

“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 spilloth over 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.