was an avid reader of the legends and myths of the old days – the heroes and dramas of ages past that once graced ancient

Arcadia, and every romantic bone in her Kirin body demanded that the central nexus of command be a lavish, fairytale construct of high fantasy and awe-inspiring technology.

It was, instead... well, there were definitely network arcades in the Core that had more visual appeal than the strictly functional terminals and display panels in what was actually a rather small, rather chilly room.

Utilitarian. The room, maintained over a thousand years, was downright utilitarian. *Boring*. When she was an acolyte, whispering rumors with her fellow trainees between lessons on the arcana of computer science and electrical engineering, they'd thought that the reserved comments and secrecy involving the centermost seat of power in all of Arcadia was to be a grand and profound revelation. She'd struggled to climb up to the very top of her Order's ranks in her discipline for a chance to work within its confines.

None of them had quite accounted for the fact that there was simply nothing to really talk about.

Well, Gerald did. But Gerald's just as boring as the command room. Then again, he didn't exactly become chief network engineer by taking flights of fancy either.

There were a few perks. Being in such close proximity to Her Majesty had its rewards. She was not an aloof ruler, especially not to those she worked alongside on a daily basis, and it was *comforting* to know that the commander of the ship put in the same hours – often a lot more – than her core staff. She *had* seen, first-hand, the miracles that the Princess was capable of pulling off. And her clearance access afforded her information that was both juicy and... disturbing.

In the end, the biggest reason for the secrecy behind the command room, or the rest of the highest seats of government, wasn't any ephemeral fairy tale of the wonders of the lost eras.

It was simply what they saw on the simple, utilitarian, downright boring terminal screens.

Or, more importantly, what they didn't.

She failed to notice the first cue. It was a question as to whether anybody could have.

---

Vaiva did most of the talking. Was a symptom of the Alkonost's legendary metabolism, or just a character defect- that is, trait? Her kin was stoic, as expected of a guardsman of any species, but she herself was a compact inferno of outlandish ideas and excitement. Her enthusiasm, however, was somewhat infectious – though not one for the sports herself, Mayuya found herself unwittingly enthralled by a discourse on the requisites of becoming a Bolt, and – more of interest to her – the physics of their stuntwork. Though it did take a bit of mental work when the facts and figures were couched in such terms as “*mind-blowingly quick*,” “*big ol’ thermal balloon*,” “*a freaking tornado*,” and a slew of other exaggerations and slang. The occasional sneeze as pollen drifted by certainly didn't help things.

“And then – and then they...! Oh, hey,” noted Vaiva. “We're in town already.”

Mayuya jerked to attention. “What? Oh!” She nudged Spike. “Hey, who was in charge of the decorations again?”

“A Miss Kichouko Suzu,” replied Spike immediately. “We should be just a few minutes away.”

“Suzu, huh?” said Vaiva, raising a brow. “Oh yeah, she's in charge of all that frilly stuff, huh? She's a bit... uh...”

“A bit what?” asked Mayuya curiously. “Is there something wrong?”

“Eh, Kichouko is a bit... fancy,” said Vaiva blandly. “She runs a clothing shop. Not my kinda scene, if you get my drift – she throws a fit whenever there's the slightest bit of mud.”

Mayuya sneezed, her shoulders slumping. “Oh, yes, right. The contaminants.” The coach creaked to a stop. “I suppose I look like a bit of a mess, huh?”

Vaiva shrugged as she opened the carriage door and hopped out. The guard bowed and offered Mayuya a hand as she followed after, helping her down. “Don't look so bad to me. Just a few stains, nothing serious-“

A gasp interrupted her, and a shriek as a streak of blurred blonde and pink ran by.

“Just a few stains, huh?” deadpanned Mayuya.

---

There was just one university abroad the Arcadia, and it was the University. And the hallmark of the University was that you were well and encouraged to fight for your domain. That is, fight with publications, heated debates, overturning your rivals’ theories, and all of the rest of that good time. Not, it was stressed, by fist or force. Funding was done on an entirely project-by-project basis, and the Princess did so frown upon unsportsmanlike conduct.

That said, sometimes it was tempting to slug Dr. Bowen across the jaw, damn the academic consequences. The smug, all-knowing snake.

“Look, kid, you’re new to the field-“

“I’ve been on this job for five years!”

“AND there’s an entire body of recorded observations, stretching back literal centuries, that disputes you! Now, I know that a lot has been expected of you, but you’re clearly overworked and need to take a break. I’m going to sign a release for you to attend the Summer Solstice festival to cool your heels a bit, maybe meet a nice girl, and-“

“*Goddammit*, Dad, at least look at the fucking data!” snapped Assistant Professor Bowen. “The laser calibration test is *more* than a millennia old, and the gradient level is finer than anything they were capable of back then. Unless you’re just going to discount the *entire body* of physics as we know it, then the new readings do indicate a rapidly blueshifting object!”

The elder researcher glared up from a reclined seat and grabbed the datapad from his desk. He skimmed through it, rapidly tapping commands onto the flat interface.

“But that’s just impossible. We should’ve seen it coming decades ago. Until just now, any observations in that direction showed nothing above the size of a solar wind nuclei on the charted path.” He shook his head. “That *must*

mean something's wrong, kid. Nothing comes out of nothing. If we haven't been able to track this mass until now, then that's the only possibility!"

The younger researcher rolled his eyes. "Really? 'The only possibility?' How do you even get published with that kind of attitude?"

"Yeah? Then what the hell do you think it is?" snapped the older man, bristling angrily.

"Lots of things," said the son blandly. He waved dismissively. "The question isn't 'is something soon to collide with the Arcadia,' but 'does anybody else know,' and if so, 'for how long have they kept the information?'" He glared back down at his old man. "It is not, I *insist*, the fault of my team's equipment. We've spent the last year exhaustively verifying that. *Something* out there is leaving a mass shadow, and it is *heading our way*. Either it is small – but going fast enough to *cripple* systems where it'll end up hitting – or was just outside of verifiable range, and is *huge*."

He shuddered.

"And it'll do a lot more than cripple the ship."

---

She was in her element, as it were. Though an external observer might note instead the pickiness in which she plucked through ribbons, or the judgmental disdain in which she cast aside those she found lacking in contextual virtue, Kichouko was, in fact, having quite a bit of fun putting together the settings for the grand ceremony. The meeting hall was bedecked in finery – ribbons, curtains and laces draped like an aurora, edging from a dark, velvety purple and blue at the entryway and tapering through the red and oranges until it reached a crescendo of yellow sunlight upon the mezzanine stage. A presentation fit, as it were, for royalty, or would be, soon enough.

"Hmm... yes. Yes, this is exactly the right shade and fabric," muttered Kichouko to herself as she slid out a billowing length of cloth from amongst virtually identical hues, the burgundy a sharp contrast against a titanium white dress and checkered robins-egg blue shawl, her face translucently obscured by an airy veil. A deft lashing around an exposed bannister, and

the burgundy cloth hung amidst a frame of similar fellows – though hanging noticeably limp in comparison.

“Oh my,” said a voice behind her. “I see the decorations are getting along quite well! Are you Kichouko Suzu?”

“Just a minute!” said Kichouko in a singsong voice. “Almost done here! Now... just a bit of embedded circuitry magic and...” A brush of white-gloved hand against fabric, and life was breathed into limp linen. Fabric rustled and stirred... lifted and flowed in effervescent motion. It synchronized with the flow of the tapestry around it, sending a subdued cascade floating through the room. The two elicited gasps of awe behind her were music to her ears. “Ahem,” she said, turning around demurely and posed. “Now, what can I do for you... aaahh!”

Mayuya winced.

“My dear! Whatever happened?!” exclaimed Kichouko, deeply scandalized. “Oh, we simply must get you cleaned up!”

“Ah-hah...” laughed Mayuya nervously. “That... that won’t be necessary. I’m just here to do a quick inspection of the premises, and I’ll be right out of your hair.”

“My hair? But what about *your* hair?” demanded Kichouko. “No, no, *no*. This simply will *not* do.” Arms forcefully, if hesitantly, folded over Mayuya’s. “A good Kirin girl like you can’t be traipsing around in public covered in m-mu-*mud*!” Kichouko shuddered, but moved determinedly along out of the hall with Mayuya protesting in tow. “Ugh! It doesn’t bear thinking about. We’ll get you made over in no time – I insist!”

It took over an hour, fifteen outfits, countless accessorizing variants, and an endless tide of demeaning sniggering from Spike, but Mayuya did have to admit that the black and purple dress was a lot more comfortable than the off-the-rack robe she had started this trip with. And it was entirely news to her that you could embed an ionizing air purifier into a lightweight, synthetic silk scarf – she had very nearly stopped sniffing.

“Oh, that’s not the only trick I have up my sleeve,” bragged Kichouko proudly. “Surface-living for Kirin is all about accessorizing sensibly, my

dear! It is so very hard to be fashionable with a fever, you know. Here, try these obsidian bracelets – they use a contact gel with time-released supplements. Now, you were saying...?”

Mayuya struggled with the bracelets. Unyielding gem-encrusted stone elicited a wince as they slid into place. “Ow... um. Right. I was sent from Command to check on the-“

“*Command?*” exclaimed Kichouko, suddenly clutching her hands tightly. “Oh, Miss Kira! I’ve always wanted to live there!” Kichouko swooned back in excitement and recollection. “The lights! The culture! It’s been a childhood *dream* to set up shop in the LED-lighted alleys of New Milan – to have a chance at designing for the Princess herself! Oh, you must simply tell me more!” She sighed and fluttered her eyelashes at Mayuya. “We are going to be the best of friends, you and I...”

Mayuya’s brow twitched and she started to pull away. “That’s... that’s fine, but-“

Kichouko paused and gave a sudden frown. “Oh, no, no, no. Whatever was I thinking? Emeralds? With the rest of your ensemble?” A deft hand slipped the bracelets off as she wandered off. “Oh, but the fabricator did make such an excellent batch. ...maybe I have another outfit this could go with!”

Mayuya nudged Spike sharply as the fashion designer wandered off. “Quick!” she said tersely. “Before she puts me through another dozen dresses!”

---

*There were once two sisters, and they were named after the heavenly spheres. By their grace and beauty, they were admired by the world. By their wisdom and foresight, they were respected by so many. But it is the nature of humankind to be insatiable, even for the little things, and a rift began to grow.*

*She didn’t like her name.*

*It was, she complained, too prophetic. To be a mere reflection of her sister’s radiance. To always be compared to the elder’s achievements. Yes, perhaps they shared professional fields – the study and application of*



*nanotechnology could hardly be capable without a thorough understanding of chemical interactions that were not at all dissimilar to that commonly utilized in biotechnology. Both, in fact, were often highly dependent on organic chemistry specifically.*

*But, and this is what really galled her, no matter how hard she worked, no matter to what bleeding edge she pushed her research and her field, no matter what breakthroughs of hers that her sister drew inspiration from, it was to the elder that credit was assumed.*

*But not all was bad.*

*She found, strangely, comfort in soldiers and fieldwork. And in this era, there was plenty of soldiers, and plenty of work. Plenty of shattered bones and dreams needed mending. They were grateful – for her presence, for her little machines, for the tapestry of blood and muscle and sinew that she so carefully, so elegantly stitched back together, so close to new you'd be hard-pressed to find scars. While her sister fed and nurtured the desperate and ailing, she found her calling elsewhere... as champion for the lost.*

*But she loved her sister, and her sister loved her. They were each other's best advocates, in a world of such extremes. In a world that both deified and vilified their actions. It was not the elder's fault that the others would rather buy narrative than truth. That a dying world would cling to legends and myths in its last days.*

*There were once two sisters, named after the stars and moon. And like celestial bodies, they were locked in an intractable orbit around the other, with nothing in the world alone capable of separating the two.*

*Nothing in the world.*

*She accepted her task.*

*She would be their escort out of the encroaching flames, and vanguard against the seeping darkness.*

# Chapter 4

Sweet Apple Acres stood as the largest farmstead in Hopesville, sprawling across countless acres of sun-ripened fruit and rows of thriving vegetables. It was just large enough, in fact, that you can make out the curvature of the inner surface as the rows of apple trees began to lean inward, relative to the farmhouse – still stretched upward, of course, at the distant, shimmering streak of sunlight that comprised the Core Shaft. They were one of the biggest seasonal employers in Hopesville, though the permanent staff was but a small family.

Though, by the looks of the farmhouse's gated exterior, it would be easy to assume otherwise. The Solstice drew in the entire clan – the *entire* clan – from every corner of the Arcadia, and from the looks and smell, most of their kitchenware as well. They were in charge of catering for this year's event – an effort they threw themselves into eagerly.

Spike lacked the sort of stomach that could growl, but there was a noticeable perking up of the dragon's plated muzzle. "Mmm, that's some nice carbohydrates in the air... Hey, we haven't eaten since we got here!"

Mayuya laughed. "Fine, fine. We'll see if they have anything for you. This is Sweet Apple Acres, right?"

"We'll be looking for a Miss Sylva Estris," confirmed Spike, nodding. "And... oh, singing?"

Mayuya tilted her head. Not far from the entrance to the busy farmstead, underneath a flourishing apple tree, was a small group of fifteen children of various ages, their heads held up high in unified melody. Before them, meekly conducting with airy, light gestures, was a woman with hair a pale, snowy white and dressed in loose pastel-yellow robes. She was an Alkonost, though her wings were diminished in size compared to Vaiva's, and covered not in the work gear of the darker-hued girl, but bound in gauze of soft pink and white, and draped over her front like a long shawl. She was also significantly taller than the other girl – nearly up to Mayuya, though her retiring stature shrank her presence.

“Oh dear,” softly muttered the girl as an enthusiastic young boy of five warbled wildly off-pitch. “Um... please hold on everybody. Yes... Um, Alexander. Alex, dear... just a little... gentler? Yes! Yes, just like that.” She beamed brightly down at the young singer, who mirrored her smile eagerly. “Now, everybody, if we can do it one more-“

“Hi! I see this is the Hopesville children’s...” Mayuya wasn’t expecting the Alkonost woman to give off a small, surprised shriek. Nor for it to cause the children to shriek, more loudly, in delight. Nor for it to then cause the younger ones to run off, yelling loudly still, chased soon after by the older kids, filling the air for a short while with laughter. “...choir. Oh dear.”

She coughed. The woman in pink and yellow wilted awkwardly. “Um... hi! I’m Mayuya Kira. What’s your name?” she asked, desperately maintaining cheer.

“I’m... I’m... Au...re...lia...” mumbled the white-haired woman quietly, her voice trailing off at the end.

“Sorry, I didn’t quite catch that.”

“Au..re...” a barely perceptible squeak escaped from her nervous lips.

“Aurelia!” called out a full-throated voice. The creak of nearby, wooden gates and thump as it shut. “Aurelia – consarnit, where’d those kids run off to? Aurelia, girl, those tykes aren’t giving you any trouble, are they? Oh, hey! A guest!” The voice’s owner bowed, whipping off a straw Stetson hat politely and revealing long lengths of dark blond hair framing a cherubic face, sun-tanned and freckled. She was a solidly-built woman roughly of Mayuya’s age, wearing a checkered red halter top shirt and jean shorts, long limbs exposing faint green lines, like jade veins through marble-hard, farm-toughed musculature. “Sylva Estris, at your service. And this here’s my good friend Aurelia Humilis.” Aurelia bowed meekly. “Now what can I do for-“

“Is that... is that a *baby dragon*?” Aurelia gasped and kneeled before the flustered Spike.

“Um... hi?” started Spike, nervous by the attention.

“Oh, your scales are so pretty. And you can talk!”

“Huh, well, I do make sure to eat a well-balanced breakfast of minerals, miss,” said Spike, thrusting a proud chestplate forward. “And regularly polish, of course!”

“O, man,” groaned Sylva. “Well, at least she isn’t being shy. She’s gonna be hogging your dragon for a while, I’m afraid. Sorry, what was your name again, miss?”

“Ah, sorry. I’m Mayuya Kira.” She stuck out a hand, and winced as the Kuguzan farmer shook it firmly. “I’m here to supervise the preparations for the Solstice Celebration.”

“Good! Always glad to meet a new friend,” said Sylva enthusiastically. “Say, you want to see how the refreshments are gettin’ along, yeah? Well, c’mon in! Can’t properly supervise if you don’t get a proper taste!”

Mayuya blanched at the word “friend.” “Oh, but I’m sure you’re busy, miss, and I do have a busy schedule, so-“

“Now, don’t be shy! I insist! HEY EVERYBODY!” she shouted with powerful lungs. “SOOOOUUUPPPP’S UP!”

---

*The Agun Kuguza, it was said, inhabited the stores where the crops were held. It was, for the most part, a friendly spirit, not prone to mischief – but a small sacrifice of meat was required to sate it, and for that meager gift, it would ensure a plentiful harvest. The Eastern European fable must have been on the mind of the genetic designer that wrestled with a growing problem aboard the Arcadia, years into her voyage.*

*It was a problem of compromise.*

*Human beings were... energetic creatures. The growing race of avian sapients aboard especially so. The skyward gardens were proving increasingly insufficient, driving what was once a fiercely independent race back to the ground – but the groundside occupants were having troubles themselves. There was a growing civil rift – those who claimed that their*

*augmentations and labors, whether nanotechnological or genetic or both, justified their caloric intake... and everybody else.*

*Tennyson's economic study only worsened it, with the imminent threat of violence simmering below the illusion of peace. A calorie-to-value study was hardly what the ship needed at the time. But it was published, even against the wishes of the Princess, and damned were the consequences. Or, thought a researcher grimly, at least damned was Tennyson, who expired during the first riots.*

*The problem was, perhaps he wasn't wrong. In another century or two, maybe the ship's replenished capabilities would be able to sustain them all. But they had to live in the here and now, and "here" was a ship still exhausted from years of struggle, while "now" was a Malthusian brink that they dare not fall over.*

*And so Kristoph Markov improvised and compromised. Desperation does drive creativity so very well – it only took a year's cycle for him to work out the research grant and permissions for a genetic fabricator, to negotiate with the owners of the largest farmsteads and fab-labs aboard the ship, to set up a distribution system... to monopolize any concurrent research and development.*

*Kuguza-brand "traits" hit the market, bringing genetic optimization and improved health to the common man – even, thanks to the support and subsidization of the government, the poor and needy.*

*It would be nice to say that the man behind the efforts died rich, happy and influential, but in actuality, he died a horrible death from overuse of mutagens and retroviruses, a victim to, alas, compromise of quality. It was the hard work of his assistants and partners that his efforts did not die in vain – and eventually became ship-standard for the gross majority of its population.*

*Photosynthetic traits, reducing caloric requirements by an average of half, were the most visible evidence of their augmentation, represented by whorls and stripes of light green, the patterning of which seemed to carry through families. Immune-system bolstering greatly aided their health and comfort in the ship's closed system and lingering environmental hazards – though, alas, it detrimentally affected the utility of nanotechnology amongst those that accessed the genetic trait. These two were what most distinguished the modern Kuguzan.*

*Of the three sub-races, they were the closest to human – comparatively bulky in size, especially in contrast to the Kirin, and more diverse than even the Alkonost in form and culture. It helped that they were the healthiest – the comparatively greater genetic abuse done on the Alkonost, and the Kirin’s tendency towards illnesses, left them as the most virile core of the ship’s population, though the modifications done to them were not without consequences to their numbers either.*

*But the important thing? The important thing was that this could be lived with. The important thing was that hands were around to till the fields and seed the earth and run the filters and repair the ship. That the stores were filled with food. That none need starve. That all had purpose.*

*The important thing was that they could all survive.*

---

“Uggghh...” groaned Mayuya, lying against a bench in town. “That was... too much food. Way too much. I don’t want to look at an apple pie ever again. ”

“It was pretty good, wasn’t it?” said Spike, patting his chassis satisfactorily. “*Especially* those pies! The tins were a nice touch. Added a good bite.”

Mayuya gingerly carried herself off the bench, an aching stomach threatening to bowl her over. “That was the last of it, right? All things accounted for? We talked to the mayor already, so...”

Spike paused as he quickly processed the checklist. “Yep. That’s it!”

“Good! Finally, some research!” They hurried to the library – at least, hurried as quickly as a full stomach could allow. “I only have so much time to do research, and the bandwidth down here is dismal! I need to track down everything I can on the *Kaguyahime* before another townie stalls us out with yet another-“

“SURPRIIIISSEEE!”

The din of a few dozen voices, streamers, and outward-drifting balloons nearly bowled Mayuya over. Her hand was grabbed and shaken enthusiastically by a blond-and-pink-haired blur of energy – probably human, if she would just stop oscillating Mayuya long enough for her to confirm.

“Hi, I’m Pinkie! I saw you coming to town, remember? And since I knew everybody in town, and didn’t know you, that must mean you’re new! And that surprised me so I went ‘gasp,’ like this!” A loud, exaggerated intake of air acted as a punctuation. “And since you’re new, you probably don’t know anybody here, which means you must be lonely, and that made me sad, so I decided to throw a surprise party for you!” She finally stopped shaking Mayuya’s hand and beamed happily. “Were you surprised?”

“V-very!” stammered Mayuya, gathering her wits back up from the torrent of words and motions. “Especially since this is a *library*, and you’re supposed to be *quiet*.”

“Oh that’s silly,” waved off Pinkie, skipping happily towards the refreshments table with Mayuya’s hand held tightly in reluctant tow. She was decked out in all-pink pageantry – a wide, hooped skirt of curly pink lace and white streamers. Though the same race as Sylva, Pinkie was decidedly curvy – notably developed arms, and the wisps of flour under an unattended cheek and specks of batter under her nails suggested why this might be so, but her overall appearance was best described as “bubbly.” “What kind of party would it be if everybody were quiet? I mean, duh – booorriinnng! So I invited everybody in town over and baked a bunch of cupcakes and, ooh, the local bar offered to service drinks! Here!” A muffin and cup of punch was shoved into Mayuya’s hands. “Try them! They’re sooooo good!”

“I can’t – I just ate-“ Mayuya wilted under Pinkie’s big, expectant eyes. “Maybe a sip...”

“Mm, I dunno,” said Sylva as she neared their table. “Tastes like regular cider to me. But what’s the surprise?”

“Huh? Wait, I think I mixed the drinks up,” said Vaiva as she followed her. “Oh, hey, Pinkie! I see you met Mayu- er... Mayuya? Did you just drink...”

Mayuya let out a loud, muffled whimper, her hands covering her mouth as she ran for the nearest bathroom.

“Aww, look, she’s so happy to make friends she’s crying!” said Pinkie happily.

“Vaiva, dear, you’re not pranking our guest of honor, are you?” asked Kichouko critically, gingerly wiping cupcake crumbs from her lips.

“Aw come off of it. It was meant for Sylva,” said Vaiva.

“Ah still don’t get it,” said Sylva, bemused. “What was the surprise? And what’s it got to do with strawberries?”

---

The lights were dimmed low – a pristine row of orderly stars, illuminating just enough to see the roads by. It had been a long day – though the primary celebrations would be in Hopesville this year, as was the traditional rotation, it was politically nonviable to ignore the greater Spokes for such a small farming community. There was pageantry, pomp, fanfare... tiresome burdens of rule and stewardship, but nonetheless the grease of a smoothly operating society.

And then there was the rest of her work.

The only sound during the proceedings was the creaking of wheels, the steady march of heavy feet, and the hints of wingstrokes above. A procession of silver and gold armor, gleaming in the dusk, made its way through the winding trails towards Hopesville in near-silence, mostly out of respect for the traditions of the Solstice, but also out of deference to whom they guarded.

The Princess was busy. Though her eyes were half-closed, and her posture still and meditative, she was hard at work. It has been... a very, very long time since the entirety of her consciousness was stored within the limitations of her physical self. And while it was certainly the vital, decision-making core, it would be better to say that the Princess herself wasn’t so much on the road between the 46<sup>th</sup> and 47<sup>th</sup> Spoke as she was... *everywhere*.



Everywhere except, perhaps, the one place that most desired her attention. But perhaps it was time to take the young researcher off hold...

Kilometers away, far from the dim afterglow of the Surface, and not at all appreciative of the faint, starlike glimmers of the vast lake before his residence, a young man tapped his foot impatiently, arms folded defensively as he waited leaning against a counter.

"Doctor Bowen? The Princess will see you now," piped in the high voice of his interface terminal. The wall by him lit up.

"Your Majesty, I trust that you are doing well tonight," said the researcher, bowing stiffly. "I am honored that you would make the time for me."

"Ah, Professor," said the Princess's gentle and calming voice. "It is a delight to hear from you; your research and diligence has been of great interest to me."

"Then you know why I have contacted you. The gravimetric reports..."

"Indeed."

An awkward silence permeated the residence.

"Then... if I may ask, what is it that you plan to do about it?" broached the researcher. "Only, it is drawing very, very close to the ship as we speak." Silence held court. "...Princess?"

There was an odd, cold shudder – but it wasn't just him. Wall fixtures broke loose and drifted down. His diploma thudded against the floor. And the stars of the lake were gone.

"Oh," he said hoarsely as he picked himself back up. "I can probably guess how large it was now."

His interface flickered back on, and he began to read the writing on the walls...

---

The party continues. It continued all the way out into the town square, through the bakery (to top off on confectionaries and drinks), and wound its way to the civic center. Already, there was a celebrity presence and guards in every corner of the interior, even a filming crew interspersed amongst the growing crowd.

Mayuya was dragged unwillingly along, a datapad crammed with whatever random text she could feed it clutched protectively to her chest as if a charm to ward off negative attention – and, to her, any attention from anybody was a negative.

She was sweating. From the discomfort of being confined in a closed room with a large crowd, from the exertions of the day, and from the effort of trying to focus on what little research she could do while the crowd swung into full gear. She nervously checked the time as notes were mentally, though literally, compiled – there wasn't much time before the princess arrived. In fact, she thought with a gulp, she should be here already.

On cue, the mayor of Hopesville took the stage.

“Ladies and gentlemen!” began the stateswoman, poised proudly at her podium. “It is my great honor as mayor of Hopesville to announce the beginning of the thousandth Summer Solstice of the voyage of the Arcadia! On this day, the longest of our annual Cycle, let us celebrate the wisdom of our forebearers and partake in the fruits of our labor! And now, it is my privilege to introduce to you our kind and benevolent ruler, the steward of Arcadian harmony, her Royal Majesty...”

The ship itself interrupted her. The sound of the crowd, already dimmed out of respect to the speechmaker, was silenced momentarily by a ubiquitous shudder in all directions. Far off in the distance, the low roar of storm-quelling vents from the great Spokes added a tremulous undercurrent to one girl's desperate whimper.

“Oh, my,” said the mayor as tensed fingers slowly let go of the podium. She readjusted her glasses and cleared her throat. “I'm... I'm sure that was nothing, right?” She glanced at the guards, though they looked just as dumbfounded as the citizenry. “A-anyhow! I am sure Her Majesty will have an explanation for this phenomenon. Let me just... um. Yes, please hold on

a moment, everybody.” She paced quickly to the curtains enshrouding the upper mezzanine, slipping behind them... and slowly pacing backward as they billowed down, their uppermost edges decaying in a sizzle of ozone and burnt metals. Kichouko gasped loudly at the sight of her masterful work falling inexplicably apart, even the abstracted sunrise burnt to a smeared black by powers unknown.

Upon the mezzanine stage stood a child clad in simple, pristine white; a blank, smiling face of porcelain staring ahead as if the crowd existed not.

*“Twinkle, twinkle, little star...”* she quietly sang. *“How I wonder what you are! Up above the world so high, like a diamond in the sky...”*

“S-somebody should get that kid away from all that soot,” mumbled Sylva nervously. “I-it’s not good for... her...” The oppressive tension only made others retreat further. She steeled her nerves and approached the stage. “H-hey, kid, c’mon. You’re creeping everybody out. Let’s go find your parents. What’s your name?”

“Don’t get close to her!” yelled Mayuya, stalling Sylva in mid-stride. “Everybody, back away! Get out!”

*“When the blazing sun is gone... when he nothing shines upon... then you show your little light; twinkle, twinkle, all night long...”*

The little girl turned her head slowly down at Mayuya, her smile growing. Her eyes, quite literally, empty.

“I-I know you,” said Mayuya, shuddering in fear and defiance.

“Say it...” crawled out a sibilant whisper from all around them. *“Remind them... who I am.”*

“The traitor princess. The...” Mayuya gulped. “The Lady of Decay. You were the captain of the lost cruiser *Kaguyahime*, and murderer of its crew and subordinate ships.” She summoned her courage and glared defiance at the smiling young girl. “You were called... Lunatic Sea.”

Laughter. Ephemeral, demonic, soft, raucous, gentle, haughty – disembodied, from all corners, as the guards cautiously approached the mezzanine. Its volume concentrated onto the little girl... who wasn’t so little

now, a column of black ichor raising her even as it slowly engulfed her from the feet up.

“What did you do to the princess?” demanded Mayuya. “What are your demands?”

“Oh, I think you know, little scholar,” said the girl’s voice, suddenly sharp, distinct and vicious. “Your precious princess now shares *my* fate, from so long ago. And now... now I am master and commander. And *all* shall bow before me.”

“S-seize her!” ordered the mayor. “She knows where the Princess has gone to!”

The guards charged the stage to increasingly maddened cackling – only to be thrown back, to a man, by an incandescent column of lightning. Mayuya was blinded and deafened by the blast, knocked off her feet like all others.

When she came to, the sky was afire. The roof of the civic center shattered outward, and what was once gallant pageantry now cinders and the wailing of the injured.

The Core was wreathed in a snake of flames.

And, just like that, it extinguished itself.

For the first time in a millennium, perfect darkness embraced the Arcadia.

Mayuya despaired.

# Chapter 5

Fluid dynamics are hard.

There are a number of things that determine atmospheric flow within the confines of an extraordinary, unimaginably large generational colony ship. Angular acceleration and velocity are the biggest factors – but they aren't alone, and aren't necessarily the *majority* of relevant effects. Internal structure accounts for a lot of it – and so does the thermals, the sources of which have now gone silent. Solvency for the ship's internal dynamics takes up a significant part of its overall computational power – and requires, absolutely necessitates, *constant* maintenance and repairs.

All of which was now thrown into chaos.

The evacuation order throughout the Core was not initially taken seriously. There was, perhaps, a time when mandatory drills were regularly conducted – historical documentation from the earliest age even suggested that off-*ship* maneuvers were considered necessary, for a time. But eras of peace had taken its toll; the most anybody knew was where the exits were and how to progress through them. Worse, perhaps, was the fact that they only knew *this* much because the Princess's calm, authoritative voice was regularly repeating the instructions across every display wall along the major corridors and within every home.

It did help, at least a little. When the ship shook, the effects of the tremors magnified by the Core Shaft's suspension, and the lights flashed off, illuminating the Shaft in the ruddy, red glow of emergency lights as backup capacitors clicked on, there wasn't nearly as much chaos and casualty as there could have been in the resultant panicked stampede for the elevators.

"She knew this was coming," muttered Bowen as he absentmindedly accepted the emergency respirators handed out by Kuguzan medical responders at the base of the 45<sup>th</sup> Spoke. Around him, children were crying into their mothers' arms, the old and enfeebled hurriedly treated for histamine-related complications, and the mutterings of confusion and discontent filled the air.

The familiar duskligh of Arcadia's evenings was gone, replaced by Surfaceside lamps and torches that cast nightmarish, unfamiliar shadows across the buildings of the Spokecity.

Above them ominously groaned the Shaft; a rippling, malevolent and alien noise that seemed to echo in perpetuity. The ambient mutterings made a crescendo into notes of alarm as the Core Shaft seemed to crack – livid veins of otherworldly black vining along its surface. Onward towards Command.

"She knew this was coming," asserted Bowen to nobody in particular as he hurried out into the claustrophobic night, the grand and endless expanses of the Arcadia now far too cramped, far too narrow and far too close for the comforts of many to whatever now infected the Core. He needed to find a network café. "But what the hell is she *planning*?"

---

Already, what should've been a warm simulation of a summer night was quickly chilling. The clouds had come swiftly, bringing with them sheets of rain over Hopesville. Mayuya had raced against the storm on her way back to the library and residence at center of town – a race she lost, soaked to the bone and shivering by the time she and Spike managed it past the door.

"Your core temperature's sinking dangerously," noted Spike hurriedly. "I'll get you a towel and some clothes."

"No time!" snapped Mayuya as she started rummaging through bookshelves. "J-just get me an immunobooster or something. And s-see if there's any hot water in the kitchen. I need to find everything I c-can on the Elements of Harmony...!"

"And just what *are* the Elements of Harmony?" demanded Vaiva as Mayuya turned around and jumped, startled by the Alkonost's sudden appearance. The heavy rain had hidden the shorter girl's approach. "And how did you know who that... that girl was, huh? 'Lunatic Sea?'" Mayuya paced back nervously as other dark shapes approached the open doorway. "What are you, a *spy* for her?"

“Simmer down there, girl,” said Sylva. She and the others that Mayuya had met throughout the day stepped in, sheltered by a thin, gauzy cloud held aloft by Kichouko, rainwater sliding down a faint, crackling sheen of electromagnetic energy. “She was as scared as any of us. She ain’t no spy... but she does know what’s going on. Don’t you, hon?”

Mayuya looked nervously at their expectant faces and nodded. “I was doing research on early Arcadian history. That’s how I knew about the... she was called Luna, over a thousand years ago, and was part of the Arcadian fleet before the civil war around then. She *commanded* the Arcadian escort ships, including the cruiser *Kaguyahime*, and managed to subvert and destroy everything but the Arcadia itself. According to legends and records, it was the Elements of Harmony that stopped her rampage.” Mayuya slumped into a chair in frustration and anxiety. “Only, I don’t even know what they are, where they’re found, or even what they *did* to her! And she’s already subverted the ship’s network! I was hoping to find more in Hopesville’s collection, but without the primary library-“

“The Elements of Harmony: Historical Notes and Analyses,” called out Pinkie from near a glass display case.

“What- how-“ started Mayuya as she rushed over to the pink-haired baker. “How did you know?!”

“Well, duh! If it hasn’t been seen in a thousand years, obviously you gotta check museum displays!” said Pinkie happily, skipping away as Spike came in with a tray of tea.

“How does that even make... actually, I guess it does kind of...” Mayuya stared down at the climate-controlled case, where a moldering, wood-bound book sat; the words on its covers from a barely-remembered language.

Aurelia gently patted her on the shoulders. “Don’t worry about it,” she said, shaking her head. “Pinkie is... she’s kind of like that.”

“But it wasn’t even *labeled*- I had to use translator software to even know it was Late English-“

“Ahem. Lady Kira,” said Kichouko as she sipped from a teacup. “I believe we have more pressing issues at-hand?” She made a face at the taste. “...such as what temperature these leaves were steeped in. Spike, dear, *Camilla sinensis* gets rotated into the crop schedule only once every three Cycles. Please don’t waste it needlessly.”

“...you’re right. Right. Let me just...” Mayuya slid a fingertip against an unseen latch under the lip of the glass cabinets top. It clicked, and she carefully lifted it open...

---

*What was “identity?” What were the peripheries and limits of self-recognition? What constituted its form and substance? Repairing shattered bone and butchered organs – that was... was almost child’s play now. Suspended animation would solve so very many technical problems on the voyage – give it nearly limitless reach and choice amongst the endless black velvet sea of heavenly spheres. It would allow them to switch from the demands of any possible port of call to every possible port of call. And, for the most part, it was feasible.*

*Up until, at least, one started working with the human brain.*

*The controversy had been growing since an Israeli lab attached the first crude prosthetic cortex onto the exposed brain of a lab rat, granting it restored senses and mental capabilities once lost. At what point does the emulation of cognition become the act of cognition? To what extent can a thought be replicated? These were questions that have been asked before, even in centuries past. But as their fates grew dimmer, and the windows of opportunity closed one by one, they were questions with renewed urgency. And it was tied to queries of grander, even more fundamental scope.*

*What was to be their fate?*

*To what extremes will they go to survive?*

*She had already made up her mind as to the answer: to thrive, to the farthest lengths.*

*Her sister disagreed. It was their first serious fight.*



*It was far from the last.*

---

Mayuya's first hint of any background machinations was in Kichouko's boutique, not far from the library. The rain had subsided as quickly as it had come, replacing itself instead with fierce, chilling gales. The fashion designer had insisted that they begin preparations at her place – there was, she claimed, something there that was absolutely necessary to their cause.

“...environmental suits,” said Vaiva, disbelief and skepticism in her voice as she looked down on the rainbow display.

“All-environment suits,” corrected Kichouko primly. “They were a special commission from an industrial contact at New Chicago, near the 33<sup>rd</sup> Spoke. Two for each race. Heat, cold, shock and vacuum-resistant.”

“...in rainbow colors.”

“Bright pastel is fashionable this summer,” said Kichouko, self-satisfied by her craftsmanship. “I’ll just need a couple hours to refit them to our sizes, and...”

Mayuya picked up the light purple one, her extended senses picking up the low electron thrum of nanocontrollers and electronic interfaces. “...Miss Suzu, who did you say commissioned this?”

Kichouko gave a puzzled frown. “The instructions were handed to me by an agent from 33<sup>rd</sup> Industries. They didn’t say who specifically made the order.” She paused in recollection. “The instructions were *very* specific. Down to the size and accessories, even.”

“The 33<sup>rd</sup> is specialized in materials and nanotech research and development,” said Mayuya distractedly as she checked over the interfaces. “Under the Princess’s direct supervision.”

There was a short length of silence from Kichouko, then a gasp. “...d-do you mean the Princess *herself* commissioned – oh, it’s always been a *dream* to design something for her, but-“

“I wouldn’t know,” said Mayuya, shaking her head. “The Princess would always talk about my work and research when we’re together. She didn’t... didn’t talk much about her own.” She hesitated, a dark look crossing her face.

“Um... I’m sure the Princess’s alright,” said Aurelia as she tentatively took a light yellow suit. “I don’t know what that... that girl meant by what she said, but it’s the Princess... right? She has direct control over the ship, so...” A kind hand rested on Mayuya’s shoulders.

Mayuya shook herself out of her grim reverie. “You’re right. The Princess has... she’s shown me techniques and capabilities far in excess of what I thought were possible.” A hand tightened determinedly over the stiff fabric. “Miss Suzu, you said it was rated for vacuum work?”

“Why, yes – a difficult standard to meet, as there hasn’t been demands for such in centuries.”

“Then I at least know *where* the Harmonies are.” Life was breathed into the suit under her touch – diodes and indicators lit up as authorization, recognition and confirmation was exchanged between her and the apparel. “Please ask Spike for my credit account details, Kichouko. I’ll pay whatever the cost of the gear in full.” Mayuya walked briskly towards the dressing room. “Spike, alert the Guards after I leave – it may take more than one attempt to-“

“Whoa there, sister.” Sylva slammed a hand against the doorframe. “And what do you exactly mean by that?”

“W-well, I’m going alone, of course,” said Mayuya, puzzled by the farmer’s upset expression.

“Aw hell no, you ain’t! Vaiva, toss me that orange one. Kichouko, you tell us what all these fiddly doodads do while we make our way.”

“What, but – it’s too dangerous! I can’t ask you to risk your life!” protested Mayuya, stamping her feet angrily.

Vaiva laughed as she tossed the garment over to Sylva's outstretched hand. "And you think we'd be okay with you doing the same? We're Crew, Mayuya."

"We work together!" said Pinkie happily as she helped Aurelia tie back her long hair.

"...or w-we perish alone," muttered Aurelia, her hands trembling slightly as she unwound her wings.

---

There were... things that lived in the unkempt forest of the ship's stern. Automated maintenance units were sometimes seen scurrying through its undergrowth, headed to purposes unknown. It was rumored that some of the oldest, most inscrutable yeoman units hibernated amidst its centrifugally distorted forest... and, whispered giggling generations of Hopesville youths, daring each other to sneak around its peripheries, that they've gone feral in the intervening centuries.

Horror stories were told of what lay beyond, stories and nearly forgotten memories of radioactive heat and grotesque mutations – relics of the nuclear thunder of the ship's ORION engine. It was not uncommon, in some centuries, to speak of a fourth race – a degenerate chimera tribe, afflicted with the hellish curse of those lean and distant years where the vast assembly of the engine itself was cannibalized to feed the desperation of the many, regardless of the consequences and heedless of personal safety.

Such stories were wildly exaggerated, claimed the Core. They still had camera feeds directed into the depths past the Everfree, telling of a lonely and desolate expanse of vacuum-preserved corpses, mortal and RYUU alike, and abandoned machinery. It was a gravesite, nothing more – nothing could live within it, at least not for very long.

Mayuya desperately hoped this remained true. Their gear, claimed Kichouko, could easily stand the radioactive spillovers left behind by the cracking of the gargantuan pushplates, designed to catch repeated blasts from thousands of shaped nuclear charges, and itself pushed to and past its limitations in that desperate flight from a dying world. She had joined in,

expressing optimism she didn't personally feel, with the theory that the radiation would even be a boon – the enemy they faced would be just as hindered as Kichouko and her, were she to use any form of nanotechnology to pursue them. And, as far as she could tell, their enemy was *all*-nanotech. An all-devouring nightmare, unhindered by ethics, by morality, by limitations, and which flourished with greater strength and capability the more it devoured.

“...s-so we should be just fine!” she finished lamely as they half-hiked, half-crawled their way up against centrifugal force, the Kuguzan farmer and baker helping her and Kichouko along while Vaiva and Aurelia scouted ahead – or, in Aurelia's case, nervously flew ahead, well within sight.

“...within the engine bloc. With all that radiation. And lack of air,” said Sylva bluntly.

“...well, if you put it that way...”

“Here, hold on a sec – ooph.” Sylva shoved aside a rotten trunk blocking what to their orientation was a steep, uphill trail. “Things ought to get lighter after a few hunner'd more meters. Ain't that right, Aurelia!” she called out.

“Y-yes!” Aurelia responded, perched on the branch of a massive, wooden arch where two oaks had conjoined. “There's a small spring up ahead too.”

“Oh. Good,” said Kichouko laboriously. “I must say. This is... more strenuous an excursion than I'd thought.”

“Huh. I suppose we could take a short break up ahead,” mused Sylva. “Aurelia! Tell Vaiva to-“

“RUUUUUUNNNNNN!” screamed Vaiva as she dived towards them desperately.

Behind her, illuminated only by the light of their shoulder lamps, loomed a wall of black claws.

---

Open warfare upon the streets and corridors of the Command Nexus. The flash and boom of armaments against nightmarish forms. The cries of anguish of the ambushed and tormented.

The silent, eerie shuffling of a growing mob of the damned.

There were roughly ten thousand guards amidst the entirety of the Arcadia's population. Only a few hundred were in uniform at any one time – policing in a panoptic surveillance society is minimally required, after a few centuries of adjustment, and mainly exists to settle private disputes with as little public spillover as possible. Most of them effectively held two jobs – training and drilling every few quarter-Cycles as a means of bolstering their credit valuation while working in more mundane enterprises the rest of the time. Of the handful that had seen active duty and conflict, absolutely none of them were prepared to go against a foe such as this.

The Commander-General of the Guards, second in command to the Princess herself, was not a man unused to terror. The ship's surveillance security was not perfect. In his sixty years of duty, he'd crossed knives with five *dozen* murderers and lunatics – an excess, he felt, compared to the more sedate years of his immediate predecessor.

And here he faced his sixth, and it was not an enemy he could simply knock out with a taser and leave in the brig to rot.

Lunatic Sea.

Ichor oozed across every wall, smearing its way across every surface. An endless, vast sea of darkness. An ocean that was slowly engulfing him from the feet up.

He could *hear* her. She was speaking to him. Insane whispers coaxing through his implants. A thousand voices, all of one madwoman, pleading, seducing, coaxing, demanding, threatening...

"Where *where* WHERE IS IT *WHERE ARE THE ELEMENTS*"

He fought the intrusion. A thousand years of Kirin cryptographical arts was his shield. And he was especially augmented against such means of attack.

Embedded software rallied against the attempt to *rape* his thoughts for privileged secrets.

A thousand years of what was still ultimately and *merely* human cryptography was drowned like a starved rat against a crushing tide of darkness.

*Sh- she knows- I'm sorry- stop- the pain- the-/I know- **I know now-***

For the barest moment, the sea stood still.

A rippling scream of hatred and frustration lanced its way through the bulk of the Core Shaft. A lightning bolt, carrying a single urgent message, crackled its way sternward. She had neglected this possibility – a thousand years of plotting, and *her sister still outguesses her-*

## ***STALL THEM***

---

They were trembling. Cowering desperately behind the same rotten log that they had dismissed as a mere inconvenience just a minute ago. The five of them, desperately praying for the passing of that monstrous shadow.

The five of them?

There was laughter. Mayuya's curiosity got the best of her. She was the first to tentatively look over the log and up the hill.

Pinkie was laughing. Bowled over by the gust of roaring black, and still laughing.

"Girls, there's nothing to be afraid of!" she called out. "See?" She pitched a muddy, unidentifiable handful over to Sylva.

It was nothing more than a round, wheeled servitor, nearly choked in moss and swamp sludge. Its tool-arm clicked and whirred pathetically – they were far from an uncommon sight throughout the ship, though usually found in sewage pipes, organic reactors, and other areas of dirt and grime. Vaiva pumped her wings over to the biggest pile, and pulled a gnarled tree

branch from it. “There’s hundreds of these suckers! I thought it was a monster! ...n-not that I was scared or anything, I was just worried for you girls, so-“

“We all made fools of ourselves,” interrupted Sylva, tossing the drone away. “Well, we wasted enough time here. Let’s get goin’.”

Mayuya was staring at Pinkie the entire time. They didn’t break eye contact as the others hiked along farther. “...but... Pinkie. ...*why did they stop?*”

The baker merely gave her a dazzling smile, and skipped along effortlessly to join the rest.