

The Ninth Mind

Gliese 163 c - Upper Orbit

Earth Year: 1974

The airlock doors slid open into a dark corridor with a sharp hiss, followed by an intense metallic odor. Karis noticed a low hum that seemed to quickly grow louder, punctuated by the staccato sound of rapid tapping against a metal floor. Out of the shadows stepped three towering creatures, each of their twelve spindly legs supporting a round, beetle-like abdomen. Four small, spherical eyes sat atop the heads of the insectoid aliens on short stalks, nearly brushing the ceiling as they scanned the airlock nervously. The humming sound grew in volume as they entered, which changed in pitch as the middle creature spoke.

{Your ship is very... bright} said the middle creature, clicking its mandibles in annoyance. The specialized suits worn by Karis's ambassadors translated the alien language into their own form of communication. A brief sequence of lights flashed on Karis's chest, and the lights dimmed.

The ship's speakers hummed as Karis replied, {it is an honor to greet you, emissaries of the Tsiri. We are grateful for your visit and hope to make you comfortable while we discuss the mutual interests of our peoples. Please, follow me}. As a unit, Karis's companions turned and led them down the hallway.

A few moments later, the odd assortment of creatures entered a dimly-lit room decorated with treasures from all across the galaxy. At the center of the room sat a round table, where a bright hologram of the Tsiri's desert planet painted the room in hues of blue and beige. A pyramid-shaped starship the size of a small moon could be seen orbiting the large rocky planet. Next to the massive bulk of the Node palace ship, the Tsiri's docked envoy frigate appeared like a tiny speck at its base. Before Karis could begin their introductory speech, the hum of the Tsiri grew in pitch.

{It is customary for Tsiri to provide a gift when entering another clan's home}, said the middle creature. The carapace on its back, decorated in ornate golden carvings, opened to reveal a compartment containing a small metallic sphere. {May this tribute bring worthy blessings to your people}.

One of the Tsiri's powerful pincers rotated backwards, gently gripping the orb and extending to offer it to Karis. The creature's intimidating claws gripped the sphere delicately, as if it were holding something precious and fragile. Carefully, Karis cupped their hands and reached to accept the tribute from the Tsiri. Despite the orb's small size, it seemed to be made from an incredibly dense material. The weight of the sphere dragged Karis down to the floor and the orb hit the deck with a loud *clang*. The Tsiri's hum shifted into a hiss, and the three creatures jumped backwards with a start. Karis's skin paled to a sickly green with shame for disrespecting the Tsiri's gift. They directed two of their ambassadors to pick up the metal orb and tried to smooth things over.

{I apologize, great emissary}, Karis said, {clearly our strength pales in comparison to your species}. Sidling over to the hologram, Karis began their rehearsed speech.

{Ten of your years ago, we picked up a sequence of radio signals from your system that was evidence of a civilization advanced enough to make first contact. We are ambassadors of the Maeian Empire, a peaceful coalition of star systems under the protection of a powerful and prosperous civilization}. The Tsiri remained unmoving and silent, their attention focused on the speaker. Karis touched a button on the hologram's control panel, and the planet was replaced with a map of nearby stars.

{Resources in any one solar system are limited}, said Karis, {and without the ability to trade with other systems most species never make it past your current level of advancement}. Another button was pressed, and the red dwarf at the heart of the Tsiri system began to flash. Thin lines spread from the Tsiri's sun to more than a dozen nearby stars.

Karis continued, {what we offer your people is access to our trade network. These are a few of the nearest inhabited systems to your world. By joining our coalition, you would have access to technology and resources far beyond those you could produce here}. They pressed another button, and the hologram once again displayed the Tsiri home world.

{The only thing we ask in return}, Karis concluded, {is that you allow us to colonize a habitable moon, and that you follow the laws we require to keep the peace}. They stepped back from the hologram and gestured for the Tsiri to reply.

The silence stretched for an uncomfortable length of time, permeated with the clicking of mandibles and a low hum. Finally, the Tsiri spoke.

{We have known many empires throughout our history, colonizer. Every one of them claimed that they stood for peace and prosperity, but every empire ended with fire and blood}. The hum of the Tsiri grew louder, and the sharp clicking of their mandibles put Karis on edge. {The Tsiri understand that an Empire only gives two choices: to fight, or to submit}. The clicking of their mandibles stopped suddenly as the intensity of their hum rose to a volume that shook the walls. {We will not submit}.

Abruptly, an alarm klaxon started to blare throughout the room and down the corridor. The pattern of flashing lights told Karis that a radiation spike had been detected. They scanned the room and quickly found the source, resting where it was placed beside the holo-table. The dense metal sphere given to Karis by the Tsiri was glowing reddish-orange with heat. A horizontal band around the sphere's center began to liquify, and the molten band quickly spread out to cover the orb. Karis was shoved roughly out of the way by one of the Tsiri, careening to the floor. They watched as the alien's large pincers lifted the glowing orb gently, and could hear its exoskeleton sizzling from the heat. The Tsiri's four eyes locked on to the Karis ambassador as it hissed its final words of defiance.

{May this tribute bring worthy blessings to your *empire*}. It raised the orb high above its head, then threw the molten sphere to the floor with all of the creature's immense strength.

Trailing behind the orbit of the Node ship's massive bulk, one of Karis's attack frigates waited at the ready in case the diplomatic mission went wrong. Through the eyes of the frigate's captain, Karis watched as the lower section of the immense Node palace ship exploded into a ball of superheated gas and plasma. The Tsiri's small nuclear device blew a sizeable chunk out of the hull and vaporized hundreds of Karis's people in an instant. A searing wave of agony rippled across the stars as so many were torn from the Mind at once... but now was not the time to be weak.

Karis carefully shielded the Maeians on the attack frigate from the pain felt by the rest of their Mind, then directed the pilot to engage. Rescue, defend, attack, Karis wasn't sure yet but they had to do *something*.

Hundreds of floors above the explosion on the Node ship, Karis writhed in pain on the floor. The deafening sound of alarm klaxons gave a voice to the scream painted on their skin in crimson. So many lives were lost, but at least the Nodes were still alive. Karis pushed off of the floor and surveyed their surroundings. A thin stream of black smoke trickled out of the air vents lining the ceiling, so Karis closed them with a thought.

Another one of the Nodes coughed and sputtered on the floor a few feet away, a thin line of bluish blood tracing down their cheek. Karis leaned down to help the other Maeian into a sitting position, and its skin flashed with a quick sequence of encoded shapes.

[How could you allow this to happen?] It asked venomously, [You are supposed to be the best of us, Karis.] Karis flushed with shame, then flashed even brighter with anger.

[They deceived us, Keeper. We cannot reason with these... creatures.] Karis felt a wave of pain engulf them as the melted beams supporting a large section of the ship's hull gave way. Thousands of their people began to suffocate as the vacuum of space stole the air from the ship. Karis could feel each one of them gasping for breath, their shared Mind drowning in panic

and desperation. Over and over again, Karis died. With each death, a living part of their Mind was violently ripped away. Torn and jagged, those frayed ends of broken consciousness burned with an excruciating phantom pain.

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Through the frigate captain, Karis watched in horror as the dislodged panel of hull began to float away from the Node ship, revealing carnage within. A glowing red circle in the bottom right of the exposed interior showed where the Tsiri's tribute had detonated. Spidery cracks extended out from the center of the powerful shockwave, which twisted the metal and severed support beams through miles of corridors. Dark specks could be seen floating away from the interior... bodies. The Captain's skin glowed faintly with the deep blue of sorrow.

A sensor pinged, picking up movement from the planet's surface. Karis's navigation officer keyed in a maneuver and the ship raced ahead. Thousands of thin lines of smoke rose from the surface, arcing into low orbit and racing towards the remains of the Node ship. Karis angled the frigate perpendicular to the barrage of missiles, firing everything in the ship's expansive arsenal. Tungsten pellets tore through the incoming swarm of weaponry, and thousands of small explosions littered the field ahead.

Karis surveyed the damage for several seconds, but the cloud of dust was too dense to see through. Their hopes of success died when the sensors pinged again. One lone missile exited from the debris field and streaked towards the crippled Node ship, trailed by a stream of dust. There was nothing that could be done now.

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The Node ship shuddered with a loud crash, and Karis looked up from the Maeian that was dying in their arms. They cradled the smooth head of the other Node as they tried to keep the limp figure conscious.

[A missile just impacted the port side of the ship near our chamber, but did not detonate...] Karis said, trailing off as a new sound pierced through the remains of the ship. The

grinding of metal on metal shook the thick beams of their protective cage. The sound grew louder still, metal screaming and rending just outside the Node's shielded chamber. Karis watched with fear as a pulsing red light broke through the wall. It twisted as the drill behind it spun, cutting deeper into the chamber with each rotation. Suddenly, it stopped moving. The red light pulsed once, twice, then grew incredibly bright.

When the weapon detonated, there was no explosion. A concentrated electromagnetic pulse reverberated off the metal struts of the Faraday cage surrounding the Nodes, and the inside of the chamber rang like a bell. The Node connected to the Karis Mind fell to the floor, its body writhing in an intense seizure. Deep inside the Node's brain, a lattice of thin filaments surrounding the communication center began to unravel. The hydrogen bonds holding the quantum lattice together were severed, along with the entanglement that was contained within them.

Almost instantly, the entire delegation fleet that Karis had sent to the Tsiri system disappeared from their Mind. Nearly ten thousand lives just... gone. A tidal wave of unimaginable agony and sorrow swept across the galaxy, and Karis's scream echoed into the void.

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After what felt like an eternity of torture, the frigate captain slowly picked themselves up from the floor of the ship and stared out at devastation. Remnants from the explosion within the massive Node ship had spread out to form an expanding field of metallic debris. The dislodged chunk of the ship's outer hull had begun falling into the atmosphere, glowing red-hot as it picked up speed.

The remaining Maieans struggled to form a cohesive thought with the broken fragments of the Mind that remained.

The Nodes are... dead, thought the Mind. *I am... alone*. The Captain looked down at their hands with morbid curiosity. A streak of light moved across their skin, independent from the rest of the Karis mind. *I am... free*, it thought.

Looking back to the debris, the Captain saw the chunk of hull break into pieces as it fell towards the planet.

[A pity], said the Captain, [that would have done some damage if it remained intact]. The Captain turned around to face their crew. Dozens of their brethren looked back and the sorrow painted across their bodies was overwhelming.

[The Nodes are dead], the Captain said definitively. [The Tsiri must pay for their crimes against the empire... and against us]. They started to walk down the stairs towards the crew gathered in the command center below, and reached out to rest a hand on the head of each crew member they passed. A calming light streamed from the Captain's hands into them, absorbed by the skin covering their crests.

[The Tsiri told us that their empires have ended in fire and blood], said the Captain with a sneer. A deep red bloomed across their chest and spread the Captain's rage to every Maeian in sight.

[We will show those *creatures* just how right they are].

Part One - The Discovery

Chapter 1 - Amari.

At 2:14 in the morning on the first Friday of spring break, most of Amari's friends from Caltech were stumbling their way back home after a night of too many celebratory drinks. She, on the other hand, was drooling onto her lab notebook in front of the viewing terminal of the W.M. Keck Observatory telescope. As she slept, the massive telescope scanned the night sky to the south and locked onto its next target. On the screen in front of her, an image came into focus showing a group of stars in the lower section of the Centaurus constellation. In the center of the screen, an alert notification popped up displaying the words: ANOMALOUS SIGNAL. The terminal's speakers produced a high-pitched beep, and Amari jolted awake.

"God damn it," she muttered as a splash of cold coffee covered her left arm. "Ugh, not again." She jumped up from the chair to save her notebook, picking it up as a stream of dark liquid cascaded from the crease in the binding. She groaned and grabbed the overturned travel mug, setting it forcefully back onto the desk. Scowling, she carried the notebook to the kitchen and left a trail of droplets in her wake. A pool of coffee slowly spread across the desk in front of the computer terminal, which flashed its alert in time with the beeping tone.

A few minutes later she returned with a roll of paper towels in one hand and the closed notebook pressed tightly against her leg. Paper towels stuck out between a few of the pages as she tried to squeeze out the last of the coffee that stained her carefully collected notes. Approaching the desk, Amari realized that the terminal was beeping and saw the message flashing in the center of the screen. She sighed wearily, but the prospect of adding another useful data point put a smile on her face.

"How come you only ever see something interesting when I'm asleep?" Amari asked the screen. She sat down at the terminal with a huff, flipping to the next unstained page of her

notebook. As she began copying down the numbers lining the right side of the screen, her eyebrows furrowed with thought. She flipped back to her notes from a few nights ago.

“That’s odd...” she said, flipping between the two pages. “Must be a solar flare or something...” The furrowing of her brows deepened as she flipped back and forth before looking up at the screen. A tiny pang of panic seized in her chest as she eyed the alert. “That can’t be right,” she whispered.

Amari sucked in a breath and closed the notification. The window displaying ANOMALOUS SIGNAL disappeared, revealing the image captured by the telescope. Her worry very suddenly turned to shock. She stared dumbfounded at one of the best-studied star systems in the sky, our stellar neighbors that lived a mere four light-years away. To make sure that exhaustion wasn’t making her delirious, she slowly counted the points of light on the screen. Four. Four stars in a system that astronomers had studied extensively for the last thousand years. Four stars in a system that could only possibly have three.

“What. The. Fuck.” She shook her head, pressed the save icon in the top right of the window, and manually input a code to dump the current run and rescan on the same coordinates.

Click. The telescope switched from the current magnification to the widest view. The screen displayed most of the Centaurus constellation, her target being a point of light at the foot of the Centaur.

Click. An eyepiece lens was swapped for another with a shorter focal length, magnifying the image to just the leg of the Centaur. Two overlapping dots of light could be seen, the two larger stars of the system.

Click. The final magnification level displayed Alpha Centauri A and B in the center of the screen, and on the bottom right sat the faint red dot of Proxima Centauri. The gleaming white dot of light that had appeared below the ecliptic plane of the larger two stars was gone.

Amari let out a relieved breath and sat back in her chair.

“Well, I guess all of the professors that told me I’d get bored with a PhD in astronomy can suck a fat one,” she laughed, letting out all the nervous energy that had been building up for the last few minutes.

“You trying to give me a heart attack, old girl?” She asked, looking up at the large observatory telescope in the center of the dome. A fading insignia on the side once said W.M. Keck Observatory. With the launching of several new orbital and Lagrange telescopes over the last 3 decades, land-based observatories like this one were becoming more and more obsolete.

Nothing like hearing that the Webb telescope has passed its prime to make you rethink your entire career, she thought solemnly.

“Oh well, I guess I’m not discovering a new star today,” she said with a joking smirk, “but now for due diligence.”

She saved the latest data and pulled up the automated run she interrupted. Pressing enter, she sat back in the chair and did her best to ignore the run starting up again. Since the last image of the Centauri system had that unfortunate artifact, she had to start the run from the same point a third time.

Click.

Click.

Click.

ANOMALOUS SIGNAL.

Amari stared blankly at the alert notification. *Do I really even need to look at it?* She thought to herself, *there’s clearly something wrong with the telescope.*

After a long pause to psych herself up for the mountain of administrative bullshit she would soon have to deal with, she looked at the values displayed on the right of the screen. The

numbers were different from the normal run that just occurred, but also more unexpected than the last anomaly. The luminosity values were significantly higher than both runs.

Either someone's pulling a prank that could earn them a felony, she thought with dripping sarcasm, or I'm grabbing a drink because one of those gas balls just went supernova. She closed the alert notification and stared at the screen in disbelief once again. On the screen there weren't three, or even four bright spots.

"Six?" she asked the empty room incredulously.

The three known stars appeared exactly as she expected, centered in the viewing window. Two inches below and to the right of the bigger pair of stars was a large, irregularly shaped spot of brightness. She could have tried to find some justification if it were a perfect sphere or the long streak of a lens flare, but no. It looked like someone had taken an isosceles triangle made of a wood so bright that it was almost white, laid it on its side, and sanded down the points into a rounded blob with the brightly colored wood shavings dotting the area around it in the inky blackness of space. Half an inch to the right was a small oval, brighter than the first shape with a bluish tint at the center and a bright streak of pure white extending vertically on the screen. The third shape sat just above the other two, a nearly perfect circle with little bits of white fuzz around the edges.

Amari stared at the screen in a stunned silence, the tightness in her chest preventing her from even breathing. There were no words for the image in front of her. Her thoughts started to quickly spiral into panic.

Am I hallucinating? What's the protocol here? What do I do? Who do I call?

"What the FUCK!" She screamed, throwing her half-empty coffee mug somewhere to her left. She stood up and began pacing around the observation room, trying to collect her thoughts.

Okay Amari, first step's first. Save and verify.... Save and verify.... She quickly sat down and hit the button to save the data before deleting the automated run yet again.

There's no way anything else is getting done tonight, she thought. But what do I do next?

After a few moments of contemplation, she pulled out her phone to open the app that tracked her project's funding. Considering that the grant allotment she had been provided for her research wasn't very large to begin with, she knew that the school wouldn't foot the bill if she went over budget. Amari weighed her options. She didn't have a standard protocol for an event of this magnitude, since as far as she knew there was nothing that could possibly explain both anomalies.

"Screw it," she said aloud, "I guess I'll be on a ramen noodle diet till I graduate." She opened the web browser on the computer terminal and navigated to the website of the VISION astronomy program. She looked at the schedule and was pleased to see that the telescope network was running only one other experiment tonight, with a marking of 'low priority'. Quickly, she filled out the request form for an urgent Target of Opportunity time block and input the coordinates for the largest of the three stars in the Alpha Centauri system.

While she waited for her request to be approved, Amari's heart started to race faster. She tried to think of anything that could explain the images, and was coming up with only one option.

No more reading sci-fi books in the lab, she thought to herself, *it's affecting your judgement.* Her anxiety spiked as she pulled up a contact on her phone and pressed the call button. After a few rings, someone picked up the phone.

"H-Hello?" the sleepy voice of an older man croaked through the speaker.

"Dr. Harlow, I need your help with something. It's urgent." She tried to take a calming breath, which came out just as shaky as she felt at the moment. "Like, really urgent, and I'm kinda freaking out here..."

The line was silent for a moment, then Harlow said calmly, "I'm on my way. But Amari, if you woke me up at 2:30 in the morning for nothing, I will personally tear up your doctoral dissertation in front of you after deleting your last copy."

Amari gulped, then replied, "I don't doubt it. I'll see you soon."

Two hours later Dr. Benjamin Harlow, the 73 year old world-renowned Caltech astrophysicist was grunting with effort as he clung to a handrail inside of the great Keck observatory telescope. His other hand held a silk cloth, which he was using to polish the 10-foot wide refractive mirror that captured light streaming in from the cosmos.

“Alrighty then, that should do it!” Harlow said with forced cheeriness, panting from the effort of righting himself on the platform beside the access hatch. “That mirror is so shiny, I’m pretty sure I could see my brain through my nose. I might just put the technician out of a bloody job!” He climbed down the ladder slowly, rubbing his lower back. “Shall we see how normal this data looks now?”

As Harlow reached the floor of the observation deck, Amari gave her mentor a nervous smile. Despite having just rolled out of bed, his tweed coat and neat combover gave him an air of British pomposity. She knew it was mostly an act, to those that knew him outside of research conferences he was kind-hearted and humble to a fault. To the rest of the world, though, he exuded the arrogant perfection that was to be expected in Nobel Laureates of his caliber.

Amari turned to look up into the early-morning air through the opening in the observatory dome. The sky was no longer the jet black that it was when Amari logged the first anomalous reading, but it would still be dark enough to get decent pictures for another half hour. Harlow entered the observation room, pulling up a chair to sit beside her at the terminal.

He rubbed his back methodically, and said “I am not exactly a spring chicken anymore, that stunt probably took a year or two off my life. Why didn’t you tell me not to do that?”

“Well,” Amari replied, “I did try to convince you about a dozen times to let me polish the mirrors myself, but no, you just had to be Mr. Macho Man.” There was a twinkle of humor in Amari’s eyes as she teased her mentor. Turning towards the terminal, her face dropped to a more serious expression. “You ready to see if it’s still happening up there?” She asked.

Harlow countered, "I think you mean, am I ready to see ABSOLUTELY NOTHING out of the ordinary? Yes, I do believe I'm ready. Proceed."

Amari nodded and pressed enter on the VISION activation screen. Beside them, the Keck observatory telescope began to snap pictures in perfect sync with the four telescopes of the Visual and Infrared Spectrum Interferometry Orbital Network.

More than forty years ago, an international team of astronomers captured the first true glimpse of a black hole by creating the Event Horizon Telescope. The landmark scientific community rallied around the idea of astronomical interferometry. Using telescopes in different locations, perfectly synchronized images can be rendered together to create pictures with incredibly high resolution. The Event Horizon images used telescopes around the globe, which provided an effective aperture as wide as the Earth. The VISION telescope network used a similar principle, placing orbital telescopes at Lagrange points L3, L4, and L5 over the forty years that followed. Synchronizing them with any telescope on Earth created a virtual telescope with an aperture the size of Earth's orbit. The resolution provided by this astronomical powerhouse enabled incredibly detailed images to be taken of any celestial body above or below the ecliptic plane of the solar system. Luckily, Alpha Centauri was positioned just inside the most effective area for VISION.

On the terminal's screen, images cycled through from the Keck telescope at a rate of roughly two pictures per second. The calculations required to synchronize with the atomic clocks aboard the orbital telescopes took time, and the requirement of microsecond precision meant that this was the fastest they could collect data.

Amari stared at the screen for several minutes, waiting to see extra bright spots on the screen. After ten minutes, nothing abnormal had appeared.

It might be good for science, she thought, but my dissertation on the other hand... She trembled as she remembered Harlow's words when she woke him up.

Amari looked at Harlow sheepishly and said, "so... looks like you might have been right about it being nothing Dr. Harlow. Sorry to wake you up for no-"

ANOMALOUS SIGNAL flashed on the screen for a split second with a beep, and Amari's heart rate doubled. Harlow nodded at her to close the notification so he could see the image, but the screen flashed with another alert. Then it did it again. And again. There were a few clean pictures, but it seemed like more than half of them were throwing an alert. Roughly once every second, the telescope witnessed some event occurring in another solar system that was giving off enough light energy to be seen from ground-based telescopes on Earth. The two scientists looked at each other with bewilderment in their eyes, and a little fear. This was far more frequent than Amari had thought it would be.

They didn't touch anything. The alert obscured the center of the viewing window, so they couldn't see any of the anomalies until the run was over with. For 5 minutes, the screen flashed an alert every few images. There seemed to be no pattern, no rhyme or reason, just a confusing series of impossible circumstances happening four light years away.

After scribbling in his notebook for a couple minutes, Harlow put down his pen and broke the silence.

"It's not like this is happening right now," he said, "whatever we're observing in the Centauri system happened more than four years ago, so we've got nothing to worry about." His words were meant to be comforting, but his tone said that he didn't believe it for a second.

"Well, what's the worst that could happen?" Amari asked with a forced smile, "we get hit with a gamma ray burst and I don't have to defend my dissertation?" She tried to laugh like it was a joke, but they both knew there was nothing funny about any of it.

They shared another brief, awkward silence.

“Do you want to talk about the merits of your theory?” Harlow asked. When he had pressed her about what she thought the images could be if not simply an error with the telescope, she had spilled the truly idiotic idea that came to mind earlier.

Amari shook her head. Softly, she gave a simple “no.”

For the next 3 minutes, every single picture was anomalous. And then suddenly, it was over. They waited until the sky lightened beyond the threshold where the telescope was usable. Wordlessly, Amari ended her session with the VISION network and the data began to compile.

Harlow asked, “while we wait on the full images to render, shall we have a look at what we captured here?” Amari nodded and pulled up the folder where the images were kept. She filtered the images by ones marked ‘anomalous’, and opened them all into a collage.

“That’s... impossible,” Harlow said softly, his eyes darting from picture to picture. He turned to Amari and she could swear there was a glint of fear in his eyes.

She shrugged and said, “yeah... this isn’t exactly covered in your textbook.”

After a few minutes of looking at the images in front of them, a soft ding from her phone told Amari that she had an email from VISION. She pulled up the email on the computer terminal, and opened it to find a link to the high-resolution images on their server. The mouse hovered over the URL, and she hesitated like the button was too heavy to push.

Harlow put a hand gently on her shoulder. “Open it,” he said decisively. Amari took a deep breath and clicked on the link. After a few seconds of load time, the images appeared one by one like a video with a slow frame rate. They watched as bright plumes of fire burst into existence, extinguishing just as quickly. Streaks of light crossed the screen over multiple frames, and portions of the starfield seemed to blink out of existence in patches before reappearing.

When they reached the final three minutes of anomalies, Amari’s forehead creased with concern. She zoomed in on the largest of the three stars, the resolution of the interferometry network enabling a fairly clear view of the surface of Alpha Centauri A. She felt a chill run up her spine as her eyes locked onto the surface of the star, wide with terror.

Chapter 2 - Russell.

Cool night air streamed in through an open convertible top as the electric blue Pontiac Solstice sped through the Sandia Mountains east of Albuquerque. It wasn't very often that Russell could enjoy the warm spring climate in New Mexico, in fact he frequently referred to his home of the last three years as 'the forgotten circle of hell'. Tonight, his typical demeanor was all but forgotten as he marvelled at the beauty of the mountainous desert. There were no clouds to obscure his view of the moonless night, and a river of stars danced above him in a twinkling light show. The dense band of the Milky Way ran all the way across the southern horizon, like a thin cloud illuminated by a billion tiny candles. As if the view wasn't magnificent enough, a thin white light streaked quickly across the sky from the right side of the milky cloud of stars, brightening as it traveled before disappearing almost directly overhead.

Icing on the cake, he thought to himself. Almost nothing could make this night seem more magical. Suddenly his phone rang, jolting him out of the trance he had been lost in. Russell pulled out his phone and glanced down at the caller ID. He smirked, rolling his eyes as he accepted the call.

"I literally just saw you half an hour ago, there's no way you can miss me that much already," he said with a laugh. "What could possibly be so important?"

The wind rushing in Russell's ears made it hard to hear the voice on the other end. "you... not gonna... lieve what those bast... said about..."

Russell interrupted the man on the phone, yelling a little bit to be heard over the rushing air. "Hold on a second, I've got the top down. Let me pull over real quick, I'll call you back!" He hung up the phone and quickly took stock of his location on the mountain road, remembering a small hiking trail ahead with a few parking spots.

At this time of night, there's no way anyone will be there, he thought to himself. A minute later, he pulled over and called the number back.

The line picked up immediately. "You can be such an asshole sometimes, has anybody ever told you that?" The man said in a mocking tone.

"No Jonah, I have literally *never* heard that once," Russell countered with a joking smile, "Least of all from you, you're always just SO nice to me." He unbuckled his seatbelt and opened the car door. Getting out, he moved to lean against the side of his classic sports car and stare up at the night sky.

Russell continued, "now that we got the pleasantries out the way, why the hell are you calling me? It's Friday night, I've got a hot date!"

Jonah chuckled and replied, "I think we both know that your 'date' is with a bottle of Jack and an old book."

"Well it's not my fault you don't find Tolkien exciting, some of us actually learned how to read," said Russell. "Now stop beating around the bush and tell me what you're calling about!"

Jonah's mood seemed to drop as he delivered the news. "The DOD called about twenty minutes ago. They turned down our grant proposal."

"You've gotta be fucking joking." The humor in Russell's eyes immediately boiled away into anger. "Why? Our proposal is literally the exact type of project they said they were looking for with their energy initiative."

Jonah replied, "That is, almost word for word, exactly what I said to them on the phone. They tried giving me some bullshit excuse like -" he switched to a mocking tone, "- the budget just isn't flexible enough for your proposal, we looked at every project equitably, blah, blah, fucking blah." His tone became serious again, "but I called them on their bullshit and made a bit of a scene, and I ended up talking to someone who actually knew what was going on. I wanna say it was the Assistant Secretary of... uhh... Logistics?... Technology?... aaaaanyways, they told me - and I'm quoting here: "the primary aims of the proposal were too similar to another

ongoing project to divert that much funding”, end quote.” He let out a long breath and waited for a reaction.

Russell took a second to soak in what his friend had said. Finally he asked, “did they tell you who’s running the other project?”

“Nope,” Jonah sighed, “I asked, but they said they can’t divulge that information. I even mentioned my security clearance — you know better than I do how that tends to grease the wheels on a lot of shit, but still nothing.” His tone lightened a bit, “I would bet everything you owe me that it’s some black-ops, Area 51 shit.”

Russell laughed and said, “before you start betting on aliens, you-” he cut off mid-sentence, catching on to what Jonah said. Russell raised his voice in mock rage, “I. Owe. You?!?! Motherfucker if I called in even half of what you owe me, you’d be living in a box by Monday!”

During the course of the conversation with Jonah, Russell had begun pacing around the parking lot to stretch his legs. With nothing else to do and no one around to worry about messing with his car, he decided to walk a little ways down the hiking trail to continue enjoying the scenery. He wanted to ride the rest of the way back home with the convertible top down, so he was going to hang around the parking lot until he finished the conversation anyways.

The trail ran through the kind of sparse, dry shrubbery that was the predominant vegetation in most North American deserts. The road he had been driving on ran along a mountain ridge, and the trail brought him to a natural overlook. To the east, a vast expanse of flat desert dotted with sparse forests extended all the way to the horizon. Further south, he could see rolling hills dotted with the lights of a few small towns. He traced the path of the road with his eyes and saw that those lights must include the town he lived in, a small residential satellite of Albuquerque called Ponderosa Pine. Looking to his right, it was clear that he was not on the tallest mountain in this section of the Sandia mountain range. To the west, the starlight

illuminated the curving shape of a mountain ridge that rose several hundred feet higher than the one he was standing on. He was thankful for the shelter of that taller ridge, because it blocked a majority of the light pollution from the city of Albuquerque and the Kirtland Air Force Base that he had left almost an hour ago.

“Here I thought you were more of the ‘forgive and forget’ type,” Jonah continued, “or were you not raised like a Catholic school boy?” He shifted to an exaggerated imitation of a southern evangelist preacher, “*though shalt not covet thy neighbor’s cash, else ye end up spending it on strippers and drugs.*”

Russell gave a full-hearted belly laugh at the sheer absurdity of the impersonation, then choked out a very eloquently worded retort. “You’re such a dick!” He yelled, then followed up more sincerely with, “how did I end up with someone this fucking stupid as a best friend?”

He could hear Jonah’s grin as he replied, “Sounds to me like you’re just a pretty terrible judge of character, compadre.” They sat in companionable silence for almost a minute before Jonah continued, “So, what do you think we should do about this whole grant clusterfuck?”

Russell pursed his lips, thinking. “I think we should pull some strings to find out who’s running the similar project. There’s no possible way that they’re looking at it from the same angle, since me and... and...” He stuttered and choked on his words as his heart sunk to his feet. After an almost imperceptible pause he continued shakily, “since the old team worked out the theory and started the first experiments.”

Russell knew that he was talking to one of the few people who knew exactly what ran through his mind. Jonah had been by his side every step of the way, helping him piece his life back together over the past three years. His entire world had imploded in a single moment, and if it hadn’t been for Jonah, Russell knew that he would never have survived the fallout. Luckily, his best friend was smart enough not to mention any of that.

Instead, Jonah said, “well, I guess we’ve both got to dig up some old strings to pull.” He paused as if questioning whether his next question would send Russell into another spiral. Apparently deciding that it needed to be asked, he said, “do you want to reach out to Harlow or should I?”

There was no answer. The line was dead.

During his time in the military, Russell had seen things that would make most men curl up in fetal position to cry, or vomit, or simply run for the hills. As a Red Horse combat engineer, his unit was deployed to clean up the battlefields of the resource wars that had devastated the Middle East and eastern Europe ten years earlier. On paper, their job was to repair infrastructure, collect equipment, and resupply the troops heading to the next front line. That part of the job did occur, but the reality of cleaning up a battlefield is more gruesome than a human mind can comprehend without losing a bit of their soul. Russell thought that the part of him that was able to feel shocked had been cut out of him. He was wrong.

Hovering less than twenty feet in front of him was the side profile of what was likely some kind of aircraft. The overall structure looked organic, similar in shape to a manta ray with a large cockpit on top that reflected the starlight above. The exterior of the ship shimmered with an iridescence that seemed to detest the idea of committing to a singular color. Odd, impressionist color palettes fluoresced across the hull of the ship in a pattern-filled swathe of all different shades. Affixed to the wings were six oval-shaped structures, each made of two intersecting rings at perpendicular angles. They seemed to pulse with energy, and Russell could almost see the colorful light coming from the ship bend around the rings. At the front of the ray-shaped body, two long parallel metallic protrusions extended roughly the length of a football field, ending in a large metallic ring.

After staring dumbfounded for what felt like an hour, Russell picked his jaw up off the ground and tried to figure out some kind of logical explanation for the sight in front of him. Of course, there was no explanation other than the obvious one.

I'm looking at an alien spaceship, he thought.

Russell's mind couldn't process the reality of what was in front of him, so he began having the inappropriate reaction that humans have shamefully expressed in times of mortal panic for thousands of years. He started laughing. It started slowly but quickly began exploding out in louder and louder bursts, fringed with a nervous panic and sweetened with a bit of well-earned hysteria.

He laughed until his face hurt and his diaphragm was sore, until his throat ached and his eyes had shed all the water available in his tear ducts. He laughed so hard that he lost his footing on a rock, and tumbled down the ridge.

Chapter 3 - Harlow.

A high, shrill shriek cut through the air, rattling Harlow's ear drums and adding to his already unbearable migraine. He didn't turn around, by now he was about as used to the earsplitting noise as he possibly could be.

God, when will this be over, thought Harlow, the next time I fly, I'm definitely springing for first class.

The temper tantrum behind him finally came to an end when an exasperated young mother gave in to her toddler's demands. She handed the child a metal cylinder that uncoiled into a small, paper-thin tablet. The high-pitched crying was replaced with the pinging sounds of a video game, and the arcade-style sound effect of coins being collected emanated from the device's hidden speakers.

That's a trade off I can live with, he thought, grateful for the relief. Harlow's bladder had gotten dangerously full, and they were only halfway into their 11-hour flight from the big Island of Hawaii to Dulles International Airport, half an hour west of Washington D.C. He unbuckled his seat belt, making the polite, yet awkward excuses and apologies that always accompany sitting in the window seat on a long flight. After sufficiently inconveniencing the other two people in his row, one of whom being Amari, he proceeded towards the rear of the plane. He mouthed a silent "thank you" to the mother of the ornery child, who was resting her head gently against the burly man beside her. She returned a tired smile, nodding back at Harlow.

While emptying his bladder, he thought back to two nights ago when he first saw the images from Alpha Centauri.

It's a hell of a way to confirm we're not alone, thought Harlow, but why couldn't it have been at least a few light years further away?

He finished up his business and washed his hands. Staring into his reflection in the small, dirty mirror of the airplane's lavatory, Harlow noted the deep, dark bags under his wrinkled eyes. He hadn't slept since Amari woke him up almost 48 hours ago.

There's no way in hell I'll be able to sleep here, he thought.

The beverage cart was rolling down the aisle as he exited the small bathroom, so he waited for the attractive woman pushing the cart to reach the end of the aisle to pass by with greater ease.

"Excuse me," said Harlow, "could I bother you for a ginger ale?" He eyed the flight attendant's slender curves with appreciation.

If I were about 40 years younger, I would probably spend the rest of the flight flirting my ass off, Harlow thought with a mischievous smirk. The flight attendant bent over to grab a can from the bottom of the cart. *I would DEFINITELY be flirting my ass off.*

"Here you go sir! Enjoy your flight," said the younger woman with a cheerful smile. He accepted the can and a cup of ice, thanking her and heading back to his seat. After squeezing past Amari and the middle-aged man in the aisle seat who was fighting sleep, Harlow sat down and unfolded the tray table to pour himself a cup of ginger ale. He took the first sip as Amari put down her book to turn towards him.

"You still haven't told me exactly what we're going to be doing in DC," she said with a hint of frustration. Harlow looked at her, feeling a pang of guilt for the anxiety etched in her face. She hadn't slept since the other night either, but her mocha-colored skin did a much better job of hiding the bags under her eyes than Harlow's.

He cleared his throat and said quietly, "all in due time, there's a protocol to these things... At least, I think there is. Regardless, when I got in touch with my contact at the Pentagon, he was explicitly clear that everything we found must be considered strictly confidential until we can discuss it in a secure room." His face tightened, "to be honest, I don't know exactly what we'll be

walking into either. He asked us to bring all of the data analysis we've done so far, so if I had to guess I'd say we'll be presenting our findings."

Amari's eyes widened at the mention of presenting. Public speaking tended to give her the kind of anxiety attacks that ended with her losing her lunch. Harlow lightened his tone in an attempt to ease her mind.

"Think of it as practice for when you defend your dissertation next year. Lord knows you need to improve your people skills." He smiled, making it out to be a joke.

Amari shook her head, "if I were going to practice my presentation skills, I don't think I'd choose to do so in front of god-knows how many government officials!" Her whisper had grown in volume, and the man beside her opened his eyes, having been awoken from his nap by her exasperated outburst. Harlow placed a hand gently over hers, indicating that she should calm down since their conversation shouldn't be overheard.

"It will be okay", Harlow said in an even, gentle tone, "I'll handle most of the talking, but I would like you to discuss your thought process from the first images that drove you to call me." He held her gaze, and she nodded, resigning to the task.

"I guess I'd better start preparing what to say. You know I'm not exactly great at coming up with A+ material on the fly." With that, Amari turned away and reached into her small backpack to grab out a notebook. She started scribbling on the page, her chicken scratch handwriting completely illegible to anyone but herself, so Harlow knew there was no need to worry about any nearby passengers reading over her shoulder. He leaned back and closed his eyes, resting his head against the cool window pane. The myriad of possibilities that the next few days could bring swirled in his head as he slowly drifted off to sleep.

Chapter 4 - Russell.

Oh god, how much did I drink last night? Russell thought, not opening his eyes because the morning sun shining through his curtains would make the pounding headache a thousand times worse. He groaned and rolled over to reach for his phone. Even blackout drunk, he always managed to leave it on the nightstand when he went to sleep. His hand found nothing but empty air. Confused, Russell opened his eyes to the strangest scene he could possibly imagine.

He was lying on a thin bed with a gel-like mattress that was surprisingly comfortable for being only half an inch thick. A warm light fixture, emitting a perfect replication of sunlight, hung above him. Connected to his temples were large, sticky electrodes that felt warm to the touch. Sitting up, he could see that he was still in the clothes that he wore home from work. Past his shoeless feet, at the center of the large, circular room, was a giant floating hologram of a brain. He touched the electrode on his right temple and the right half of the brain flickered. The room was a bright white from floor to ceiling, with a row of what looked like computer terminals wrapping around the edge.

I have to be dreaming. I am still asleep. If I lay back down, this will all go away. Before he had the chance to lay down, a creature walked out from behind the hologram. It was bipedal with two arms and a head, but that was where the similarities to a human stopped. It stood around 4 feet tall, and connecting its arms to its torso he could see a thin membrane, like one of those wingsuits that he always wanted to try skydiving with. Its face looked similar to a snub-nosed dog, its snout protruding ever so slightly and ending in one very large nostril in the center that seemed to open and close as the creature breathed. The top of its head was completely smooth, and its eyes looked almost non-existent, just slight indentations with a hint

of a dark slit where eyes used to be. Its most striking feature was the appearance of its skin. It wasn't a solitary color, it was a vibrant tapestry that moved in a swirling pattern of blacks, blues, and greens. It reminded Russell of a Van Gogh painting, *Starry Night*. Connecting what he was looking at now to the painting tripped something in his brain, and the memory of the previous night came rushing back to him.

That was an alien ship, he thought with a forced calm, these are aliens. I am going to die. Just then, the creature must have realized he was awake because the colors on its skin suddenly flashed in shades of purple and lime green. The sudden transition was jarring, but not as jarring as realizing that you're in an alien ship, and seeing that the alien is quickly moving towards you. He found his voice.

"STAY BACK!" he screamed, "stay the FUCK back!" The alien clearly got the message, because it stopped advancing. Instead, it opened its arms to display the membranous wings and extended spiny frills on its front and back that Russell hadn't even realized were there. It should have been a terrifying sight, but it wasn't. He watched the colors move in intricate patterns, almost like they were telling a story. A wave of calm washed over him, the patterns on the creature's skin lulling him into a trance. Logically he knew that he should still be in complete shock, but... it was just so pretty...

"Okay, that's a nice light show, but I have absolutely no idea what you're saying." As he spoke, the hologram of the brain in the center of the room lit up in a bright crimson along the midline on both sides of the brain, behind the temples.

"Is that *my* brain up there?" The hologram displayed the same pattern again. The creature pressed a few buttons on the console, then turned back to him. Russell watched as it spread its membranes again and displayed a different pattern. A region in the back of his brain lit up, this time in a light indigo. The creature pressed another sequence of buttons, not looking at him anymore.

He waved his arms in the air, “Hey buddy, I don’t think I gave you permission to map my brain. On Earth, we have this little thing called informed consent, and I don’t feel very informed!” The same region lit up as the last time he spoke, accompanied by a thin white band lighting up right behind his forehead.

Is that the sarcasm center in the brain? He thought to himself, *I bet Jonah’s would light up like a Christmas tree.* The white region in front lit up again. He laughed at the wordless confirmation, and immediately a multicolored wave travelled across his brain from back to front. Beginning just above the brainstem in orange, the wave transitioned to a bright shade of teal as it travelled through the center just below midline, extending out along the bottom of the frontal lobe and up until it reached the forehead, where it re-formed the white band from before. He sat back, stunned. *If I were a neuroscientist, I’d be in absolute heaven right now,* he thought. Turning away from the hologram, he looked around the room again to check for any seams in the wall that could indicate a door. He couldn’t see any way out.

Russell saw the alien’s colors shift, and he looked over. It was holding some kind of circular device with regularly spaced holes in the side. The alien took the device and put it against its one, large nostril. Nothing happened. It spun the device over a few notches and blew again. He watched the brain regions that would be right across from his ears light up in a mottled blend of pink and bright red, and at the same time he heard a painfully high-pitched squeal.

“Agh, stop!” He said, covering his ears. “That hurts, asshole!” The sound faded, and Russell saw the light in the brain scan dissipate in sync. Without missing a beat, the alien spun the device again and blew.

“Wait, don’t -” he stopped. This time, the sound was a beautifully dissonant chord in the vicinity of middle C. The auditory region turned solely pink, accompanied by two small circular regions lighting up near the center of the brain in a bright shade of teal. *Is that... pleasure?* He wondered. The alien’s skin flashed with a vibrant spectrum of colors, but was predominantly the

same shade of teal as those two nodes. It seemed to bounce from foot to foot in a motion that looked distinctly like a victory dance. Russell smiled, forgetting for a second that he was in imminent mortal danger.

Even if I do get eaten by a murderous alien, he thought, *at least it's kinda cute.* He looked up and saw the white band in front form, as well as the teal blobs in the middle. As the alien turned back toward the console, he again remembered the situation he woke up in.

“Hey E.T. this is incredibly fascinating and all, but I should really get back to the real world.” He looked down at his feet, which were covered only by his socks. “Any idea where my shoes ended up?”

The alien turned away from the console to face him, and shook its head in a surprisingly human gesture. It pointed at the wall to Russell's left, and as he turned, glowing words appeared against the white surface.

Tell me when this sounds correct, please, the wall instructed. Russell's eyebrows rose in surprise, both that the alien could write in English and that it hadn't been doing so the whole time.

“Um, sure, I guess,” Russell said hesitantly. As he turned back to the creature, it raised its arms again and a pink mesh appeared to slide across the dark background of its wings and chest. He winced as a cacophony of strange noise, music, and static filled his ears. As the shapes on the alien's skin changed form, they started to coalesce into interlocking geometric shapes. The sound in his ears warbled and changed, reminding Russell of tuning a radio dial to find the right station. Within a few moments, he held up his hand and the sound stopped shifting. Music played in his ears, as clear as if there were a band in front of him. The piano-driven melody sounded oddly familiar, like something he might have heard once or twice years ago.

Russell nodded and said, "I can hear it clearly now, that's a pretty neat trick." He looked up at the hologram and saw that a spidery network of connections was highlighted and flashing, travelling from the indigo region in the back of the brain to the pink area across from his ears.

The creature darted back to the console and began furiously pressing buttons on the screen. After finishing whatever it was typing, it pressed a black button on the top of the console and the hologram went dark. The alien's skin was surprisingly dull as it slowly walked over, then tapped one of its six fingers to the side of its head. Russell understood, and peeled the electrodes off of his temple. Breaking the connection must have been some kind of signal, because all of a sudden the light above him dimmed and the bed he was sitting on converted to a chair. Startled, he jumped up off of the newly formed chair and landed on the floor. It was surprisingly warm, and even more surprisingly, very moist. His feet sunk into the substrate about half an inch, and he felt like he was standing in a warm pile of shit.

"Ugh, why is the floor so wet?" Russell asked with a disgusted look on his face, before jumping back onto the chair. He didn't expect an answer, but still he gave the alien an accusing stare. The alien raised its arms to flare the membranes of its wings as far as they would extend. Russell watched its skin change from a mottled grey to a dark black, with bright pink geometric shapes sliding across it.

[Because I evolved in a damp cave,] it said, [and a high moisture content is required for the photophores on my skin to function]. Nothing moved on the creature while it spoke, other than the shifting patterns of pink on black. Russell stared, dumbfounded, at the alien. It continued.

[Plus, I like how it feels on my toes.] Russell looked down and saw that the alien did indeed have toes, three bulbous digits on each foot, and they were wriggling in the soft, moist floor. He looked back up at the creature, and could tell based on the colors of its skin that it was amused. White trails streaked over a mottled teal and lime-green background.

"How the hell... are you speaking in my head?" Russell said in disbelief.

The alien replied, [I should think that would be obvious, given that you just watched me-] Russell glanced away for a second to look down at his socks, intending to take them off to be rid of their dampness. As soon as he turned away, the alien cut off in mid-sentence. Surprised, he glanced back and the alien finished its thought.

[...watched me figure out how to do it.] The little creature flared its wings in a motion that somewhat resembled a shrug, [if you haven't figured it out by now, you have to look at me if we are to converse.]

Russell thought for a second, then said, "That seems extremely inefficient. How do you get anything done if you have to stare at each other all day?" He heard the alien's laugh in his head, which sounded a bit like wind chimes blowing in a gentle breeze. It hopped from foot to foot, doing the same little dance from earlier. He could somehow 'hear' a smile in the alien's voice when it replied.

[I didn't give you enough credit, that's a surprisingly good question. I evolved this mode of communication first, before moving on to more advanced methods of interfacing. It's a bit easier for us, given that every skin cell contains its own miniature eye.] The alien let its arms dangle as it spun around, allowing its membranous wings to flap in the breeze.

"You... you see in all directions at once? Jesus, I think our brains would overload with that much information. My brain is already completely fried from everything I've seen in the last hour." The alien 'smiled', a slight feeling of joy flowing through their connection.

[Another astute observation, you really are a smart one! Myself and the other Minds, we... adapted, in some very specific ways. I could tell you all about it, but it sounds like you're a bit — fried? What is fried? It doesn't sound very pleasant.] Russell laughed, feeling more and more at ease the longer he spoke to the strange alien. He made a mental note to ask the creature what the minds were later on.

"Fried... well, it's not necessarily a bad thing. I suppose it's bad if it's a person that's being fried, but that's more of a figure of speech. But fried *foods* are one of humanity's greatest

inventions!” As soon as he mentioned the concept of food, he realized that he was absolutely starving. The paralyzing anxiety he had felt until the last few minutes had kept him from feeling the emptiness in his stomach. He put a hand on his belly and felt a deep growl.

The alien cocked its head in an inquisitive look, then said, [a figure of speech, is it? You humans clearly don't like to make things simple. And I thought *my* method of communication was complex.]

Russel chuckled, “yeah, well not making things easy is pretty much the simplest way to sum up all of human history.” He thought for a second how to ask what he wanted without offending the little winged creature, “hey, is there any way I could get something to eat? Like, from my house, or a restaurant? It's not that I'm not enjoying this conversation, but I hadn't eaten dinner yet when you first showed up, and I have no idea how long ago that was.” In response, the alien's skin turned a greenish-brown and Russell somehow knew that meant it was worried.

[You need sustenance! I had no idea what your metabolic rate would be, so I assumed you would be okay for another couple weeks. Give me a second.]

The little creature got down on all fours and leapt 15 feet in the air, a little over halfway to the ceiling. It opened its wings, extended the spines on its front and back, and glided across the room. It was heading straight for the far wall at a breakneck pace.

Russell saw that the creature was going to collide with the wall so he shouted, “Stop, wait!!” But the creature didn't hear him. For one long, paralyzing heartbeat, he watched it race towards the wall. Without slowing down even slightly, a thin panel opened up in the wall that it passed through, and the panel closed immediately. He sat there in stunned silence, trying to process what just happened.

“Aliens,” he muttered, shaking his head. He sat there a moment surveying the room once again. The anxiety regarding his situation started to creep back in, though not nearly as paralyzing as before. His mind drifted to contingency plans, crude weapons, and means of

escape. He wasn't afraid for his life at the moment, but he was still in an unfamiliar environment with no idea how to get out. Once again, he hopped out of the chair onto the moist ground.

"Fucking hell, I forgot about that." The warm, moist floor smushed around his socks, slowly soaking them and once again, feeling like he had just stepped in a large pile of manure. He thought back to the first interaction he had with the alien, and decided to risk whatever compounds might be poisonous to humans in this odd material. He took off his wet socks and placed them on the foot of the chair. As soon as his feet hit the ground, he had an entirely different experience than before. What came to mind as his feet sunk into the gelatinous material was the feeling of stepping onto soft moss after a lifetime of walking barefoot on gravel.

"Oh... my... god," he said, the soothing gel of the substrate cradling his weight gently and somehow taking the pressure off of his aching back. He wriggled his toes in the white material and started to understand the alien a little bit more.

Another thin panel opened up in the far wall, extending all the way up to the ceiling, which seemed impossibly tall. It closed up again only a few seconds later, and the alien appeared in a walkway that he hadn't realized existed between the consoles on the far wall.

[Your home awaits,] the alien said. Its skin was a deep, dark shade of blue as it walked slowly towards the spot that Russell was standing in. [I cannot and would not stop you from leaving. You are not a prisoner, but a guest here. I know that you require sustenance and that is far more important than any conversation we could have, but... I would like to continue this conversation afterwards, if you would do the same.]

The alien's skin remained the same dark shade of blue as the pink geometric shapes faded away when it was done speaking. Russell realized that this bluish shade was the color of sorrow. This alien, who had met him only an hour ago, was truly and unapologetically sad about the prospect of their conversation ending. Russell felt a surge of guilt for wanting to leave this creature behind. He knew that he shouldn't feel guilty, it had basically startled him into falling off of a cliff, kidnapped him, scanned his unconscious mind, and experimented with his emotions.

Any sane person, given the chance to walk away with no consequences, would run and never look back.

I've been through so many insane things in the last hour, what's one more? He thought.

“Before I give you an answer, I have two questions,” he said. “First and foremost, do you have a name?” The alien once again cocked its head, the lime green of curiosity displayed on its body.

[My name is Karis. What is your second question?] Russell noted that Karis didn't ask for his name. Maybe that's a cultural thing, who knows?

“Well, Karis, would you like to join me for dinner?”

Chapter 5 - Amari.

The last time Amari had been to Washington, DC was on a school field trip in the 8th grade. The only thing she remembered very clearly about the trip was the Smithsonian museums. Staring up at the towering skeleton of a Tyrannosaurus and walking through a replica of a space shuttle were amazing experiences for her young mind, but the exhibit that had been the most impactful for her was the Albert Einstein Planetarium at the Air and Space Museum. One of the reasons her school had made the long trip from Greensboro, North Carolina all the way to DC was because the planetarium had been renovated with brand new technology.

Every pixel on the screen of the planetarium's dome ceiling had been replaced with a tiny light emitter tethered to a hair-thin fiber optic cable and connected to a twin emitter on the opposite side. At precisely spaced intervals along each fiber, a cluster of charged metallic ions was fused into the glass. When different wavelengths of light were passed through the glass, each cluster produced its own light of a specific color. The light emitter on the other side would then be tuned to cancel out the color-producing impurities with destructive interference everywhere except for the pixels that the program determined should light up.

This complicated mechanism produced a true three-dimensional hologram, with color definition and clarity that no other visualization method could match. It gave the effect that the entire universe was laid out in front of her, not like looking at a screen but actually *being there*. She felt like she could just reach out and hold a galaxy in her hands, or shape the fluffy cloud of a nebula back into the star that birthed it like making a snowball. The feeling of unbridled fascination and awe she felt that day is why she had devoted her entire life to becoming an astronomer. If she could discover something new out in the cosmos, find something that no one had ever seen before, then maybe she could get that feeling back.

As it turns out, she did see something that no one else had seen before. However, what she felt at this moment was not awe.

“Easy now, just breathe,” Harlow said gently, holding Amari’s hair as she bent over a trash can. Her body shook with fatigue as she dry heaved, and the rawness of her throat after expelling her breakfast made it feel like her esophagus was on fire.

“This — fucking — sucks,” she choked out through waves of nausea. As the tightening of her stomach started to subside, Amari slowly stood up and wiped her mouth. She met the pitying eyes of pedestrians passing by, and felt the heat of embarrassment flood her already flushed cheeks. They were standing beside the escalators outside of a metro station in Arlington, Virginia, where the south entrance of the Pentagon was visible through the security gate.

“Let’s just get out of here,” she said in a defeated tone.

“Well, look on the bright side,” Harlow quipped, “nothing you do in there is going to be any worse than what happened out here!”

“Is that supposed to make me feel better?” She said harshly.

Harlow replied, “I should hope it would, it’s not like these people are going to even remember you in five minutes.”

A little more than five minutes later, they exited the security gates and walked through the front doors of the Pentagon. In the main expanse of the lobby, Amari’s gaze passed over a variety of decorative historical plaques and pictures of past military figures lining the wall. The center of the floor was adorned with a large tiled crest of a bald eagle carrying three arrows, the emblem of the Department of Defense. Walking towards them from a door on the right was a tall, clean shaven man with dark skin that appeared to be in his mid-fifties. Above his left breast pocket sat a full complement of the colorful stripes that signified the awards earned from various

achievements and honors in the military. A silver eagle adorned each of his shoulders, marking the rank of Colonel.

“Dr. Harlow, thank you for coming!” The man called out, his voice a deep, rich baritone. “I hope the travel wasn’t too difficult.”

“Oh, you know, I’ve never been too keen on flying commercial,” Harlow said with a grin, “but it would have taken a bit too long to get here by boat though, I’m afraid.” Harlow shook the man’s hand, saying, “It’s great to see you again Colonel, it’s been too long.”

“I wholeheartedly agree. And who is this lovely young lady?” the man asked, looking over at Amari.

Harlow put a gentle hand on Amari’s shoulder and replied, “this here is one of the brightest students I’ve ever mentored, Amari Washington. She made the initial findings that brought us here today.” Bradshaw nodded approvingly. Harlow turned to Amari and continued, “and Amari, this is Colonel David Bradshaw, the director of the Defense Sciences Office at DARPA.”

Amari shook his hand, still a bit shaky from her gastrointestinal episode from a few minutes ago. “It’s nice to meet you Colonel, I look forward to working with you — or just talking to you about... the um... you know... what we saw.” Her face flushed red as she stumbled over her words, nearly blurting out the very thing they were instructed to keep confidential. Without missing a beat, Bradshaw gave her a reassuring smile and continued, like she hadn’t just made a fool of herself the second she opened her mouth.

“Please, don’t bother with that ‘colonel’ crap! I only wear all this -” he gestured at his pristine uniform, “- on the days I have to meet with the bigwigs to show off a bit. Please, call me David! Or if you want to insist on keeping it professional like Harlow here, just Bradshaw.” His genuine smile never faltered, and Amari’s tense shoulders started to relax a bit.

Bradshaw led them into the heart of the Pentagon, and as the two men engaged in small talk Amari tuned them out. She could feel her heart beating faster as she struggled to recite her speech. *This is going to be a real shit show*, she thought silently.

After about 10 minutes, they reached a large conference room packed with people in military uniforms, lab coats, and business suits. As the trio walked through the door, the room fell silent. Amari could hear her heart beating as loud as a kick drum in her ears, and despite herself, she wondered if the rest of the room could hear it too. Bradshaw stepped up to the empty head of the table in front of a large screen displaying the same emblem Amari noticed on the floor of the lobby. She jumped, startled as someone tapped her on the shoulder. A boy that looked to be in his late teens with blonde peach fuzz adorning his upper lip gazed expectantly at her.

“Can I grab your laptop or tablet to get the presentation ready?” the boy asked quietly. Amari nodded and took off her backpack, unzipping it to pull out her laptop. She opened it up, folded it backwards to act as a touchscreen tablet, and pressed her thumb to the sensor on the side. It unlocked, and her slideshow was already up. She handed the boy the tablet and he gingerly took it from her.

“Thank you! Good luck up there,” he said. Amari nodded her thanks, knowing that she needed all the luck she could get.

Bradshaw’s deep voice echoed in the room as if he was wearing a microphone, “thank you all for coming, I know you are all very busy so I’ll get right down to the reason we’re here.” He picked up the remote on the table and pressed a button. An image appeared on the screen of the Centauri system in stunningly high clarity. On the bottom right of the screen was a small logo of a hexagonal honeycomb, with the letters JWST in bold letters in front.

They got Webb to look at this? Shit, we have absolutely no reason to be here... she thought to herself, anxiety creeping up her throat once again.

Bradshaw continued, “Approximately 45 hours ago, the team monitoring the James Webb Space Telescope was running a scan of the atmospheres of exoplanets in the local star

cluster. They were using a new deconvolution algorithm designed to find traces of certain classes of chemicals that their scientists have determined could be produced by sulfur-based life forms. During this scan, they intended to look at the atmosphere of Proxima Centauri b, the closest Earth-like exoplanet to us that sits in a habitable zone.” He clicked the remote and the image shifted to a close-up of the smallest star in the system, a red dwarf.

“The scientists did not get to run their scan, because the algorithm was showing positive findings at a magnification that would be impossible.” He clicked the remote again and the image was overlaid with false-color, and spectral analysis data could be seen along the right side of the screen. “From this magnification, the entirety of Proxima Centauri b makes up less than a pixel. Try to spot it, I dare you.” In the false color of the picture, the main body of the star was painted a bright blue. A hazy green cloud could be seen covering the upper half of the image.

“This green cloud that you can see here is made up of a variety of polysulfide compounds, and the organic chemistry folks at the DSO have been trying to decipher the exact chemical structures we are looking at. We think it’s safe to say that many of them couldn’t have been formed by any natural process. The chemical structures we are most certain of in this image... are frequently used in the making of plastics.” A quiet murmur spread through the table, and some of the audience shifted forward in their seats to get a closer view.

“This was obviously extremely confusing for the James Webb team, but given the findings that these two Caltech scientists are about to present to you,” Bradshaw lifted his hand towards her and Harlow, “it makes a fair bit of sense. And with that, I would like to introduce Dr. Benjamin Harlow and the doctoral candidate that made the discovery, Amari Washington.”

With the mention of her name, Amari’s heart started racing even faster and her vision grew dark around the edges. *No no no no don’t pass out, pleeeeeease don’t pass out*, she thought to herself fervently. Bradshaw strode towards the back of the room, taking a seat near the far end of the conference table. Almost unconsciously, Amari’s feet started to carry her

forward towards the head of the table. To center herself, she dug her nails into her palm until she felt a sharp pain. She allowed her mind to focus on that stabbing feeling, letting the pain pull her back to reality.

The intern that had taken her laptop a few minutes ago approached from the other side of the table, plugging a cable into the side of the tablet. He unfolded it slightly so that the screen angled up at her, displaying an image of the Keck observatory telescope. She turned around to make sure that the image also showed on the screen behind her and nodded grimly, satisfied that technical issues wouldn't be what derails their presentation. Amari could feel that every eye in the room was on her and Harlow. Her knees started to feel wobbly, but she steadied herself with a hand on the table. Taking care not to look at any of the other members of the audience, she glanced up at Bradshaw and he gave her a reassuring smile. She nodded back at him and tried to return the expression, but felt that her attempt probably looked more like a grimace of pain. Her gaze shifted to Harlow as he cleared his throat and began speaking.

"Thank you for that introduction, Colonel. It's not easy to follow such a masterful speaker such as yourself," Harlow glanced over at Amari with a nervous smile before continuing, "but I'll do my best to keep this engaging. Roughly... wait, what time is it?" Harlow checked his watch and looked up to do a quick calculation, "about 60 hours ago, I received a call from Miss Washington, who had been running a longitudinal study for her doctoral thesis over the past several weeks with my guidance. She was repeatedly observing a number of multi-star systems in the southern sky to find evidence of changes in luminosity due to gravitational lensing." She caught some movement out of the corner of her eye, and gulped as she realized that a few members of the audience had begun taking notes.

"In the course of the study, Amari had programmed the W.M. Keck Observatory telescope to automatically take images of 86 such star systems at a variety of magnifications, stopping its routine to alert if any anomalous luminosities or spectral signatures were detected." Harlow picked up the remote and stared at it blankly. There were dozens of buttons, and the

labels had worn off with heavy use. Amari reached down to the tablet in front of her and swiped to the next slide. Harlow gave her a look of pure gratitude. As he spoke, Amari noticed that Harlow had lost the nervous edge in his voice and fallen into the calm demeanor of a professor teaching his favorite class.

“As you can see here, this is what the Centauri system looks like normally. While the Webb telescope can distinguish the stars with more clarity than we can at Keck, I hope it’s quite clear that this is a triple-star system.” With a flourish, he pointed towards the left side of the screen near Amari. “On the left you can see Rigil Kentaurus, also known as Alpha Centauri A. It is the largest of the stars, and is locked in a binary orbit with the second largest, Toliman, or Centauri B.” He pointed so that the ‘class’ could follow along, and it was clear that he was starting to enjoy himself. “The smallest star is Proxima Centauri, seen on the right. This is the star that Colonel Bradshaw showed you earlier, but it is a fraction of the size of Toliman. It orbits the barycenter of the other two with an orbital radius roughly 13,000 times further than the distance between Earth and our Sun, and for the next couple hundred thousand years will be the closest star to us...” Harlow trailed off, realizing that he started actually lecturing instead of presenting their findings.

“I apologize, I’ve been teaching this stuff for so long that it’s hard for me not to slip into professor mode,” he said with an anxious chuckle, “now that you know more about these stars than you ever thought you’d need to, let’s get into what Amari discovered.” He gave her a nod, and she flipped to the next slide. On the screen was the first anomalous image that she took that fateful night, the one that started it all. The room was so quiet that the only sound she could hear was her own heartbeat. Amari tried to clear her throat, but coughed as she realized it was completely dry.

I should’ve grabbed some water, especially after that embarrassing scene outside... she thought to herself, well, here goes nothing.

“On the screen here is the first anomalous image that was taken of the Centauri system three nights ago. As you can see, there appears to be a fourth star below the ecliptic plane of the star system. Our spectral analysis of the anomaly doesn’t quite line up with any known class of stars, and at the time I assumed it was an artifact.” She moved to the next slide with three extra bright spots, and heard a quiet murmur among the audience. “After resetting the telescope and taking a new set of pictures, another anomaly showed an entirely different series of luminous masses. As you can see, some of these appear to be even larger in diameter than Proxima, the smaller star.”

She paused, the dryness in her throat only adding to the tidal wave of anxiety overtaking her. Losing her momentum, Amari couldn't remember how she had planned to continue. Fumbling to get back on track, she stuttered out the first thing that came to mind.

“At this point, I couldn’t think of a single natural astronomical event ever observed that could match both of these images. That led me to think of three possible explanations. Either the telescope was malfunctioning, I was having a stress-induced hallucination, or...” she stopped herself short. Rather than saying the impossible claim aloud, she mirrored Bradshaw’s words. “...or what we were seeing was not natural.” She took a long breath to steady herself before continuing.

“It was at this point that Dr. Harlow arrived on site. His first instinct, which I respect from a scientific standpoint, was that the telescope had something on the refractive mirror that could have possibly caused some of the anomalies. He -”

Harlow cut in, “- I scoured every inch of the telescope for any possible causes of malfunction, and found none. I even polished the mirror myself, for good measure.” He motioned for her to continue. *So much for him doing most of the talking*, she thought bitterly.

Moving to the next slide, she gestured towards an image of one of the LaGrange telescopes in the VISION network before proceeding. “While the Keck observatory was considered state-of-the-art back in the late 1990’s, far more powerful technologies are required

to observe details in even the closest star system.” She launched into a brief explanation of how the VISION telescope network worked by creating a virtual telescope with an aperture the size of Earth’s orbit using interferometry.

Amari moved to the next slide, a collage of images from early in the VISION capture. She laid out her analysis of a few variations of anomalies. One showed a long streak of bright light, curving in a manner that ruled it out as being a lens flare. A sequence of pictures tracked a glowing orb that moved a fraction of an inch over the course of five consecutive pictures, breaking into smaller pieces before fading. One of the images contained no extra bright spots, but a small piece of Toliman appeared to have a hole punched through it. The bright color of the star’s corona warped, extending out in a small circle around a dark spot where the surface should have been.

“This last photo here is a textbook example of gravitational lensing,” she said with apprehension. “Usually the only time we see it to this degree... is around a black hole.” She shifted, glancing over at Harlow nervously.

He nodded at her and whispered, “you got this. Just present the data, let them interpret what it means.”

She nodded and cleared her throat before continuing with a little more confidence. “As you can see there are a wide variety of different types of anomalies, and there are many more I don’t have time to go through.” She swiped to the last slide, which was presented as a slow video.

“The final three minutes of the capture were... the most concerning,” she said grimly.

The room was silent. The video playing on the screen could have only one possible, incomprehensible explanation. Amari had focused the images on Rigel Kentaurus, which was magnified to cover most of the screen. Over the course of the first images, a sizable patch on the right side of the star began to look like a magnifying glass was being slid across its bright surface. The light seemed to bend and warp around a central location that moved slowly across

the surface of the star. Within the warped circle, a thin ring of dark circles surrounded a cloud of hundreds of tiny black dots at the center. Over the course of three minutes, the anomaly trekked across the star to exit from view on the left side.

Amari figured she didn't need to say what she thought they were looking at. As the reality of the situation sunk in for the members of the audience, she finally brought herself to actually look at the people sitting at the table. Their faces displayed a varied mix of emotions as they stared at the screen. Most of the men in military uniforms had an apprehensive, yet excited glint in their eyes. The scientists looked puzzled, or intrigued, or scared. Bradshaw's face was as stoic and unreadable as any poker champion.

At the far end of the table was a woman in a navy suit with a look of determination on her face, but the terror in her eyes betrayed the facade. Her piercing gaze moved from the screen to Amari with calculating coldness. Amari froze in place, her breath catching in her throat as the recognition dawned on her. The woman stood up, straightening her suit. As if on cue, the rest of the table stood as well.

Dr. Camila Perez, President of the United States, looked at Amari and asked, "How does it feel to be the first person on the planet to witness an interstellar war?"

Chapter 6 - Karis.

The lighter gravity and slightly denser atmosphere of Earth gave Karis an ability that they simply could not get enough of. Karis had set their ship to hover directly above Russell's backyard, its outer panels absorbing and distributing light much like Karis did to blend in almost seamlessly with the desert night. A long walkway extended down to the ground so Russell could leave the ship, but Karis did not follow. Instead, they leapt into the air and circled the property with glee. They kept their photophores dark to avoid drawing attention, but it was incredibly difficult to avoid turning a bright shade of teal. Once Russell had reached the bottom of the gangway, Karis landed beside him.

[I don't think I've said it yet,] Karis said, [but I am in love with your planet. On Maeia, our species evolved to only glide through the air in short spurts. Here, I can really *fly*.] Safe behind the barrier of the wooden fence, Karis let the joy out. In the darkness of the night, they lit up like a neon sign.

"Woah, you gotta tone it down a bit!" Russell said with a broad smile on his face. "That sounds incredible, but I think they can see you glowing from space."

Karis dimmed the light pouring out of their skin to a dull glow. [I understand,] they said. [Feelings such as this are... new to me, and there are surprisingly few planets with breathable atmospheres that are conducive to flight for my species.] Russell's face twisted into a look that Karis had come to understand as confusion. He has had that look quite frequently in the short time they have known each other.

"What do you mean," Russell asked, "the feeling is new to you? What feeling, happiness?"

[Almost,] Karis replied, [more like... freedom.] The confused look on Russell's face deepened a bit more, but he didn't ask any other questions.

Russell led them through the back door and into the kitchen, where he made a beeline for a large box. He opened the door and cold air billowed out as Russell murmured to himself. Karis took the opportunity to look around Russell's home, and was fascinated by what they saw. It seemed like every surface in the house was littered with assorted useless things, some of it even hanging on the walls. Karis perused the items on a shelf in the adjacent room, and their skin flashed purple with surprise when they saw a familiar face. Picking up the picture frame gently, Karis's skin darkened to a sorrowful blue hue as he read the inscription. It said: *my love, my life, my brightest star. Fly high, Emily. Until we meet again.*

"Are you able to eat our food?" Russell asked suddenly, and Karis nearly dropped the picture frame. They placed the image back on the shelf gently as Russell continued, "I feel like it would be a little rude of me to eat and not offer you something."

[The floor substrate of my ship supplies me with all the nutrients I need,] Karis replied, [although I would be interested to try this 'fried' food you mentioned.] Their skin was vibrant with a teal-colored smile. Russell laughed, and the sound gave Karis joy.

"Hold on a sec, I know just the thing." He opened the upper door of the cold food box to pull out a box with a picture of brown logs on it. The image showed one log being broken in half to reveal the white, gooey contents within.

"If I were to give you a list of chemical ingredients," Russell said, "would you be able to know if these are poisonous to you? I'd rather not accidentally kill you and cause a war with a bunch of aliens!" He grinned at Karis as he said it.

If Karis could wince, they would have. [A bit too late for that I'm afraid,] Karis said with morbid humor. They meant it to come across as a joke, so they blocked their photoreceptors from producing any color other than white and teal. Luckily, the white band of humor tracing across their skin made Russell's face light up. [As long as I go back to my ship after we eat],

Karis said, [it will remove any toxins from my body long before they can harm me. My metabolism appears to be far slower than yours, therefore these *gooey logs* will not kill me.]

Russell replied with a chuckle, “gooey logs are what I’ll be calling these from now on, thank you for that. We can forget all about calling them mozzarella sticks.” He opened up a machine that contained a basket with holes in it, dumped a bunch of the ‘mozzarella sticks’ into the basket, and sprayed them with a can of some kind of lipid-based fluid. A gentle whirring sound emanated from the machine as he turned it on. “That’ll just be a few minutes, let me grab my main course.”

As Russell grabbed a plastic tin of something he called ‘spaghetti’ and stuck it in some other machine, Karis climbed up on what they assumed to be a chair and considered how to broach the subject they had been dreading. Russell seemed to be the perfect ally for their plans, but... they had really started to like the human. The truth was a burden that they wouldn’t wish on anyone, no matter how vital the knowledge may be. A few minutes went by as they contemplated the issue at hand, before Russell approached the table with two steaming plates of food.

“Bon appetit,” Russell said as he placed one plate in front of Karis. Their skin flashed a light purple, surprised at the massive quantity of fried cheese in front of them.

[Do you really require this much food consistently?] They said, their words colored lime-green with curiosity.

“Maybe not THIS much,” Russell replied, “but I’m so hungry I could eat a horse!”

Karis cocked their head and replied, [what did the horse ever do to you?]

Russell let out a deep laugh and said, “I’m amazed at how well you understand our humor, Karis.” With a thoughtful expression on his face, he asked, “there’s no way you learned it all from my head, so how did you learn about us?”

Karis nodded and replied, [I have spent the last four of your years travelling to Earth... alone]. They couldn’t stop the dark blue seeping into their skin, and Russell frowned. Hurriedly

they continued, [the only entertainment I had for most of the trip was your radio and air wave television transmissions. They were very informative, and I find your sitcoms especially intriguing!]

Russell nodded and asked, "I have to know - what was your favorite sitcom?" He opened a can of red sauce that seemed to have an acrid aroma.

Karis's skin mottled with the teal and white of humor, but was interspersed with small splotches of a pale green. [It's a little embarrassing,] they said slowly, [but you can probably understand why I would relate. Have you ever seen the show Alf?] Russell shook his head, and Karis's skin flushed with a pale yellow of relief. [Based on the human life span I don't think you were born when the show was created, so that does not surprise me.]

Russell smiled and said, "I'll definitely have to watch it sometime," before turning towards his food.

Karis picked up a mozzarella stick, broke it in half like in the picture, and brought it to their nostril to smell it. [The aroma of this reminds me of a tree on my homeworld,] they said, [the flowers would produce a pheromone that has similar aromatics. Interesting!] Their nostril grew in circumference until the hole took up the majority of their snout, and clamped shut to cut the string of melted cheese.

[I think you may be right, this is absolutely delightful!] They tried some in the red sauce Russell provided, but the acidity didn't agree with their stomachs. Soon enough, Russell finished eating and when Karis couldn't eat any more, Russell started on their portion as well.

"So Karis," Russell said through a mouthful of food, "You mentioned something about... Minds?... back on your ship, and it's got me curious about your species. What can you tell me?"

No more stalling, Karis thought sadly.

[It would be easier to show you,] they said. [Would you be willing to try something that might be somewhat... intense? If you consent, I should be able to share my memories with you.]

Russell dropped his fork, still full of spaghetti. “Share your memories? How would that even work?” He thought for a second, shrugged, and then said, “screw it, why not?”

Karis instructed him to hold perfectly still and look directly at their face. They lifted their wings, reaching around on either side of Russell’s head to enclose his field of vision within their membranes. Karis concentrated on the world they once knew. Using the pathways they had mapped out in Russell’s brain, Karis encoded the sights, sounds, smells, and feelings of their entire life into patterns on their skin. In a flash of light, Russell’s world melted away.

Chapter 7 - Russell.

For a brief moment, Russell's mind was completely disconnected from reality. His consciousness existed in a timeless void for what could have been just a heartbeat, or trillions of years - he couldn't tell the difference. A faint glow could be seen in the background of the void, a blurry mess of swirling colors that began to brighten and take form all around him. When his vision came into focus, he saw that he was floating in space far above a planet. To Russell's left was a smooth facet of an ice crystal that looked to be roughly the size of his house. He reached out a hand to touch the translucent white surface, but before his fingers made contact it began to move behind him. Simultaneously, he noticed a vast field of rocks and ice crystals surrounding him that began to move in the same direction.

Or am I the one that's moving? Russell thought.

The seemingly infinite crystalline field was streaming past him faster with every passing second, as he accelerated towards the planet. After a few moments he was racing through the rocky debris at impossible speeds, his vision blurring into colors that shifted between white, blue and grey.

Russell passed through the edge of the field into empty space. His eyes drifted up to watch the receding inner edge of a banded planetary ring. Below him, he could see one large continent surrounded by vast, blue oceans. Rather than the verdant green of Earth's vegetation, broad swathes of the continent were covered in a deep red, almost maroon. Splitting the continent in half was a snow-capped mountain range, much of it covered by plumes of smoke. It looked like two massive land masses were crashing into each other, the carnage of their collision creating a smoldering scar across the surface.

Russell recognized it immediately as his home, even though it was not Earth. Karis's voice filled his mind as he fell towards the planet.

[Long before your ancestors stood upright and began their journey from Africa to populate the rest of the Earth, another planet in a distant part of the galaxy was the birthplace of its own intelligent species. From a distance, the planet that would one day be named Maeia looked a lot like Earth. The environment is a little harsher, the gravity a little stronger, but it is a temperate world covered in water and vegetation much like yours.]

Russell fell towards the center of the continent, and as he passed through the atmosphere he could smell a sweetness in the clouds that reminded him of antifreeze. As he plummeted towards the ground he saw the rocky expanse of the massive mountain range rising beside him, its peaks so high that he was sure they would make Everest look like an anthill in comparison. Below him he could see what looked like a flock of birds. As the group of flying creatures got closer he could see that the smaller ones were all moving together, but several noticeably larger animals were passing through the flock haphazardly. He hurtled towards the front of the group, and as he hit one of the smaller creatures his consciousness entered its mind. The sound of rushing air filled his ears, and he felt a pleasantly humid breeze blow over his skin. Russell fully immersed into the mind of the creature, and he was immediately overwhelmed with a feeling of absolute terror.

He closed his wings and dropped through the air like a stone, feeling the raking talons of a massive winged predator pass inches above him in the space he had just been flying. A blood-curdling screech pierced the air as the creature roared its frustration, banking for another pass. Russell looked down at the mountain below and saw the entrance of a cave, too small for the predator to fit but large enough for him and his tribe. He concentrated on the image of the rocky terrain he was diving towards, and the colors of his skin shifted to perfectly match the view from the air. Satisfied that the predator wouldn't be able to identify where he was headed, he adjusted the frills on his front and back to guide his fall towards the cave's entrance. At the last second he opened his wings to slow his descent, gliding effortlessly into the darkness. With practiced ease, he landed on the moss-covered floor of the dark cave. Looking up, Russell saw

dozens of other bat-like creatures fly through the mouth of the cave and flare their wings to land gracefully around him. His tribe had made it to safety. As his eyes adjusted to the darkness, he could see that he was in a massive cavern, dimly lit by floating dots of bioluminescence.

Time skipped forward, and Russell watched decades pass by in seconds. The tribe had made the vast, connected system of caves their permanent home, feeding on the luminous insects and fungal spores that filled the air. Over many generations the group began to evolve for life in the cave. The camouflaging photophores that made up the outer layer of their skin began to take on luminescence of their own, and the cave began to brighten with the colorful light of his people. The tribe lived in tight-knit social structures with a strict hierarchy, dividing the necessary roles among the group into social castes. He felt the bodies he inhabited over the centuries getting heavier, natural selection favoring bone density over the ability of flight. He watched as the eyes of his people devolved into useless slits, their skin cells taking on a new role to both absorb and emit light. Over time, a language began to develop out of the intricate patterns of bioluminescence that decorated their skin.

Karis's voice echoed in his head again. [*While humans are limited to communicating one word at a time, transmission of information using encoded visual patterns conveys exponentially more complex data than human language.*]

Russell began to feel an increasing sense of irritability, his communication skills seeming to be wholly inadequate for the onslaught of incoming information. He felt like his mind was being overloaded with too much data, trying to sift through hundreds of conversations from all directions at the same time and understanding very little of any of them.

Karis narrated, [*In order to more efficiently process all of the information, a sort of interconnected network started to form between the members of the tribe; a portion of each individual's brain began to mirror the information they received from the others in real time to engage in parallel processing. This exponentially increased the processing power of the collective, and their intelligence began to grow as a unit. Any individual in line-of-sight to the*

others shared in the collective processing, and certain patterns on their skin were perfect mirrors of all connected partners].

As this new trait spread through the tribe, Russell could feel his mind expand, his intelligence increasing with every passing decade as collective processing began to colonize the brain of every generation in greater proportions. Their unified thoughts grew more complex, and the tribe began to invent tools and build structures for comfort and defense. It seemed to Russell like each member of his tribe was a node in a network, sharing some thoughts while retaining the autonomy to make their own decisions and control their own actions. Over time, however, that autonomy began to dissipate until the only conscious thoughts that were left belonged to Russell. As the passage of time began to slow back to normal speed, he found that he was completely in control of several thousand individuals, and every single one that was within sight was a part of his Mind. None of the Maeians in the cave were individuals anymore, every single one was an extension of Russell's being. The expansion of his Mind and the control he now possessed was intoxicating, and he wanted more. However, more was no longer possible.

It became clear to Russell that the tribe had reached its maximum sustainable population. Although the cave system was massive, there was a finite limit to how many Maeians could survive on the resources in and around the cave, and they had been stuck at that limit for more than a generation. Faced with a difficult decision, Russell chose to split the tribe in two. Half of the group would remain in the cave, while the other half would venture out into the wilderness to find a new cave system with abundant resources, governed by a copy of his Mind.

As he sent the colonists to find a new home, Russell felt the loss of every individual that exited the cave like a piece of him being cut away. The jagged edges of his torn Mind burned with an unbearable psychological pain, like his limbs were being ripped from his body and his heart broken a thousand times over.

Karis, Russell pleaded, I... I can't go on like this, please... This is torture, please... please let me go...

To his relief, time sped up again and thousands of years passed by before his eyes in seconds. Russell's mind had split itself in half every few generations, and the colonies that made it to safety in other cave systems sent back envoys to communicate. Hundreds of separate tribes now dotted the region, the oldest colonies having diverged from Russell's Mind so much that they were now their own unique Minds.

Karis commented, [unlike single-minded species such as humans, a hive mind has the unique ability to completely ignore natural selection. A single consciousness in control of an entire genetically diverse population will, just by common sense, selectively breed beneficial traits within their own hive.]

With no knowledge of genetics, Russell's Mind knew that some individuals were born a little different than the others. Most of the time these mutants were grotesque or incompetent, and those individuals were either killed or placed in a low caste - basic worker or defense drone - never to breed. However, every generation bore a small number of individuals who had something that set them apart from the rest of the tribe and gave them an incredible advantage.

Time slowed to a normal pace, and Russell felt that something was... different. He had sent a small group out of the cave to forage for construction material. From the mind of one of the Maeians in the healer caste, Russell felt a tug that was distinctly different from the usual loss that accompanied individuals leaving the collective. Through this individual he could still sense and communicate with the foragers, although the information being shared with the outside group was somehow thinner. Despite the slight decrease in informational density, the foragers were somehow still connected to the Mind without being in sight. Curious, Russell called the group back in and began to experiment with them.

[The greatest limitation of the early Minds was their reliance on visual communication. Visual light is easily blocked and loses strength over short distances, so every individual had to

be in sight of another at all times or else they would be cut off from the Mind. This new mutation altered some of the photophores to emit light of a much longer wavelength. This allowed any two individuals with this mutation to communicate using low-frequency radio waves instead of the visible light spectra, which can pass through most solid objects and travel over several miles without losing strength.]

When it became clear to the Mind what this new mutation meant, the radio-communicating individuals were bred into a new caste. Russell could tell that the benefit of this trait wouldn't just be to keep in contact with foraging groups, and the Mind hatched a plan. The new caste was split among dozens of different envoy groups, and the Mind split its population in half for the last time. Many of the envoy missions that made it to a colony were accepted as guests, and they offered the communication caste as a gift. One by one, dozens of colonies linked to the radio-communicator and were instantly merged back together with the original Mind.

Russell felt his mind expand explosively. With every new colony that joined his collective consciousness, a torrent of new knowledge, intelligence, and power came streaming into him. The feeling was better than drugs, better than sex, better than anything Russell had ever felt. The dimensions of thought that suddenly opened up to him seemed infinite, and for the first time since merging with Karis he felt that he saw everything clearly.

Of the colonies that merged with him, a few had surpassed him in development. A couple tribes had begun the early stages of the Agricultural Revolution, cultivating local edible plants and selectively breeding them for beneficial traits much like his Mind had done with their own population. Another colony had discovered that a certain carnivorous plant species contained separate sacs of caustic liquid, and that the plant killed its prey by connecting the two sacs with a conductive filament to generate an electric shock. They had begun harvesting the plants to serve as batteries and developing rudimentary devices to use the electricity. Russell's tribe had accelerated their technological development by thousands of years in a matter of days.

Karis said, *[this change was, evolutionarily, as much of a turning point for the hive species as when the first aquatic animals on Earth started walking on land. While many colonies did not merge back into the original Mind, the knowledge that long-distance communication was possible spread among the remaining tribes and they set out to breed their own communication drones. The hives that produced this mutation could spread far from their home, setting up colonies miles apart at the limits of their communication range without splintering into separate Minds. With every new colony, the population grew and increased the total processing power of the governing Mind exponentially.]*

Time sped up faster than ever before, and Russell observed as his tribe expanded across the continent, erecting cities and claiming territory. As they grew in population, his Mind rapidly grew in intelligence. His people progressed from using stone tools to steam engines and nation-wide electric grids before time began to slow again. Borders had been set with neighboring Minds, and his consciousness now spanned an entire nation with a population in the millions. He marvelled at how expansive his Mind had become, how he was simultaneously controlling every single individual across the entire region. Through a member of the research caste, Russell was furiously scribbling equations on a notepad after his latest experiment had failed, and he was pulling extra processing power from the entire region to do so effectively. Hundreds of miles away, he was giving birth to a litter of new Maeians surrounded by members of the healer caste. He saw the birth through the viewpoint of every person in the room simultaneously, and once the babies reached the open air he could see through their perspective as well.

Russell paid closer attention to a diplomatic envoy group that had been sent to a nearby nation's capitol. Since each Mind used a different frequency for long-distance communication, he had sent several dozen diplomats to open a line of dialogue with the other Mind and propose a trade alliance. As they approached the capitol city, the air grew thick with smoke and ash. Their vehicle passed through neighborhoods in ruins, the buildings looking like they had been

bombed from the air. As they approached the Capitol building, the delegation was quickly surrounded by an assortment of armed guards. Russell's diplomats exited the vehicle, the colors on their skin communicating his peaceful intent and desire to discuss trade negotiations and diplomatic relations. To his surprise, the guards grabbed each member of the delegation roughly and forced them towards the Capitol building.

[We mean you no harm], Russell pleaded, [we are simply trying to propose a trading alliance! We see that your city has been damaged, I would offer you our help in rebuilding!]

Their captors remained silent, so Russell asked, [where are you taking us?] The response of the other Mind was cold.

[We do not need your trade, or your kindness], the other Mind said, [but we will take your offering].

Russell was confused, scared, and above all *angry* that his good will was being met with such hostility. [What do you mean, our offering?] he asked with a venomous color to his words.

The delegation was led into a room with grey walls, criss-crossed with what looked like a metal mesh. He watched the door close behind them, and suddenly his connection with the envoy group was gone.

What just happened? Russell asked.

In response, Karis continued his narration. [*From what I have learned of your species, war brings out the worst in humanity. The Minds were no different. The first major war revealed the dark side of the Maeian Minds, and nearly resulted in the extinction of our species.*]

Russell's view shifted to a bird's-eye perspective of a battlefield. On one side of the battle, a group of Maeians charged towards the front line on the back of six-legged animals covered in iridescent scales, their barbed tails scoring the ground as they tore towards the enemy. Behind them were large, V-shaped machines with ropes attached to the base of the V and pulled perfectly taught. The ropes were cut from a dozen of the trebuchets at once, and each of them slung two large boulders at the enemy army.

From the other side of the battlefield, the deafening sound of cannon fire pierced through the whirr of propellers. Aircraft that wouldn't have been out of place in the first World War on Earth were circling the enemy, dropping explosives that took out whole battalions in a single pass.

[A large-scale conflict broke out between Minds in different regions with a major difference in technological advancement,] Karis explained. *[The weaker Minds were losing badly, and desperation drove them to make a great, yet terrible discovery.]*

Russell's perspective shifted again - back to the room covered in metal mesh, where his diplomatic envoy team had been lost.

Karis continued, *[when an individual from another hive was captured and kept in isolation for long enough, the connection to their home Mind would be weakened. This enabled the new Mind to exert their own influence, enslaving the captured drone. This forced acquisition added to their own processing power by assimilating their brains, while also reducing the power of the enemy Mind. The assimilation arms race had begun].*

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Russell poured black powder through a funnel into the open hole at the top of a metal sphere, then slid it to the next worker. With their hands, he screwed a cap in place over the top of the hole once it had been filled. He connected a small mechanical arm to the cap, and the simple explosive was sealed and welded shut. Out of necessity, Russell's peaceful industrial society had been converted into an engine of war.

The neighboring Mind that captured Russell's diplomats had been pushed to the brink. With most of its people captured and assimilated by another Mind, it had become truly desperate. The arrival of Russell's envoy mission had introduced them to a new source of bodies to assimilate, an entire *nation* of them who had proven themselves to be peaceful and unable to fight. That Mind was wrong.

Hundreds of miles away, his forces assaulted an Assimilation Center, where thousands of his people had been rounded up to be taken over by the other Mind. Overhead, Russell's aircraft strafed the battlefield with bombs and targeted missiles that took out every piece of machinery that came into view. The enemy had been fiercely defending the facility, sending every available soldier into the fray. They fell by the thousands.

As the battle raged around them, Russell led an infiltration team behind enemy lines. The panels of their armor mirrored the skin underneath, and the rescue team quietly slipped into the facility. Room by room, they made their way through the facility and left a trail of bodies leading to the holding cells. Looking through the metal bars of the gate, it appeared that an entire floor of the facility had been cleared to serve as a prison cell so large that he could barely see to the far end. Every surface was lined with the same kind of metal mesh he had seen before the diplomatic team had been lost to him, and for a moment Russell thought back to his real life.

They lined it with a Faraday cage, he thought, to block out all electromagnetic radiation. No wonder I can't feel them...

Each cell was filled to bursting with Maeians that once were a part of his Mind, their bodies packed so tightly that they couldn't all lay down at the same time. Waste covered the floor of the cells, and the stench was truly unbearable. The skin of Russell's soldiers glowed a deep blue, his sorrow painting the walls of the cell and alerting the prisoners to his presence.

[What have they done to you?] Russell asked when one of the captives noticed him. Their skin brightened to show a glimmer of hope, and with some effort it was able to speak visually.

[They severed us from you... said they had to break us before we could join them], the prisoner replied. [So many of us have perished, and more still have been taken.] A flash of rage splashed across the captive's skin, the deep red arousing the nearby prisoners.

[Where were they taken?] Russell asked.

The prisoner shuddered, fear tracing its way through their next words. [The guards call it the Zoo. They told us that if we try to fight back, we'll be eaten alive... We didn't believe them at first.] The colors of anger, fear, and sorrow were swirling across their skin quickly, as if their thoughts were spiraling into despair faster with every passing second.

[After they put down the first rebellion, the surviving rebels were taken to the Zoo. The guards...] the captive paused, their body sagging with the effort of forming the words, [the guards brought up what was left of them in buckets.]

Russell had heard enough.

One of his soldiers lifted their weapon to the door and fired once, shattering the gate's lock. He directed most of his team to gather the survivors and escort them back out of the facility. Twelve of his most elite soldiers would continue deeper into the facility to find the Zoo. Given how fiercely the enemy Mind was defending the facility, the Zoo must be critically important. And after what the captive had told him, Russell decided he would burn it to the fucking ground.

After descending deep into the bowels of the facility, the assault team finally reached the most heavily-defended section of the Assimilation complex. Dozens of enemy soldiers guarded a massive metal door. Fire poured out of the nozzles of the enemy's flamethrowers, and his team leapt behind cover to avoid being scorched. Russell reached into the pocket of the closest soldier, pulled out a grenade, and left cover to throw it precisely into the center of the enemy group. He could feel as the soldier's skin melted away, the agony making the last few seconds of their life feel like an eternity. The explosive detonated, and the flames stopped. The rest of his team rushed forward, firing into the smoke and dust created by the explosion. The last of the guards laid dead on the floor, and the grenade had bent the frame of the heavy door. With a concerted effort, they pulled the door away from the broken frame and entered into the Zoo.

Russell's team stepped through into a long hallway lined on both sides with barred holding cells. The power had been knocked out, but a thin band of emergency lights on the ceiling illuminated the hallway and part of each cell.

On the right, a set of sharp talons swiped through the bars of the cell, narrowly missing the nearest of Russell's team. They all jumped backwards as an ear-splitting shriek cut through the air, the massive aerial predator snapping its jaws at them through the bars of the cage. The team backed up slowly to the other side of the hallway, and Russell heard a deep growl coming from behind them. Instinct kicked in, an ancient primal terror forcing him to freeze and camouflage against the darkness around them. Once he collected himself, Russell turned the luminosity of the team's skin up to serve as a bright light. Shining their lights into the cage opposite the flying predator, the cell appeared to be empty.

Confused, Russell walked one of the soldiers over to get a closer look. Although the cage looked empty, the view from several different angles of Russell's perception didn't match up. The light coming from the closest soldier seemed to appear even brighter just beyond the bars, while somehow casting a shadow on the far wall. By the time Russell realized his mistake, the animal's claws had impaled the nearest soldier straight through their body armor. With a sickening crunch, Russell felt their body crumple in half, spine snapping as the planet's apex predator pulled its victim through the bars sideways. Russell looked on in horror as a jaguar-like creature materialized out of thin air, its skin shifting from perfect camouflage to its resting color of bluish-black. Russell felt as the last vestiges of the soldier's mind were snuffed out when the creature's jaws wrapped around their head and clamped down.

He turned away as the air filled with the sounds of snapping bone and the smell of blood. The other captive animals began to take notice and a cacophony of sound carried through the hall. The remaining ten members of the assault team continued on, passing by hundreds of cells filled with the various predator species that once hunted Maeians into near-extinction.

Russell and the team passed through a doorway, and the cells in this room were very different than in the previous hallway. The cage walls were made of a clear material that could have been glass or plastic, but either way he thought there was no way it would hold if any of the captured predators tried to escape. However, the animals in these cages sat perfectly still, watching the soldiers as they walked down the hallway. The silence was more disconcerting to Russell than the snarling of the beasts had been in the previous room.

At the end of the hall, the room opened up into some kind of science lab. The technology here was more advanced than any Russell had seen this Mind use in battle. One of the aerial predators was strapped to a table, its arms flailing but its head locked in a vice. A Maeian, apparently oblivious to the fact that a squad of soldiers was pointing their weapons at them, was probing the interior of the animal's open skull with a metal rod and displaying an unusual pattern on the wing that was extended in front of the animal's eyes.

The Maeian scientist stopped. They flared one of their wings to display their membrane, and spoke to Russell without even turning around.

[Your simple Mind cannot comprehend the damage you have done to our species by destroying this facility. Leave now. Leave me to my work.]

Russell flared his wing membranes and responded, [it does not matter what you are doing here, you are coming with us. You can explain everything on the way back, after we kill these creatures-]

The scientist turned around and flashed brightly, its rage shining bright enough to cut Russell off. [YOU WILL DO NO SUCH THING!] they screamed, turning a dial on the metal rod they were holding, [These are MY creatures, MY creations, MY PEOPLE!]

The scientist threw the metal rod at the nearest soldier, and Russell lost control of their nervous system as an electric shock coursed through their body. The soldier crumpled to the floor, convulsing, as the scientist leapt in the air and opened their wings to glide over to a

console on the far side of the lab. They quickly typed in a code, then their skin shifted to camouflage against the background.

Shit, thought Russell as he heard the latches click on the cages in the hallway. The scientist reappeared in the middle of the hall lined with glass enclosures, their membranes and frills extended to the fullest. A pattern of complex shapes in a variety of colors flashed on their skin in every direction, then they vanished again.

Silence.

For several heartbeats, the assault team held their breath and waited for whatever came next. Slowly, the door to every cage opened and Russell pointed all of their weapons at the giant winged monstrosities that lumbered out. Russell sent the command to fire, but the soldiers never had the chance to comply. With timing so well-synchronized that Russell could only call it tactical precision, his connection to the remaining ten soldiers was gone. The last view he saw through their perspective was a set of toothy jaws engulfing each soldier's head.

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As Russell tried to process the shocking events that occurred in the Zoo, Karis started to narrate once again.

[Driven to the brink of death by the assimilation of their last colonies, this desperate Mind experimented with ever darker forces. By studying the brains of captured predators and experimenting with the effects that different patterns of light had on their executive function and communication centers, the Mind found a way to assimilate other species. This ability exponentially expanded their power by giving the Mind whole new feelings, senses, and instincts while providing a much more robust army of battle-ready creatures. However, the forced assimilation of creatures whose brains were not suited for shared intelligence came at a cost. Assimilation affects the Mind just as much as it affects the individual, and the incorporation of incompatible brains created a kind of corruption that grew deep in the heart of that desperate

Mind. The common desire of all Minds to expand and grow turned against this corrupted hive, and that desire turned into an insatiable hunger to assimilate every living thing on the planet.]

Years passed by for Russell in a blink, and in that time the war rose to a fever pitch. The inhabitants of the Zoo formed the first wave of an onslaught that leveled cities and brought whole nations to their knees. Russell's advanced technology enabled him to fend off all but the most covert attacks, but younger Minds weren't as lucky. One by one, his trading partners fell silent as the tainted Mind's bestial army tore across the continent. Whole cities were razed overnight, the inhabitants captured to feed the Mind's insatiable hunger. As the continent was engulfed by an unstoppable force of destruction, Russell was powerless to stop the slow death of the planet's ecosystem. The biosphere of their home began to fall apart as entire species were hunted into extinction by the ever-growing army, converted into weapons of war.

Soon it became clear that only two sides existed in this Great War. The Minds that had not been taken over became known as the Keepers - these Minds rejected the idea of assimilation and only sought to expand themselves. Their adversary was known as the Corrupted - a single Mind that had committed crimes against the natural order by taking over other species, governed by an apocalyptic hunger to assimilate everyone and everything. For decades the Keepers fought for survival, containing the spread of the Corrupted through the use of brute force and mass destruction. Russell's partnership with the other Keepers accelerated their technology to new heights. Their entrance into a new technological age was heralded by the scorching furnace of nuclear fire.

Time slowed again, and Russell's army stood alongside the remaining Keepers in a desolate, radioactive wasteland. Their combined might had stood against the endless horde of the Corrupted's assimilated war beasts long enough for the Keepers to develop the first atomic bombs. When the dust settled, only eight Minds had survived the slaughter. Russell and the others set out to restore the planet that had nearly been sterilized, and created a lasting alliance with a pact that they called the Keeper Accords.

You beat them? Russell asked.

[*At the cost of millions of innocent lives.*] Karis replied, his voice filled with a distant sadness.

So what happened next?

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Suddenly, Russell separated from the perspective of the Karis Mind. As if gravity was pulling him in the wrong direction, he began to fall upwards. Rising quickly through the atmosphere, he gained a bird's-eye view of the planet. As the decades flew by, he watched as the ash-covered skies began to clear and the reddish forests grew back over large swathes of the continent. At night, the lights that showed population centers began to grow from small dots into sprawling metropolises. Streaks of light and smoke rose from the surface as the Minds entered the space age, and his view was soon streaked with the orbits of satellites. On opposite ends of the continent, two thin pillars grew from the ground all the way into low orbit. The solar panel-covered platforms at the ends of space elevators powered the next generation of technological development. Karis's familiar voice filled Russell's mind as he witnessed the species surpass human technology in leaps and bounds.

[*By this point, our understanding of genetics had enabled us to do more than just selective breeding, but true genetic engineering. This research led to a new breakthrough that once again changed the course of history for the Minds - quantum communication.*]

Russell asked with a joking tone, *What is this, Star Trek? I assume tractor beams come next.*

Karis's reply was jovial, but with a slight edge of annoyance. [*I can always skip over the most important invention in our species' history...*]

Okay, okay, fine! I'm just messing with you. Please, continue, said Russell. A feeling of triumph flowed through their bond from Karis, and the alien's joy made him smile.

[Once discovered, this new adaptation was shared between all eight Minds. It was a difficult mutation to cultivate and the connections between entangled drones could very easily be severed. Due to these limitations, a new, highly specialized caste was created called the Nodes. Every Node of the same lineage is a perfect clone, created from the same batch of embryos to ensure that the quantum entanglement would be retained across generations.]

Russell whistled his approval. *That's some serious sci-fi shit Karis. I'm no Einstein, but even I know that quantum entanglement is extremely fragile. Our quantum computers have to be kept at insanely low temperatures to keep the entanglement intact, so how did you manage to keep it going out in space?*

Karis seemed pleased with Russell's question. *[Every colony fleet had eight Nodes, one entangled with each of the Minds,] they replied, [due to the instability of quantum entanglement, the Nodes were carefully guarded for their entire lives in floating palaces in space.]*

His view moved to the upper orbit of the planet, where a massive ship with a shape that roughly looked like a pyramid was under construction. The outer hull looked to be covered in a thin layer of a gold-colored metal, and the final panel was being dragged towards the ship by thousands of construction drones. Through the incomplete hull, he could see a criss-crossing network of thick metal struts.

[The ship was shielded against radiation and lined with a massive Faraday cage to prevent any electromagnetic interference from breaking the entanglement. With the Nodes, each Mind now had the ability to communicate instantly over great distances, and so they set out to colonize neighboring star systems.]

Russell watched as a fleet of starships escorted a single Node ship away from the planet. A network of spherical fusion reactors surrounding the fleet activated with a glow, and the fleet appeared to grow in size as the fabric of space warped around the entire formation of ships. It reminded Russell of looking through a magnifying glass. Once powered up, a pulse of energy seemed to pass through the reactors towards a massive metal ring at the front of the

fleet. The stars around the ring appeared to fall into its center, and the fleet accelerated quickly until it was out of sight.

Russell's view zoomed out, and time sped up faster than ever before. Tens of thousands of years flew by, and similar fleets spread out from the Maeia system at the speed of light. The Minds each formed vast empires over a significant portion of the galaxy.

His vision began to blur, starlight fading back into a timeless emptiness.

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Karis pulled back, and the connection faded. Russell's eyes were still cloudy after the joining of their consciousnesses, but were clearing with every blink. The expansive memory of the entire history of the species... he had experienced it through Karis's eyes. As Russell's mind re-formed into the distinctly human structure it had been before, he had a revelation that shocked him to his core. He looked at Karis, really looked at them.

"I understand now that you're a hive mind. That... somehow makes sense to me." He paused, working through his jumbled thoughts. "You were the original hive mind, weren't you? Those memories of life in the cave, millions of years ago... those were your memories." His voice faltered, trying to put the thoughts of his scattered brain into cohesive words.

"You... have lived for eons. In all that time you've been in control of an uncountable number of intelligent creatures, with the kind of advanced technology that to us looks like magic," his voice gained strength as he realized the question he needed to ask.

"Your mind is as big as the entire galaxy, and from what you've told me about your history..." he took a breath, truly understanding the scope of the Mind's power, "...the only reason you haven't become an all-consuming force of destruction is because you'd rather be a kind ruler." He steadied himself, looking Karis in what would have been their eyes, and asked.

"Are you a god?"

Chapter 8 - Camila.

The President sipped slowly on an iced latte in the back of a black Cadillac limousine. She barely noticed the faint blue lights flashing through the tinted windows on either side of her, as the rest of the Presidential motorcade surrounded the vehicle on all sides. Her other hand held a thin, flexible glass tablet which she stared at intently. Now that her intelligence team had verified the photos the two Caltech scientists presented that morning, she couldn't get the image of the alien fleet out of her head. Using state-of-the-art image processing software, her team had enhanced the photos and stitched them together to create a seamless video. While the dots were still too small to make out details on any individual ships, they stuck out in sharp contrast against the bright background of the star. Equally concerning was the warping of space that surrounded the fleet.

Could they have faster-than-light travel? She thought, mortified of the implications. Her science advisors had pooled together their resources with NASA to answer a few of her most dire questions about the aliens. When she asked how fast the fleet could go, the most detailed answer they could provide was "I have no idea".

Her other burning question was to find out where the fleet was headed. Unfortunately, the answer was also unclear. Most of their models indicated that the fleet was heading off into deep space, but a few of them included a star about 6 light years away from both Alpha Centauri and Earth. The team told her that Barnard's Star likely had no habitable planets, but it was still their best guess. They told her that unless these aliens could travel faster than light, that would give them a little over 12 years to prepare for the possibility of an incursion by the interstellar fleet.

Not nearly long enough, she thought with a grimace.

The motorcade dispersed as Camila's limo pulled up to its destination. The door to her right opened, and she smiled at the secret serviceman that awaited her. Stepping out of the vehicle, she looked up at the familiar facade of the Waldorf Astoria hotel. She smiled, soaking in the classic architecture of the historical building and the beautiful clock tower at its peak. *Honey, I'm home*, she thought. Her bodyguard opened the hotel's front door for her, following at a respectful distance as she made her way inside. Warm light trickled in from the skylight overhead, and an inviting glow from the lobby's circular chandeliers bathed the marble columns of the entry hall in a comforting ambience. After taking a moment to let the feeling of nostalgia wash over her, she headed towards the lobby elevator to her left.

Exiting on the ninth floor, she directed her guards to remain near the elevator. One of the secret servicemen spoke quietly into their radio as she strolled towards the penthouse suite that she had booked for her guests. She rapped three loud knocks on the door, and heard the creaking of a bed inside followed by the shuffling of feet. The sound of the peephole cover sliding was followed by a panicked squeak, then the footsteps retreated quickly.

"One minute, I'm so sorry!" The voice of the person inside yelled, retreating deeper into the room.

Camila waited patiently and called through the door, "you don't have to get dressed up on my account!" She knew it was a useless thing to say, but she hated how no one could act like a human being around her anymore. A minute later, the footsteps returned and the lock clicked.

Dark ringlets of shoulder-length curly hair framed Amari's nervous expression as she opened the door. "Madam President, it's good to see you! I wish I'd known you were coming, I could've — um, cleaned up a bit." She had a look of embarrassment on her face, gesturing at the clothes strewn around the room.

"Don't you worry about that! This room has seen far worse, *believe me*." She smiled warmly at Amari. "But you absolutely HAVE to stop calling me *madam president*," she said in a joking tone, "I might be older than you, but I'm not 90!"

Amari's cheeks flushed and she asked, "would Dr. Perez be better?"

"No it would not," Camila said sternly. "You can call me Camila, or you can go back to that shithole motel your professor booked." She made a mocking disgusted face, then laughed. "Mind if I come in? I come bearing gifts." Camila pulled a bottle of her favorite pinot noir out of the bag resting on her shoulder. Amari eyed the bottle and nodded, cracking a smile.

Camila entered the room that had been her home-away-from-home for many years. She placed the bottle on the table, and walked over to the desk in the far corner. She opened up the lower cabinet and smiled, grabbing a corkscrew and two wine glasses.

"I'm happy to know these are still here! I thought for sure somebody would've taken them by now." Etched into the glass were the initials **CMP**.

Amari looked over at the glasses and saw the initials. "Those are yours?" she asked quizzically.

Camila smiled and nodded as she reached to place the glasses on the table. "During my time as a senator," she explained, "I never bought a house in the city. I had a running joke with my secretary that the first house in DC that would be *mine*, would be the White House." Deftly, she cut the foil cap covering the cork and started working in the corkscrew as she continued. "So, this room was basically my home for the last 18 years." With a satisfying pop, she pulled the cork out of the bottle and gave Amari a warm smile.

"Where is Dr. Harlow?" Camila asked, "I thought for sure you two would both be resting after everything you've been through in the last few days,"

Amari replied, "he stepped out for a phone call, but it sounded like someone he *really* didn't want to talk to." Camila nodded as she tilted the bottle and poured each of them a glass. She handed one to Amari, who took it with a polite, "thank you." Camila picked up her glass and sat in the desk chair across from the couch where Amari settled in.

"Good, that gives us girls time to chat," Camila said with a grin. "You really impressed me in the presentation this morning. It was pretty clear that you're not fond of public speaking, but

I've gotta say that you have a knack for it." Amari's eyes fell to the floor, and her cheeks reddened with embarrassment. Camila continued, "you came across as the smartest person in the room, and I have a feeling that's usually the case." The President's piercing gaze analyzed the woman in front of her.

She looks like a deer in the headlights, Camila thought to herself. *Definitely reminds me of someone.*

Amari's anxiety was a thick cloud hanging over her as she replied, "well, you're definitely right about my lack of public speaking skills..." she shook her head slowly, eyes darting between Camila and the empty table as she took a shaky breath. "I appreciate the compliment — but I think you give me too much credit."

Camila's eyebrows rose as a challenge to Amari's self-deprecation, and she grimaced before clarifying. "Between Harlow and the other scientists, I'm just an inexperienced grad student. Compared to the rest of the field, I'm pretty much a nobody," she said, sheepishly.

Camila shook her head and said in a gentle tone, "if I learned anything from that briefing, it's that you are *not* a nobody." She considered for a moment before asking, "do you know what I used to do before I was a politician?" Amari shook her head.

"I got my doctorate in behavioral psychology. People... used to terrify me." Camila gave a dismissive wave, and said, "I know, that seems ridiculous given what I do *now*, but it was the truth. I went into psych to figure out how people worked, how I could act in a way that would help me get along with them, to make them like me. And you know what I realized? Nobody gives a shit about you." Amari laughed, a quizzical look on her face.

Camila continued, "objectively, the primary interest of almost everyone is self-serving. It runs so deep that most people won't truly even notice you, not unless you give them a *reason* to. If that reason just happens to be something that aligns with their interests, then they will do anything and everything they can to support you."

Amari nodded, her dark eyes holding a thoughtful expression. "Once I realized that," Camila continued, "I used it to my advantage. It might not be the *most* ethical thing to run social experiments on your colleagues to see how they react in different situations, but we all play the hand we're dealt."

She put down her glass and looked Amari in the eyes. "In the briefing room this morning, you gave everyone a hell of a reason to notice you. And from what I saw in there, you might be just the kind of person we need for what comes next."

Amari started to ask what she meant when the door opened. Harlow started talking loudly as soon as he walked in the door, before walking down the hallway into the living room. Camila picked up her wine and took a casual sip.

"I can't believe after 3 years, that bastard calls me out of the blue looking to use *my* connections to -" he stopped suddenly, walking into view of the corner desk. "- oh I'm sorry Madam President, I didn't know you were here," he said, his face flushing with embarrassment.

Camila gave Amari a knowing look, but didn't correct him. "Don't worry about it, I'm the one that dropped by unannounced. But I'm glad you're here, there's something I wanted to run by the two of you." She got up to grab a third glass out of the desk for Harlow, and gestured for him to join Amari on the couch.

After pouring for Harlow, she sat back down and pulled out her tablet. On the screen was the enhanced video of the alien fleet transiting across the lower quadrant of Alpha Centauri A. Both scientists leaned in to get a closer look at the improved video.

"I've tasked a few select scientists to work exclusively on figuring out what we should expect from our new *neighbors*, and how much time we have to prepare if they decide to point their extremely advanced weaponry our way," Camila began, "and I wanted to know what you two think about some of their findings." She reached down to the tablet and swiped, revealing a table filled with calculations and their resulting values.

She continued, "They say that it appears the alien fleet was travelling approximately 2% of the speed of light when they crossed the star, and based on their heading it's hard to tell where they were going, but their best guess is Barnard's Star. Do you agree?" She sat back, waiting for them to work their way through the math on the screen that looked like gibberish to her.

Let's see if they're actually as smart as they seemed this morning, she thought. After a few minutes, and some clarifying questions from Harlow, Amari looked up from the tablet.

She said softly, "I don't mean to disrespect your science team, but I think they might be missing something." Camila smiled and nodded for her to continue, "I don't see any indication that they calculated for the fact that the fleet was turning." Silence filled the room, and Harlow looked shocked. Apparently she hadn't told him what seemed obvious to her.

"What do you mean?" asked Camila.

Amari pulled out her own laptop and after a few seconds, she pulled up some of her own calculations.

"I agree with your team's finding that the fleet was going roughly 6,000 kilometers per second, a little over 2% of the speed of light. But over the course of the transit, that speed doesn't appear to change." Her voice started growing more confident as she went on, "Comparing notes, it looks like we had a similar estimate of the rate of acceleration, which would have them exiting the far side of the star at around 3.4% of light speed, but their velocity just didn't change." Amari took a breath and put down her laptop, staring at the video on Camila's tablet for a moment to collect her thoughts. Harlow had leaned back on the couch, admiring his protege's boldness and letting her take the spotlight.

"I'm not going to pretend I understand the limitations of interstellar travel, but if they can accelerate that fast wouldn't they have kept accelerating? Hell, we've sent things through space faster than that without whatever warp bubble they had going, so it's not like they hit some cosmic speed limit. The only other explanation I can think of is that they were turning. Towards

us, or away from us, I don't know — but they had to be.” She finally looked up at Camila, and saw that she had a sad smile on her face.

“Do you know how many scientists have taken a look at this data? Dozens. Not a single one of them said anything that somebody else hadn't already explained to me.” Camila leaned forward, glancing at Harlow, “I have a feeling even your mentor here would have said the same.” Harlow didn't say anything, but the look on his face told Camila that she was right. “So far you are the only person that has given me any new information since, well... since you two told us about this in the first place.” She looked Amari in the eyes, and asked what she had planned since walking in an hour ago.

“I'm putting together a crisis team to advise me on how to handle this threat. I would like to invite both of you to join me. What do you say?”

The two of them looked at each other, wide-eyed. They seemed to share a knowing look, then both turned back to Camila.

Harlow asked, “When do we start?”

Chapter 9 - Russell.

“Are you a god?”

The question hung in the air, the silence stretching until it felt like it would last a lifetime. Karis's skin slowly darkened from the lime green of curiosity, eventually settling on a deep, dark blue.

Sorrow, thought Russell, with a pang of guilt. He started to notice another color materializing in splotches, one that he hadn't seen Karis express before. It was a sickly shade of greyish-green.

[I am... not a god.] The voice in Russell's head carried an immense weight of sadness, loss, and soul-crushing shame. [Maybe I once could have been considered a god to singular minds like your species... however, I am but a tiny sliver of the Mind I once was.] Karis seemed to shift in their seat, as if trying to reign in their emotions before continuing.

[I am not here by accident, Russell Emerson.]

An icy hand grabbed Russell's heart. For the first time since they had begun speaking, he felt a renewed sense of fear towards the alien sitting in front of him.

“How... how do you know my name? Was it from when we... did the mind meld thing?” He asked, hopefully.

[No.] Karis raised one of their wings, and the iridescent sheen solidified into a video. The image was slightly distorted, as if Karis was recreating the scene from memory. Pink shapes lined the outer edge of the visual, encoding the audio of an introductory speech. The wing-shaped screen displayed Russell standing on a stage, flanked by two people. To his right was an older man who was finishing his speech and introducing the other two. To Russell's left was a beautiful woman with long, wavy blonde hair. Her fair skin was contrasted by her

impossibly bright hazel eyes. The eyes that haunted his dreams every night. The voice that called to him, tempted him to join her when he was at his lowest.

Emily... thought Russell. He couldn't speak. His adam's apple felt like it was lodged in his throat, and his heart was heavy as a stone.

[I am sorry to bring you such pain], said Karis's somber voice, [but we must both rise above our losses. You need to hear your own words. Then you will start to understand why I have come to you.]

Russell's watery eyes were fixed on Karis's face. He couldn't bear to look at Emily without breaking down, so he clutched the rings hanging from a chain on his neck for strength. In the video, the man to Russell's right reached the end of his speech, and Russell stepped up to the podium. He cleared his throat and began to speak.

"We stand here today as a world divided. Wars, famines, and droughts tear apart the poorest nations while coastal cities around the globe are flooding from the rising sea levels. There seem to be an infinite number of life-and-death problems driving all of us apart. Millions of people have died due to conflicts over energy, land, and resources. I myself fought in one of the bloodiest of these wars. It *has* to end. I have seen the darkest sides of humanity, but I've also witnessed the incredible good that exists within us all. It is my belief that if we were to lift the constraints of energy and resource production, we could come together as one people and move as a collective into a brighter future. With this in mind, it would be my honor to unveil the Torus."

To thunderous applause, the camera panned behind them to show a large, gleaming metal ring. Wrapped around the ring were thick copper wires that seemed to hum with power. Aiming directly into the center of the ring from above was a large titanium-sapphire laser. The camera panned back to Russell as he finished his speech.

“We have spent years developing new technology and refining existing theories to produce the world’s first commercially viable toroidal fusion reactor.” He paused as more cheers from the crowd erupted.

“With technology like this, energy will become one of our cheapest commodities. Our hope is that such a change will bring in a new era of peace for the world, and eventually give us the ability to travel to the stars.” He gestured to his right, and the camera panned to a window with a view of the Earth below.

“This, ladies and gentlemen, is the key to a brighter future.” Karis lowered his wing and the video faded away.

Karis said, [not only have you proven yourself to be the caliber of person I would trust to wield the power such technology brings, but you have experience with it.]

Russell stared at them with a mix of anger, sadness, and confusion. “Why are you telling me all of this?” He said, his voice rising in volume. “What does any of this have to do with anything? Why are you *HERE?!?*” He yelled the last word, overwhelmed by his emotions. The blue in Karis's skin darkened even further, but Russell was done feeling guilty. He wanted answers.

[I am here], Karis said softly, [because I have no one else to turn to. I am the last member of the Karis Mind.]

Russell was stunned into silence. After a moment of quiet contemplation, Karis continued.

[Approximately ninety of your years ago, one of my colonies travelled to a new system in an attempt to broker trade, and hopefully invite another world to join the Karis empire. They were attacked by the people of the system, and the Nodes connecting them to me and the other Minds were killed. Cut off, they lashed out in anger and assimilated the species. The *entire* species. Ever since then, they have been spreading across the galaxy and assimilating every world they came across.] The colors of their skin shifted in the sorrowful blue and shameful

green, making way for a deep red as well. Russell could already hear in their voice that this was rage.

[I am the reason that the Corrupted has returned. I fought them with the might of my entire empire, and I lost.] The pain and anger flowing through their bond was crushing, and Russell could feel his mind fighting against the weight of it.

[The only way your species has a chance to fight them], Karis said, [is with this technology and the immense power that it can provide. I cannot fight them on my own, but with your help I could help humanity develop the tools to stand a chance. So Russell, I need your help.] Karis dropped all emotions from the projection, their skin black except for the encoded words that would haunt Russell in the weeks to come.

[I need you to help me bring this power to humanity, because as we speak, the Corrupted is on its way to Earth.]

Chapter 10 - Harlow.

“So, what will my title be?” Harlow asked jovially, “Supreme Chancellor of Space Science?” Amari rolled her eyes, and Camila’s deadpan expression was that of a tired parent.

“I’m not sure that has quite the ring to it you think it does, Harlow,” Camila quipped, “how about - whatever the fuck title the President lets you have?” She gave him a mischievous smile, and Harlow gripped his heart like she had just ripped it out.

He replied, “I thought Presidents were supposed to be champions of the people, not lord their power over them like a *tyrant!*” He flashed her a smile that said he thought he won the argument, and she shook her head with a grin.

“How is it that I’m sitting beside a Nobel Laureate and the US President,” Amari asked, “and somehow I’m the most mature person in this conversation?” She laughed and shook her head, only half joking.

After finishing the bottle of wine, Camila had invited the two of them back to her office to discuss what the future of their new team would look like. Rather than simply talking business, Camila had opened up her private stash to bring out a bottle of rum that she said was made in her hometown of Bayamon, Puerto Rico. Sitting in the Oval Office with glasses in hand, they had chatted like old friends about nearly everything that didn’t involve alien fleets.

“It’s funny, I feel like I haven’t had a conversation that felt... *real* in ages.” Camila said, adding mint leaves to a cocktail shaker. “Do you two know how difficult it is to act like you’re a goddamn political robot all day, every day?” She scowled, pausing the conversation to shake up a new round of Mojitos.

As she strained the drink into each of their glasses, she said “well of course you don’t, but I gotta tell you - it fucking *sucks*.”

With a huff, she sat down on the couch beside Amari and chuckled before continuing, “but you know what? I don’t give a shit anymore. Because, guess what? I’m the only President who has ever had to deal with fucking *aliens*.”

Harlow brought the glass to his lips, savoring the perfectly balanced flavors of mint, lime, and cane sugar. He was amazed at how at ease he felt talking with Camila, when by all rights he should be terrified. Maybe it was the fact that she had insisted on being the gracious host, or maybe it was the fuzzy feeling gifted to him by the rum in his drink.

He considered her statement while placing his glass on the table and said, “so I guess Area 51 really was just a bunch of bullshit then?”

Camila narrowed her eyes slightly and said, “don’t think just because I had a little more rum than I usually do during business meetings that I’m gonna go spilling national secrets to *you!*”

Her piercing gaze and mischievous smile made Harlow’s heart beat a little faster. A warmth started rising to his cheeks that he wasn’t sure could be blamed solely on the rum. As he opened his mouth to reply, his phone started to ring. Flustered, he pulled it out of his pocket to silence the ringer.

“Sorry, let me just put this on mute- son of a BITCH.” Harlow’s face dropped, the humor gone as he glanced at the caller ID. “First it was Jekyll, now Hyde’s calling me. This will just take a second, save me some of the next round!” Without waiting to be excused, he covered the phone and walked towards the hallway for privacy. As he closed the door to the Oval Office, he nodded to the secret service member guarding the door and accepted the call.

Harlow didn’t answer with a hello. “Look asshole, Jonah already called begging for my connections in the fusion industry so I already know exactly what you’re going to say. You can drop the fucking sales pitch, because I’ve got FAR bigger fish to fry right now.”

The line was silent for a moment before Russell replied, “why did Jonah call you? Oh, shit, the grant. That’s literally the last thing on my mind right now... but I do need your help. And

I can promise you, my fish is a lot bigger.” Harlow’s anger softened slightly since Russell was unaware of Jonah’s antics. But only slightly. Feeling antsy, he started to pace down the hallway.

“Look, Russell,” he said sternly, “I know we have our differences and you wouldn’t have called me unless you thought it was important. But we haven’t said so much as two words to each other since...” He trailed off, letting the silence fill in the blank that neither of them would say aloud. The mess of emotions clouding his thoughts caused him to speed up his pacing, and he continued. “I am being completely honest when I tell you that nothing you could ask is more important than what I’m dealing with right now. Bar none, zero chance.” Over the phone, Harlow heard a sound he hadn’t expected — laughter.

God, he’s so arrogant, thought Harlow, *I don’t miss that.*

Still chuckling, Russell said, “Harlow, what’s funny is that I was just thinking the exact same thing. So, let’s drop the dick-measuring contest and let me tell you what I’m calling about.” He took a long breath, continuing with a somber tone. “We have to finish the Torus. The need for fusion tech isn’t about preserving resources or stopping wars anymore... it’s about surviving the next one.”

“What are you talking about?” Harlow said with morbid curiosity.

Russell replied, “I can’t tell you much, but... something is coming. Something big, and the only chance we have to survive it... is by harnessing fusion as quickly as possible.”

Harlow stopped pacing. His mind raced, processing Russell’s statement.

He couldn’t possibly know about the alien fleet, thought Harlow, *could he?* He tried to think of a way to parse his words, to ask without giving away the reason he was at the White House.

“When you say something big.... What scale do you mean?” He asked. “Are we talking about something that could affect the country, or the world? Maybe the whole *solar system*?” He forced a laugh, trying to make it seem like the idea was preposterous.

Russell's response carried a tone of utter hopelessness. "More like the galaxy." An icy chill ran up Harlow's spine, and he had an inkling that Russell might know more about the situation than even he did.

"Russell... I think we should meet," he said. "I have a feeling we're working the same problem." He turned back towards the Oval Office and asked, "how soon could you get to DC?"

After a moment of muffled noise, like Russell was talking to somebody with a hand on the phone's speaker, he said, "I could be there in a few minutes. Could you meet us somewhere outside the city? Preferably somewhere secluded?" Confusion clouded Harlow's mind, but it only made him more curious about how Russell could be involved in all of this.

"I'm sure something could be arranged. What, are you coming in a helicopter or something?" asked Harlow.

Russell snorted a laugh and replied, "or something."

Chapter 11 - Jonah.

The ice in Jonah's glass clinked as he swilled the dark liquid inside. The cheap whiskey tasted like gasoline that had been strained through the wood of an oak tree, but Jonah was drunk enough that he didn't care.

Serves me right, he thought solemnly. When the bartender returned to his side of the bar, he lifted a finger to order another round. The older woman nodded at him and grabbed his empty glass. While she filled up his next drink, Jonah stood to use the restroom. As he swayed towards the back of the bar, he let out a loud belch that smelled of heartburn and poor decisions. A table of 20-somethings in college sweatshirts turned to give him looks of disgust, and he smiled politely before continuing on.

Shouldn't they be passed out in a frat basement or something? He thought with contempt, *judgemental fucks*.

After taking care of business, Jonah washed his hands in the sink and stared at himself in the mirror. His usually well-kempt red hair was greasy and darker than usual, giving him the look of someone who'd been caught in an unexpected rain storm. His slightly pudgy beer belly had grown considerably over the past year, and Jonah made a mental note that it was time to stop skipping the gym.

Not tonight though, he thought, *tonight I get to let it all go*.

After Russell seemed to drop off the face of the Earth, Jonah had spent the last four days reaching out to every single scientist he knew in the fusion research sector. Somehow, no one seemed to have any clue about the DOD's other project. He was starting to think his joking assertion to Russell might have been right. *Maybe it really is some Area 51 bullshit*, he thought bitterly.

When he returned to his seat at the bar, his refilled glass of glorified lighter fluid was waiting for him. He picked it up to look at the amber-colored liquid inside. As Jonah silently wallowed in his sorrows, his phone started to ring. He swore quietly, pulling it out of his pocket to look at the caller ID. RESTRICTED was the only information on the screen.

“Fucking scammers,” he said aloud before declining the call. It rang again almost immediately, and he set his phone to ‘do not disturb’. The bartender looked up at him and smiled.

“They’ve been getting real bad lately,” the bartender said knowingly. “I swear they get more creative all the time too.” She picked up a glass and polished it with a rag, which Jonah knew from long experience was her sign that she wanted to talk.

“Don’t I fuckin know it,” Jonah said. “They scammed my mom out of a few grand last month. Some AI thing cloned *my* goddamn voice and convinced her I was being held hostage.” The bartender smiled and shook her head as he took a sip before continuing, “she ended up wiring them a few grand for a ransom!” He laughed quietly, remembering how pissed she was when he called the next day. The bartender laughed and put down the polished glass. Before she could reply, the bar’s phone started to ring on the far side of the counter. She rolled her eyes, then walked over to answer it.

He let out a quiet sigh and took a swig of liquor with a slight grimace. The burn of the whiskey was like fire pouring down his throat, but the warmth radiating in his chest made it worth it.

“Hey Jonah?” The bartender called from the far end of the bar, “I think it’s for you.”

The confusion must have been evident on his face, because the bartender waved him over and pointed at the receiver. He pushed back the stool and walked over to take the call. Mouthing a silent ‘thanks’, he lifted the phone to his ear.

“Hello?” He said with irritation. A deep voice cut through the speaker, as if the caller were standing right next to him.

“I hear you’ve been asking around about my fusion program,” the voice said.

Jonah’s heart leapt and he stammered out, “Oh! Uh... yes, I’ve made a few calls... I mean, if you’re the guys at the DOD, that is. Who... who are you?” He pulled the phone away from his face and cringed at his inelegant phrasing.

The man replied, “I’m the head of a classified energy project with deep pockets. All you really need to know is that my project might be your only chance to continue your good work.” He paused, and Jonah felt a rush of anger from the thinly veiled threat. The voice continued with a lighter tone, “I took a look at the grant proposal your team sent in, it’s really quite impressive. Condensing the reaction mass to a thin beam and using laser pulses to create propagating waves of fusion... it’s an elegant solution to a problem we’ve been facing in our work.” The voice carried a tone of appreciation, and Jonah’s anger was replaced by a sense of pride.

He replied, “well, yes, I’m sure you know that temperature and pressure are the most difficult factors to maintain... constraining the fuel to a thin beam works to increase both.” Jonah’s voice quivered a bit as he asked, “are you looking to collaborate?”

After a brief silence the voice responded, “that might be a possibility. I would like for us to speak tonight, Jonah. There is a car parked outside to pick you up. Don’t worry about paying your tab, it’s already been covered.”

Jonah’s blood ran cold. *How does he know where I am?* He thought anxiously, *and there’s a car outside?...*

Shakily, he replied, “I... I’m not prepared for a meeting right now. Can we schedule another time to talk?”

The voice said very calmly, “no. Unfortunately you’ll be getting a call from Kirtland tomorrow, when they inform you that your position has been eliminated. I am merely offering to discuss another option for you.”

Jonah’s eyes went wide. *Who the fuck is this guy?* He thought.

After a long pause, he quietly said into the phone, “I’ll be right out.”

Two hours later, the car approached its destination. Passing through the front gate of the abandoned facility, he realized exactly where he had been taken. Trinity. In 1945, the Manhattan Project had tested the world's first nuclear bomb in the desert of New Mexico. A town had been erected to house the scientists who developed the weapon, and to shelter them from the outside world. He was now standing in the center of the research facility-turned tourist attraction that had been defunct and abandoned for over a hundred years.

"Alright, am I missing something here?" Jonah asked aloud. "The guy on the phone said I'd be talking shop about fusion, not going on a high school field trip."

Despite his best efforts, the driver of the black Escalade had not said a single word to him for the entire drive. At this point, his sarcasm and jokes were clearly only for his own benefit. Jonah had imagined that the driver was secretly a robot, devoid of all emotion. In his earlier drunken stupor he had even said as much, teasing the driver with a piss-poor impression of C-3PO from Star Wars. Jonah cringed, recalling his alcohol-induced stupidity.

Thank god I had time to sober up some before we arrived, he thought to himself, but what the fuck am I doing here?

The driver led Jonah to the front door of a small building and opened it to reveal a thick interior metal door. At chest level sat a circular wheel with metal handholds jutting out, the kind that would be found on airlock doors in the old days. To his right was a high-tech biometric security lock, which the driver accessed with simultaneous thumb print and retinal scan. He then spun the wheel and opened the airlock door, gesturing for Jonah to enter. Inside, he could see a dimly lit staircase leading down.

"You know, I'm getting serious 'murder cult' vibes here," said Jonah, "any chance I could cash in a rain check and come back another day?" His anxiety was creeping up his throat, and it tasted like bile.

The driver simply gestured towards the staircase again, and moved to close the door behind Jonah.

“Well I’ll take that as a no,” he said to himself, stepping through the airlock door. As he passed through the entryway, he glanced down the stairwell and felt a wave of vertigo overtake him. Grasping the handrail for balance, he steadied himself and gulped anxiously. The lights lining the ceiling of the stairwell were only illuminated part of the way down, giving the illusion that the stairs had no bottom. One wrong step, and it seemed like he would be tumbling down an infinite staircase. Before Jonah had the chance to protest his situation again, the driver shut the door behind him with a loud clang that echoed in the dark corridor. He heard the sound of grinding metal as the airlock wheel spun, sealing him inside. With a deep breath to steel himself, Jonah began the long trek down.

They better have a fucking elevator, he thought, I am not climbing all of these stairs when... if I get to leave.

To his relief, as he neared the end of the illuminated section of stairs the rest of the lights came on. A few moments later he reached the bottom and found another airlock door, identical to the one at the top of the stairs. His frustration was palpable as he grew increasingly tired of the ‘cloak-and-dagger’ bullshit.

“Am I supposed to wait for someone to come get me or what?” he said out loud. A soft ping sounded off from the security lock beside the door.

“Voice recognition confirmed. Please confirm biometrics.” the door said in a robotic voice.

“Oh, I am so in over my head,” Jonah said with a nervous laugh. He walked over to the biometric reader and mimicked the driver’s actions, placing his thumb on the finger pad and looking into the optical scanner. A bright light passed across his field of vision.

Thump. He heard the lock disengage in the door, then he spun the wheel of the airlock. With a quiet hiss, the airlock’s hermetic seal broke and he pushed the door open. He shielded

his eyes from the bright incandescent lights inside, which stood in stark contrast to the dimly-lit stairwell. Stepping through the doorway, he could hear the distinct clacking sound of dress shoes on linoleum. He looked up to see a man in a military uniform approaching him.

“Welcome to Operation Axium, Jonah. We have much to discuss, please follow me.” The deep voice of the man in front of him seemed to vibrate his sternum with its strength. “I apologize if my demeanor on the phone came across as... threatening, but we really don’t have a lot of time to waste.” The tall, dark-skinned man led him deeper into the facility. His lengthy strides forced Jonah to rush just to keep up with him.

The man continued, “it’s safe to say that our research is more important than ever before, and unfortunately I need all the help I can get.” The two of them rounded a corner into a massive room that held a large, toroidal fusion reactor prototype at its center. “I know a lot about your work, Jonah. You and Russell Emerson have made quite a name for yourselves at the Kirtland Air Force Base, not to mention your earlier... successes.” The man paused, his dark eyes seeming to probe for a reaction. Jonah fought the flair of anger and pain from the memory of the Torus disaster, maintaining a stoic mask.

“I do hope that we can get Russell on board too, do you know where he is?” The man came to a stop below the reactor and looked to Jonah for his response.

He shook his head and said, “no, I haven’t heard from him in a few days.” An uncomfortable thought floated to the back of Jonah’s mind and piqued his anxiety. The casual way that his host asked about Russell seemed a bit too forced.

When Jonah was nervous, he had the unfortunate habit of rambling. Given the situation he found himself in, his mouth motored on. “It kinda seems like he dropped off the face of the Earth, he’s been radio silent since Friday night...” Jonah gulped, noticing that this didn’t seem to surprise the man in the least. “I wouldn’t be too worried about Russell though,” Jonah said to himself just as much as to the uniformed man beside him, “his benders usually end in time for

work on Monday.” His halfhearted laugh seemed to highlight the fact that it was after midnight, and no longer Monday.

The man nodded and replied, “I see. Do let me know if you hear from him, having the two of you working on this would be invaluable.” He paused, giving Jonah a look of consideration that felt like an evaluation under a microscope. Apparently deciding to be more forthcoming, the man continued. “We tracked his cell phone to the bottom of a ravine beside the highway. I had hoped he had simply lost it and gotten a new one to get in touch with you, but apparently that’s not the case.”

The color left Jonah’s face as he recalled the abrupt end to their conversation from four nights ago. “Oh god...” he said, “I think he might have been talking to me when he lost his phone.” His thoughts were racing, and Jonah remembered why his friend had stopped the car.

“Were you able to find his car?” He asked. “I think he stopped on the way home because he couldn’t hear with the convertible open. I’m sure he would have just driven home if he lost his phone...” Jonah trailed off as the man’s face seemed to confirm his fears.

“Russell’s car was parked at a trailhead near the ravine.” The man’s deep voice was matter-of-fact, as if telling Jonah about the weather. It didn’t sound like he was hearing that his best friend might actually be missing. As if sensing the fear that gripped Jonah’s heart, he continued. “But we found no signs of struggle or injury, and luckily no bodies in the ravine. It’s possible that he ended up hitching a ride after losing his phone, or walking home.”

This only eased Jonah’s worry slightly. “Are you still looking for him?” he asked the man.

“We have asked a few of his known contacts to give us a call if they hear from him.” The man brushed off the uncertainty with a wave and said, “Until then, we just have to wait and see. That’s not why I brought you here, though.”

Leading Jonah into the lab, the man approached the reactor’s base where a pallet of unopened equipment rested. Placing a hand on a large box, the man said, “I do hope we can

help each other Jonah. There is a very serious reason why I am willing to collaborate with you on this project.”

Jonah looked up at him quizzically, his face asking the unspoken question of *what do you mean?*

The man continued, “I will share that information with you once you’ve earned my trust. What I will tell you is that this-” he gestured to the massive metal ring above them, “is now the single most important area of research on the planet. We no longer have time to wait for the pipe dream of fusion energy, we need this power *now*.” The muscles in his jaw were clenched, as if feeling the weight of the world on his shoulders.

“I’m not sure what you mean, but whatever the reason....” Jonah paused to consider his next words, “I’ll help under one condition. Help me find Russell. He’s the one you really want, I’m just the grease monkey. He’s the one that designed all the modifications we made to the standard reactor design. Help me track him down, and I’m yours.”

The tall man nodded, seeming to accept Jonah’s ultimatum. “I will divert some resources and task a team with finding him. Welcome to the Axiom Project, Jonah.” The man extended his hand and said, “I am Colonel David Bradshaw.”

Chapter 12 - Harlow.

The thumping of the helicopter's rotor blades slowed as it landed on a grassy island on the Potomac River west of DC. Selden Island was a small nature preserve maintained by the nearby Janelia Research Campus. Entirely uninhabited, it was as good a spot as any for a clandestine meeting. No one was around to see the president's Marine One helicopter landing on an unapproved flight plan in the middle of the night.

Harlow took off his ear-protecting headset and hopped down to the ground as soon as the chopper touched down. He would never get used to the feeling of flying in a helicopter. Something about the physics of their perpendicular rotors just seemed wrong, and he always felt a little queasy when he was in the air.

"Are you sure this is where Russell said to meet?" Camila asked, "There's no other places to land and the road leading here is blocked off."

When Harlow had told the two of them about his suspicions that Russell might know more than they did about the alien situation, they both wanted to meet him as well. It might be due to the bad blood between them, but Harlow thought having the buffer of other people might keep the conversation a bit more civil. Also, getting the chance to show off the fact that he was hanging out with the President seemed pretty enticing.

Harlow replied, "Russell was pretty specific that this is where he would be. He made it sound like he was already here, but I don't see anything..." He trailed off, his eye catching a bit of movement on the dirt path dividing the grassy field.

Walking towards the chopper, entirely alone, was Russell. He was a lot thinner than the last time Harlow had seen him, the pudginess that most men take on when they get married had rounded his face and filled his gut. The man in front of them was lean, muscular, and his

piercing gaze seemed to have a fire in it that Harlow had never seen before. *Grief looks good on him*, thought Harlow.

The trio walked away from the chopper, Camila's secret service and the Marine pilot staying behind as instructed. They met Russell on a dirt path in the middle of the field.

"So are you going to tell us how you got here, or should we just assume you learned how to teleport since I last saw you?" Harlow asked. He thought breaking the ice with a little humor might be a good way to get the ball rolling.

Russell's gaze was hard as steel, focused only on Harlow. "I think we should probably skip the small talk Harlow, you were never very good at it." He glanced to Amari, and then his eyes widened when they reached Camila. "Is that... Are you... Hello, Madam President," Russell stammered, and Harlow grinned.

Camila nodded her greeting, and with an air of authority she commanded the conversation. "If you're aware of what's going on, then you know how serious this situation may be so let's get down to brass tacks. Harlow seems to think you've got more information about the event observed on Thursday night, so please tell us what you know about Alpha Centauri." Her voice had an edge to it, cutting straight to the point. Harlow glanced at her with appreciation, and then looked to Russell for his response.

"Alpha Centauri?" Russell was clearly not expecting the question, and his forehead creased with thought. Harlow felt a flash of irritation as Russell considered silently, until a moment of epiphany seemed to brighten his expression. "Oh yeah, the closest star!" His fingers began to drum against his leg as he continued. "What I know is that there was a fight there. A huge battle. And the winners... well, they aren't friendly."

The hair on the back of Harlow's neck rose as a chill crept up his spine. *They're not friendly?* He thought to himself fearfully. He turned to the women to his right, and saw a surprisingly unbothered expression on Amari's face.

Amari said, "It doesn't sound to me like you know what you're talking about, Mr. Emerson." Her calculating gaze held Russell's eyes with a surprising coldness. "What exactly was observed in the Centauri system, and how did you become involved?"

Russell smiled and turned to Harlow. "Is this your new protege? She seems like a bright one." The expression in Russell's eyes as he glared at Harlow was pure, refined hatred. Calmly, Russell said, "try not to blow this one up."

All rational thought fled from Harlow's mind for a few seconds, replaced with a white-hot anger and soul-crushing guilt. None of the coping mechanisms he'd developed through years of therapy and grief counseling could stop the violent torrent of emotions that overcame him. Harlow's world disappeared into a tidal wave of rage. When he came back to himself, he was straddling Russell's body on the ground and pummeling his face with both fists.

"-you motherfucking asshole I should fucking KILL YOU!!" Harlow screamed as Amari and Camila pulled him backwards, and he let his arms go limp as the two women dragged him off of Russell.

"What the *fuck* Dr. Harlow?!" shouted Amari with fear in her eyes. As she led him away, he looked at her with tears in his eyes and shook his head.

"I'm sorry, luv," he said softly. "What that bastard said... no. No, I should have contained myself. I'm sorry." As his anger began to fade, the rest of Harlow's emotions seemed to drain away leaving him feeling hollow. He turned to see Russell rise to his knees, his nose bloody. He met Harlow's empty gaze and actually *smiled*.

That bloody bastard, thought Harlow. He turned away, trying to keep his composure. Camila glanced over at Harlow with worry, then stepped in to regain control of the situation.

"Now that you've had your fun," she said to Russell as he held his broken nose, "either tell us what you know or I'll have my men take you in for questioning. Your choice." Her expression was completely unreadable, the practiced calm of an experienced politician. Her piercing gaze never left Russell's face as she demanded an answer.

“Alright, alright.” Russell lifted his hands in surrender. “Harlow and I obviously have bad blood, but I shouldn't have let that get in the way.” He lowered his hands and sighed, nodding to himself as if coming to a regrettable decision. “You're right, I don't know much about the battle myself, but I can introduce you to someone who does.” He turned to look behind him, and a shimmering light seemed to dance in the grass a couple feet away. Russell nodded towards the light, and then turned back towards the group.

“I made a new friend,” he said casually.

Harlow prepared to make a snide comment, but his voice abruptly caught in his throat. Above the field behind Russell, the air shimmered and coalesced into something massive and clearly alien. Close to 50 yards long, Harlow's first thought was that the ship looked like a giant sea creature. A tall dome in the front of the craft sprouted rounded wings that tapered back towards the rear. A large cylindrical drive cone sat where he thought a tail should go, which was flanked by two oval-shaped rings that seemed to pulse with energy. Once it materialized, the ship's outer shell danced in shimmering colors that swirled and shifted through every conceivable hue on the color spectrum.

Harlow and the other two stared at the spacecraft in shock, mouths agape. Nothing could have prepared them to see *that* appear so suddenly. His mind reeling, Harlow jumped slightly as Amari gripped his arm. He looked down at her and saw that her knees were wobbling. He reached an arm around her to bear more of her weight as Russell turned back towards the group wearing a broad grin.

“Yeah, that's about the same reaction I had a few nights ago too,” he said with a laugh. “At least you're on solid ground.” He stepped to the side, and beside him something much smaller materialized as well. Harlow stared at the strangest creature he had ever seen. Its body was shaped like an odd hybrid between a bat and a pug, with iridescent skin that fluoresced in a similar manner to the ship's hull. The creature seemed to nod at the three of them, then slowly opened its wings to reveal membranes that spanned the width of its torso and extended out to

the ends of its arms. Its wings almost seemed to disappear as they darkened to a midnight black. An odd assortment of pink geometric shapes began to dance in the air where its wings had been. Harlow heard a reedy voice that seemed to come from everywhere at once.

[It is nice to meet all of you. I am Karis], the voice said. [Normally, I would not have revealed myself to you so soon but the situation could not be more dire. It sounds like you witnessed the battle that occurred four years ago near your neighboring star.] The creature seemed to pause for a moment, its skin turning a shade of dark blue. [What you witnessed was the destruction of my entire race.]

As if they weren't already in shock, the three of them stared in utter disbelief at the small alien.

[A great evil has been unleashed upon the galaxy], it continued, [and the force of my entire empire was not enough to stop it. Although my actions may have crippled the enemy fleet, their technological superiority will render the Earth's current defenses obsolete. I cannot fight them on my own, but I am willing to share my knowledge for another chance to destroy the Corrupted. That is why I am here.]

The creature named Karis shifted as the patterns on its ship changed. [Please tell your friends in the aircraft behind you to stop pointing their weapons at my ship. It makes her nervous.]

Camila seemed to collect herself slightly, turning around and making a sign to her guards that seemed to tell them to stand down. Satisfied that its ship wouldn't be fired on, Karis continued.

[I have shared the memories of my people with Russell, and he will be able to fill you in on the enemy that we now face]. The small alien stepped forward slightly, as if to highlight its next statement. [I cannot stress this final point enough. The Corrupted have already destroyed and enslaved dozens of worlds, and I am certain that Earth is their next target. In their weakened state, there is a slim chance to defeat them but you cannot hope to do so with your

current technology. I would offer you my knowledge, if I can be guaranteed safety and a home once the fight is done.]

Karis turned its head up towards Russell, and he nodded at the alien. [Once you decide, Russell will contact me and we can begin preparations for the war to come.]

With that, Karis's skin seemed to melt away into the night. Harlow heard a whoosh and felt a small blast of air as if the creature had taken flight, and seconds later the ship vanished as well.

Three pairs of eyes, wide with panic and confusion, stared at Russell.

“So, does anyone want to grab a coffee or something? We have a lot to talk about.”

Chapter 13 - Amari.

As a child, Amari always dreamed of meeting an alien. Her favorite movie is, and has always been, E.T. She knows that it's a bit childish, but she always relished the idea that out there in the cosmos were friendly aliens; waiting for some kind-hearted humans to find them, feed them candy, and befriend them. So despite her state of complete shock and heart-stopping panic, a small part of her was beaming with joy.

Beside her in the helicopter sat Russell, a rag stuck up his nose to staunch the bleeding from Harlow's unexpected show of violence. Harlow and Camila sat across from them, awkwardly chatting about her previous studies in psychology while casting nervous glances at Russell. Amari looked up at Russell, who was leaning back against the seat with his eyes closed. At first she thought he might be asleep, but it was clear from his uneven breathing and clenching fists that he was trying and failing to ignore the sound of Harlow's voice.

Amari put a hand gently on his arm, and he opened his eyes. "How did you meet Karis?" she asked.

Russell gave her a weary smile and said, "that's a pretty funny story actually. I took a little stroll down a hiking trail a few nights ago while talking on the phone with a friend of mine, and that ship appeared right in front of me. I was so overwhelmed that I started laughing uncontrollably, and I kind of..." he grimaced before chuckling slightly, "...fell down the side of the mountain I was on." She laughed lightly, and Russell smiled at her before continuing. "I woke up inside Karis's ship later that night, where they were scanning my brain to learn how to communicate with humans. We've been together ever since."

Amari nodded and sat in silence for a moment, thinking. "Karis... that was its name, right?" He nodded, and she continued. "Karis said that it had shared its memories with you.

What does that mean?" Her curiosity was overflowing, and she had a million questions she wanted to ask.

"That was... intense," Russell said. "Since Karis learned how to use their language to alter our senses, they kind of... enveloped me in their wings, and it was like I was actually *there*." Russell's eyes seemed to glass over, as if he was reliving the moment right in front of her. "I experienced the entire history of their species firsthand, from when they first evolved all the way through the beginning of their galactic empires. It was terrifying, but also incredible. I don't think I could even start to truly describe it."

Amari stared at him, eyes wide with awe. "That's... holy shit," she said. "So the colors on its wings actually alter our senses? And to that degree..." She trailed off, her thoughts racing. At this point, Harlow and Camila had ceased their conversation and were listening in to what Russell was saying.

Seeming to find her words again, Amari asked, "can you tell us about their species?"

Russell nodded and obliged, "They came from a planet that's similar to ours in a lot of ways, called Maeia. But because of how they evolved, the Maeians are about as different from us as you could possibly imagine."

He paused, forehead creasing with thought before continuing. "They evolved to become true hive minds. A single consciousness is shared across the members of each Mind, their intelligence and power growing exponentially with the population. Including Karis, there are eight different Minds spread across the galaxy. Each of them probably controls trillions of individuals across the territory of their empires. Karis was the first to develop sentience, but..." He frowned, and his voice carried a more somber tone. "Sadly, the alien you just met is the last remaining member of the Karis Mind." Russell folded his hands in his lap as he concluded. Silence and the thumping of rotor blades filled the cabin as the three others struggled to process the new information. Amari stared at the floor as the immense weight of Russell's words hung over her like a cloud. She had just started coming to terms with the fact that humanity wasn't

alone in the universe, but now? She felt so... small. Galactic empires, hive minds, evil creatures enslaving worlds... god, it was just too much.

Camila broke the silence first. "Karis said that it lost a battle with this evil, corrupted thing. Is that why it's the last one? I thought you said these Maeians were all over the galaxy?"

Russell nodded solemnly, but considered the question before replying. "I'm not really sure what happened to the rest of their people, you make a good point. All I can tell you is that Karis threw everything they possibly could into that battle, and they were the only survivor."

Camila gazed to the side thoughtfully, then continued. "Has Karis told you how long we have until they get here?"

Russell shook his head. "They didn't say exactly, but honestly that might be because they don't know. I don't think Karis would have come here to help us if we didn't have at least a few years."

She nodded, then Harlow chimed in. "Do you know what the Corrupted is?" He asked, "Is it another alien species?" Russell met his gaze firmly, clenching his jaw.

"From what they told me," Russell replied, "the Corrupted used to be a part of Karis's Mind. Something bad happened about 90 years ago, and as a result a colony was cut off from Karis." He paused, meeting the eyes of each of them in turn with a warning look. "Their kind can sometimes, in the right circumstances, take control of the minds of other species. I don't know how it works, and I don't think even Karis knows exactly. But when a Mind assimilates another species..." he seemed to be measuring his words, each one coming out slow and deliberate, "...it somehow corrupts their natural desire to expand and grow. In Karis's memories, I saw the first corrupted Mind nearly take over their entire planet." He sighed, staring out the window. "That Mind had barely started using electricity before it turned, and Karis had to invent the atomic bomb to defeat it. Now, a new corrupted Mind with the technology of a galactic empire is coming for us." Russell turned to look at Harlow, and Amari saw anger flare in his eyes. "And

Karis seems to think that our only hope to stop them is to build weapons and ships with fusion drives.”

Harlow met his gaze, unfazed by the heat of Russell's glare. “That's a great idea,” he said, “but it took us years to build the Torus. Not to mention the fact that we'd need to invent whole new technologies to even *use* fusion energy for warfare.” Harlow gave an exasperated laugh and asked, “how in the bloody hell do you propose to do that before the Death Star gets here?”

Knowing her mentor's love of science fiction, Amari tried to break the tension. “I think the Borg might be a bit of a better fit, don't you think Professor?” Harlow looked at her, and his expression softened. He nodded, letting out a quiet huff of a laugh.

“That's fair,” he said with a slight grin, “can't argue with you on that, evil hive mind and all. I always thought they were creepy.”

Russell looked at her and smiled, as if thanking her for diffusing the situation. Reluctantly, he turned back to Harlow. “To answer your question, we should be able to skip over decades, maybe even centuries of trial and error. There is working technology on Karis's ship that they want to help us reverse-engineer. We spent most of today discussing ways to improve our current designs, and so far the math checks out.”

The energy in the cabin of the helicopter seemed to drastically shift.

“That would be an absolute game-changer,” Camila said excitedly. “When we get back to Washington, I'll make some phone calls to find us a research base. It'll have to be somewhere secluded, maybe offshore so Karis can come and go...” she trailed off, making her plans silently so the group could continue talking.

“What kinds of weapons does Karis have on his ship?” Amari asked, “while the idea of analyzing alien technology is fascinating from an academic standpoint, it's not like we can test any of the weaponry.”

Facing a quizzical look from Harlow, she elaborated. "Some of the explosions we observed in the Centauri system were the size of a star. I don't think they could even be tested on this side of the asteroid belt without risking damage to the planet," Amari said.

Camila lifted her head, exiting the trance she had been in. "Oh that's a very good point. Hmm..." Camila pulled out her tablet, tapped a few times and then input a comically long password. "What I'm about to show you is not public knowledge. I'll approve more comprehensive security clearances for all of you when we get back to Washington, but for now... don't go telling your bar buddies, okay?" She said, looking at Russell. He smiled sheepishly and nodded.

Camila turned the tablet around to face the other three people in the helicopter's cabin. On the screen was a video of an asteroid that looked like a slightly flattened sphere. It was rotating along its widened equator, and a few unmanned drones could be seen flying around the rock.

"Vesta?" asked Amari.

"You got it," Camila replied. "This was Vesta when Project Gravitax was first initiated. NASA and the Space Force started a joint venture to develop a presence in the asteroid belt, to serve as a waystation for exploration of the outer planets. After a few proposals were scrapped for being too outlandish and expensive, they settled on this."

Camila swiped to the next video, and the rock had been given a serious makeover. Its rate of spin had increased significantly, and it looked like dozens of cables had been tethered with equal spacing along the equator. The cables extended out to what looked like a planetary ring, with multiple concentric circles connected by thin, reinforced hallways. The ring appeared to be habitable, as interior lights could be seen illuminating bedrooms, mess halls, conference rooms, and laboratories. An androgynous voice began to narrate as the video started to zoom in on the rotating station.

“Almost a decade of unmanned preparation took place to turn Vesta into the first planetoid-based space station. It is the second-largest object in the Asteroid Belt, with an unusually high density due to its metal content. This made it an excellent candidate for Project Gravitax, as it was far less likely to break apart from the increase in centrifugal force when compared to the lower density of Ceres.” The camera had positioned itself just above the ring, looking into a laboratory filled with people in lab coats. Moving in the direction of the ceiling, the camera reached the inner edge of the ring. A stream of gas shot out towards the left of a small thruster. Beside the thruster was a metal brace holding a very thin cable.

“Woven carbon fiber tethers hold the station in place at a distance of about 400 kilometers from the surface. We have been slowly increasing the rotation speed of the asteroid using thrusters such as these. It currently rotates about once every hour, giving the station a spin gravity roughly 20% of Earth’s - slightly more than gravity on the Moon. In the next five years, that should increase to around 50% of Earth’s gravity.” The view shifted to show a capsule docking at one of the asteroid’s poles, and faded to black.

Camila turned off the tablet and put it back in her bag. “If we need a base to build and test weaponry of that caliber,” she said, “I feel like this would be a good place to start.” As she finished speaking, the pilot made an announcement that they would be touching down at the White House shortly.

Russell whistled, saying, “That’s a mighty big construction project there. And I think it would be a perfect base of operations for our little alien tech adventure. Harlow and I have a good bit of experience with fusion research in space, don’t we?” He looked at Harlow accusingly, and then went on. “I’ll get in touch with Karis to let him know what we’ve discussed.”

The helicopter’s skids landed softly on the grass as the rotors began to slow. A glow on the eastern horizon told Amari that sunrise was approaching. Exhausted, the group agreed to get in touch later that evening to plan for their next steps.

Chapter 14 - Russell.

Russell woke with a start to the sound of blaring alarm klaxons. A robotic voice could be heard repeating a warning throughout the station.

POWER OVERLOAD DETECTED. PLEASE EVACUATE TO SAFE ROOM IN SECTOR A IMMEDIATELY. POWER OVERLOAD DETECTED.

Oh god, no, thought Russell, his heart in his throat. He threw on pants and shoes and opened his bedroom door, sprinting as fast as he could in the low gravity towards the reactor lab in Sector D. He passed other bleary-eyed scientists and workers heading towards safety, but not her.

Due to the incredible energy requirements of the laser needed to maintain the propagating fusion reaction in the Torus, a complicated set of failsafes involving trippable capacitors and power couplers was designed to prevent the most dangerous outcome of a successful fusion reactor: a runaway reaction. One of the biggest differences between the Torus and other fusion reactor prototypes was in its simplicity. While most commercial reactors were ultimately just a fancier way of boiling water, the Torus team took a more direct approach. Using deuterium and helium-3 as a fuel source, the reaction produced only protons and inert helium-4 gas. By directing the high-energy protons into a separate loop, their incredible speed was directly converted into voltage and fed back into the system powering the laser. So long as a sufficient supply of deuterium and helium-3 was available, the reaction could be self-sustaining and highly efficient. Since the reaction produced vastly more energy than the laser and magnetic confinement could consume, the excess power would either be diverted to be stored, put into the power grid, or released as waste heat.

However, if the diversion of excess energy faltered, that power would be pushed back into the system and the laser's intensity would increase. With enough reaction mass in the chamber an uncontrolled reaction could spiral out of control, increasing the rate of fusion until the heat and pressure overcame the magnetic containment field. Because of this risk, the Torus had a last-resort firewall. If all else failed and nothing could stop a runaway reaction, the metal clamps holding the lab compartment to the rest of the station could be manually released. Activating this firewall would fire a set of thrusters that would push the lab far enough away that the station wouldn't be destroyed if the reactor blew.

Russell reached Operations to find Harlow standing at the control console, furiously adjusting parameters and speaking into the intercom with a forced calmness in his voice.

"I'm reading that the temperature increase has slowed a bit, did you change the mirror angle? Good, good, let's see if that helps." Harlow looked up to see Russell, drenched in sweat and panting like he'd run a marathon. "Finally, you're here," he said, "we have a serious problem."

Harlow moved to the side so that Russell could see the control panel. Red lights and alerts covered every screen, and the temperature of the reaction chamber was far above the acceptable maximums.

"Jesus Christ!" Russell exclaimed, "what happened, Harlow? Is the auxiliary power diverter not kicking in? I thought this should have been fixed with the new power couplers I installed yesterday."

Harlow replied, "Do you think I don't know that? Bloody hell, I've tried rerouting the excess to every other system and nothing is responding. I asked Emily to try manually adjusting the magnetic bottle for-

"You fucking did WHAT?!" The blood drained from Russell's face as he gripped the edge of the control panel. "Why the FUCK is she in there?!" Russell turned towards the door, but a familiar voice coming from the intercom stopped him in his tracks.

“Calm down, love,” Emily said soothingly, “I’m the best person for the job and you know it. I would have-” a frustrated grunt interrupted her calming voice, “-gone in anyway. You know Torie gets temperamental when anyone else fucks with her magnets.”

Her calming demeanor did nothing to quell the icy fear in his heart. “We have to get you out of there,” Russell said with a panicked edge in his voice, “the reactor is going critical!” He shot a glare at Harlow, who nodded solemnly. “I’m coming down there.”

With that, Russell grabbed a walkie-talkie from its charger on the control panel and ran out of Operations at a dead sprint. When he arrived at the lab, he grimaced at the flashing red light above the airlock door that indicated a security lockdown. He turned on the walkie-talkie, and after a screech of static he heard Emily and Harlow in a heated argument.

“-make me say it again,” Harlow said, his voice quivering, “there’s no time! We need to get you out of there, so open the goddamn door!” His pleading tone carried an immense weight of anxiety through the small speaker.

Emily replied, “For the last time, Dad, I’ve almost got this! As soon as I can get the containment field wide enough, the pressure will lessen and the reaction will stop. We haven’t put any new reaction mass in since it started, so all I have to do is widen the beam.” The calm determination in Emily’s voice was the complete antithesis of how Russell felt.

Through the porthole in the airlock, Russell could see the blonde hair of his beloved wife underneath the left side of the Torus’s massive metal ring. Despite the warm feeling that he felt from seeing her, he could see the grim expression on her face and felt a new rush of panic. She was crouched over a metal access hatch that held the emergency overrides for all of the major systems. By the way she was struggling, it looked like she was trying desperately to pry it open.

If she hasn’t even gotten the hatch open, thought Russell, *there’s no time.*

He forced the panic out of his voice and said calmly into the walkie, “Honey, I swear to God if you don’t put down that pry bar and get out of there, I will personally break down this door and drag you out myself. Get your ass out of there NOW.”

Emily's head lifted to look at him through the thick glass. Her eyes held a fiery determination, but also a glint of terror. She spoke into her walkie, "It wouldn't matter. I told Dad to activate the lockout procedures as soon as I got inside. I can't leave unless I get this FUCKING - PANEL - OPEN!!!" She screamed in frustration, banging the pry bar on the access door in time with her words.

Russell's heart sank even further, and he switched to Harlow's private channel.

His voice was icy cold as he said, "Harlow. If she dies because you activated the lockdown with her inside, I am going to kill you. Do you understand? Cold blooded fucking murder. Fix this. Fix it now." His tone shifted, almost pleading, "Let me save our girl."

There was a long silence on the other end before Harlow said quietly, "I've done everything I can, Russell. Her code is the only one that can lift the lockout procedure, and it has to be keyed in from inside the lab. I can't... I can't do anything..."

Suddenly, a new alarm klaxon started blaring and Russell was bathed in red emergency lighting. The message repeating over the speakers stopped briefly, before blaring one final notice.

REACTOR CRITICAL. CONTAINMENT BREACH IMMINENT.

Russell's eyes went wide with terror as he stared through the porthole window, banging on the door and screaming for her to open it. Emily looked up as the new alert sounded, slowly straightening as she rose from the floor. His heart leapt as she started walking towards the door with a graceful stride. Their eyes met through the porthole for a long moment, saying more with a single look than could ever be put into words. She put a shaky hand against the glass and mouthed the words, "I love you."

All Russell could do was watch with horror as she turned back towards the control console, opened the glass covering a large red button, and pressed it hard. Emily looked back at him with tears streaming down her face as he heard the clamps release. He watched as the lab disconnected from the station and propelled itself into the void.

From his perspective, the sun was rising over the edge of the Earth. But for a fraction of a second, a new star bloomed into view with a flash that scorched Russell's retinas through his closed eyes. When his vision finally cleared, all that was left was the empty expanse of space and the sun-soaked Earth below. Emily was gone.

—

Waking up in a cold sweat, his mind filled with panic and loss was nothing new to Russell. Recurring nightmares like these had been a regular occurrence over the last three years. What he didn't expect, however, was who had woken him up. At the foot of the motel bed, staring at him with an unblinking gaze was a dark-haired boy with pale skin who couldn't have been older than 10.

Russell jolted upright and croaked, "oh shit!" He quickly scanned around the room and asked the child, "uh... where are your parents? Did the motel give them the wrong room?" The boy said nothing, but softly shook his head as his eyes continued boring into Russell.

Feeling uncomfortable and more than a little creeped out, Russell started to get out of bed before remembering he slept in just his boxers.

Russell thought to himself, *that'd be fun to explain to the cops. Yes officer, I was mostly naked in front of the boy but nothing happened, I promise!* Instead he asked, "can you go and find your parents, bud? I'm sure they're worried about you, and I'd rather they not start asking why their kid was in a strange man's room."

The boy smiled, and Russell could swear he saw their eyes flash a bright shade of teal. The child lifted his arms straight out from his sides, and familiar pink geometric patterns appeared in the space underneath them.

[Do you like my new form?] asked Karis, [it may improve our ability to travel together.]

Russell wheezed out a laugh and replied, "*Christ*, Karis, I thought I was in a damn horror movie! I didn't even know you could *do* that." He shook his head, still chuckling. Looking at the open window, he realized that must be how Karis got in.

“Can you make yourself look like anybody?” asked Russell.

Karis responded, [only those who are of approximately my size. I would not have chosen one so young to imitate otherwise, but you are of an age where I could pass as your child without suspicion.] They dropped the illusion, and the photophores resumed their usual role of reflecting Karis's emotional state. Russell thought that it was interesting how the boy's form had seemed so natural, but when replaced with Karis's unique skin and facial structure they instantly looked anything but human. The teal of joy had white streaks of humor passing through it, but was overpowered by mottled splotches of a greenish-brown color. He hadn't seen that color since Karis was worried about him starving the first night they met.

“What's wrong Karis?” Russell asked. “Haven't seen that color in a while.”

Karis's body seemed to sag, and they leaned against the wall behind them. [We may have a problem.] The alien's hesitation made it clear they don't want to tell him, but don't have a choice. [I think... the Corrupted is already here.]