

CALLISTO 2.0

A NOVEL OF THE FUTURE



BY SUSAN ENGLISH



DEDICATION

I dedicate this work to you, Ximena. If it weren't for you, I could never have imagined a world so full of hope, beauty, joy, and love.

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NOTE TO THE READER

Thank you, dear reader, for choosing my book!

For more information, and to meet the Shambhala crew, please visit

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PROLOGUE

My body trembled as I waited to for the connection to sync up, stomach queasy.

When my father answered the holochat, I was stunned. He avoided holochatting like the plague—claiming it was like talking to an avatar and not an actual person. We hadn't seen each other in over a year, not since the last time I visited my parents.

“Hi, Dad.” My voice was barely more than a whisper.

“Hi, Sweet Pea. How are you?”

“Good,” I lied, forcing myself to speak louder.

“Your mother is worried about you. She's been watching the news, and wants you to come home.”

“I know. We talked earlier today—” almost adding before I knew what was happening but stopped myself. I took a ragged breath. “What they're saying in the newsfeeds about us, it's not true.” Gritting my teeth, I braced myself for his retort.

“If you say so, then I believe you.”

My jaw went slack—this was not the barbed response I'd come to expect from a man who usually took every opportunity to berate me for putting my selfish interests above those of the family. I peered closely at his image, searching for the gruff, sullen man whose greatest disappointment was a daughter who had abandoned him, had chosen her studies over her own father. Instead, the person looking back at me was a frail old man, his face trusting, almost childlike. I remembered when I was younger, when he was younger; when he taught me to ride a bike, how he held me in his arms after a bad fall, knees bloody and tears streaking my face. He had loved me. I was loved.

I couldn't tell him, couldn't say what needed to be said. There was so much, too much. I had been angry with my parents for many years, I realized then, and had buried that anger deep inside me. No, not angry—hurt. Hurt that they didn't

understand me, that they couldn't accept me for who I was. But then again, I hadn't accepted them, either. Now that it was too late, all those years of pain washed away, replaced by a profound sadness. I desperately wanted to change the subject.

"How's the kitchen remodel going?" I managed, keeping my expression neutral. It was the most difficult thing I had ever done in my life.

"It's going beautifully. Your mother convinced me to hire a few young men to help.

You know my back's not so good."

"I know, Dad. Is Mom there?"

"No, Sweet Pea, she's taking a walk with her friends."

Eyes burning, I knew it was only a matter of seconds before I broke down, and didn't want him to see. I wanted this, our very last conversation, to be easy. I would send them a holomessage, explain everything. There was still a little bit of time left. "I have to go, Dad. I love you so much. Tell Mom I love her."

"We love you, too, Sweet Pea."

I ended the connection and burst into heaving sobs.

CHAPTER ONE

Eleven months earlier

The phone app on my holographic wrist computer chirped. I hesitated before answering, because the caller hadn't been automatically identified, just a seemingly random string of letters and symbols. Brow furrowed, I stared at the tiny screen. An encryption protocol? Why would anyone calling *me* need to use encryption? Probably just a glitch in the server.

"Hello?" I answered tentatively.

"Is this Callisto Collins?" the voice said.

"Yes. Who's calling, please?"

"My name is Diana. I'm from the foundation Portal al Porvenir. Perhaps you've heard of us?"

I had a vague recollection of reading something about the Foundation—a privately funded scientific organization—in a journal, but couldn't call up any details. "No, not really. Sorry."

"Do you have a few minutes to talk?" Diana's lilting voice was intriguing.

I shrugged, though since this was a voice-only communication, it was an empty gesture. "Okay."

"The Foundation has an opening for a physicist with your specialty."

My chair groaned in protest as I sat up straighter. "My specialty?" Had I heard her correctly? It was surprising that any private research facility would be interested in me.

My area of expertise, faster-than-light (ftl) space travel, was, at that time, a rather esoteric field. There had been a flurry of interest seventy-five or so years earlier, but not much progress had been made since then, and there weren't many

of us willing to dedicate our careers to the pursuit, considered by most to be a dead end. But I had never been much for conventional wisdom.

“According to our research, you are an ideal candidate for the position.”

“An ideal candidate?” My brain was having a difficult time following what Diana was saying. I finished my postdoc back in November of the previous year, and since then had been putting out feelers, exploring my future prospects, but Portal al Porvenir hadn’t even appeared on my radar. At the beginning of January, I received one job offer—the solitary fruit of all my labor—to work for my government at the National Physics Laboratory. Having completed the interview process the week before, I just needed to let them know my decision. The deadline was fast approaching, with only a couple more days to make up my mind. The government lab was very good, there were no other offers on the table, and my field was so specialized that my only reasonable choice was to accept ... until the phone call.

“Yes,” said Diana, bringing me back from my mental digressions. “We’re prepared to offer you the job, based on your prior research and publications.”

This time, my chair squeaked its objection as I shifted, torso ramrod straight. I 5

blinked several times, staring at the wall, a dirty pink color, paint peeling in great patches like a bad sunburn, several cracks near the ceiling, a parting gift from the most recent earthquake. “What type of company did you say this is?”

“We’re a small scientific organization. Our twin goals are to advance pure scientific research and to support Earth-friendly technologies.”

“Small?” I smirked. Probably a startup with no money. And pure research? Yeah, right.

As if she could see my expression through cyberspace, Diana added, “I can assure you that the Foundation’s laboratory has state-of-the-art equipment, and the funding to pursue any line of research.”

My eyes widened. This had to be some kind of practical joke.

Apparently sensing my hesitation, she said, “Why don’t we meet tomorrow to discuss the details? We can have lunch. Do you know the restaurant VegeNation?

It's in the middle of downtown L.A.”

I had heard of it—a small but well-known organic restaurant, unusual in that the waitstaff were actual humans instead of robots. “I can find it.”

“Excellent! Shall we say one p.m.?”

“Okay, why not?” It all sounded too good to be true, but I had nothing to lose, and, though the possibility seemed remote, everything to gain.

That night, I did an internet search on Portal al Porvenir, but couldn't find much. In fact, it was curious how little information there was. The Foundation did have a website, though with few details—more propaganda than substance. From what I could glean, they indeed supported pure scientific research, as well as the development of green technologies. A team page was conspicuously absent on the site, as was any listing of people associated with the organization anywhere on the world wide web, so, although Diana seemed to know plenty about me, or at least about my career, she hadn't mentioned her surname, and with nothing more than a first name, I couldn't do any research on *her*.



On the day of our meeting, I caught the metro to the city center, then walked the few blocks to the restaurant. By noon I was sitting at a table near a window overlooking a small, surprisingly lush garden, an uncommon but welcome feature in the inner city.

I had my notebook, as always, and tried to do some work while waiting, but, restless and distracted, it was impossible to concentrate. The organization's interest in my specialization was a glimmer of light at the end of a dark tunnel. I tried my best to tamp down my growing excitement, and to keep my expectations low, because at that moment I still didn't know much about the Foundation or the position, and had my doubts that it was even real, but hope springs eternal. Outside, in the serenity of the garden, bees flitted from flower to flower, moving with such purpose and clarity, at ease 6

with their role in the Universe.

The soft tinkling of the bell attached to the front door of the restaurant pulled my attention away from the window, and I glanced at my wrist computer: one

o'clock on the dot. The chatter and clinking of dishes and silverware faded, replaced by silence. A woman stood at the entrance; all eyes were on her. I, too, stared. It wasn't her looks that caught my attention, even though she was stunning, with dark eyebrows framing her luminous eyes, made even more striking thanks to her astonishingly long, dark lashes, visible even from where I was sitting. No, not her beauty, it was her presence.

She stood with her arms hanging loosely at her sides, exuding confidence and power.

As conversations picked back up, the woman met my eyes, and, smiling broadly, made her way toward my table. I stood up quickly, almost knocking over my chair in my haste, clumsy and awkward. She didn't seem to notice my discomfiture and offered me her hand. I took it, thankful that she couldn't hear my heart beating rapidly in my chest.

Her handshake was firm yet gentle.

"Hello, Callisto," she said, "I'm Diana."

Her accent, as I had surmised during our phone call, was Latino—Colombian, most likely. After years of weekly physics colloquia given by scientists from all over the globe, I was adept at pegging peoples' nationalities—It would be a fun skill at parties, if I ever attended one. In reality, it was just something that came naturally, almost automatically, a personal quirk.

"Nice to meet you." My voice was not as strong as I would have liked. I cleared my throat. "Please, call me Calli."

"Calli," she repeated, pulling out the chair on the other side of the table.

I sat back down, slightly disoriented and lightheaded. The day before, I had been comfortable speaking with Diana on the phone, but seeing her in person, I felt out of my league.

Diana settled into the chair and glanced down at my open notebook. I resisted the instinctive urge to close it, not wanting her, or anyone else, for that matter, to see my work until it was perfectly polished.

"I haven't seen anyone use a pen and paper in years," she said, eyebrows raised.

“It’s old-fashioned, but holding a pen in my hand helps me think.” I picked up the pen and held it out to her, not quite meeting her eyes. “I’ve attached a stylus sensor so that my writings are automatically uploaded to my wrist computer.”

She took the pen from my outstretched hand, inspecting the little device with interest. Then she set it on the table and looked at me. “Undoubtedly you’re curious to learn more about the Foundation. But first, are you hungry?”

Even though the last thing on my mind was my stomach, I responded with a slight nod of my head.

“Good. Me too. You’re vegetarian, correct?”

It wasn’t uncommon to be a vegetarian, but it made me apprehensive that she knew.

I nodded again, suddenly aware of the medley of savory aromas emanating from the 7

kitchen, and my stomach growled in response. As a student, and later as a postdoc, I never had a lot of money, and eating out at a real restaurant, even a modest one, was generally outside of my budget. Did Diana know this, too?

“I suggest the quesadillas made with tofu. They are excellent.”

“Sounds good, thanks.”

Diana was wearing a perfectly tailored suit made from an exquisite, sky-blue material, and her fitted blouse accentuated her curvaceous body, its brilliant white a lovely contrast to her hazel skin tone.

Sitting across from this spectacular woman, I felt very unsophisticated. I had put on my best clothes: worn jeans, a little big for my petite, slim body, a gently used sweater purchased in a second-hand shop a few months back, and high-top sneakers. And my hair, well, I always cut it when it bothered me, using scissors from my desk, without a mirror. As a result, my red hair was a hodgepodge of different lengths, and usually there were some errant tufts sticking out here and there. Ordinarily, I never thought twice about my appearance, but being there with Diana, I was painfully conscious of my looks.

Diana signaled to the waitress who hurried over, two menus in one hand, computer tablet in the other, lips pursed, face haggard. I watched Diana, narrowing my eyes.

Coming from a working-class family, it was important for me that people employed in the service industry, such as waitstaff and hovercar mechanics like my father, were treated with respect. It was almost unconscious, my scrutiny of these interactions—a habit when meeting someone new, especially if that person was affluent.

“Hi, my dear,” said Diana softly, smiling as if she and the waitress shared a delightful secret.

The waitress laid the menus down on the table and was about to walk away when Diana touched her forearm.

“You look busy. Are you the only waitstaff today?”

The woman took a deep breath and let it out, blowing her bangs off her forehead.

Her eyes flicked toward the kitchen. “Yeah, the other waitress called in sick.”

“That puts a lot of pressure on you.”

“It’s the third time this week.” She cut her eyes toward the kitchen again, then lowered her voice. “I like Bev, she’s nice, and it’s not her fault, but—”

“Even so, you have to pick up the slack,” said Diana.

“Exactly.” The waitress’s shoulders visibly relaxed.

Diana scanned the room—almost all the tables were occupied. “From what I can see, everyone seems satisfied. You’re doing a marvelous job.”

The woman puffed out her chest ever so slightly, and she stood a little straighter.

Her lips twitched—a hint of a smile. “Thanks.”

“We’ll make it easy for you.” Diana looked at me as if she were including me in a grand conspiracy. “Two orders of the vegan quesadillas,” she gathered the two

menus and held them out, “and,” she cocked her head, eyes meeting mine, “two glasses of your 8

delicious lemonade.” It was simultaneously a request to the waitress and a question for me.

I nodded.

“Thank you—” Diana leaned toward the waitress, reading her name tag, “Lynette.”

Lynette took the menus from Diana’s outstretched hand and Diana smiled, the skin around her eyes crinkling. It was a beautiful smile, disarming, and, with that twinkle in her eyes, I had the impression that we were all in *this*, whatever it was, together. We were a team, the three of us against the world.

“I’ll be right back with your drinks.” The waitress’s mouth curved upward, a genuine smile this time, one that reached her eyes. She turned and walked briskly to the kitchen, a spring in her step.

I followed the waitress’s departure with my eyes. She had felt it, too: the instant camaraderie, the intimacy, and, could it be, the love? How had Diana done it? She was magical.

Diana turned her smile to me, and I smiled in return. “Let’s get started,” she said.

I leaned forward in my chair, forearms resting on the table, waiting.

“We’re a small, private foundation, and our financial backers are quite wealthy, with a very progressive vision of the future. Money is not an issue—there is plenty of funding for research. As I mentioned during our call, we have the latest equipment, and industrial-grade 3D printers for anything that needs to be fabricated.”

I nodded, already imagining what it would mean to have access to a 3D printer of the caliber necessary for scientific investigation, and tried to curb my growing enthusiasm.

“We’re hoping you can join the team on our space-based lab, which orbits the Moon,” Diana said.

“The Moon?” That was unexpected. I tilted my head and leaned closer.

“Now I see that I’ve piqued your curiosity,” said Diana, laughing softly. But clearly, she already knew this—I was literally on the edge of my seat.

Lynette silently placed our drinks on the table, and Diana acknowledged her with a tip of her head, then turned her attention back to me. My eyes were glued to her face as she continued.

“Undoubtedly you are aware that the Moon is, by international treaty, a free territory.

Everyone, or more precisely, anyone who can afford to go to the Moon can build there and use its natural resources, as long as they comply with the rules and regulations dictated by the Collective.”

“Yes, of course.” I rested my chin on my hand.

“And since it takes less energy to escape from the lunar surface than the Earth’s, because of its weaker gravitational field, it was easier to transport the materials into orbit for construction, although we fabricated most of the parts on the Moon using 3D

printers—the whole ship is modular—and we assembled it in space, using bots.”

“Really?” They were using bots to construct entire space stations now? I opened my 9

mouth to speak, but she seemed to read my mind.

“The good thing about having the lab on a spacecraft, rather than on the Earth or the Moon, is that if we ever want to relocate, it will be a simple task. Relatively speaking, naturally.” She glanced up at the waitress, who had returned with our lunch.

“Enjoy your meal,” said Lynette, placing two plates loaded with steaming food on the table.

I ate mechanically, not even registering the taste, hanging on Diana’s every word.

“And how does the team manage in microgravity?” I asked between bites.

“The crew takes medication to protect against the harmful physiological effects of micro-g, and everyone is expected to spend at least an hour a day exercising in the gym, to avoid losing muscle mass and bone density.”

“Sure.”

“And, if there’s any experiment that requires a gravitational field, there’s always the Moon, or the Earth. We have a colony on the Moon and several labs here on Earth, in different locations. The focus of our Earth-based facilities is on developing technologies to help heal the planet, so the work here is more along the lines of practical applications. Our fundamental research laboratory is in space.”

I sat, mesmerized, as Diana expounded on the Foundation’s basic principles, and their vision for the future was like a breath of fresh air. Hope welled up inside of me, for the planet and for myself. Please let this be real!

We stood together at the counter as she passed her wrist computer under the scanner to pay the bill, including, as I saw on the scanner’s display screen, a generous tip. She turned to me. “We would like for you to visit the orbital lab next week, if you’re interested.”

“I would love that.” My heart hammered in my chest—I was ready to go *right then*.

“Excellent!” She gave me a dazzling smile. “I’ll send you the details later tonight.”

As we walked to the door, something niggled at the back of my mind. When we got outside, I turned to Diana. “Why me? I mean, why me, in particular?” Even though my field was unconventional, I wasn’t the only scientist in the world studying ftl travel.

Diana’s eyes sparkled. “I can assure you, my dear, it was not idle chance.” She entered a hovercar waiting for her at the curb, leaving me in front of the restaurant, watching her departure, utterly bewildered.

CHAPTER TWO

The week went by quickly. At first, it was hard to imagine how I was going to endure the wait, but, as always, there was my work. My dank workspace, the only furnishings a wobbly desk and a chair whose cracked leg was held together with duct tape and a prayer, the single window in my tiny apartment which opened onto an air shaft, its walls covered in pigeon dung, my lumpy mattress—all my surroundings faded away into oblivion once I focused on my theories. I had the sensation that I was close to realizing my goal—to understand how to overcome the fundamental speed limit of the Universe: the speed of light. I had been struggling with the theory for years, and had some working hypotheses not yet tested, but at the Foundation’s space station, perhaps I could continue my research. And if what Diana had said about unlimited funding was true, that would be like hitting the scientific jackpot. Hard to imagine it could be real.

The day of my trip finally arrived. I had packed my backpack with just a few personal items—passengers weren’t allowed to carry much weight on space flights. In any case, I didn’t have much. Clothes never interested me and, except for my notebook, all my books, notes from my classes, scientific articles, and my own work were in electronic format, easily accessible from my wrist computer or computer tablet.

Taking the monorail train to the airport, my eyes were drawn to the crush of high-rises in the city center, gradually thinning out and giving way to smaller buildings, their boarded-up windows like soiled bandages on a vast, rotting corpse. This was not the scenic route, which lay on the opposite side of the city where the wealthier citizens lived—their tidy, colorful houses arranged in perfect grids, with xeriscape yards boasting hardy cacti and other heat-resistant succulents, absorbing the scant morning dew like thirsty sponges, in preparation for the long, brutal days under a merciless sun.

I arrived at the airport in plenty of time for my flight to Cuba, where I would catch the shuttle to Earth Central, the commercial transport station in orbit around the Earth.

The next stop would be the Lunar Orbital Station—nicknamed Tako, Japanese for octopus, because of its configuration: eight “arms,” each terminating in a

docking station—then take a shuttle to the surface of the Moon, and, finally, a private shuttle from the lunar surface to the Foundation’s orbital laboratory. Diana had, as promised, sent me a detailed itinerary, along with the confirmation number of the flight, paid for by the Foundation, and she had even sent a courier—an actual human being instead of a machine—to my apartment to transfer a generous sum into my paltry bank account via my wrist computer, for the metro ticket and any incidental expenses.

The flight by hypersonic jet took almost an hour. The interior of the jet had a distinct odor, part metallic, part earthy—the latter most likely due to the mycelium fiber in the seat cushions. For some reason the smell triggered a memory of the first time I had traveled by plane, to Vancouver with my father. Only ten years old, I had begged him for months to take me to the celebration of the thirty-year anniversary of Stargazers 11

Aeronautics, the company responsible for almost single-handedly removing the decades-long accumulation of space debris orbiting the planet.

My father, who hated any type of travel, eventually relented, albeit reluctantly. He spent the better part of the voyage complaining, in a grumbling monotone, about everything: the high-pitched whine of the jet engine, the stifling Vancouver heat, and the celebration itself, which was, according to him, all pomp and circumstance with the cheering crowds and the organization’s ostentatious self-aggrandizement. He repeatedly pointed out how much more pleasant the experience would have been had we watched the holographic video feed of the event from our living-room couch.

My father’s censorious words fell on deaf ears—my enthusiasm was indestructible.

The thrill of flying above the clouds and the excitement of being in a new city were exhilarating, and the lectures on Stargazer history and technology left me hungry for more. A memento of that day, a perfect replica of Stargazer Alpha, the company’s first space-faring vessel, sat on a shelf in my old room in my parents’ house. It was both the first and the last time my father and I had taken a trip together.

Arriving at the Havana International Airport, Diana was waiting for me right outside the terminal exit. She was dressed like before, not the same suit, but one

very similar, of equally high quality. Once again, my stomach gave a twinge at the thought of my appearance. But when she looked at me with genuine warmth and affection, without a hint of judgment in her eyes, my discomposure faded, and a little of her confidence spilled over onto me.

“Calli,” she said, taking my hand, “how nice to see you again. Do you have luggage?”

“Just this.” With a nod of my head, I indicated the pack on my back.

“Ah, you’re traveling light. An experienced space traveler.”

“Well, yes ... I mean, no, not so much. I’ve been in space a couple times, because of my studies,” I said as we headed toward a waiting hovercar.

She touched the computer panel and input our destination coordinates, then smiled at me. “I’m so pleased you agreed to meet with me last week.”

“Actually, I was surprised that you’re the one in charge of hiring, being the chief scientist.”

She turned to me as the hovercraft lifted off the ground, and the vehicle accelerated slightly as it began its forward motion “Oh?” she said, eyebrows raised.

I fingered the strap of my backpack resting on the floor between my legs. “It seems like you would have more important things to do.”

Diana pinned me with her eyes. “There’s nothing more important than choosing the right team.”

The hovercar came to a stop and gently lowered to the ground. Catching a glimpse of our shuttle, a thrill of anticipation shot through my body. Even though I had visited the Moon twice and had also worked for several months on the World Government’s space station in orbit around the Earth, my enthusiasm was undiminished. If anything, my experiences made me appreciate space travel even more.

Diana started walking toward the launchpad, a small suitcase in one hand. I shouldered my backpack and followed her to the bottom of the passenger stairs, where two women were waiting with our spacesuits. “Let’s put our suits on out here. The shuttle’s cabin is a bit cramped.”

Setting my backpack on the ground, I took the suit from one of the women’s outstretched hands, and she helped me put my feet and legs in first, and then my arms and torso.

“The helmets are on the shuttle,” Diana said. “We can put them on after we settle into our seats.” She had also donned her suit with the help of the worker. “They will take care of our bags.” She gave the two women a warm smile.

“Thanks.” My mouth was dry, pulse pounding in my ears.

I followed Diana as she climbed the staircase and entered the craft. The shuttle was small but cozy, with six seats, all unoccupied. Two of the seats had helmets sitting on them.

Diana pointed to the seat next to the window. “Sit here, it’s worth looking outside.”

“Okay.” I picked up the helmet and sat down, stomach quivering from pure excitement.

Diana sat next to me, placing her helmet in her lap, and we fastened our seat belts.

She nodded toward my helmet, and I put it on. She did the same.

“Can you hear me?” Diana’s voice sounded metallic inside my helmet.

“Yes, loud and clear.”

“Excellent.” She pushed a button on her armrest and spoke with the pilots.

Even though the spacesuit was climate controlled, I broke into a sweat. I wasn’t claustrophobic, but never liked being enclosed in a spacesuit. They were nothing like the original spacesuits, so bulky and cumbersome, but still. It was a safety precaution, so I accepted my discomfort. A small price to pay.

At last, everything was ready, and the countdown began. A chill raced down my spine, and I grabbed my armrests, hands sweaty inside the gloves. Diana's features were shadowed but visible through the face shield of her helmet. She was looking straight ahead. I closed my eyes.

The engines rumbled beneath my feet, but the helmet must have been equipped with noise-cancellation technology, because the noise level was tolerable. In my previous off-world trips, the sound at takeoff had been deafening. A moment later, we were hurtling toward the heavens. I gritted my teeth at the sensation—triple the gravitational force on Earth's surface. The feeling lasted about ten minutes, then it was over, and my body relaxed. The pilots fired their rockets parallel to the Earth's surface, and we were in orbit.

My eyes flew open. Diana's were still closed, and she was a little pale. Looking out the window, my breath caught in my throat. Suspended in the vastness of space was the Earth, with its gossamer clouds and deep blue seas, the distant Sun a silent witness. In a matter of seconds, the brilliant light of the Sun disappeared behind the graceful curve

of our planet—an ethereal sunset—throwing into sharp relief the achingly thin blue atmosphere hugging the Earth's surface, tenuous and infinitely delicate. Our biosphere: this fragile firmament acted as a precious and precarious shield, dividing the abundance and splendor of the only known life in the Universe and the brutal indifference of space.

I looked at Diana again. She seemed more relaxed, and she returned my gaze, her eyes warm and expressive. "That feeling is the worst part of space travel," she said.

"That's for sure."

"At least the unpleasant part is over. And now the acrobatics to escape these suits!"

She put her gloved hands on her helmet, released the hermetic seal, then took it off and leaned over to place it on the seat across the aisle. I handed her my own helmet and pushed my sweaty bangs off my forehead with my gloved fingers. We unbuckled our seat belts and stood in the aisle. Or rather, we floated.

"Let me help you first," said Diana, who had hooked her foot under the rail

attached to the floor of the shuttle to keep herself from floating away. “I’ve had a lot of experience removing spacesuits in microgravity.”

I was grateful for her offer, not sure how well I could handle all the closures on Diana’s suit with my gloves. Diana worked quickly, and soon I was stepping out of my spacesuit. I placed it on the back of the seat with my helmet and then turned to help Diana.

“Much better,” she said as she draped her suit on a seat and secured it with the seat belt. She took a deep breath and ran her fingers through her long, dark hair, which was floating around her face, then wrapped it in a bun, using a hair tie which had been around her wrist.

Sitting back down, I re-buckled my seat belt. Diana sat next to me and did the same.

My eyes were again drawn to the scene outside our window, the Earth now in deep shadow, lights from the cities scattered across the continents twinkling like precious jewels.

“Beautiful, isn’t it?” she said.

I nodded, there were no words suitable for my emotions. I didn’t dare look at her to find out if she had seen my nod—my eyes were full of tears.

“It will take about two hours to get to the transfer station and dock, so we have plenty of time to enjoy the view.”

We spent the next few hours in silence, watching as the Earth turned under us. When we arrived at Earth Central, the pilots maneuvered the spacecraft perfectly, and in a few minutes we had docked.

When the airlock opened, we unbuckled our seat belts and floated out of our seats.

Diana put her head inside the cockpit to thank the pilots. Our bags were in a cabinet near the door. After putting on my backpack, I reached for Diana’s suitcase.

“Thank you,” she said, eyes flicking to the suitcase in my hand, and I followed

her through the space station. “We’ll have to wait for the Terra-Luna Express, which boards in an hour. We can spend the time on the observation deck.”

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It was something else, floating down the hallway. Some people didn’t like it, because they felt like their stomachs were in their throats, but for me, the sensation was heavenly. When we arrived, we put our bags in a cabinet, and went over to the window that faced the Earth. Around fifteen people were already waiting, staring at our beautiful blue planet.

Diana and I each wrapped a wrist with one of the many straps suspended from the poles scattered throughout the room, to keep our bodies stabilized.

“What a spectacular view,” she said, then turned to me. “Would you like something to eat?”

“Yes, thanks.” Breakfast in my little apartment felt like a very long time ago.

She signaled to a waiter who floated over to us to take our order and returned with two plastic bags.

“I love your name, *Calisto*,” Diana said softly, then opened her bag and squirted the mushy substance into her mouth.

“Capricious parents.” I shrugged, not wanting to go into the details about the short-lived resurgence of Hellenism some thirty-odd years ago, and my parents’ fleeting infatuation with the ancient Greek religious practices, which I interpreted as their

“rebellious stage,” before sheepishly returning to the fold of their true calling—fundamental Christianity. The contents of my own food bag were pretty tasteless, no surprise there.

“I suppose we both can thank Greek mythology for our names.”

“Ah, yes. Diana, goddess of the hunt.” My body was surprisingly relaxed, the usual tightness in my stomach when interacting with other people conspicuously nonexistent.

After so many years of focusing almost exclusively on my work, I was more comfortable with ideas and equations than with human beings. It was rare for me to connect with someone outside of my research field. I smiled.

“What are you thinking?” she asked me. “You look like you’re light-years away.”

“Oh, I’m sorry.” My face grew hot. “I was thinking about how much I enjoy your company.”

“The feeling is mutual, I can assure you. And if you accept the position, it will be my pleasure to work with you.”

My gaze dropped to the floor. “The feeling is mutual.”

She laughed. “Marvelous. Let’s see how you like Shambhala and the rest of the team.”



When we boarded the Terra-Luna Express bound for Tako, Diana informed me that I would have my own cabin for the three-day trip. What a luxury! The porter led us to our adjacent cabins, opened the doors, and floated away.

“Let me stow this,” Diana indicated her suitcase with a nod, “and I’ll be right back.”

Entering the cabin, I took note of a small cot with a sleeping bag attached, a desk, 15

and a minuscule lavatory. There wasn’t much space, and when Diana came in, we almost didn’t fit.

“You can put your belongings here.” She lifted the top of the cot to reveal a cubbyhole.

I set my backpack inside and replaced the cushion. Then I sat on the cot, hooking a foot under the horizontal bar along the floor to stabilize my body.

“It’s a little small,” Diana said almost apologetically as she sat down next to me.

“Are you kidding me? This is my first time on a spacecraft where I have my own room. Usually, I have to share with half a dozen people, all in sleeping bags attached to the walls, like a colony of oversized bats.”

Diana let out a burst of laughter, then looked at her wrist computer. “We can eat dinner in a couple of hours. I’ll come find you then, and we can go to the dining room together.”

Was this really happening? It felt like a dream. I was being transported, first class, to the Moon, and then to an orbital research station. If the team were a tenth as amazing as Diana, it would be heaven.



A few hours later, Diana knocked on my door. I had been stuck on a calculation and welcomed the distraction. Diana looked at me over her shoulder as we moved through the corridor. “The food on the Terra-Luna Express is the same as on Earth Central, nothing to get excited about.”

“It’s more of a necessity than a pleasure,” I said, thinking of the meals in the government space station, and what a joy it had been to get back home and eat real food again.

When we reached the dining room, we chose a couple of packets of reconstituted mush from the vending machine, then floated over to the window. I wrapped the strap connected to a pole around one of my wrists and used my free hand to squeeze a glob of food into my mouth.

Diana examined her own packet, a frown on her face.

“It’s not so bad,” I said.

She sighed. “I suppose there’s no other alternative.”

I laughed. “The trials and tribulations of space travel.”

She smiled at me, her eyes holding mine. Whenever I spoke, Diana gave me her undivided attention, as if I was the most important person in her Universe. Breaking eye contact, I examined the half-empty packet in my hand, then peeked at Diana out of the corner of my eye. Her gaze had shifted to the retreating Earth,

majestic against the inky black backdrop of space. She turned her eyes back to me and I looked away.

“Calli, there’s something that’s been on my mind a lot lately, and I’d like your opinion.”

16

My gaze snapped to her face. “Of course,” I said, my eyes wide with surprise and curiosity.

“Do you believe there are people in this world who are purely evil?”

“Wow, that’s a heavy topic.”

“I suppose it is, and perhaps not appropriate for our first dinner together.”

What did she mean, exactly? Our first dinner together? I laughed nervously. Was she thinking we would have more dinners in the future? It was a three-day trip; *obviously* there was a good possibility we would have dinner together again. I tried to regain control over my unbridled thoughts. “If you mean, are there humans who are beyond salvation? Not in the biblical sense,” I added quickly. “I mean, humans that are incapable of genuine kindness or compassion? Incapable of doing good?”

“Yes.”

“I don’t know. My first instinct is to say that everyone has at least a few redeeming qualities. But there are some mean people in the world, too.”

“Unfortunately, yes there are.” Diana’s shoulders drooped, despite the lack of gravity.

“What do you think society’s response should be when dealing with these types of people?”

“I’ve always been a big proponent of rehabilitation as opposed to punishment. For me, punishment for bad behavior is like fighting fire with fire.” I rubbed my chin with my hand. “Though, now that I think about it, sometimes firefighters *do* control forest fires with fire.”

Diana burst out laughing. “Tell me, do you often speak in idioms?”

“I guess I do.” I bit my lower lip.

“I find it charming.”

My face felt hot, and I gave her a little smile. “I think there are situations where a particular individual needs to be separated from the community. People who cause harm, I mean.”

“I couldn’t agree more.”

“When I was younger, I believed that every human possessed a spark of the divine.

Again, not in a religious sense.” I laughed, a little self-conscious. “Can you tell I come from a religious upbringing? Not that I ever believed any of that stuff,” I quickly added.

“Don’t worry,” she said, caressing my upper arm lightly. “If the language fits, it’s fine to use it.”

My arm tingled—I wasn’t used to physical affection. “What I mean is that I used to think there was some special quality that all beings shared—not only humans, but all living creatures—that connected us to one another and to the Universe. Something really beautiful and pristine, like some kind of pure energy.”

“And what changed? You said you used to think that way. You don’t anymore?”

“Maybe I was a little naive, or maybe it was just wishful thinking. But as I got older, and started to see the incredible evil that humans are capable of, well” I shrugged.

“I believe the same thing happened to me.”

17

“We’re both in the same boat, then,” I said with a timid smile.

Just then, the porter came around with virtual reality headsets. I shook my head,

and Diana did the same.

“Are you not a fan of VR?” she asked.

“I never wanted to get the implant. I guess I prefer to live in the real world.”

“I agree with you, Calli. I’d rather see things as they are, if that’s even possible for a human to do.”

“Maybe that’s why we both chose science,” I said, peering at her through lowered lashes.

“Do you think it was love?”

My eyes grew wide. What was she talking about?

“Oh, sorry, I was going back to our earlier conversation. Do you think the spark of the divine that you were talking about is love?”

“I don’t know, could be. But if it *is* love, then it wouldn’t be your garden-variety love.

It would have to be love in its purest form—unconditional and perfect.”

“I like the way you think.”

My heart rate accelerated, and suddenly I couldn’t take my eyes off hers.

She glanced at her wrist computer, breaking eye contact. “I have Foundation work I need to focus on for the next couple of days, but we can meet again tomorrow evening for dinner if you’d like.”

“That would be great.” I pretended to look out the window, excitement welling up inside me.



Although there was no day and night on the spacecraft, the ship followed Cuban standard time. My days were spent on the observation deck, notebook and pen in hand, though most of the time I stared out the window, and Diana was, presumably, holed up in her cabin with her Foundation work. As she had

promised, we dined together the next two evenings of our trip.

Our second dinner together, as we stood side by side looking out the window, our empty mush bags floating in the air like deflated metallic balloons, Diana said, “It looks so fragile, doesn’t it?” I followed her gaze, studying the small blue marble that was our home. “Sometimes I think that the world would have been far better had we not evolved.”

“Humans, you mean?”

“Yes. Though if not us, it would have been one of our cousins, our competition.”

“But who knows what the world would be like if the Neanderthals were the victorious hominid. Would we still have space travel? Music? Philosophy?”

“Or cruelty? War? Mass extinction?” she countered.

I arched an eyebrow. “I see you like to focus on the positive side of humanity.”

18

She laughed then. “You’re right. I appear to be stuck in a groove of negativity, don’t I? After our conversation about the evil nature of humankind, you must think I’m quite the pessimist. Let’s find some cheerful topic, shall we?”

“Kittens are always a good subject,” I offered. “Puppies, if you’re *real* y depressed.”

Her face lit up. “I don’t think we’re quite at the puppy level, do you? That sounds serious.” She cocked her head and pursed her lips, eyes sparkling with amusement.

“Definitely not!” I laughed. “Puppies are the big guns of happiness, only to be employed when all other alternatives have been exhausted.”

“I’m so pleased you decided to come.” She met my eyes, and I felt myself sink into hers. “Tell me, what’s your opinion on the happiness effect of tropical fish?”

Tearing my gaze away, I assessed the smoothness of the window ledge with the ball of my thumb, a little flustered. “Are we talking about full-grown fish, or

newly hatched?” I snuck a peek at her—she was smiling. Feeling brave, I said, “Or really small fish, like guppies? I remember reading a study on this very topic, and the correlation between fish size and the happiness scale is surprisingly precise. So maybe you want to clarify your question?”

Now she was flat-out laughing. “I will retract my inquiry until I’ve done my due diligence. Clearly, I had no idea I was dealing with a qualified professional.”

“Duly noted.” I swept my eyes over her face. She seemed genuinely happy, without a trace of the sadness I had seen before. But was it real? I didn’t know her well enough to judge. “Is there a reason you’ve been feeling negative?” I ventured. It was a bold question, perhaps more appropriate for close friends, a testament to how at ease I felt with her.

She dismissed my inquiry with a smile and a wave of her hand. “Just me being philosophical. It happens sometimes.” She reached out to squeeze my arm, and I melted into her warm grip. She released me, and my arm felt colder than it had been. “Tell me about yourself, Calli. I’m fascinated to know why you decided to focus on the warp drive.”

My eyes were pulled to my reflection in the window, superimposed on the image of the diminutive Earth, watching as the heat stained my cheeks pink. Like physical contact, I wasn’t accustomed to personal questions. But I had been so open with her earlier, and she so generous and empathetic in return. I took a moment, trying to find the right words, but none seemed adequate. “I want to travel the Universe,” I said simply.

“A commendable objective.” The sides of Diana’s mouth twitched.

“I know the idea of warp travel is considered science fiction, and the chances of me figuring it out are, well, not *astronomical* y small, but....” I gave a self-deprecating laugh.

“Probably not something I should admit to a possible future employer, right?”

“It may not be as impossible as you think.” She gave me an enigmatic smile.

“Oh, I’m not being negative,” I said. “I believe it’s possible, that the answer is out there somewhere, we just have to find it. If not me, then someone else. I’m convinced 19

that one day humans will be able to travel to distant star systems.”

“I think so too. And who knows, Callisto, you might be just the one to do it.”

I laughed, my body relaxed. “I’ll do my best.”



The following afternoon, our paths crossed in the gym. Diana was already running on the treadmill when I started my resistance exercises. She was graceful in everything she did—even in micro-g she was poetry in motion, and the image of a panther sprang unbidden to my mind. One time, I must have been staring, because she looked me straight in the eyes. I looked down immediately and felt my face flush.

That evening, we talked for hours, touching on a variety of topics—literature, philosophy, government systems, and, naturally, science. Diana was a captivating conversationalist, and every moment I spent with her I felt more comfortable, more drawn to her. Curiously, Diana never spoke about herself. After three days of travel, I knew nothing of her personal life.

The next morning, we made a smooth transition into orbit around the Moon, and soon after, the ship was connected to the end of one of Tako’s long arms, the airlocks were opened, and we entered the station, our bags in tow. I followed Diana through the passageways to another terminal, where a shuttle was waiting for us. With the help of the station crew, we donned our spacesuits and then entered the shuttle. We settled into our seats and secured our seat belts, prepared for the short journey. The doors were closed, the shuttle released, and we were on our way.

CHAPTER THREE

When we arrived at the Central Lunar Terminal, the ground crew was waiting to help us out of our suits. We grabbed our bags and walked on shaky legs to the airlock leading to the main terminal.

“Lunar gravity always feels so strong, even after only three days in microgravity,”

said Diana.

“I know, only a sixth of Earth’s gravity, but I feel like I weigh a ton.” My eyes flicked to her face—she was smiling, amused. My pulse quickened.

After exiting the airlock, we made our way to the rendezvous area, where a petite, smiling woman was waiting for us.

“Naomi, how thoughtful of you to meet us here,” said Diana, greeting her with a hug and a kiss on the cheek, then rested her arm across the woman’s shoulders. “Let me introduce you to Callisto, Calli for short.”

“It’s brilliant to meet you!” said Naomi, and she slipped out from underneath Diana’s arm to pull me into a warm hug.

“Nice to meet you, too,” I managed when she released me.

Naomi’s blue-green eyes sparkled, the almost-turquoise color a dramatic contrast to her ebony skin tone and short-cropped, curly black hair. Her accent was British, and her smile and enthusiasm were infectious.

“Naomi is one of our scientists on Shambhala,” Diana said.

Naomi took my arm, and I leaned on her gratefully, feeling unsteady in the Moon’s gravitational field. We walked to the transport, a magnetic levitation metro train with stops in all the populated areas of the Moon.

“We’ll stay here on the Moon tonight, so you’ll have a chance to visit Arcadia, and tomorrow we’ll catch a shuttle to Shambhala,” Diana said.

“What’s Arcadia?” I asked.

“That’s what we call the Foundation colony,” said Naomi. “It’s in Sector Sixteen.”

I had never been to that sector before. My lunar stays were limited to the university research sector, Sector Two, with the occasional foray to Sector Eight, the Moon’s

“premier venue for nightlife,” where most of the bars, restaurants, and hotels were located. Each sector was a vast underground cave, carved from the existing network of caverns and lava tubes just below the lunar surface. The metro line was a joint effort, financed and supported by the Collective.

The real reason that the lunar society was thriving was the technological breakthrough which led to the development of practical nuclear fusion reactors, fueled with helium-3. With helium-3, there was no need for the magnetic bottles which were essential for containing the tritium used in the early fusion reactors. The ability to utilize electrostatic confinement simplified the reactors, and that, along with essentially zero radioactive waste production, made fusion power the superior choice for energy needs 21

both on Earth and on the Moon. Apart from a few solar panels, virtually all the Moon’s power was produced by fusion using the helium-3 extracted from the lunar surface—a rare isotope on Earth but found in abundance on the Moon. The energy production of the fusion reactors was extraordinary. The Moon’s biggest export product was, naturally, helium-3.

There was plenty of water on the Moon at the poles, in the form of ice, and with the help of bots, it was a relatively simple task to transport whatever water was needed.

Carbon and nitrogen, along with a few other trace elements needed for plant growth, were scarce, but years and years of importation solved that issue, and since the lunar colonies were all closed systems, these elements, like oxygen and water, were continually recycled.

We took the train to the Sector Sixteen stop. There were two doors, a large bay door, for shipments, most likely, and a pedestrian entrance. Diana palmed the security pad, which opened the smaller door, and we stepped into an airlock.

Even though the metro tunnels were fully pressurized, each sector had its own airlock, for safety. The exterior door closed with a *whoosh*, then the interior pedestrian door opened into a vast, open area.

Although the Moon had plenty of room, it was expensive to build and maintain living and research spaces, and, as far as I knew from my limited experience, most of the sectors were overcrowded and overflowing, with narrow corridors and tiny rooms. But this was something else entirely, and my first thought was: this Foundation has money!

There was an amphitheater with a small stage and turfed terraces, which looked like it could seat around a hundred people. At the far corner, I could see a fountain, and the walls were covered with a variety of plants and flowers. The entire area was lit with soothing white light. Mouth agape, I stood, taking it all in.

“Isn’t it lovely?” asked Naomi, grinning.

“That’s an understatement. It’s like the hanging gardens of Babylon.”

“Only better, because this really exists,” said Diana.

“Now, Diana,” Naomi said, shaking her index finger in mock sternness, “just because they never found the gardens doesn’t mean they didn’t exist. Absence of evidence is not evidence of absence, after all.”

Diana laughed heartily. “Point taken.” She set her suitcase down near the door. “You can leave your backpack here, Calli.”

I shrugged off my pack and placed it next to Diana’s suitcase, then took a deep breath of the clean, fresh air. “I’ll bet this is the best air on the Moon.”

“That’s thanks to all this marvelous foliage,” said Diana. “We have a sophisticated air-filtration system, but it’s the plant life that gives the air its sweetness.” Diana observed the walls of greenery, her look thoughtful. “We call this space ‘Delphi Park.’

I don’t know who came up with the name. Do you, Naomi?”

“I don’t have a clue, but perhaps it’s got to do with the ancient theater at

Delphi.”

“Mm-hm, you’re probably right.” Diana turned to me. “Here is where our scientists 22

and technicians can come to contemplate,” she said, indicating several benches scattered along the walls with a sweep of her arm. “And the amphitheater is where we hold staff-wide meetings. There’s enough room for everyone, the people living here at Arcadia and on Shambhala. Sometimes we also have music or plays.” Diana paused, then added, “I feel like people are more productive when they are surrounded by nature.”

“I can imagine.” I thought of my cubicle at the university and my shabby apartment back in Los Angeles, a week-to-week lease in a rough neighborhood, where I had moved after finishing my postdoc. It was all I could afford on California’s guaranteed minimum income.

Naomi and I followed Diana to an entryway opposite the airlock, which opened into a corridor. Doors lined both sides of the hallway, and as we walked, Diana explained that they led to living quarters. We stopped at a set of big double doors, and Diana opened one of them, motioning for me to take a look. It was a large room full of tables and chairs, as well as computer terminals. Several people were working at the terminals, and a few were sitting at a long table, watching as a woman wrote an equation on a whiteboard.

The next doorway opened to the dining room, and, after another quick peek, I followed Diana and Naomi to the farm. If the entrance to Arcadia was impressive, with its amphitheater and walls of vegetation, the farm was nothing short of spectacular—

vertical gardening at its best.

“We have two full-time gardeners on staff,” Diana said.

Just then a slim woman dressed in stained overalls approached us, her dark hair pulled back in a ponytail. “Diana! I didn’t know you were on the Moon, I thought you were back on Earth,” she said, giving Diana a hug and then turning to hug Naomi.

“We arrived this morning.” Diana rested her hand lightly on my shoulder. “Berit,

this is Calli.”

“The prospective new physicist, welcome.”

“This is a whole production,” I said to Berit.

“Isn’t it? I love it here.”

Berit had a heart-shaped face, dark, upturned eyes, and skin the color of desert sand.

I guessed she was Egyptian. It fit her physiognomy.

“I recognize most of the plants, but there are some hybrids that I can’t identify,” I said.

“We’ve developed some new varieties, suited especially for lunar gravity,” said Berit.

“Berit and the other gardener, Yasmin, are botanists,” Diana said.

“And beekeepers and chicken farmers,” Berit added, laughing.

“Chickens, too?” I raised an eyebrow.

“Come on, I’ll show you. But we’ll take the long way, let you get a feel for the terrain.”

We followed Berit, winding our way along a gravel path. Spotting a woman tending beehives, I stopped. She was in the middle of a swarm, cleaning a hive. I could hear the 23

hum of the bees, the sound intense and oddly comforting.

“We’ll say hi to Yasmin later,” Berit said.

I looked again at Yasmin and let out a gasp. “She’s not wearing any kind of protection! Not even gloves.”

“Oh, she’s a proper bee whisperer,” said Berit. “Although the bees here are super chill.”

We continued along the path for about ten meters, turned a corner, and I stopped short. “There’s a *lake* here?”

“It’s really a pond,” said Berit, shrugging, but the corners of her mouth twitched, and she stood a little straighter. “Part of the farm is dedicated to aquaponics. We have a whole school of tilapia.”

“I had no idea there were fish on the Moon,” I said.

“This is the only colony with fish, if I’m not mistaken,” said Diana, and Naomi nodded in agreement.

“Come on, let me introduce you to my pride and joy,” said Berit, grinning, “my flock of chickens.”

As we made our way to the far corner of the farm, I could hardly believe my eyes.

The plants were vibrant and healthy, the paths well-maintained, and not a leaf or a twig out of place.

“Hi girls,” Berit called out when we reached the end of the trail. She opened a door in a mesh enclosure and stepped inside. Almost immediately, about thirty birds appeared, running from all directions, then skidded to a stop in front of Berit, looking up at her expectantly. “Come on in, everybody,” Berit said, motioning us inside.

We all filed into the enclosure, and Diana shut the door behind us.

Berit bent over to pick up a hen. “They’re always hoping for a handout, but they’ll settle for a cuddle.”

“Are the chickens for eggs, or ...?” I asked.

“Eggs and fertilizer,” Berit said. “Right, Satet?” She caressed the feathered head of the hen, who clucked happily. “Only hens here, though. Roosters are a pain in the ass.”

The other women laughed.

“How do they reproduce?”

“Oh, when it’s time to increase the flock, we use parthenogenesis,” said Berit, glancing at Naomi.

“Really?” My brow furrowed.

“Yep,” said Naomi. “The technology has been around for a long time. It does happen naturally, though in turkeys more than in chickens. What’s interesting about birds is that, in nature anyway, the parthenogenic offspring are always males, since, unlike mammals, it’s the male that is homogametic.”

I stared at her.

Naomi laughed good naturedly at my bewildered expression. “In humans, for example, if the twenty-third chromosome pair is XX, it means they’re a female, and a 24

male would be XY.”

“Uh-huh.”

“Well, in birds and some reptiles, the opposite’s true.”

“Okay.”

“So in the case of natural avian parthenogenesis, the sex-determining chromosomes are identical. This means all the offspring would be roosters. However, after a slight technological tweak and some selective breeding, we’re capable of producing hens.”

“I forgot to mention that Naomi is a biologist.” Diana said, looking at Naomi fondly.

“I didn’t know that birds could reproduce parthenogenetically,” I said. “I knew about those lizards, what are they called?”

“You’re probably thinking of the New Mexico whiptail,” Berit said.

“Yes, indeed!” said Naomi. “The New Mexico whiptail reproduces

parthenogenically. In fact, the whole species is female. Two females can even perform a courtship ritual in order to stimulate ovulation.”

“Basically, lesbian lovemaking,” said Berit, and laughed.

My eyes were drawn to Diana’s face. She was smiling at Berit, and I suddenly felt a little flushed. I looked down at the hens, milling around at our feet, making soft, clucking noises.

“My doctoral thesis focused on parthenogenesis in mammals of higher order.

Though there’ve been claims, there’s yet to be a confirmed case of parthenogenesis in human beings.”

“Well,” I said, having recovered my composure, “I would say that we humans are doing fine maintaining our population, even with the reduced birthrate for the past sixty years.” I paused for a beat, then added, “I guess we’re all lucky to have been born at all, especially with the indefinite moratorium on ectogenesis.”

Around forty years earlier, the entire world agreed to ban ectogenesis—the practice of producing babies in artificial wombs, as well as “designer babies,” where parents were able to pick and choose the genetic traits of their offspring. The ectogenesis designer babies were perfect specimens, considered to be the most beautiful humans who ever existed, but unfortunately, the side-effects of gestation in a synthetic environment were severe, and often crippling, psychological problems. Luckily, only very few humans had been produced in this way before the global law came into effect—only the extremely rich had been able to take advantage of the technology. After that short-lived experiment, all humans were produced the old-fashioned way.

“Ectogenesis is a technology which never should have been allowed in the first place,” said Diana, almost to herself.

I stared at her. Was it possible that she knew someone who had been artificially created? It was a sobering thought.

“At least the world population is more reasonable now than during the peak back in 2030. What was it? I think around eight billion people.” Berit shook her head.

Naomi nodded. “Global pandemics are an extreme, but they’re incredibly

effective 25

as population control. Mother Nature undoubtedly wins in the end.”

Diana glanced at her wrist computer. “Let’s head back to the dining room, it’s time for lunch.”

“I’ll go with you,” Berit said, gently setting Satet on the floor. The chickens scattered, cackling and scratching the ground with their clawed feet. We exited the coop, and Berit secured the door behind us.

As we retraced our steps to the main door to the corridor, we could see Yasmin closing up the hive.

“Yasmin, come have lunch with us,” Berit called out. “You can meet Calli.” She gestured toward me with her hand.

“On my way.” Yasmin carefully brushed off a few bees from her chest and arms.

“How are the bees?” Berit asked as Yasmin approached.

“They’re awesome! Did you see they were swarming? I’m so glad I was there. The new swarm moved into an empty hive immediately. That’s an intelligent queen.”

Yasmin smiled broadly, then she turned to me. “Hi, Calli,” she said, bending down to hug me. Her accent was, what? Turkish maybe.

“Are these the descendants of the bees from the original lunar bee colony?” I asked as we made our way to the dining room.

“They’re a different variety, from Hawaii, if you can believe it. That was many, many generations ago.”

“Wow, Hawaii,” I said.

“Though they aren’t native to Hawaii,” Yasmin continued. “The honeybee was introduced to the Hawaiian Islands in the mid-1800s. But for whatever reason, the Hawaiian honeybees are some of the most peaceful bees on the planet, so it made sense to bring them here.”

“I can see the bees are very docile,” I said.

“Oh, they’ll sting you all right,” said Berit. “I’ve been stung loads of times, but it’s always my fault—I’m too rough, or I accidentally grab one while I’m harvesting fruit, but Yasmin, she never gets stung.”

Yasmin shrugged. “I did at the beginning. But once I figured out how to tune in to their frequency, we’ve been able to work together. It’s like a beautifully choreographed dance.”

The dining room was already full of people when we arrived. We stood in line, waiting to fill our plates from the buffet table.

“It’s hard to explain,” continued Yasmin, “but when I’m with the bees, I feel like I’m part of the collective hive mind. And today, when they swarmed” She paused to wipe her eyes with her sleeve, then continued, “it was pure ecstasy. The queen leaves the old hive and, I don’t know how they decide, but half the hive goes with her. The air is positively electric with love. That’s the only way I can describe it. The workers will follow their queen anywhere. The devotion is palpable, very pure.” Yasmin laughed self-consciously. “I guess it sounds a little crazy.”

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Plates full, we sat down at an empty table. There was a jug full of water on each table, and several glasses, and we helped ourselves.

I took a bite of my food—a noodle dish with a rich, savory sauce which left my tastebuds tingling. “Wow, not only do you have the best air, you have the best food.”

“It’s a labor of love for the chefs,” Diana said.

Spearing a noodle with my fork, I held it up to examine it more closely. “This tastes like Pad Thai, but these aren’t rice noodles.” I put the noodle in my mouth, enjoying the firm and chewy texture.

“They’re made from taro,” said Yasmin. “We haven’t mastered the art of growing rice, but our taro patch is very robust.” She pushed a container toward me, handing me a clean spoon. “Here, try this—honey from the hives.”

I took the proffered spoon, dipped it into the honey, and savored the delicate, tangy flavor. “Mmmm. Divine.”

Yasmin sat up straighter, her emerald-green eyes gleaming.

The dining room was full of people eating, talking, and laughing. “Everyone seems so happy here.” Maybe just a little *too* happy. Could this possibly be real?

“We’re all doing exactly what we love the most,” Berit said. The other women nodded in agreement.

I studied the women’s faces, they all seemed sincere. Could it be as simple as what Berit claimed? Whatever the explanation, this was better than my wildest dreams. No need to see the orbital lab—I was taking the job!



After lunch, Naomi showed me to my quarters where I would spend the night before we traveled to the space station the following day. The room had a cozy feel, with a sofa, a table and chairs, even a few plants, and my backpack was on the bed waiting for me.

“There’s a computer interface system, in case you need anything.” Naomi sat down on the bed, and I shifted my pack to the floor and sat beside her. “She’s voice activated, our very own artificial intelligence. Her name is Annie.” She turned her eyes toward the ceiling. “Annie, respond please.”

“How can I assist you, Naomi?” a sultry feminine voice replied.

Naomi shook her head, laughing. “I don’t know why I tend to look at the ceiling when I talk to her. She’s not specifically there! Alright, technically, her hardware is in Arcadia’s computer operations area but that’s over by the main entrance. Annie, I want to introduce Calli.”

“Hello, Callisto Collins, thirty-one years old, only child, parents’ names Rachel and Daniel, born in Eureka, in the country of California, on January 12, 2066, undergraduate degree in physics, Caltech, graduated cum laude, PhD in theoretical physics, Caltech, postdoctoral researcher at the Alcubierre Center for Space Technology, published six 27

scientific articles on the theory of faster-than-light travel and warp fields, unmarried, intelligence quotient of—”

“Okay, Annie, that will do.” Naomi rolled her eyes. “Annie is a work in progress.

We’re trying to teach her to interact more like a human, but I think she’s still getting the hang of it. She has access to all our personal data that exists on the internet, and work we’ve done for the Foundation. You can ask her anything. Consider her to be your personal assistant.”

“Okay.”

“I know she’s AI, though sometimes I feel like she’s my geeky little sister, always trying to work out how to hang with the cool kids. I don’t know if it’s thanks to the programmers, or some emergent property, but for me, Annie has a CPU of gold, or QPU, quantum processing unit, I should say.” Naomi pursed her lips, a thoughtful look on her face. “Hmm, there *is* gold in her hardware, but you know what I’m getting at.”

I laughed. “I do. We have an AI at the university, and he’s got a great sense of humor.”

“I’ve been doing a bit of reading on emergent intelligence, and it’s hard to know what’s real.”

“Yeah, I know what you mean. Humans are hard-wired to see sentient life even when it doesn’t exist. Look at animism. It’s been around since the dawn of humanity, and even today there are plenty of people who believe that inanimate objects have spirits, so it’s no surprise that when something talks and interacts, and even tells us jokes, we see it as a living, conscious being.”

“Yes, but human psychology aside, it’s not beyond the realm of possibility that consciousness emerges. From a biological standpoint, that’s how sentient life began.

Bits of code, in this case nucleic acids, amino acids, and lipids, coming together to form macromolecules, and from the primordial soup life appears, and then, three hundred thousand years later, we get creatures that can contemplate our own existence and place in the Universe.”

“Wow, you’re quite the philosopher.”

Naomi burst into laughter. “Look who’s talking! Apparently, Annie’s not the only geek around here.” She put a finger on her chin. “Truth is, almost everyone here is the same. I suppose I’m used to it after so many years. Start talking to someone about their favorite color, and before you know it you’re deep in a conversation about how the human retina can detect a single photon of light.” She grinned at me. “Okay, that might have been me.”

I started laughing. “Guess I’ll have to brush up on my biology if I want to fully participate.”

“I know what we can do! An exchange, like a cultural exchange, but for science: biology and physics.”

Without thinking, I leaned over and gave Naomi a hug. “It’s a plan!” How strange. I was not a particularly demonstrative person. But the impulse was natural, organic.

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“Does that mean you’re going to accept the job offer?” Naomi’s eyes widened.

“You’ve got to be kidding! This place is ... well, it’s amazing.” Taking a deep breath, I felt my mood shift. I looked toward the wall, eyes unfocused. “I was in a bad place before Diana got in touch with me,” I admitted. “I didn’t know what to do, about my career, I mean.”

“You mean about finding a job in your profession?”

“Yeah. It was kind of a desperate situation. I figured that to continue my research, my only option was to work for the California government. No one else was interested in me.” Naomi rubbed my back, her touch gentle, and I gave her a wan smile, picking at the blanket on the bed. “I didn’t want to work in industry. You know how those jobs are, all your time is consumed by company projects.”

“Yeah, that’s true. Not a lot of room to pursue your own passions.”

“Some private companies have budgets for basic scientific research, but from

what I've seen, it's mostly lip service. If you don't produce something that can be commercialized, you'll be out on the street in the next hiring cycle."

"Uh-huh. The goal is revenue, not acquiring knowledge for its own sake."

"Exactly. Not that any of those companies were knocking at my door." I smirked.

"Then there's teaching, but that's not a good fit for someone like me, desperately trying to carve out a few moments here and there to focus on my own ideas, with all the time constraints, the classes, the students, the university politics. I couldn't do it."

"Me, either." Naomi gave a little shudder.

"I thought that at least with the government position, I'd have access to a lab." I lifted a shoulder then let it drop. "I've gone as far as I can with thought experiments.

But you know how government work is, the main focus is armament and war."

"Oh, you mean 'national protection and peacekeeping'." She rolled her eyes.

"And if California is anything like Great Britain, they would probably make any interesting discoveries classified, claiming they had possible military applications. But you don't have to worry about any of that any longer!"

I looked at her, my eyes swimming with emotion. "I never thought something like this could happen to me."

This time Naomi hugged me. "I'm so delighted Diana found you." She released me, then said, "Oh, I almost forgot. Yasmin wanted me to ask if you're interested in helping on the farm this afternoon?"

"Sure."

"Brilliant! We can meet her in the workroom."

We walked down the long hallway and into the spacious workroom, where Yasmin was sitting at a table, working on her tablet. She looked up at us as we approached.

“Hi, Calli, feel like getting your hands dirty?”

“I’d love to.”

“What about you, Naomi?”

“No, I’m good. I’ve got to check in with the bio lab here. Oh, there’s the person I
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need to see,” she said, looking across the room. I followed her gaze and spotted a woman working at one of the consoles. “But I’ll catch you in a bit, Calli, and we can have dinner together.”

Naomi made her way toward the other side of the room, and I followed Yasmin through the double doors and down the corridor.

“So, Calli, first time on the Moon?” Yasmin asked.

“I came here as a graduate student a couple of times, stayed in the university sector.”

“Yeah, this is way nicer.”

“That’s an understatement!”

Yasmin opened the door to the farm, and we walked over to a small shed. She handed me a pair of gloves, clippers, and several baskets. “You can harvest apples.” She pointed toward a row of dwarf apple trees full of ripe, bright red fruit. “Just fill these baskets and leave them here next to the shed.”

“Okay.”

“I’ll be working with the bees if you need me.” She gave me a big smile, then turned and walked down the path.

I took a deep breath of fresh air and went to work, happy to be contributing. Berit appeared just as I was setting the last full basket beside the shed.

“Hi, Calli, look how industrious you are.”

“Just finished.” I pushed my hair off my brow with my gloved hand.

“Super! Then you can help me clean the aquaponics filters. If you want to.” She raised her eyebrows and cocked her head.

“I can’t think of anything I’d rather do.”

Berit let out a laugh. “Follow me.”

After hanging the clippers on a pegboard inside the shed and putting my gloves on a shelf, we walked down the path to the pond.

“I don’t know how aquaponics works,” I said.

“You’re in the right place, then.” Berit stopped in front of an array of large barrels, all connected by a series of white polymer pipes. “First, let me shut off the pump,” she said, raising her voice so I could hear her over the sound of the motor and flowing water. She flipped a switch on the outside of a large metallic box next to the first barrel, and the noise was replaced by silence. “That’s better. Hard to talk with all that racket.”

She stooped down and closed a valve on the pipe going into the first barrel, then removed the lid from the barrel and reached inside to pull out a mesh filter, which she handed to me. “You can use the water hose over there.” She pointed to a hose attached to a spigot in the ground. “Use the spray nozzle to clean off all the gunk.”

I leaned the filter against a barrel and got to work, the earthy, slightly fishy odor strong but not unpleasant.

“Okay, the idea is this,” said Berit. “The fish waste, which is basically ammonia and nitrites, is converted into plant fertilizer with the help of bacteria. The plants absorb the nutrients directly from the water.”

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“Sort of like hydroponics?” I asked, handing Berit the now-clean filter, which she exchanged for a dirty one.

“Yes, exactly, but the difference is that with hydroponics, you have to add chemical nutrients to the water. With aquaponics, the fish do that for you.”

“Wow, amazing.” I wiped my forehead with my sleeve.

“These mesh nets,” she held up the filter I had just cleaned, “are for large particles that don’t settle to the bottom of the barrels as sediment. Once filtered, the clean water is piped back into the fishpond.”

“What an ingenious system. Out of curiosity—why don’t you automate this process?

Seems like it wouldn’t be too difficult.”

“It’s a fairly new operation. This is the first aquaponics system on the Moon, and I’m just figuring out what works best. So at the moment, I need to be hands on.”

“That makes sense.”

“Plus, I enjoy the manual labor. It’s better than sitting at a desk all day.”

“Good thing you didn’t study theoretical physics,” I said, laughing.



At around six p.m. Naomi found us. “There you are, Calli! Ready for supper?”

I looked at Berit.

“Go ahead, you two, I can finish up here. Only one more filter to go. Thanks for your help, Calli.”

“My pleasure.” I washed my hands, using a bar of soap which was lying next to the water spigot, then patted them dry on my jumpsuit.

“Enjoying yourself?” asked Naomi as we walked into the dining room.

“I’m in awe. This place” I shook my head in wonderment as we filled our plates—

pumpkin ravioli and spinach salad.

We sat down at a table, facing each other. Naomi smiled broadly at me, white teeth flashing. “If you think this is great, you’ve got to see Shambhala!”

“Shambhala—that’s an interesting name for an orbital lab.”

“I’ve no idea who chose to call it Shambhala, but from what I’ve understood, it’s a mythical realm where all the inhabitants are enlightened, where injustice, cruelty, and conflicts don’t exist. It’s supposed to be one of the Beyul.”

I arched my eyebrow.

Naomi laughed. “I didn’t have a clue, either. Based on what I’ve read on the internet, according to one school of Tibetan Buddhism Beyuls are hidden places of refuge, which can only be found when the Earth is on the brink of destruction, when humanity is so corrupt there’s no room for spiritual Buddhist practice.”

“That kind of describes the world right now.”

“Yes, unfortunately it really does.”

“And Arcadia?”

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“Oh, that I know! It’s an ancient Greek vision of a place that is in harmony with nature.”

“Nice name.”

“So, excited to give the orbital lab a visit?”

“For sure! If it’s anything like here,” I gestured with one arm, “then, wow.”

“Oh, you’ll love it.” Naomi’s eyes twinkled. “I won’t say more. Wouldn’t want to spoil the surprise.”



Later that night, as I was lying in bed, my head was spinning, and not only from the low gravity. So much human interaction was unusual for me, but it had been an amazing day, surrounded by so many remarkable women. And then it occurred to me—I hadn’t seen any men. I cast my mind back to the workroom filled with scientists, the farm, and the dining room. No, I was sure there hadn’t

been a single male. Strange. There wasn't much time to contemplate, because I was asleep almost before my head hit my pillow.

CHAPTER FOUR

The next thing I knew it was morning. Light was shining from the “window” next to the bed, a liquid-crystal display, with an impressive replica of the Sun rising over the ocean, a white-sand beach in the foreground. I could almost hear the waves breaking on the shore and smell the hint of salt in the air.

There was a knock on the door. “Calli, are you awake?” It was Naomi.

I got up and opened the door, rubbing the sleep from my eyes.

“Oh, you were still in bed. I called round to take you to breakfast.”

“Sure, give me ten minutes.”

“No worries, I’ll be waiting at the end of the hall.” She stepped out and closed the door behind her.

In the small bathroom, I turned on the shower. Despite having spent time on the Moon before, the physics of one-sixth g was still a thrill. The water fell more slowly from a showerhead on the Moon than one on Earth, and the impact of the spray was softer. I quickly showered and brushed my teeth, then put on a jumpsuit I found in the closet, a perfect fit, though how they had guessed my size was a mystery. There were shoes as well, my size, comfortable and functional, and I slipped them on. I gave my hair a final rub with the towel, tried without much success to pat down the many cowlicks, then went to find Naomi.

As we entered the dining room and made our way to the buffet table, I scanned the room—not a man in sight.

“Naomi, here’s a question.”

“Go ahead.”

“Is it my imagination, or are there only women here?”

Naomi laughed, and handed me a plate, then took one for herself, and started filling it with food—potato pancakes and scrambled eggs. I did the same. “The

only males in this colony are the drone bees, and I suppose there are a few male tilapia in the pond.”

Our plates full, we sat down at one of the tables. Naomi filled two glasses with water, handing one to me. “In all seriousness, Diana feels as if it makes for a more amicable work environment.”

“Huh.”

“Yeah, it’s quite unusual, though once you get used to it, it can be very pleasant.”

“I read some studies about women who attend female-only colleges,” I said. “They tend to perform better, statistically speaking.”

Naomi tapped her chin with her index finger. “*Part of that is residual patriarchy, I imagine.*

Tough to overcome ten thousand years of male domination. Though perhaps we’re simply wired differently than men, and the Foundation wants to exploit that difference.”

“Seems like it’s working,” I said. “But, what about ...?” I lifted my eyebrow. “You 33

know?”

“Oh, you mean relationships? There are plenty of men on the Moon, for those of us who are interested, though none are permitted to enter Arcadia, possibly because of what you just told me.” She shrugged. “At any rate, there’s a very strict no-visitor policy, so no one outside of the organization is allowed in.”

“That’s good to know.”

“I’m seeing someone who works in Sector Two, in the university sector, Evan. He’s a bioengineer.”

“Wow, that’s great.” I took a sip of water.

“We don’t see each other often, because of our work, but we do holochat every chance we get.” She toyed with her food, pushing it around with her fork, then

glanced up at me. “Oftentimes I wish I was gay.”

“Really? But why?”

“I don’t know, I always feel more comfortable around women. Evan can be such a *guy*. We simply don’t have the kind of connection I share with my female friends.

Doesn’t matter though, I was born hetero. Nothing I can do about it.”

“Women can be complicated, too,” I said, biting my lower lip. My track record wasn’t exactly a shining example of the superiority of female-female relationships.

“You’re right.” Naomi rolled her eyes. “I’m being ridiculous. Evan’s wonderful, there’s no doubt. It’s probably just me.”

I studied her face. Was she unfulfilled in her relationship? Hopefully not—she deserved to be with someone who made her happy. I took another bite of my pancakes.

“The food here is stellar,” I said, changing the subject.

“Yeah. Everyone here is a master at her craft.”

“So I’m noticing.” I shoveled a forkful of eggs into my mouth.

At that very moment Diana walked up. She was wearing a jumpsuit like the ones we had on, but on her, it seemed elegant and sophisticated.

“How are you ladies doing this morning?” she asked.

Why did she have to come right then? I lamented, cheeks bulging. My face flushed.

Luckily, Naomi was there to do the talking.

“Hi, Diana! Calli and I are having a lovely chat.”

By then I had managed to swallow my food. “Hi,” I said. Really? *Hi*? Was that the best I could do?

“I hope you slept well, Calli.”

“Oh, most definitely,” I answered, perhaps a bit overenthusiastically. “I slept like a rock.”

She gave me an indulgent smile. “These have been some very busy days, and today is no different. I’ve arranged for a special shuttle to Shambhala this morning.” She turned to Naomi. “Want to come with us? Or would you prefer to wait for the regular Friday shuttle at three this afternoon?”

“Ready whenever you are, Diana,” said Naomi.

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“Excellent. We leave in ...” she glanced at her wrist computer, “one hour. I’ll see you both at the metro stop.” With another of her radiant smiles, she was gone.

I felt giddy, watching as Diana left the dining room. So much was happening; my life was turning upside down. But I was happy, and very, very excited.

Naomi pushed her plate away. “That was delicious.” She glanced over at my plate, which was empty. “Let’s head out!” We dropped our dishes into the automated sterilizing unit, and Naomi walked me to my room. “I’ll return in another half hour to take you to the metro.”

“Okay, thanks,” I said as she started down the hallway. I opened my door, then stopped. “Naomi, wait.” She turned to look at me. “Thanks,” I repeated, my voice quavering, “thanks for everything.”

“Aw,” she said, coming back and hugging me tightly. “I know we only met yesterday, but let’s forget about formalities. We’re friends.”



An hour later, Diana, Naomi, and I were at the shuttle launching bay in Sector One.

We donned our spacesuits and climbed into the shuttle.

“Sook, meet Calli,” Naomi said to the shuttle pilot.

Sook came out of the cockpit and grasped my hand with both of hers, the sensation surprisingly warm considering our gloves. “Nice to meet you, Calli.”

After stowing my backpack, I sat down in an empty seat next to a window and buckled my seat belt, then rested my helmet on my lap. Naomi took a seat across the aisle, and Diana sat down next to me. When she smiled at me, a bolt of electricity raced through my gut. I smiled weakly in return. My hands trembling, I put on my helmet, just to give myself something to do.

As the shuttle took off into space, my hands clamped tightly on the armrests, lips compressed. Escaping from the lunar surface wasn’t nearly as bad as leaving Earth, but still, it wasn’t my favorite sensation. Once the acceleration phase was complete, I relaxed and looked through the tiny window at the space station. Shambhala consisted of six separate units, each more or less the shape of a flattened ovoid. “From this angle, it almost looks like a pod of whales,” I said.

Diana’s voice filled my helmet. “Our engineers are genuine artists.”

A shiver ran down my spine. Diana’s voice felt so intimate, even though Naomi could hear us, too, and probably the shuttle pilot.

Turning my attention back to the station, I saw that each unit was connected to a central spherical hub via long tubes. One end of each unit was slightly elongated, and the opposite end had a large exhaust tube, flanked by two smaller exhaust structures.

There were small, finlike components on each side, and a formation which looked like a dorsal fin running the length of each unit, which explained my first impression.

“Each module is a separate spacecraft, with its own propulsion and life-support
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systems,” said Diana, “plus dorms, a kitchen, even an area set aside for cultivation. Our engineers are big believers in redundancy.”

I couldn’t take my eyes off Shambhala. “Incredible,” I whispered.

Diana’s spacesuit rustled as she shifted in her seat. “Even though the modules are technically self-contained, we have dedicated each one to a specific function

or set of functions. The redundant areas of each module aren't in use at the moment but are there if we ever need them. Let's see, there's a module for living quarters, the labs, the garden, one which includes the dining room, kitchen, and observation deck, another one for the shuttle bay and storage, and one for engineering and station operations. Did I leave anything out, Naomi?"

"Nope, that's all."

As we approached, the station seemed to grow larger and larger, though it was difficult to judge its size since there was nothing around for comparison. When we got close enough to see the windows of the closest module, I comprehended its true extent.

"Oh wow, it's huge!"

"It's the largest orbiting structure in existence at the moment," said Diana.

"Impressive. So, what are the orbital parameters of the station?" I glanced over at Diana, then my eyes were pulled back to the view.

"You're asking because of the irregularities in the Moon's density, which makes it complicated to maintain a stable orbit," said Diana.

"Mascons." I nodded, though no one could see.

"What are they?" asked Naomi.

"It's short for mass concentrations," I said. "The Moon's mass is notoriously non uniform."

"Since power isn't an issue, we decided on a lunar-stationary orbit," said Diana.

"Makes it easier to travel back and forth from the Moon to the station," I guessed.

"Precisely! We could have chosen a frozen orbit and conserved some energy, but what a headache it would have been, trying to schedule transport to and from the lunar surface, and still keep a Cuban-standard timetable."

Shaking my head, I whistled softly. "I sure wouldn't want to do that calculation,

and I'm a theoretical physicist!"

After the shuttle docked, Diana stood and went to the cockpit door. "Sook, need any help unloading this week's supplies? I know it's quite a lot this time."

"No, thanks, Diana." Sook's voice filled my helmet. "Quinn and Mei Xing should be here any minute, and anyway, I need to finish the shuttle's log first."

"We'll leave you to it, then," said Diana. "Thanks."

Sook waved at us, then turned back to the instrument panel.

We grabbed our bags and entered the airlock together. When the outer door leading to the shuttle slid shut, we took off our helmets, then helped each other out of our spacesuits.

"Back in micro-g!" said Naomi, grinning.

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We stowed our suits in lockers on one side of the room, then Diana touched the security pad to open the airlock door to the station. The door opened with a *whoosh* and we floated inside.

"Catch you two later," said Naomi. "I'm eager to get to my lab." Without a backward glance, she made her way down the corridor.

"She doesn't like to be away from her lab for more than a couple of days," said Diana as she watched Naomi disappear around a bend. Then she turned to me. "Ready for the tour?"

"Definitely."

I started to put on my backpack, but Diana told me to leave it in the cubby next to the airlock door, then put her suitcase next to mine. Following her through the hallway and into the main corridor, I used the handrails to keep myself oriented and to propel myself along. The corridor was padded on all sides, and covered with a soft, light red fabric. No danger of injury if a person forgot how to move in micro-g—a nice touch.

Diana's hair was floating around her head, and she deftly wrapped it into a bun, securing it with a hair tie.

Stopping at the entrance to the station hub, Diana put a hand on a bright red cabinet attached to the wall. "These are emergency space suits and oxygen tanks. You'll find them at the entrances to all the corridors, in the labs, and common areas." Opening the door, she revealed several suits, helmets, and backpacks attached to the inside wall.

"Oxygen tanks are in the packs, good for about four hours." She held out a tube attached to the backpack for me to see, then pointed to a coupler on one of the helmets.

"Just snap the end of the tube to the coupling on the helmet here. Let's hope we never need to use them, but it's always better to be prepared."

"That's for sure, especially in space," I agreed.

She pushed a button on the inner door of the cabinet, and an alarm sounded, the volume thankfully low. "If you ever hear this, it means there's been a hull breach."

I nodded solemnly, and she closed and latched the cabinet door.

"How many people work here?" I asked as we entered the hub. It was bigger than I expected, and decorated with a multicolored mosaic on the inner surface made of the same soft cloth used on the walls of the corridors, an explosion of color and symmetry.

A network of padded handrails, resembling a three-dimensional spider web, allowed us to navigate easily through the open space, using the rails to guide our motion. We stopped in the center.

"Let's see, there's a team of four women who are in charge of the station operations, three engineers." She paused for a moment, index finger resting on her lips, then said,

"To be fair, the women in ops are all engineers, too. We also have a doctor, an anthropologist, and eight scientists, including myself. And if you agree to work with us, we will be nine." She honored me with her brilliant smile.

The blood rushed to my cheeks, and I looked away quickly, focusing on my surroundings. Six passages opened into the hub, each a different color.

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“Each corridor goes to a different module,” said Diana, “all color-coded, as you can see. Come on, let’s visit the physics lab.”

We headed down one of the corridors, this one a pleasing lavender, and once we entered the module Diana opened the door to a lab. A tall, slim woman was leaning over what appeared to be an interferometer.

“Hadley, this is Calli,” she said as we pushed our way through the doorway.

Hadley looked up at us with a smile. Her blond hair was cut short, accentuating her thin face and high cheekbones. “Welcome, Calli, I’m just running an experiment, a precursor to what I hope will be a miniature warp bubble.”

I propelled myself over to her, peering at the apparatus. “No way!” My eyes grew wide. “I know the theory. I’ve been studying the work of Miguel Alcubierre and his successors my entire academic career, even did my postdoc in Mexico City at the Alcubierre Center for Space Technology.” I paused to catch my breath, then continued.

“I haven’t heard of anyone who is at the experimental stage. As far as I know, the last experiments were eighty years ago, with the warp-field interferometer, using high-voltage barium-titanate ceramic capacitors.”

“Uh-huh. I recreated their experiment, but here,” she indicated a donut-shaped object along one arm of the interferometer, “I’m using a novel ceramic designed by our materials science team. The trick with the warp bubble is in the production and containment of the required negative energy.” She pointed to another apparatus on an adjacent table. “That’s my experimental setup for that particular mystery.”

“If you can solve that one, it would be a game changer.”

“My results are very promising,” said Hadley, her steel-blue eyes dancing.

I stared at her, my mind reeling. If Hadley had plausible ideas on the generation

and containment of negative energy, that would be a true breakthrough. My heart was racing.

“You two will have a chance to chat later,” Diana said. “But first, I want to show Calli the rest of the station.”

“Perfect. I look forward to talking to you more, Calli.”

“Me too!”

When we left the lab, I couldn’t contain my excitement. I stopped outside the door in the hallway, grabbing the railing, and Diana turned to face me. “What Hadley’s doing, it’s cutting-edge research! I had no idea anyone was at such an advanced experimental stage with ftl technology. Although what she—I mean—what we are working on isn’t technically faster than light, it’s a local expansion of spacetime behind the spacecraft and an opposite contraction in front of it, so that it appears to outside observers that the craft is moving faster than the speed of light. Anyone inside the warp bubble would essentially be at rest. A smooth ride! And no violation of Einstein’s special relativity—

no faster-than-light travel—just a distortion of spacetime. The prospects are staggering.

The distances we could travel are beyond astronomical. All in the blink of an eye, too!”

“I’m glad you’re so enthusiastic.” That smile again. My stomach fluttered. “Let me 38

show you the park.” She led the way back to the main hallway, this time turning right, away from the corridor and hub, and toward the center of the module. The hallway opened into a beautiful garden, full of flowers and greenery, with benches scattered here and there, bolted to the inner surface. The air was clean and redolent with a sweet fragrance, thanks to the many flowers in bloom.

“Wow!”

Diana beamed. “Remember I mentioned to you I believe people are more productive when they’re surrounded by the beauty of nature? We wanted to bring that to Shambhala. There’s also a park in the ops module, just like this

one.”

“Amazing,” I whispered.

“Come on,” she said, grinning at my expression of pure wonder, “we still have more to see.”

Diana showed me the dining room and observation deck, and next, we visited station operations. Then we took the emerald-green corridor to the garden, or the “farm,” as Diana called it. This module was filled with floor-to-ceiling racks of vegetation, similar to the arrangement on the lunar colony.

We each hooked one foot under a bar running along the length of the outer wall to keep from floating away.

“These cultivars are perfectly adapted to microgravity,” Diana said.

“Are they genetically modified?”

Just then, a woman poked her head from behind a wall of foliage. “No, not here.

There are plenty of plant species specifically created for micro-g, but after everything that happened with the genetically modified food crops back in the mid-2000s, we decided to go the old-fashioned route—selective breeding, like our ancestors did twenty-four thousand years ago.” She removed her glove and reached out her hand.

“Hi, I’m Zoe.” Her hand engulfed mine as she squeezed softly, her warmth spreading through my fingers. Her expression was open and friendly, her blue eyes framed by thin, arched eyebrows.

I looked around at the tangle of greenery and considered Zoe’s remark about the GMOs. What a tragedy that had been! I didn’t know the whole history—it had reached a crisis point about twenty-five years before I was born—but, judging from the aftermath, it was one of the biggest ecological disasters of the century, rivaling global climate change in terms of its catastrophic environmental impact. So much of the natural environment destroyed, mostly in North America and the sub-Saharan African continent.

That was when California seceded from what was then the United States to

become its own country. Later, many other states and regions followed California's example.

The middle of the continent had been almost entirely wiped out—the people, the fauna, the ecology, everything.

It took years to repair the damage, and still much of the land was barren. It wasn't the genetic modification itself that had caused all the problems, it was the company that 39

owned the genes, and their pesticide monopoly. All for profit. Pure, unadulterated greed. And living creatures paid the price, not only humans, but so many animals, and the environmental destruction was shocking.

That disaster had come right at the end of many years of devastating global viral pandemics, starting in 2020 with the SARS-CoV-2 virus. That virus was a walk in the park compared to what came after. In only twenty-five years, over half the world population had died off, and since then, human fertility rates had plummeted. The pandemics, along with decades of rising global temperatures thanks to unchecked greenhouse gas emissions, had brought the human race nearly to the brink of extinction.

It was a bleak time for science, a bleak time for the planet.

Within five years of the disaster, the World Government had been created, spearheaded by the newly formed southern African nation state Amandla Wobumbano, which included Zimbabwe, Mozambique, Namibia, Botswana, and South Africa. In addition to overseeing environmental protection protocols, the Amandla Wobumbano governing body guaranteed that every adult on the planet received a minimum wage and basic healthcare. Not a single country refused to join the World Government initiative, perhaps the first and only time in human history when the whole world was in agreement. Each country was an autonomous entity, with its own languages, customs, and local laws, but all agreed to obey the World Government mandates, and the World Court was the highest tribunal of the Earth.

I mentally shook my head, coming back to the present.

“Let's head back over to the lab module,” Diana was saying.

“Nice to meet you, Zoe,” I said.

“Likewise, Calli.”

As we floated down the corridor, Diana said, “Each module has an array of photovoltaic cells, as you might have noticed when we approached the station. Solar power is our primary energy source, but we also use fusion. I’d say about ten percent of our power usage comes from the fusion reactors, even though the photovoltaics produce more than enough energy for our needs. We’ve stockpiled helium-3 for our fusion reactors, power for a hundred years or so. We recycle, so we have plenty of water and air. Carbon dioxide is sequestered in plants, like on Earth and the lunar colonies, and we also have carbon dioxide scrubbers if needed.”

“This seems more like a colonization structure, or even a generational ship,” I said, thinking out loud. Diana looked back at me over her shoulder as we entered the lavender corridor, an unreadable expression on her usually open face. Had I said something inappropriate? “I’m very impressed,” I added quickly.

When we reached the lab module, she stopped at a door next to the physics lab.

“This is Naomi’s lab.” She opened the door, and I followed her inside.

Naomi was sitting at a computer console, her foot hooked around the rung of her chair. “Calli! Welcome.” She released her foot and pushed her way over to the door, grabbing a railing on the wall to keep herself from crashing into us. “Now you can meet 40

my babies!” She gestured with her free hand toward a complex of transparent tubes, each about six centimeters in diameter, and connected chambers, mounted on an entire wall of the lab.

Several mice were running along the tubes, which opened into what looked like miniature jungle gyms. More mice were in these areas, eating from feeding tubes, grooming themselves and each other, clinging to tiny, suspended ladders, running on exercise wheels, or curled up sleeping in cubby holes.

“You have mice!”

“They are my work, all created parthenogenetically, and I adore every single one

of them. That's why I prefer not being far from the station for very long." Naomi looked over at the wall, a soft expression on her face. "I miss them." She turned to me. "How did you like the tour?"

"This station is incredible."

Diana touched my arm. Turning quickly, I had to grab the railing to keep myself from spinning out of control. Her hand was warm and soft, her touch gentle. My skin where her hand rested tingled. "I'll leave you with Naomi, I have some administrative work to do. We'll see each other at dinner." She gave me an electrifying smile, and pulled her way out of the lab, shutting the door behind her.

I stared at the closed door.

"Hmm," said Naomi. I turned to look at her. "It happens to all of us."

"What are you talking about?"

"Diana."

"What do you mean?"

"We all fall for her. Even us heteros."

Heat blazed in my cheeks. "No, I, I mean, I'm not"

"Come on, I've seen the way you look at her."

I turned away, focusing on the mice.

"Hear me out," said Naomi, "she's a delightful human being, and we all adore her, but don't get your hopes up, because—"

"Can I hold one?" I interrupted, pointing to the mice. My mind was a bundle of confusion, and my body simultaneously hot and cold.

"Certainly, they are all dears." We went over to what could only be described as a mouse condominium. Naomi opened a door, reached in, and carefully picked up a mouse. "This is Asteria. I call her Aster." She held the mouse out to me.

I took Aster in my hands and held her close to my chest. My heart was beating wildly.

I tried to calm down, consciously slowing my breathing. As I stroked the mouse's tiny body, my own relaxed, the tension draining out of me. "Why are there mice here?" I asked, petting Aster's head with my fingertip. Aster looked up at me with her big, expressive eyes, and mine filled with tears. So many emotions, I didn't know what to do with them.

"We hope to send them on a space journey."

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"You mean, they are *guinea pigs*?" My hold on Aster tightened.

Naomi looked at me with tenderness. "Listen, I know what you're thinking: animal experimentation and all that. But if we, and I really mean you and Hadley, can develop the technology for ftl travel, we can't instantly send a human. I love these mice more than I can say, but if it's a choice between Aster and you, for example, losing Asteria would be far less devastating."

"It's up to me to make sure that no one is lost, mouse or human," I vowed, thinking about Laika, a stray dog found in the streets of Moscow, who was the first Earth inhabitant to orbit her home planet. After hearing the story as a child, I couldn't stop crying for days. At that time, the technology didn't exist to bring a spacecraft back to Earth, so the plan was to allow the little mongrel to perish in space, completely alone.

The dog's quick death, due to overheating, was, I supposed, a blessing.

"She fancies you," Naomi said, pointing at Aster.

I looked down at the little mouse. "She's very sweet."

"Another mythological figure."

"What?"

"Asteria, the Titan goddess. She had to run away from that hound dog, Zeus. What a pain in the arse he was. She turned herself into a quail to get away from

him, you know the story.”

“Not really.”

“Oh, I figured with your name, you would be up on all that mythology stuff.”

I laughed. “I didn’t exactly choose my name.”

“Thought it suits you.”

Rubbing my cheek against Aster’s silky head, I watched as the other mice scurried around in the condo. “I always thought mice were nocturnal, but these girls seem really active, and it’s the middle of the day on the station.”

“Thanks to selective breeding, that trait has mostly faded in laboratory mice. It works for me. This way I have more opportunities to interact with them without disrupting their sleep cycles.”

“That makes sense.”

“Hey, it’s time for lunch,” said Naomi, glancing at her wrist computer. “Want to join me?”

I returned Aster to her friends and followed Naomi through the long corridors and into the dining room.

“The loo’s right there.” Naomi pointed to a set of doors on the other side of the room.

“How’d you guess?” I asked with a smile. After a quick detour I joined Naomi at the buffet table. The contents had me baffled. “What’s all this?” I asked, pointing to the bins filled with small, shiny balls, the size of large marbles.

“Oh, you’re probably used to micro-g food and drinks in biotex bags, aren’t you?”

“Uh-huh,” I said, reminded of the pabulum served on the Terra-Luna Express.

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She picked up a bowl, handing it to me. Then she took another bowl for herself,

opened the hinged lid, and began to fill it with different balls. “This is something the chefs on the Moon thought of. They felt sorry for us, eating reconstituted goo. Every one of these little balls,” she held up one to show me, “is a bite of food, in an edible wrapper. Like the water blobs on Earth.”

“Oh, sure, but these aren’t transparent like the edible water blobs.”

“You mean these.” She pointed toward a bin filled with edible water balls at the end of the buffet table.

“They’re made of some kind of algae I think.”

“Yeah, edible and flavorless. But our chefs are using the same technology for food.

Their process keeps the food fresh for weeks. So incredibly practical.” She popped a food blob into her mouth. “And delicious!” She pointed to the small placard attached to the buffet table. “There’s always a sign to tell us what we’re eating. Today is curried potatoes and lentils.”

Selecting a pair of chopsticks, I filled my bowl with the small balls, then took a few water blobs, and closed the lid to keep the balls in place as I carried the bowl to a table.

We sat, anchoring our bodies by hooking our feet on the rungs of our chairs. A strip of Velcro was affixed to the tabletop and also to the bottom of my bowl, and I placed my bowl on the strip.

I picked up a food ball with my chopsticks and put it my mouth. “Oh my god,” I said, or rather, “Mm mgh ghh,” my mouth full of food.

“I know! It’s good, isn’t it? I’ve never had better space food. You’ve got to know, everyone who works for the Foundation is a frigging artist. The chefs are geniuses. At the moment, everything is processed on the Moon, but soon we’ll be doing it ourselves, with the food we’re growing here on the station’s farm. Mei Xing and Fae, they’re the station ops crew, are working on it as an extra project.”

I took another bite of food, breaking the rubbery membrane with my teeth and savoring the burst of flavors. “Hey, I like the mouse condo by the way. Did you

design it?”

“Mouse condo!” She grinned at me. “What a brilliant description, I love it! Yes, it’s my design. I wanted to create an environment where the mice could move easily in micro-g, and spaces where they could sleep, like little dens. The tubes are just the right diameter so that the mice can run without the danger of floating off into space, and the inner surface is lined with a transparent cloth they can grab onto with their claws. There are also games and puzzles for the mice to solve for treats, and every month or so I tamper with the design a bit, so they have new places to explore.”

“How do you deal with, um, the poop?”

“My mice are very well trained,” said Naomi, straightening in her chair, a hint of pride in her voice. “There are a few ‘toilets’ in the *condo*.” She smiled at me when she said the last word. “The mice go in, to do their business, pooping or weeing on a special substrate which absorbs it all, and also disinfects their feet. There’s a light suction below 43

the substrate, so if the mouse’s aim is imprecise, the waste still goes to the right place.

Then the substrate is automatically recycled.”

“Clever. I assume the mice take the same pills we do to counteract the negative physiological impact of microgravity.”

Naomi snorted. “If only! I tried pills, but it was a nightmare convincing the mice to eat them, so I developed a delivery system. It’s an implant, and it gives the correct dosage every six hours. We humans only need a dose every twenty-four hours, but the mice are so small, and their metabolism is awfully fast, so an implant was the best solution.”

“Are you planning on making an implant for humans, too?” I looked at her hopefully.

“Already in the works.” Naomi smiled. “I’ll keep you posted.”

I looked around the room, taking in my surroundings. About twenty tables with chairs were bolted to the floor, and along the far wall was an immense window

looking out over another module. Technically in microgravity there was no need for chairs, but here on Shambhala each space was beautifully constructed, with a clear up-down orientation, like on the Terra-Luna Express, with chairs, desks, tables, even couches, all with rungs or straps to keep our bodies stabilized. The floors, walls, and ceilings were padded, and handrails were judiciously placed. In the government space lab where I had worked as a graduate student, all the areas were strictly utilitarian. In contrast, this station had a comfortable, homey feel.

We finished our lunch and deposited our bowls in the automated sterilizer next to the buffet table. As we headed toward the door, I touched Naomi's arm. "Hey, Naomi?"

"Yeah?" She turned toward me, grabbing the railing on the wall.

"Um, what were you trying to tell me earlier? What were you going to say about Diana—"

At that very moment Diana came through the door and into the dining room, almost colliding with Naomi and me. "Calli, so glad I found you," she said. "Naomi, I need to borrow Calli for a little while."

I shot a glance at Naomi, who had a worried expression on her face. She touched my arm. "I know what you're asking," she said quietly. "We'll talk later, okay?"

CHAPTER FIVE

I followed Diana out the door and down the corridor, through the hub, and into the ops/engineering corridor. The yellow lining was cheerful, the color of sunflower petals.

Diana opened the door to a small office, and we went inside. She sat down on the couch next to the door, and I sat beside her, waiting. Reaching over to her desk, she picked up a tablet which was tucked under an elastic band attached to the surface. “I was able to finish my administrative work early, so I wanted to get this to you as soon as possible. No need to wait till dinnertime.” She smiled, and my heart melted. “What do you think?” She looked at me expectantly.

I realized I had no idea what she was talking about. Was she asking me what I thought about her? About us? About the possibility of ...? I stared, trying to rein in my wild thoughts.

“About the job,” Diana added. “Are you interested?”

The job, of course. I was such an idiot! “It would be an honor to work here.”

“Excellent!”

Oh god, another one of those radiant smiles.

Diana handed me the tablet. On the screen was my contract, with my salary, a startingly high figure. “No, no,” I stammered, “it’s too much money.” To be a part of this, all this—I would do it for free. “You are too generous,” I whispered, staring at the screen, not wanting Diana to see my tear-filled eyes.

“The contract is for three years, renewable. With the usual non-disclosure clauses and all that.” She waved a dismissive hand at the tablet. “All we ask that you don’t talk in detail about the Foundation’s business or publish your work without first running your papers by the AI, Annie.”

“The AI is on the station, too?” I asked.

“Yes, she’s a network unto herself. The quantum computer hardware is here in

the ops module, in Kamana's office. That's also where the mainframe computer is located.

Here and on Arcadia we have both classical and quantum computer systems. Like I said before, our engineers like redundancy."

Scrolling through the document, I read quickly. At the end of the contract I placed my thumb against the screen in the signature box.

"Welcome to the team," said Diana, smiling broadly. She pushed herself off the couch, her foot still hooked under the bar on the floor. I stood and she reached out to give me a hug. I hugged her back, relishing the feel of her firm, shapely body pressed against mine. My heart was pounding furiously in my chest, and I was afraid that Diana could feel it. She relaxed her hold, and I let go reluctantly.

Right then, I knew without a doubt that Naomi was correct. Diana had been so kind to me, so attentive, and her smile when she looked at me—it was like living in a cave for years, and she the first glimpse of sunlight. My mind was a whirlwind of confusion.

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I *liked* her. Maybe I was even a little bit in love with her. It had been years since I'd felt this way—I was giddy as a schoolgirl. I should tell her. Or at the very least, say *something*.

"Um, I'm happy to be working with you, I mean, the team, everyone. Thank you."

"We expect extraordinary things from you, Calli." Diana caressed my upper arm affectionately.

As I opened my mouth to say more, the door slid open, and a woman put her head inside.

"Marta, come in," said Diana. "Calli is the newest member of the team! Calli, this is Marta, she's the chief engineer on the station."

"Nice to meet you," Marta said, shaking my hand.

“You, too,” I managed, not sure whether to curse Martha’s timing or thank her for the interruption. I had wanted to tell Diana how I felt, it had been on the tip of my tongue, but even the thought made my stomach do somersaults. And besides being completely inappropriate—she was my *boss*—I had always been inept at this kind of thing, never knowing what to do or say, or even if the other person was attracted to me. Was it possible that Diana felt the same for me? Obviously, I couldn’t say anything.

Or could I? No, of course not! I had just signed a three-year contract! My thoughts were a jumble, my emotions a storm.

Trying to calm my mind, I studied Marta as she handed Diana a tablet. She was of medium height, with honey-brown hair and eyes, and strong, even features. She looked to be in her mid-forties, a strikingly beautiful woman, though I barely noticed—my thoughts were consumed with Diana.

“Here’s the shipment manifest you asked for.”

“Everything’s accounted for?” asked Diana, taking the tablet from Marta’s outstretched hand and glancing at the screen.

“Yes, Quinn and Mei Xing took care of it. Per your instructions, they didn’t open the crates, just checked the bar codes. Everything’s in cold storage.”

“Good,” said Diana.

“Are you positive you don’t want us to review the contents, Boss?” Marta compressed her lips into a thin line.

“No need, Marta. I helped pack the crates when I was on Earth.” Diana looked at Marta, her gaze steady. “Supplies for a few future experiments I have planned.”

Marta shrugged. “Okay. It’s only that there were a lot of them.”

Diana smiled enigmatically. Clearly, Marta would get no more information from her.

“Oh,” said Diana brightly, “can you be a sweetheart and show Calli her room? It’s fourteen-alpha.” She flicked her eyes to me, “So you can rest if you want to.” She turned her attention to the tablet for a moment, lips pursed, then looked at

Marta and added,

“And show her the gym, too, if you don’t mind.”

“I’m on it,” said Marta.

Diana smiled at me. “I’m thinking you might like to spend the next couple of nights here on the station, to get a feel for the place, and you can take the shuttle back to the 46

lunar surface on Sunday. Or would you rather go this evening? The regular Friday shuttle leaves at six-thirty.”

“No, I would love to stay, that sounds great.” Maybe I could find Diana later, maybe we could have dinner together My mind was racing, my stomach in knots.

“Excellent. I’ll see you later. And now, I have an important matter to attend to.”

Marta snorted. “I’ll bet I can guess what that is, or rather, who.”

My eyes darted from one to the other, completely lost.

“Come on, Calli,” said Marta. I followed her into the corridor and the door closed behind us with a definitive click.

Marta led me back to the hub and down a pleasant, light blue corridor. We passed two hallways as we continued to the center of the module.

“Cabins are down the hallways,” Marta said. She opened the door at the end of the corridor and ushered me into a large, cylindrical room full of exercise equipment. The walls were lined with vegetation, much like the parks, and I could see four ladders attached to the walls, each extending up to a doorway. Marta followed my gaze. “There’s a second level of living quarters, and those are the entrances to the gym. Though, at the moment, we aren’t enough people to even fill the alpha level.” She pointed to a door on the far side of the room. “The dressing room and showers are through that door. If you get lost or have any questions, you can always ask Annie. Come on, I’ll show you to your cabin.” I followed her to the outer ring of living quarters. Marta indicated a door, fourteen-alpha. “This is yours.”

“Thanks, Marta.”

Marta gave a quick nod and propelled herself down the hallway.

I opened the door to my new quarters, expecting to see a space similar to the cabin on the Terra-Luna express, and my jaw dropped—this was bigger than my apartment in Los Angeles! A huge virtual window occupied one entire wall, the scene a spectacular, snow-capped mountain range, and the furnishings included a couch, a table with four chairs, and a bed. The whole room was bright and cheerful, filled with artificial sunlight.

There was also a small bathroom with a toilet and sink—the sink just two tubes, an influx tube supplying water and a suction tube. For showers, I would need to go to the gym.

My backpack was waiting for me in the cubby next to the door, and I took my notebook and pen out, then put them back again, too agitated to concentrate. My brain was on overdrive, swirling with thoughts of Diana. I knew almost nothing about her.

In all our hours together, she never once divulged anything intimate about her personal life. Why had she been so secretive? Was she hiding something? I rolled my eyes, feeling ridiculous. She probably just didn’t enjoy talking about herself. I settled onto one of the chairs, then immediately pushed myself out of it, so fidgety it was impossible to sit still.

Needing to burn off my excess energy, I headed to the gym. There were shorts and T-shirts in the cubbies, arranged by size, as well as fresh towels and stacks of clean jumpsuits. I changed clothes and did an abbreviated, one-hour micro-g routine, then 47

went back to the dressing room to clean up.

The shower was unlike anything I had ever seen before. In my experience, keeping clean while on a space station entailed using waterless shampoo and moist towelettes, but this was something else entirely. The stall was completely enclosed, with a horizontal bar at the bottom to use for stability. I stripped off my clothes and stepped inside, not knowing what to expect, and pushed a button on the side of the stall. Tiny globules of water sprayed out from various showerheads, a light airflow pulling the drops downward in a subtle simulation

of gravity. The sensation of the water droplets hitting my body was like hundreds of tiny caresses. Pressing down on the pump head of the liquid-soap dispenser, I caught the shimmering glob in my hand, then rubbed it all over my body and in my hair. The floral scent was delicate and fresh. After a thorough rinse, I turned off the spray, and the warm, gentle breeze dried my body and hair. I had never felt so clean in space.

I chose a jumpsuit from the stack, running my fingers over the soft, breathable fabric.

After getting dressed, I dropped my used jumpsuit, shorts, T-shirt, and towel into a bin marked “laundry”. The bottom of the bin opened and the contents were sucked through a tube, I assumed to a laundry facility, probably staffed by bots. If the Foundation had enough funds for industrial 3D printers, not to mention this gigantic orbital lab, they definitely had sufficient resources for housekeeping bots—an extravagance only the wealthy could afford on Earth.

With nothing better to do, I decided to go to the observation deck, and settled into one of the many chairs scattered around the room, near the window. The view of the Moon below us was breathtaking. Hard to imagine that there was so much life and activity below the dead-looking surface. I stared out the window, lost in thought.



An hour, maybe two, had gone by when I felt a tap on my shoulder. I turned around to see Diana behind me. My heart skipped a beat, and a wave of happiness washed over me.

“Diana, you’re here, I was hoping to see you—” My hands felt clammy, my body hot.

“Calli, glad I found you. I want you to meet someone.”

I was so focused on Diana, I hadn’t noticed the petite, stunningly beautiful Japanese woman beside her.

“Callisto, I’ve heard so much about you.”

My eyes flicked to her, almost resentful at her intrusion. I wanted another

opportunity to be with Diana, alone.

“This is my wife, Izumi,” said Diana. “She just arrived on the station.”

Suddenly my entire body was tingling, as if I had put my finger in an electrical socket.

Diana was speaking, I heard her words, but my mind was struggling to process the 48

information. *Wife?* Diana was *married?*

Diana looked down at Izumi, her eyes softening. Izumi met her gaze and smiled. I stared at them in disbelief. How can she be married? No, this can't be happening.

Diana turned back to me. “Izumi's an evolutionary anthropologist, and the founder of Portal al Porvenir.”

“I've been busy with some Foundation business on Earth.” Izumi's expression clouded, and she and Diana exchanged an uneasy look. “I'm glad to finally be home.”

“Calli, you're very pale. Are you okay?” asked Diana, studying my face with alarm.

I nodded weakly.

“It's the microgravity,” said Izumi. “Perhaps you should go lie down.”

Finally, my brain caught up. “No, I'm fine, I felt dizzy for a second, that's all.

Probably spent too much time in the gym.” My stomach was doing somersaults.

Izumi peered at me with obvious concern. “If you're certain you're okay, it would be lovely if you could join us for dinner.”

No, I couldn't, I just couldn't. “Maybe I'll take your advice and go lie down for a half hour or so but thank you for the invitation.”

“There will be other times. It was so nice to meet you.”

My smile was feeble.

Diana and Izumi left the observation deck, hand in hand, and my heart sank.

Thankfully I hadn't told Diana what I was feeling! At least I had avoided *that* humiliation.

I exited the observation deck in a haze, with no conscious destination, but somehow, I ended up in front of Naomi's lab again.

Naomi looked up at me as the door slid open, a smile on her face, then she saw my expression and her smile faded. "Oh, Calli." She came over and put her arms around me. "I presume you've met Izumi? I heard she arrived this midday."

I could only nod. With the lump in my throat, and the weight in my heart, there was no room for speech.

Naomi released me, then led me to a couch, where we sat down, facing each other, pulling the straps attached to the cushions over our thighs. "She's a darling, isn't she?"

Like Diana."

"Yes, she seems amazing." I picked imaginary lint off my sleeve. "I don't know what I was thinking."

Naomi reached over and gave me another hug. "Like I've told you before, it happens to all of us. My apologies I couldn't find time to tell you about Izumi."

"It's okay, you tried to warn me."

"Want to hold Aster?" she asked, her expression soft.

"Okay," I said, my voice subdued.

Naomi got up and went over to the mouse condo, reached in, and took out a mouse.

"How can you tell them apart?" I asked.

She gave a little laugh. "That's like asking a mother how she can tell her

identical 49

twins apart. I simply can.”

She handed Aster to me, and I held the little creature to my chest, her whiskers tickling my neck.

“Would you like to have dinner?” Naomi asked, her voice gentle.

My body stiffened. “No, not now, not yet. Diana and Izumi are probably still in the dining room.”

“I’ll bring you something, then.”

“Thanks.” I looked up at her. “I’ll be okay. I just got lost there for a minute.” Aster snuggled against me, and my heart felt a little bit lighter.

“Easy to do, my friend. But you shall find your way.”

I sat with the little mouse, my mind a blank, until Naomi returned with two bowls of food in her hands.

“Here, eat.” She held out a bowl.

Getting up, I put Aster back in the condo, wiping my hands on my jumpsuit, more out of habit than necessity—the mice were scrupulously clean. Taking the bowl and set of chopsticks from Naomi’s outstretched hand, we sat together on the couch.

“Listen, Calli, regarding Diana ... well, she’s Diana. She’s a brilliant leader, and a good mate to all of us. But she’s got a huge blind spot. She’s absolutely clueless of how others respond to her. Like I said, we all fall for her.”

“I don’t know what came over me. I’m usually not like that, I swear” I stopped, feeling the tears well up in my eyes.

“I get it, I do. With the emotion and excitement of the new job, being in space, everything happening so fast. And Diana is a wonderful human being. She makes us all feel like we are special. When she talks to you, she is completely present. I’ve known her for years, and she’s that way with everyone.” Naomi

paused, looking toward the mouse condo, her eyes unfocused. “I’ve never met anyone so genuinely kind and loving

... well, besides Izumi.”

I followed Naomi’s gaze, and watched the mice scurrying through the tubes, perfectly comfortable in micro-g.

She turned back to me. “Hey, you’re not fated to follow in the footsteps of your namesake, I’m fairly certain.”

“Huh?” My brow furrowed.

“Oh, I keep forgetting, you’re not up on Greek mythology.”

“I do know a little. Callisto was a huntress, friends with Artemis.”

“Yeah, among other things. But all the companions of Artemis took a vow of chastity.”

I felt myself redden. “As of right now that’s the last thing I want to think about.”

Naomi placed her index finger on her chin. “Now I recall, she was the one who broke her vow. Zeus disguised himself as Artemis and took advantage of Callisto, who was in love with Artemis. Poor thing, he got her pregnant.”

“Oh, so that’s how she ended up with a son.”

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“Yeah, then someone, possibly Zeus, turned her into a bear.”

“That part I knew, about the bear.” I shook my head. “So much drama! I don’t envy the Greek gods, that’s for sure. Seems like Zeus was nothing but trouble! Anyway, right now I just want to focus on my work.”

“I understand. This is a brilliant opportunity.”

I popped a ball of food in my mouth. The food really was surprisingly good. Looking up at the ceiling, I chewed slowly, my mind deep in thought.

I'd been in relationships before, but, other than Olivia, nothing that lasted more than a few months. I was "too involved with my studies," or at least, that was the most common criticism.

Before Olivia, my longest relationship had been with Juliana. We met at a party, one of the very few I attended as an undergrad. Juliana and I were immediately drawn to each other. She was my height, with long golden-brown hair, dancing eyes, and a delightful Brazilian accent. We hid out in the kitchen and talked for hours, and when I got home that night, I saw she had left me a video message, suggesting we get together the next day for coffee. On our second date, we ended up in bed together. Juliana was sweet and affectionate, and I called her my angel.

We spent as much time together as my busy schedule would allow, but it wasn't long before Juliana began to ask for more. "Why don't you call me? Or at least send me a message when we aren't together?" she would ask. "Just write me when you think of me during the day, that's all I want."

But the fact was, I didn't think about her. I was taking four upper-level physics classes, and my thoughts were turned toward making sense of the veritable zoo of subatomic particles, untangling the perplexing mathematics of group theory and Green's functions, not to mention struggling to comprehend Feynman diagrams and the spooky action at a distance of quantum mechanics. My head was full, and, when I was in class or studying, there was no space for Juliana, or anyone else for that matter.

When I lamented to my study partners that Juliana was unhappy with the limited time I could spend with her, Jill told us that her boyfriend broke up with her in the middle of a week-long electricity and magnetism take-home exam because she was unavailable.

"I couldn't even cry when I got his holomessage," she said. "The exam was too difficult, and I didn't have the time or energy to even process the breakup until I handed it in. But by that time, it was too late."

"I know, E&M is the worst!" Darla said. "When I first got together with Dante, it was right before a big project was assigned in my upper division E&M course. I told him I couldn't see him or talk to him for the next three weeks. He thought I was blowing him off."

I grimaced. “Yeah, if you aren’t in the trenches, it’s impossible to understand the intensity of what we’re doing.”

A few months later, Juliana ended our relationship. I understood. My heart was
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already taken—I was in love with physics.

When Olivia and I met two years later, I was twenty-four, and had recently started graduate school. She was a second-year grad student in geology, with an undergraduate degree in synthetic biology. We kept the same long hours in the library, studying till late every night, and after many nights of furtive eye contact and shy smiles, we introduced ourselves.

After that, our friendship blossomed. We would share meals in the cafeteria, and talk about our professors, our classes, and the rigors of grad school life. And then there was the academic work. She was as intense as I was, and it was nice to have a companion during my marathon study sessions.

One night, as we sat side by side at a table in the library, she spoke my name softly.

I looked up from my notes and turned toward her. She leaned over and kissed me on the lips. You could have knocked me over with a feather. I had no idea she felt anything for me but friendship, and until that moment, hadn’t even considered a relationship with her. But her lips were so soft, and with those dark brown, almond-shaped eyes, half closed and seductive, my brain switched gears. I kissed her back. Pure heaven.

Before long, we had moved in together, classic lesbian behavior. We shared a tiny apartment a few blocks from the university. It was such a relief to be with someone who understood the demanding study schedule of graduate school. And we were compatible in so many ways. Living with Olivia was easy. It felt like home.

In the beginning, our relationship was full of passion—we could barely wait to get our clothes off once we were in our apartment after a long day of classes. Eventually, a deep love and affection replaced the excitement and ardor of those first months. We were still very much attracted to each other, but the intensity and recklessness faded, and we settled into a comfortable routine.

We had been together for a little over a year when Olivia got the opportunity to study for a year in India, an exchange program with a focus on her specialty, terraforming.

She was thrilled, and I was, too, though I would miss her terribly. A year wasn't so long, I reasoned.

A few days before she was to leave, I came home from a late-night study session with my classmates, and found her sitting on the couch, in the dark.

"Olivia, what's going on? Why are all the lights off?" I switched on the living-room light.

"When it started to get dark, I just didn't feel like getting up and turning them on."

She was holding one hand in the other, rubbing her palm with her thumb, the way she always did when she was nervous.

"What's wrong? What happened?" I stared at her.

"Come, Little Bear." She patted the space beside her on the couch.

"Little Bear" was the name she had bestowed upon me when we spent an evening on the roof of the university library staring at the stars, a few nights after our first kiss.

I had explained to Olivia that my namesake, Callisto, was associated with the 52 constellation Ursa Major, and her son, Arcas, with Ursa Minor. Then I proceeded, much to Olivia's delight, to wax poetic about Ursa Minor, *Little Bear* in English, and its most famous star, Polaris. Big Bear would have been more appropriate, but Little Bear it was from then on.

I sat down, bewildered.

"We have to talk."

"Talk?" I repeated stupidly, brow furrowed. "Talk about what?"

“I, um.” She took my hand in hers and looked away.

“What? What is it? You’re starting to scare me.”

“I think, well” Her voice trailed off.

“Olivia, talk to me!” I put my free hand on her shoulder, and she turned to me.

“I think we should break up.”

“What?” I was so stunned I could barely process her words.

“I don’t think we should be together anymore.”

“But ... but, why?” I asked, truly baffled.

“You know I love you, don’t you?”

“Yeah,” I said, though at that very moment I wasn’t so sure.

“I just think that we’re too young to be in such a serious relationship. I’m your first long-term girlfriend.”

Biting my lip, I shook my head. “No, Olivia, this isn’t about me.”

She squeezed my hand. “No, it’s about me. I’m not ready. And it feels like the right time to make a change in our relationship, since I’ll be leaving, anyway.”

Tears were running down my face, dripping off my chin. I hadn’t even been aware that I was crying until I felt the wetness on my face.

“I’m so sorry.” She took me in her arms, and I rested my cheek against her chest, listening to her heart beating, my tears soaking her shirt. “Still friends?” Olivia asked, a catch in her voice.

I sat up, wiping my nose and eyes with my sleeve. “Of course.”

But I had needed time to come to terms with our breakup. I hadn’t seen it coming.

She would be going to India for a year but I had assumed we would continue as

a couple. She slept on the couch that night and left the next morning to stay a few days with her family, to give me a little space, before she made the big move to the other side of the planet.

I was lost. The apartment felt deserted. It was as if she had taken all the joy and happiness with her. Her drawers were empty, her half of the closet bare, a few empty hangers where her clothes had once been. Her electronic toothbrush, gone. Mine looked so lonely and desolate all by itself on the bathroom shelf. I curled myself into a ball and cried for a week, hardly sleeping, barely eating, I couldn't be bothered to take a shower. I messaged my study group, telling them I was sick. No one came to visit.

They were all too busy with school, with their own lives. I was alone and desperately, devastatingly sad.

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Olivia tried contacting me in those first few weeks, but I just couldn't talk to her, and wrote her a message telling her I wasn't ready to communicate. She messaged me back, saying she understood, and she would wait for me, for as long as I needed. It was only a matter of time, I knew, but how I had wished the time would pass more quickly.

Eventually my broken heart healed, and we recovered our friendship, exchanging messages and holochatting, and when, a year later, Olivia told me about her new girlfriend, I was happy for her. She was my family, and I loved her with all my heart.

As for me, I was so focused on my own studies, I didn't even think about being in another relationship. Sure, there were women who caught my eye, causing a slight stirring in my heart, and, I must confess, in other parts of my body, too. But, in the end, my true passion was for physics, and there was no room for anything or anyone else. It had been five years since Olivia, five years of celibacy. Physics, after all, is a jealous mistress.

My reaction toward Diana threw me off guard. I had felt something for her, an attraction, a connection, and all those years of solitude came crashing down on me.

Something inside of me had woken up, and I wanted more. I wanted to feel a

woman's body under my hands, to caress the supple curves, to kiss pliant lips, and to experience the emotional closeness of a partner. Diana's effect on me was profound. Thanks to her, I understood that my heart was finally open to the possibility of real intimacy.

Diana was not the one for me. But her charm, her beauty, her kindness, and her attention, it was enough to knock anybody off their feet. Now that I could think more clearly, I didn't know when or even if I would ever find someone to share my life with, and maybe being single was fine, too. But it was time for me to move on to the next stage of my life, whatever that might entail. I wanted to be ready and open to the possibilities.

"You seem light-years away," said Naomi, breaking my reverie and snapping me back into the present moment.

I smiled wanly. "Just contemplating the vicissitudes of interpersonal relationships."

Naomi laughed. "You'll be alright, Calli."

Shifting my attention to the wall of mice, I easily spotted Aster, who was looking back at me with those dark, beautiful eyes. Yes, I would be fine.

CHAPTER SIX

I ate breakfast in the dining room with Naomi the next morning. Diana and Izumi were at a table on the other side of the room, and I watched them furtively, observing their body language and interactions. There were few overt signs of affection between them, but it was obvious, even from across the room, that they were deeply connected to each other. I sighed.

Naomi touched my hand, getting my attention. “You see it, too, don’t you? How together they are?”

“Yeah, I see it.”

“It’s beyond love ... as if they were crafted for each other.” Now it was Naomi’s turn to sigh. “Ruins it for the rest of us mortals. I can’t imagine being so connected to Evan.” She shook her head. “We get on really well, but the kind of love that they share,”

she jutted her chin toward Diana and Izumi, “it’s on a whole other level.”

Just then Izumi laughed, and Diana’s face filled with joy.

“How long have they been a couple?” I asked.

“Oh dear, I don’t know.” Naomi put her finger behind her ear. “Annie, how long have Diana and Izumi been together?” A moment later she said, “Based on the public record, they’ve been married for seven years. Though hard to say how long they were together before that.”

I stared at her. “What did you do? Do you have some kind of computer implant?”

“Oh, I totally forgot!” She shifted toward me and pulled her short hair away from her left ear, pointing to a tiny bump just behind her earlobe. “It’s a transceiver. We all have them.” She leaned back in her chair. “It gives me access to Annie. You can speak with her directly, like we did in your room on the Moon, though this is a bit more private.”

Just then I noticed Diana making her way toward our table. My eyes darted to Naomi's face—I was feeling like a deer in headlights.

"Don't worry," she whispered. "I assure you, Diana has no idea what you've been feeling."

I felt my face redden. Why was I blessed with such fair skin?

"Good morning, ladies," said Diana, smiling warmly.

"Hello, Diana," Naomi said.

I smiled up at her, not trusting my voice.

"So, Calli, now that you're part of the team, I expect that you will need to go back earthside to get your affairs in order. There's a transport to the Moon tomorrow afternoon at twelve-thirty, and from there you can fly back to Earth. We can make arrangements for you to come back when you're ready, hopefully it won't be too long."

Did I even need to go back? I had almost no possessions, my apartment was rented by the week, and if I needed to talk to anyone, I could always use holochat. Nothing 55

was preventing me from starting my new life right then and there. "I can make my arrangements from here; there's no need for me to go to the Earth."

"Marvelous!" Diana's smile was nothing short of electric.

A jolt shot through my stomach, but it was only a residual sensation. Seeing Diana with Izumi helped me understand how my feelings were precisely that, *my* feelings, clearly unreciprocated. Diana liked me, of that there was no doubt, but any romantic notions were one-sided. I had been a fool. But, then again, who hasn't been a fool for love at least once in their life?

Diana turned to Naomi. "Can you do me a favor and take Calli to see Doctor Gamon?"

"I'd be happy to."

She shifted her attention back to me. “Doc will give you a physical and also insert your implant.”

“I was just explaining about the implant,” said Naomi.

“Excellent! Once you’re finished with medical, then you’re on your own. Take your time acclimatizing.”

“Thanks, Diana,” I said.

She smiled again, that dazzling smile. How could I not fall in love with her? My gaze tracked her as she made her way back to where Izumi was still sitting, and Izumi took her hand. I looked away.

“Shall we?” asked Naomi.

I glanced at my empty bowl. “Sure, let’s go.”

We deposited our bowls in the sterilization unit before heading to the hub and down the yellow corridor leading to the station ops/engineering module. When we arrived at the module, Naomi opened the door to the clinic, and I pulled my way inside.

“Hi, Doc,” said Naomi, hovering at the doorway. “This is Calli.”

“Calli, welcome.” The woman pushed herself away from her console where she’d been working, floated over to me, and took one of my hands in hers.

“See you later, I have to head to work.” Naomi closed the door behind her.

Doctor Gamon motioned for me to sit on a stool next to her computer console.

“First order of business let’s implant your microchip. You’re right-handed, correct?”

“Uh-huh.” My eyes narrowed and I felt a flutter of anxiety— *How did she know that?*

My stomach tightened, my mind flooding with thoughts of conspiracies and mind control. Things were moving so fast, *too fast*, and there was so much I still

didn't know, about the Foundation, about the research, about the people here on the station.

Accepting a job was one thing, but an implant? My palms began to sweat. "The implant, it's, um, just a computer interface, isn't it?"

"Uh-huh," said Gamon, focused on preparing a syringe.

"It won't, I don't know, mess with my mind or anything?"

Gamon placed the syringe on the table and turned to me, looking me directly in the eyes. She rested a hand lightly on my shoulder. "Implants can be scary, and I promise, 56

you have nothing to worry about. You aren't the first one who has hesitated to get it.

The interface will give you direct access to Annie, and once we get your biosignals into the database, I—or rather, Annie—can keep track of your health. If you suffer any illness or injury, Annie will know, and she will contact me immediately."

"Okay." I wiped my hands on my thighs, looking down at the floor.

"Hey," she said, her voice soft. I looked up at her, once again meeting her eyes. "The implant is voluntary. If you don't feel comfortable, that's fine. And if you'd prefer to wait, think about it some more, or perhaps do some research first"

I took a deep breath and let it out slowly. There was no good reason to distrust this woman, looking at me with kindness and compassion, with no hint of subterfuge or bad intentions. I managed a smile. "I guess I've just seen too many holomovies."

"I understand. Mystery, intrigue, not knowing who you can trust, evil lurking around every corner." Her eyes sparkled. "I'm afraid that you won't get much of that here."

"Oh, that's too bad," I said with a hint of a smirk.

She laughed at my expression. "Sorry to disappoint, but I think you'll find that

Shambhala is very different from most communities back on Earth.”

“I’m already seeing that,” I said, the knot in my stomach loosening.

“Shall we hold off with the implant then?” She raised her eyebrows.

“How does the saying go? In for a penny, in for a pound. Let’s do it.”

She laughed again and picked up the syringe. “I’ll place the implant on your left side, so that you don’t need to use your dominant hand to access it.” She put one small hand on my head, just behind my left ear, and moved my hair away. Then, with the other hand, she deftly pressed the syringe against my skin, and there was a slight pressure.

“That’s it,” she said.

“That was painless.” I smiled at her, my anxiety gone. “You have a charming accent, by the way. Is your first language Thai?”

“You have a very discerning ear.” She pursed her lips, and took my chin in her hand, examining my face. “And you, my dear woman, are of northern European descent, I would say Irish.”

“What gave me away, my accent?”

Gamon burst into laughter.

“I wish I weren’t so fair-skinned,” I confided. “Everyone can see when I’m flustered—there’s no hiding a blush with my skin.”

“Ah, but you are lovely.” She gave me a disarming smile. “So, to activate the implant, all you do is put your finger on your skin, just here.” She pointed to her own implant.

“No need to press hard, a light touch will do. Then you should hear Annie’s voice.”

“Okay.”

“Go ahead, try it.”

I placed my finger lightly on the lump behind my ear.

“Hello, Callisto!” Annie’s voice was in my head.

“You can talk to her like you’re talking to me,” Gamon said.

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“Okay.” My gaze shifted toward the ceiling. “Hi, Annie.”

“Nice to be here with you,” Annie replied. “Let me know what I can do to help.”

“Nothing right now.” I looked at Gamon and cocked my head.

“When you want to deactivate her, just touch the implant again.”

“Oh, okay. Bye, Annie,” I said, moving my finger toward my ear.

“Goodbye, Callisto.”

I touched the lump, and it felt like my brain was filled with silence. “What an interesting sensation.”

“It takes getting used to, but now I can’t imagine life without Annie. Plus, she’s a really good DJ. Any time you want to listen to music, ask Annie to play something for you. Okay, let’s do the routine full-body scan.” She moved over to a human-sized transparent tube, which looked a little like one of the shower stalls in the gym. She opened a door in the front and motioned me inside. “Hook your feet on the bar down there.” She pointed a finger toward the bottom of the tube. I pulled myself inside and did as she instructed. “Once you’re anchored, try not to move. It’s fine to breathe, but too much motion will garble the results.”

I kept my body still as she tapped her computer keypad.

“All done,” she said, opening the door.

I floated out, then sat back down on the stool.

Gamon was studying her screen. “Everything looks good here. You’re perfectly healthy. We’ll repeat the bioscans once every six months to verify everything is working properly.”

“Does this mean I won’t see you for another half a year?”

“Don’t count on it! It’s a small ship. I’m confident our paths will cross every once in a while.”

“I look forward to it.”

She tapped her keyboard a few more times. “Okay, you’re good to go.”

“Thank you, Gamon.”

She smiled at me. “You can call me Doc, everyone does.”

“Okay, Doc. It was a pleasure to meet you.” I looked back as I opened the door.

“And thanks for being so patient with me.”

“Don’t mention it. We’re all delighted that you’re part of the crew.”

Blood rushed to my face. Dang this light skin!

I was anxious to get to the lab, but first I made a detour to my quarters to grab my notebook and pen. As I made my way through the corridors to the lab module, I touched behind my ear.

“Hi, Annie.”

“Hello, Callisto.”

“I don’t need anything, I just wanted to say hello.”

“How nice.”

Disconnecting, I opened the door to the physics lab and went inside. Hadley was
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working at her computer console. She looked up as the door closed behind me.

“Hey, Calli.” She pushed herself away from the console. “Let me show you your workstation.” She let me to the other side of the room, where there was another computer console and a desk and chair.

“I’ve been trying to place your accent,” I said.

When she reached the desk, she turned to me. “Oh? And what’s your best guess?”

“I want to say Norwegian, but it doesn’t exactly fit.”

She laughed. “You’re good! I’m from Iceland. Hardly anyone who isn’t from there can figure it out. But the Norwegian language is our closest linguistic relative, that and Faroese.”

“Faroese?” I cocked my head. “I’ve never heard of that.”

“It’s spoken in the Faroe Islands, an archipelago in the North Atlantic Ocean. Comes from Old Norse, same as Icelandic.” She turned to the console. “Here, I’ll show you how to log into the system. Oh, did you already see Doc for your implant and physical evaluation?”

“Yeah, I just came from the clinic.”

“That means all you need to do is touch the computer screen with one of your fingers. Since you just had your physical, your biometrics are uploaded into the computer system. You can access programs and your files by voice, too, if you want.”

As I peered over her shoulder, she swiped the screen, which lit up, then tapped an icon and told me to touch it with my finger, which I did. I was logged in.

“You can also work in holographic 3D,” said Hadley.

“I’m familiar with this setup. We used the same software in the university.”

“Perfect. I’ll send you what I’ve been working on, and the results of my experiments with the negative energy production and confinement, so you can review everything.

Then when you’re ready, we can sit down and figure this warp bubble out once and for all.”

“If only it were that easy,” I said, smiling.

Hadley went back to her console, touched her keypad a few times, and my computer chirped. I perused the screen, and opened the folder that had just appeared, labeled

“warp.” Opening the first document, I scanned it quickly, then began to read.

Next thing I knew, Hadley was tapping me on the shoulder. “Would you like to go have lunch?” she asked.

I looked up at her, then back at the computer screen. It was already one p.m. “No, I’m okay.” My eyes slid back to the screen, apparently of their own volition. Hadley’s experimental results were astounding, and I wanted to learn more.

“Next time I’ll let you work. Since this is your first day in the lab, I want you to feel welcome.” She pushed her way toward the door. “I’ll bring something back and put it here on the conference table. If you get hungry, just help yourself. Oh, and there’s a dispenser for energy bars and water balls over there.” She pointed toward another wall.

“Sometimes I don’t leave the lab for days, except to exercise and sleep, though

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occasionally I forgo the sleeping part, so with the dispenser, at least I don’t starve to death.” She laughed and opened the door. “By the way, the toilet is over there.” She pointed to the door across the hallway.

“Good to know, thanks.” I turned back to my computer screen, eager to keep reading.

Several hours later, I was still going over Hadley’s work. “Maybe it is that easy,” I said out loud.

“What? Did you say something?” asked Hadley.

I hadn’t even realized that she’d returned. “No, I mean, yes, sorry, I was talking to myself.” My heart rate quickened and sweat broke out on my forehead as I stared at the screen. Could it be true? Mopping my brow with my sleeve, I turned to a blank page in my notebook. But I’d already done the calculation a dozen times, with the same result.

An intense pressure in my bladder forced me to put down my pen. I went across the hall to the toilet, then hurried back, to continue reading and calculating.

Finally, I leaned back and rubbed my eyes, which felt bloodshot and raw, then looked at the time: eleven-thirty p.m. One look around the room showed me I was alone. I went to the conference table and picked up the bowl of food and water blobs Hadley had left for me so many hours ago. I hadn't even exercised that day. Very bad. One day wouldn't kill me, but I couldn't let it happen again.

Sitting on the couch on the far side of the lab, I began to eat mechanically, my body on automatic pilot. The exhaustion was starting to weigh on my body, but my brain was going at light speed. I had never felt so close, almost as if it were possible to reach out and touch the warp bubble, it was so tangible in my mind. The food and water finished, I made my way to my room, and fell asleep the moment I zipped myself into the sleeping bag attached to my bed.

CHAPTER SEVEN

Early the next morning I went straight to the gym to work out, then, after another delightful shower, found my way to the dining room. Marta was sitting with two other women I didn't know. She waved to me, so I took my bowl and pushed my way over to their table.

"Hi, Calli. This is Andrea, and Rika," Marta said, gesturing toward the women sitting on either side of her.

I sat down, placing my bowl on the Velcro strip. "Nice to meet you both."

"Welcome," said Rika, smiling. She had a slim, athletic body and pale, almost translucent skin. Northern European descent, I guessed, Finnish, most likely.

"Thanks. Are you also engineers?"

"Yep, we're the engineering team," Andrea said.

Rika and Andrea were a study in contrasts. Andrea was short and heavysset, with nut-brown skin, Nubian nose, generous mouth, and her eyes were deep wells of liquid brown.

I opened my bowl and began to eat. Pancakes with what tasted like real maple syrup.

"Hadley told us you were in the lab all day yesterday. She said you were still working when she left at seven," said Andrea. Her voice was deep and sonorous, and she had a way of dropping her 'r's. I guessed she was from the country of New England, Boston, most likely.

"Yeah, I completely lost track of time."

"Easy to do." Marta said, her expression serious.

"I was reviewing Hadley's work, she's a genius."

"Yep, that she is," said Andrea, with a trace of a smile.

I glanced around the dining room, searching for Hadley. Naomi was sitting with Izumi and Gamon. The other tables were empty. She was probably already in the lab.

Suddenly I couldn't wait to get back to work, to talk to Hadley about her ideas, and mine, too. "I think I'll take this to go." I indicated my bowl of food with a nod.

Rika burst into laughter. "I recognize the signs. You're inspired, and when the muse strikes, there's no denying her. Go! Work! Solve problems!"

I laughed, too, happy to be surrounded by women who understood my passion.

When I got to our lab, Hadley was already there, sitting at her console. She looked up as I entered. "Hi, Calli."

"Morning, Hadley. Hey, I have some ideas about your work, modifications based on my own research. I'd love to run them by you when you have time."

Hadley's face brightened, and she propelled herself over to the conference table. "I'm ready right now! I've been dying to sit down with another physicist and talk about all this."

Leaving my food bowl on my desk, I joined her at the table. She touched the tabletop 61

which also served as a computer screen and opened a few documents and diagrams.

"Yes, this one!" I pointed to one of the documents, then scanned the table/screen, and found the folder of my work, dragging it over to us and touching the icon to display the contents. I found the file I was looking for and opened it, putting it next to Hadley's.

We both leaned over to examine the documents.

Hadley took a sharp intake of breath. "It's as if we were working together but on different pieces. This is unbelievable."

I shifted in my chair, unable to sit still, my body vibrating with excitement.

“Here’s where I had a block, with these calculations. The intensity of the energy density has to oscillate, to make the space inside the warp bubble less stiff and reduce the energy requirements, but I couldn’t figure out how best to modify the spatial frequency.” I enlarged the image of the calculation. “And here,” I pointed at Hadley’s document,

“you solved the problem! It’s ingenious, what you did, so simple, so elegant.”

Hadley was silent, staring at my work. “Oh my god!” She enlarged a series of my calculations. “What you did here. I’ve been struggling with this idea for years: how to control and manipulate the warp bubble from within the bubble itself.” She dragged the work closer to her body. “Let me look at this.”

I sat quietly, my heart thumping in my chest. She was examining what I considered to be my greatest breakthrough. Many scientists over the years had grappled with this exact problem, and the most promising idea, to create not one but two warp fields, one

“inside” the other, was the most viable. The outer region, called the Broek warped region, was the subject of my breakthrough, where I had modified the original theory to create what I hoped to be a stable warp shell causally connected to the inside of the warp bubble. I had checked and rechecked the calculations and my logic countless times, but no one else had seen my work until now. Had I made a critical error in my thinking? Had I blundered in some way? Was the logic sound? Sweat broke out on my brow, and I dabbed it with my sleeve, then tucked my hands under my armpits. Hadley sat immobile, staring at the screen. Finally, I remembered to breathe. I studied Hadley’s face. She was gone, deep in thought.

Silently, I pushed myself across the room to my console, thinking I could use the time to contact Olivia. Our last communication was when I sent her a brief note to tell her about my impending trip to the Moon. As always, her reply had been warm and supportive, wishing me luck. Not wanting to disturb Hadley, I only opened a text window instead of holochat. I typed in Olivia’s username and saw that she was also online.

Hi, I wrote.

Hi! Her response was almost immediate, considering the Earth-Moon time delay.

Another line of text appeared: *What's happening? Are you still on the Moon? How did it go?*

Olivia was my best friend, and we loved each other deeply, even though we hadn't been in the same room for over five years, not since we broke up. I felt the strength of our connection pulsing through cyberspace, mitigating the vast physical distance that 62

separated us.

Where to start? I typed, then continued, the words tumbling out onto the screen. I told Olivia everything, from the moment I stepped onto the shuttle in Havana until showing Hadley my work moments earlier. I wrote about my budding friendship with Naomi, the lunar colony, the orbital lab, even my unrequited attraction for Diana.

And she told me about her postdoc in terraforming, her ultra-fastidious boss—I laughed out loud at her descriptions of his eccentric behavior—and the new love in her life. She seemed happy, and, I realized, so was I.

As our conversation wound down, my eyes flicked to the clock on the screen—we had chatted for over two hours. I looked over at Hadley. It appeared as though she hadn't moved a muscle.

I should go. Love you, I wrote.

I stared at the now blank screen. I should contact my parents. They knew I had gone to the Moon, but things had happened so quickly, I hadn't taken the time to get in touch with them since leaving Earth. But since my mother preferred holochatting to texting or even phone calls, I decided to wait until I was in my cabin. My father rarely participated in our holochats, so if I didn't visit them in person, we hardly ever saw each other. He was a quiet, broody man, and preferred to be in the background and let my mother do all the talking. In any case, talking with either of them was, to be honest, more of a chore than a pleasure. I loved my parents, and they loved me, but even though I was their child, it was as if we were from completely different worlds.

Catching a movement out of the corner of my eye, I looked over at Hadley again.

She met my eyes and invited me over with a tilt of her head. I pushed my way to the table and settled into the chair next to hers.

Hadley grabbed my hand. "It's fantastic." Her eyes were gleaming.

I heaved a sigh of relief. "And what about this part, with the infinities?" I pointed to an equation. "Can I really renormalize here?"

For the rest of the day, we pored over every calculation, every idea, merging our work. We ate energy bars, popped water blobs, and barely tore ourselves away from the table to visit the toilet across the hall. It was as Hadley said, we both had solved different pieces of the same puzzle, and the picture that was unfolding was incredible.

"It will work, I really think it will work," Hadley kept repeating.

Finally, eyes burning, I leaned back in my chair. It was three a.m. I touched Hadley's shoulder. "I can't do any more tonight."

Hadley looked at the time on her wrist computer. "I can't believe it's so late, or so early, rather." She rubbed her face with the palms of her hands. "This is a fantastic start.

I really think it'll work."

I smiled, exhausted but supremely happy.

"We'll need to spend a week at least going over everything, to see if we missed something vital. Then get the engineers involved and build a prototype."

"Our next step," I agreed.

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Hadley leaned over and wrapped her arms around me. I hugged her tightly in return.

"We did it," she whispered. "I believe we did it."

"Me too." I released her. "Let's get some sleep, and look at all this with fresh

eyes tomorrow, I mean, today.” I laughed, feeling punchy from fatigue.

“Yes, perfect.”

Hadley pushed herself away from the table and I did the same. We went together to the living quarters module and to our separate cabins. I zipped myself into my sleeping bag, exhausted, but my brain wouldn’t stop. Had we done it? Had we solved the warp drive mystery? No more thinking tonight. Tomorrow would be another beautiful new day.



The next morning, I woke up at eight-thirty, went to the gym, which was empty, for a quick workout, then to the dining room, also empty. I sat at a table, enjoying my balls of food—this morning it was potato knishes. Despite the intensity of the day and night before, I felt clear-headed and refreshed, ready to work.

Hadley was already sitting at the conference table when I got to the lab. “About time you decided to show up,” she said with a grin.

I settled into the chair next to hers. “Oh, really? And I suppose you’ve been here for hours already.”

She laughed and pointed to the collection of energy bar wrappers floating just above the table. “Just long enough to eat these. I didn’t make to the canteen for breakfast, I wanted to come straight here.”

“Canteen?” I cocked my head.

“That’s what we call the module where the dining room and observation deck are.”

“Oh, okay.”

“We have nicknames for all the modules. Let me see, station ops and engineering is

‘ops.’ The module which houses the living quarters is the ‘dorm,’ the shuttle bay and storage module is called the ‘dock,’ then there are the ‘labs’ and the ‘farm.’”

I arched my eyebrow. “Each one more creative than the last.”

“Well, I guess they aren’t nicknames, more like a shorthand name for their functions.”

“Well, ‘canteen’ is sort of a nickname, at least.”

She looked at me askance, eyes narrowed. “You’re not making fun of me, are you?”

“Oh, of course not. I have the utmost respect for your impressive command of the language and your creative interpretation of the meaning of the word *nickname*.”

She rolled her eyes, the sides of her mouth twitching. “Fine. Now that we’ve got the Shambhala lesson of the day out of the way, let’s get to work!”

Hadley and I reviewed our calculations carefully, eating energy bars when our stomachs made too much noise for us to concentrate. We tried to poke holes in the 64

theory, but it seemed to be sound. We were both smiling so much that by the end of the day my face hurt.

At dinnertime, we went together to the dining room. Diana and Izumi were sitting in their usual spot. Looking at Diana’s face, I didn’t even feel a twinge of longing. It was true, what Naomi had said. Diana was a wonderful person, and we were all lucky to be working for a woman who was a real visionary. Marta and her team were at another table. After grabbing our dinner, Hadley and I went over to sit with them.

“You two are looking rather smug this evening,” Marta said.

Hadley and I exchanged glances, and broke into laughter. “I think we did it,” Hadley said.

The three women locked their eyes on Hadley’s face. No doubt they knew exactly what she was referring to.

“You did?” said Rika, looking first at Hadley then at me.

I nodded, my mouth full of food—Vietnamese drunken noodles. I was famished.

“We’ll need to do a prototype test,” Hadley added.

Andrea let out a whoop, and she gave Rika an enthusiastic high five. If their feet hadn’t been wrapped around their chair rungs, and the chairs hadn’t been attached to the floor, they would have ricocheted away from each other. Newton’s beautiful third law.

“We still need some time to review our work, couple of weeks I think.” Hadley gave me a sheepish grin. “I’m afraid my estimate of a week was a little unreasonable.”

“I was excited, too. The theory appears to be sound, but there’s still a lot to be done.”

“Whenever you’re ready, we’ll be here.” Marta turned to Andrea and Rika, her eyes glowing. “Let’s start preparing first thing in the morning. We can call in the materials science team to talk about the resins for the 3D printers.”

“Once you and Calli are ready,” Rika said, looking at Hadley, “we’ll need to get together and work out all the details. We can meet in the engineering lab.”

“Yes,” said Andrea. “We can draw up the plans for a prototype once we see your work.” She smiled at me, then leaned over to give Hadley a kiss on the cheek.

“Yes, well,” said Hadley, color rising in her face, “that sounds perfect, we’ll keep you posted.” At least I wasn’t the only one on the station who blushed.

The dining-room door opened and Naomi came in. “Hey, Hadley, I’ll see you in the lab in the morning.” I pushed myself away from the table and grabbed my empty bowl.

“See you all later.”

Hadley reached for my free hand. We looked at each other and smiled. “We did good today,” she said. I gave her hand an affectionate squeeze and floated over to Naomi.

“Calli!” Naomi cried, propelling herself toward me. We collided in a hug. I was

grateful for the handrails and footholds, otherwise we would have careened across the dining room. “I feel like I’ve not seen you for ages!”

I laughed. “Come on. I’ll sit with you while you eat dinner.” I put my bowl in the sterilizer and followed her to an open table. As Naomi ate, I told her about Hadley’s 65

and my success.

Naomi’s incredible turquoise eyes were bright. “I knew you could do it!”

“We’re not there yet. There’s still lots to be done.”

“It’s the progress that counts.”

“That’s for sure.”

Naomi leaned over and hugged me.

My chest tightened. I felt so loved here on the station, with all these beautiful, supportive women. I had never felt so ... at home. I hugged her back tightly.

CHAPTER EIGHT

One evening a few days later, I went to the dining room alone. Several women were sitting at different tables, eating and chatting. Zoe, whom I had met at the farm when I first arrived, was at the buffet table, filling her bowl with food blobs. Tonight's menu was Ethiopian wat, a thick, savory stew, and, as usual, packaged in little balls, with separate balls of injera, the traditional Ethiopian sourdough bread.

"Hi," I said, glancing over at her as I filled my bowl, shy like the new kid at school.

"Oh, hey, Calli! Come, sit with me."

I followed her to a table, and we settled into our chairs.

"So, what's your story?" Zoe asked.

"My story?"

"I don't know, tell me something about yourself." She popped a food ball into her mouth and chewed, looking at me expectantly.

My mind was a complete blank. "How about you start?"

Zoe laughed. "Fair enough! I put you on the spot. Okay, as you know, I'm the resident botanist."

"Uh-huh." I took a bite of food.

"My specialty is microgravity hydroponic cultivation. I don't know if you noticed, but we grow everything hydroponically here."

"Wow."

"Yeah, it's a good system, though the biggest challenge is pollination."

"Ah yes, no bats, bees, or birds?"

“Exactly. I’ve been using bots, but it’s not the same. The yield is so much better when the bees do the work.”

“It’s hard to compete with a hundred million years of evolution. So, I guess the bees aren’t an option?” I placed a water blob in my mouth, bit through the membrane, and swallowed.

“We tried, but so far it’s been a disaster. Do you know Yasmin?”

“Yeah, one of the botanists at Arcadia.”

“Uh-huh. She’s put a moratorium on sending bees here. They get too confused and disoriented. She said the problem is the lack of a gravitational field.”

“Micro-g isn’t for everyone, I suppose.”

“It does take some getting used to.”

“I like it.”

“Me too.”

“How long have you been on the station, Zoe?”

“Since they finished construction a couple years ago.”

“You’re one of the pioneers.”

“You could say that. It was, let’s say, *interesting*, for the first few months, while they 67

were working out all the kinks.”

I tilted my head, waiting.

“You know, the filtration systems, the toilets, the lighting, everything. It was a work in progress for a while, but now things are much better.”

“I guess I’m lucky to be here now. Everything seems to be working perfectly.”

“I wouldn’t say you’re lucky. You missed out on a real adventure.”

The door opened and I glanced over to see a woman entering the dining room. Zoe waved at her, and she gave Zoe a nod.

“Quinn and I always try to eat dinner together on Wednesdays,” Zoe said.

Quinn, bowl and chopsticks in hand, came over and sat down next to Zoe.

“Calli!

So nice to have you on the station. I know Hadley’s thrilled.” Quinn was in her mid-fifties, with fair skin and kind, blue eyes framed by thin, expressive eyebrows. Her accent was sub-Saharan African, but I couldn’t place the country.

“I’m happy to be here,” I said.

Zoe looked at Quinn. “I was just telling Calli about our adventures the first six months or so living on the station.”

Quinn rolled her eyes. “Ha! ‘Adventure’ is a generous term. It was stressful in ops.”

“Aw, come on, it was a bonding experience!” Zoe poked Quinn lightly in the ribs with her index finger.

“That it was.” Quinn smiled, a faraway look in her eyes. “But now things are going smoothly, knock on wood.” She touched the top of the table with her knuckles.

“More like knock on polymer resin.” Zoe laughed, tilting her head toward the table.

“Always such a literalist!”

Zoe stuck out her tongue at Quinn.

“So, Calli,” said Quinn, “tell us about yourself.”

Zoe burst into laughter. “I already tried that! And before I knew it, I was talking about myself.”

“Not much to tell. I’m from California, and spent the last ten years focused on

my studies. Pretty boring.”

“I rather doubt that you’re boring, but okay for now,” said Quinn. “Because you’re new, we’ll give you a pass.” She winked at Zoe. “But one day we’ll have to sit down and talk, one-on-one.”

“Looking forward to it,” I said with a grin. “So, Quinn, where are you from originally?”

“I’m from Mwanza, Tanzania.”

“And what’s your role in ops?”

“My official title is Filtration Specialist, which means I’m responsible for clean air and water.”

“It’s a huge station, so that must keep you busy.”

“Oh, she was very busy in the beginning,” said Zoe, giving Quinn a sidelong look.

“Remember the nitrous oxide incident?”

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Quinn gave Zoe’s shoulder a good-natured shove, then turned to me. “Okay, there was one time,” she held up her index finger, “*one* time.”

Zoe attempted to keep a straight face, then broke into uncontrollable laughter.

Quinn glared at Zoe, her expression reminiscent of my third-grade teacher when we students were a bit too rambunctious. She cleared her throat, then looked back at me.

“One time, when I inadvertently switched a container of oxygen for one with nitrous oxide. Apparently, everyone in the dining room was getting a little punchy. I didn’t know what was going on because I was all the way in the station ops module.”

“You should have seen us, Calli!” Zoe cut in. “We were all dying with laughter.

It was during lunch, and at first no one noticed that something strange was happening.

Everyone had a huge case of the giggles, and then things started getting out of control.”

I raised an eyebrow.

“I heard about it later,” said Quinn. “How I wish I could have been a surveillance bot on the wall!”

“Yeah, you missed it. Diana started throwing water balls at Naomi, who knows why, but they were both laughing so much I’d be surprised if they didn’t both pee their pants.

Finally, someone thought to contact station ops.”

“It was Izumi,” said Quinn.

“Yeah, okay, Izumi called Quinn and told her everyone was going crazy in the dining room.”

“I checked the air quality monitors and realized the error immediately. I entered the code to shut off the valve as fast as I could, and initiated the emergency filtration sequence, with Annie chastising me the whole time.” She rolled her eyes. “You haven’t truly lived until you’ve been scolded by an artificial intelligence inside your own head.

It didn’t take more than ten minutes to clear the air and bring everyone back to semi-normality.”

“Yeah, but even so, Diana managed to put a few water blobs down Izumi’s jumpsuit.

And that was *after* the air was clean. I think she was having too much fun to stop. She’s so serious about her work, I imagine it was a relief for her to let go, even for a few minutes.”

“Anyway, now we have protocols in place so that particular incident won’t be repeated,” said Quinn.

“But it makes for a great story,” said Zoe, wiping her eyes.

CHAPTER NINE

“Ready for your first staff meeting?” asked Hadley.

I looked up from my console, brow furrowed. “My first what?”

“Oh, maybe no one told you. Every second Friday we have a staff meeting in the observation deck.”

“Great. What time?” I glanced at my screen. It was twenty minutes till four.

“Right now.” Hadley pushed herself away from her console and toward the door.

“Come on, let’s go.”

I looked again at my screen, then at my open notebook, reluctant to tear myself away from my calculations. Taking a deep breath, I left my pen floating in the air above my desk.

We propelled ourselves toward the hub. In theory, all we needed to do was to give one quick tug on the railing, and our momentum would carry us along, at least until the bend in the corridor where, if we weren’t careful, we would collide against the wall. In practice, it was better to keep a hand ready to grasp the rail, to keep our trajectories straight, or we would inevitably ricochet off the floor, walls, and ceiling. “I love how all the corridors are color-coded,” I said.

“Me too, it keeps me oriented.”

“And the cushioning, a stroke of genius.”

When we entered the hub, Hadley stopped and turned to me. “What do you think about this mosaic?”

I looked around at the riot of colors and symmetrical patterns. “It’s incredible.” I peered at the far wall, squinting. “Wait. Are those *flowers*?”

“Come on,” said Hadley, “let’s take a closer look.”

Following her to the hub's curved inner surface, I put a hand out to stop my forward momentum, then traced the figure with my finger. "This is a bird!"

Hadley nodded, grinning.

I pushed myself along the wall. Interspersed among the geometric figures was a menagerie of birds, animals, and flowers, all highly stylized and exquisitely wrought.

"This is spectacular," I said in a half-whisper.

"It was designed by one of the crew, Elena. Have you met her yet?"

"No. Is she the resident artist?"

"I suppose she is. Her official position is astronomer, specializing in extrasolar planets. But she's got a good eye for color and design, don't you think?"

"Yeah, her work is amazing."

"Come on, we don't want to be late!"

We entered the observation deck, and I followed Hadley to the far end of the room, just behind a partition, where around thirty chairs were attached to the floor, many already occupied. Friendly faces turned toward us as we settled onto two chairs at the 70

end of a row. Naomi hadn't arrived yet, but I saw Quinn and Zoe at the other end of the row, and Diana and Izumi were sitting close together, deep in conversation.

Mei Xing settled into the seat next to Hadley's. "Hi Hadley, hi Calli," she said. I had met Mei Xing briefly when Diana had given me the tour my first day on the station, and had seen her in the dining room, but hadn't had a chance to talk to her yet. Mei Xing was small-boned, like a delicate bird. She had an effusive and disarming smile, and bright, friendly eyes.

Diana stood up, and everyone focused their attention on her. "Hi everyone. I hope you've had a fruitful couple of weeks." She scanned the room, looking at each woman in turn. "First order of business, let's welcome the newest member

of our team, Calli.”

She held out her hand, palm up, toward where I was sitting. All eyes turned to me. I felt the heat in my face as I stood and gave a quick wave. Diana smiled at me, and with a gentle motion of her hand indicated I could sit back down. “Calli, as you all know,” she continued, and I was relieved when everyone turned their attention back to the front of the room, “is a physicist, and she’s working closely with Hadley on the warp field.”

Several women nodded. “But today, Fae will tell us about the work so far in food production, another step toward our goal of total self-sufficiency for the station.”

I had seen Fae a few times in the dining room, but we hadn’t spoken yet. When I first laid eyes on her, she had reminded me of a wolf. Sitting in the observation deck, looking at Fae standing in front of us, I was reminded of a camping trip with Olivia, the first summer we were together. Late one night, we had woken to a rustling sound outside our tent. I slowly unzipped the front flap of the tent so we could peek out.

Standing a mere two meters from the dying embers of our campfire had been a young timber wolf, barely older than a pup, glowing silver in the moonlight. Our eyes met, hers gleaming with curiosity and intelligence. Then she dropped her chest to the ground, haunches in the air, and wagged her tail once, a clear invitation. I caught my breath, and Olivia squeezed my arm. There was a howl in the distance, and with a little yelp, the wolf streaked across the meadow and disappeared into the woods. Fae, I realized, had the same blue-grey eyes, lean body, and air of impishness, but her most striking feature was her hair—silver white like the wolf’s fur.

“We’re making headway with the food ball manufacturing,” Fae was saying, “and Zoe’s working on cultivating the algae strain for the outer cover. She’ll probably have an update for the next meeting, right Zoe?”

“We’ll see.” Zoe shrugged her shoulders. “There’ve been a few setbacks.”

“No rush!” said Fae. “Mei Xing and I are struggling with the amalgamation process—

we haven’t found a way to get the food to stick together, so the balls don’t spontaneously explode.”

A few women sniggered.

“Why would they explode?” asked Hadley, brow furrowed.

“It’s the yeast,” said Mei Xing, turning to Hadley. “Its behavior is unpredictable in micro-g.” She sighed.

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“Why use it?” asked Marta.

“Because of the vitamins,” said Gamon. “They’re using a highly specialized strain of yeast, which provides a wealth of nutrition. I’m afraid the yeast is a required ingredient.”

“We’ll get it all figured out soon enough,” said Fae. “One step at a time. As of today, we have perfected the preserving process, using a technique—”

As Fae continued talking, my mind began to wander again. It wasn’t that I was uninterested—food was always a fascinating topic—but my thoughts turned to the warp-field equations. Soon I was following each equation to its logical conclusion. Then someone was tapping me lightly on the shoulder. Startled, I looked up to see Hadley’s smiling face.

“Warp bubble?” she asked, raising her eyebrows.

All around us women were standing up, moving toward the door, talking and laughing.

“I was totally gone,” I said sheepishly.

Naomi joined us as we made our way through the corridors.

“I’d say this was a typical staff meeting, wouldn’t you, Naomi?” asked Hadley.

“Yep.”

“Usually, the way the meeting is structured,” continued Hadley, looking over at me,

“is the first half is dedicated to research or some technical aspect of the ship,

which is facilitated by Diana, or, if Diana isn't on Shambhala, then Marta takes over."

"Okay."

"For the second half, Izumi facilitates, and that's when we have announcements or discussions about the station or any issues with crew members, or complaints, or whatever."

"I suppose it's inevitable there are conflicts, with everyone living in such close proximity," I said.

"You'd be surprised at how seldom that happens," said Naomi.

Again, the thought popped into my mind: Is this real? No one got along that well, it wasn't possible. Or was it? "Seems like this place runs like a well-oiled machine."

"Yeah," said Hadley, "it's very organized."

We passed through the hub and entered the lavender corridor leading to the labs.

"There's something I don't get," I said. "How come I wasn't given a set of rules or instructions when I first arrived on the station? If nothing else, at least information about the staff meeting. Kind of a big oversight for such a coordinated organization."

"Oh, that's by design," said Naomi.

"No way! But why?" I asked, mystified.

Naomi laughed. "I had the same reaction. Then Izumi explained it's part of a master plan."

We had reached the labs, and we stopped in front of the physics lab door.

I looked at Naomi and arched an eyebrow. "Master plan? Sounds diabolical."

"More like the opposite! How did you know, say, about the staff meeting?"

“Hadley told me.” I flicked my eyes to her, and she smiled.

“And other things about the station?”

“I guess so far someone was always around to explain things to me.”

“Exactly,” said Naomi. “Izumi believes it builds community. She could give all of us a complete set of guidelines on living on Shambhala, but then we would be less dependent on each other, especially at the start when it’s crucial to form bonds right away. That’s how she explained it, anyway. Also, if there’s ever a need to know something and nobody’s around, Annie always helps.”

“Although I think it also depends on the personality,” said Hadley. “I can’t imagine Marta, for example, not immediately demanding to know every detail. But she’s been with the Foundation since the very beginning, so she knows how everything works.”

She put a hand on the door of our lab. “Sometimes I get the feeling we’re one big science experiment, and Shambhala is a petri dish.”

“If that’s true, I’d say the experiment is a huge success,” I said.

“Yup,” said Hadley as she pulled open the door. I gave Naomi a little wave and followed Hadley inside. As the door slid shut, she said, “Now let’s do some work before the social!”

“The what?” I stared at her with an expression of incomprehension.

Hadley smacked her forehead with her palm. “You don’t know about the social, either! I remember now you missed the last one, the day you arrived on Shambhala. I figured it was because you were tired.”

“Last Friday, you mean?” That was my first day, the day I had learned of the existence of Izumi. I had spent the entire evening with Naomi in her lab. I felt a sudden twinge of guilt. Naomi hadn’t said anything about the social, and I hadn’t been very stimulating company.

“Uh-huh. You’ll make it to this one, I hope.”

“For sure,” I agreed. “What time?”

“At eight, after dinner.”

“And where is it?”

“On the observation deck. You’ll love it. It’s a perfect way to unwind and relax.”



I spent the next several hours working in the lab. Hadley invited me to go have dinner with her, but I wanted to continue my calculations, and instead ate energy bars from the dispenser. At seven-thirty, I shut off my computer and went to my quarters to brush my teeth and put on a clean jumpsuit, dropping the used one in the laundry chute in my tiny bathroom, and at eight p.m. exactly I opened the door to the observation deck for my first station social.

In my eagerness to arrive on time, I was, in fact, early. Gamon and Fae were the only other women in the room, sitting at a table near the window. I made my way over to 73

them and smiled at Gamon. “Our paths did cross after all.”

Fae was looking at her with curiosity. “Inside joke,” said Gamon.

I had assumed Fae was much older than me because of her startlingly white hair. But, after examining her face more closely, with her smooth skin and light complexion, I estimated her age to be around thirty-five.

“Always glad to see a new face,” said Fae, turning to me. She had a slight drawl typical of the East Coast of North America, most likely one of the Carolinas.

“It’s great to be here,” I said.

“Calli, do you like beer?” asked Gamon.

“Sure.” I gave a little half shrug, wondering where the conversation was headed.

She pointed to the bin in the middle of the table. “These are beer balls, like water balls, only more fun.”

I arched my eyebrow. “Are you encouraging me to consume alcohol, Doctor?”

She laughed. “Not to excess, naturally. But a little alcohol every once in a while is fine.”

“Now you have to try them, doctor’s orders!” said Fae, grinning. “Come on, be brave!”

I laughed, and picked up a ball, which looked like a water blob, but filled with an amber liquid. I put it in my mouth and bit down, savoring the velvety, slightly bitter liquid, then swallowed. “Wow, not bad.”

“I’ll take that as a compliment, since they are my creation,” said Fae.

“Huh?”

“Brew master at your service,” she said with a little bow of her head. “Since we already have the fermentation equipment to grow protein, I figured why not produce our own beer, too?”

“Protein from fermentation?” I furrowed my brow. “I’ve never heard of that.”

“It’s an ingenious process which uses electrolysis to produce hydrogen, and a special strain of bacteria feeds on the hydrogen gas, carbon dioxide from the air, and trace minerals. The bacteria produce protein through fermentation. It’s the same technique used to grow the protein which is fed to cultured meat cells, you know, the synthetic lab-grown meat. We’re just bypassing that last step.”

“The protein from the fermentation process is high quality and versatile,” said Gamon, “so there’s no reason to cultivate slabs of meat.”

“Back to the more important thread of this conversation—the beer!” said Fae, grinning. “I send vats of the precious liquid to the Moon, then the crew at Arcadia creates these exquisite little balls.” She held up a blob, eyeing it with affection. “Though soon we’ll be able to do everything here on the station, once Zoe has mastered the cultivation of the algae. At least that’s the plan—total self-sufficiency.”

“A worthy goal.”

“As you see, I’m not always working on food production or babysitting the fusion reactors.”

“Oh yeah, you’re the nuclear engineer.” I was still trying to match the station’s jobs with each crew member.

“That’s me.” She popped the blob into her mouth.

“Is it true there’s enough helium-3 on the station to last multiple lifetimes?”

Fae laughed. “Depends on power needs. But we are well-stocked for the foreseeable future. That plus the photovoltaics means energy isn’t an issue.”

“Why not rely exclusively on solar power? Diana said the photovoltaic cells produce more than enough energy.”

“Solar power is great,” said Fae, “but it never hurts to have a back-up plan. And if we ever decide to relocate to another part of the solar system, we would need fusion power to propel the modules. At the moment, the power production from the fusion reactors in each module isn’t enough to run the ship, but we’re working on upgrading the systems.”

“I suppose if the station were located further away from the Sun, the photovoltaics might not generate sufficient power,” I mused.

“True,” Fae said, nodding.

“Are there plans to move the station?”

“I have no idea,” she said, glancing over at Gamon. They exchanged a look that was hard to interpret. Then she turned back to me and smiled. “But you never know with Diana. She likes to think big, and we want to be ready for action.”

Just then the music, which had been playing softly in the background, was turned off.

“Uh oh, it’s that time again!” said Fae.

Gamon shook her head.

“What?” I looked first at Gamon, then at Fae. “What’s happening?”

“Are you a singer?” asked Gamon.

“Huh? Me? No, not even in the shower.”

“Might want to warm up those vocal cords, because that might change in the very near future,” said Fae, then pointed toward the other side of the room with her chin.

Mei Xing was setting up what looked like a karaoke machine. “No way!” I said. “Is that what I think it is?”

“Uh-huh,” said Gamon. “This happens every once in a while. Mei Xing and Rika are both crazy about karaoke.”

I felt my face getting red at the mere thought.

“Don’t worry,” said Fae, patting my arm, “it’s strictly on a volunteer basis.”

The music started, and several women grabbed microphones and began singing. The lyrics were projected onto a screen behind the karaoke machine, the song familiar—it had been popular when I was an undergraduate.

Gamon gave me a nudge. “Sure you don’t want to give it a go?”

I grimaced. “Maybe next time.”

Next thing I knew, Gamon was standing with the other women, belting out the
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words. Mei Xing and Rika both had beautiful voices. Gamon, not so much, and Andrea, who had also joined in, was conspicuously off key, but it made absolutely no difference.

Everyone was clapping to the beat, laughing with pure joy. The laughter was infectious, and soon I, too, was keeping the rhythm by drumming my hands against the top of my table, feet firmly anchored to the rung of my chair.

Rika pushed herself over to me and thrust her microphone under my chin. I shook my head. She shrugged and pulled her body around, so she was almost sitting in my lap, singing her heart out, looking at me with her big blue eyes. I

was laughing so hard I almost lost my footing on the chair rung.

After consuming many more beer balls, buoyed by the liquid courage flowing in my veins, I pushed my way over to the karaoke machine and grabbed a microphone, adding my voice to the din. Almost everyone in the room was singing, and together we sounded, well, awful, but no one cared. I hadn't had so much fun in ... I didn't know how long.

After a few hours, Mei Xing turned off the machine, and women began filtering out the door. My sides ached from laughing, and my voice was hoarse.

Hadley came up to me and grabbed my hand, her eyes shining. "Did you have fun?"

"Oh my god," I croaked, "that was incredible!"

"It's not always this rambunctious. Sometimes it's really quiet, but every so often things get crazy."

"It was great!" I couldn't stop smiling.

"A perfect initiation for your first social."

I couldn't have agreed more.

CHAPTER TEN

I was discovering more about the organization of the station. There was a shuttle to and from the lunar base twice a week, on Fridays and Sundays, bringing supplies and transporting women who wanted to spend the weekend, or even a few weeks, on the Moon. As I had guessed, the laundry facilities on the station were automated, as well as the sterilization of the food bowls. Bots were programmed to perform a variety of tasks, such as restocking towels, workout clothes, and jumpsuits. They also replenished the food and water balls in the dining room, the energy bars in the labs, and were in charge of general housekeeping. They were silent, like little elves—tiny humanoid-shaped machines, working in the background, making our lives easier. Sometimes I would catch a glimpse of one scurrying down a corridor, propelling itself through space with the help of a small jetpack, and equipped with proximity sensors to avoid collisions with the walls or unsuspecting crew members.

In her role as chief scientist, Diana supervised the operation of the station and the scientific research. Every Friday morning, Hadley and I sent her a status report, as did the other scientists and the engineering and station ops teams. She was in close contact with all of us, checking in once a week or so with each crew member via a text message or holochat. She followed our progress, or, as was sometimes the case, our lack of progress, and always had a word of encouragement.

In the mornings, I would often see Izumi in the gym. We both liked to work out early, and usually it was just the two of us. It was a nice way to get to know her a little better.

One day, as we ran side by side on the treadmills, I mentioned she and Diana made a great couple.

She broke into hearty laughter. “It wasn’t always this way,” she confided. “It took some real work to get here, and it wasn’t always easy.”

I looked at her, surprised. “But you seem ... I mean, you both seem so happy together.”

“Oh, that we are, but it was a long, uphill battle. We’re both stubborn in our own ways, and it was a struggle to find the middle ground. But somehow, with a lot of love and a little luck, we’ve made it work.”

“Yeah, we all see it,” I said. “You two are an inspiration.”

“We still have our moments, but we’ve learned how to support one another even when we don’t agree.” She paused, looking toward the far wall, strides steady, then she turned to me. “I believe what’s helped make it work for us is we respect each other. I admire her drive, her intelligence, her passion, and she feels the same about me. We share a vision for the future, not only our personal future, but something bigger than ourselves.”

“The Foundation, you mean?”

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“Uh-huh,” she said, nodding. “And so much more,” she added quietly, almost under her breath, then shot me a quick glance, her face unreadable. She focused her attention on the control panel of her treadmill.

More? What could she possibly mean?

She turned back to me, the inscrutable expression replaced by a smile. “I’m enjoying having a running partner. Diana isn’t much of an early riser.”

Later, back in my quarters, I thought about what Izumi had said about relationships.

Would I ever have the opportunity to cultivate a connection with another woman, like the one Izumi and Diana shared? A genuine one, not my one-sided infatuation for Diana when we had traveled to the Moon together. It seemed like an eternity ago, when I had fallen for her. Had it really been less than two weeks? So much had changed already. I felt compassion for the woman I had been.



I arrived at the dining room late, having worked until almost eight p.m., as I had done every night since the social. Hadley and I were making good progress on

the warp drive specifications, but lots of details still needed to be hammered out. It was a real pleasure working with Hadley. We had an amazing intellectual connection, and the ideas flowed easily.

Usually by the time I made it to dinner, the dining room was empty, but this time, Mei Xing was eating at a table close to the window. I filled my bowl, stomach growling.

Tonight was pizza night. How the lunar chefs made the balls taste like pizza was a minor miracle, especially since all the food on Shambhala was totally vegan, unless you counted the bacteria for protein production, but they were very good at their job, that was for sure. I pushed my way over to where Mei Xing was sitting.

“Late night, huh?” she asked.

“Yeah. You, too, looks like.”

“This is early for me. I almost always eat a late dinner. Since I’m working with food all day, I sort of lose my appetite.”

“Besides your role as head chef, what else do you do here on the station?” I began shoveling pizza blobs into my mouth—I was starving!

“I’m also the karaoke director.”

“Is that your official title?” I asked.

“It is now,” she said, grinning. “Really, I’m Quinn’s assistant, in Filtration.”

“Oh. So were you here for the laughing-gas incident?”

“Before my time.” She held up a hand. “I bear no responsibility whatsoever for that particular episode.”

“How long have you been here?”

“A little over a year now. Before, I worked at the lunar facility.”

I put a water blob in my mouth and swallowed. “You have a nice voice.”

“Thanks. I was a singer in a former life.”

“Oh?” I raised an eyebrow.

“Briefly, anyway. My parents wanted me to be an opera singer, Chinese opera.”

I grimaced, then quickly forced my face into a neutral expression, but Mei Xing had caught me.

She laughed. “Don’t worry, I get it, it’s not my kind of music and I’m Chinese.”

“I’m sorry. I’m sure there are millions of people who love Chinese opera—” I stopped, not sure what to say next.

“But you aren’t one of them,” she finished my thought.

I shook my head no.

“It was my parents’ dream, not mine. After a few years, I gave it up and started studying engineering. Way more my style. But I do still love to sing.”

“With a voice like yours, it would be a shame if you didn’t sing, Mei Xing.”

“Just not opera?”

“Please, no opera!”

“Your voice isn’t bad.”

“Oh, come on, now you’re making things up!” I rolled my eyes.

“No, it has promise. Don’t get me wrong, you were completely off key the other night, but with a little training” She pursed her lips.

“I don’t know about that,” I said, shaking my head. “But I do have a good ear for accents. Plus, I always know when someone’s off key, including myself!”

“Like I said, with training.”

I laughed. “Maybe in another life.”

“I think we’re living our other lives, don’t you?”

“It’s not the life I expected, that’s for sure. Do you ever think this is all a dream?”

“Only every single day!”

“If it *is* a dream, I have no interest in waking up.”

CHAPTER ELEVEN

I was about thirty minutes into my morning run when Izumi strapped herself onto the treadmill next to mine. I decided to ask her something I had been wondering about since first arriving at the Moon facility.

“Hey, Izumi, why aren’t there any men working for the Foundation?” Naomi had given me her perspective, but I was curious what Izumi’s take was.

“That was my idea originally. Diana and I went back and forth about it for a long time. I feel women work more cooperatively when there aren’t any men around.”

Naomi had guessed correctly, then. “It’s definitely different. Not that I’m complaining.” I thought for a minute, my stride slow and steady. “To be honest, I love it. I would always choose women for my study groups at the university. Even when I was younger, I gravitated toward females. When I was a teenager, I figured it was because of my sexual orientation, but I suspect it’s deeper than that.”

“Yeah, it’s nice, isn’t it? Being with only women.” Her breathing was heavier now that she was running, but she settled into her rhythm. “It’s a little bubble of tranquility.

With the right group of women, that is to say,” she added, glancing at me.

I nodded.

“Even with women in positions of power, the myth of male superiority is hard to escape. There are still plenty of women who buy into the brutality of the patriarchal regime. They don’t see it that way, but looking through my anthropological lens, their denial is simply a manifestation of patriarchal hegemony.”

“Do you think human males are intrinsically more aggressive than females?” It was something I had always been curious about.

“That I don’t know. But males of many species, perhaps humans too, seem to be hard-wired for conflict. Consider chimpanzees. There have been countless

documented cases of a band of male chimpanzees invading another tribe's territory solely to murder other males. And they are our closest relatives, genetically speaking." She gave me a wry smile.

"If only our evolution had been closer to the bonobos than to chimpanzees."

"Make love not war." She laughed softly. "Although the bonobos can be brutal sometimes, too. But overall, their matriarchal society is peaceful."

"I don't know how keen I would be to have sex with everyone I disagreed with in order to keep the peace, like the bonobos do."

"Yeah, they do spend a lot of time having sex. But at least it's always consensual, thanks to the power of the female alliances. The females look out for each other. Even with the peaceful bonobos, the male sex drive can be overwhelming."

My body felt strong, relaxed. I increased the speed slightly on my treadmill. "One time I was hiking with a friend in the Sierra Nevada mountains. We sat down beside a river and a stray dog latched onto us. Turned out she was in heat, and she was being 80

pursued by three male dogs, all desperate to mount her. The poor girl was exhausted and curled up next to us to try and sleep. When the males came close, I threatened them with my walking stick. She just wanted a break, poor thing." I shook my head. "Then later, when we were on our way back, this other hiker started a conversation with my friend, who's hetero, by the way. This guy wouldn't leave her alone. He kept asking for her contact information, trying to convince her to go out with him that night, asking where she lived. He was very persistent, despite her obvious attempts to discourage his advances. Finally, I said, 'do you want me to use my walking stick on him?' I believe it was a moment of enlightenment for her, when she realized, although the two species were different, the behavior was the same." I shrugged. "Sometimes I thank the Universe I was born a lesbian."

"You and me both! You're right about the common behavior across different species, and even interspecies. I saw a documentary once on sea otters. The narrator explained that sometimes a male otter will rape a seal pup for hours until the pup dies.

It was horrifying. Even more disturbing, if that's possible, the male will continue to rape the decaying corpse for up to a week."

I swallowed, tasting bile. "My god, how shocking." My stomach was heaving, and I wanted to throw up. Stopping the treadmill, I wiped my face with my towel, willing my stomach to relax.

"Don't get me wrong," Izumi continued. "I don't have anything against males of any species." She gave me a little smile, and her eyes had a faraway look. "There are many beautiful men in my life, and I love them to the depths of my soul. They are kind, gentle, and good-hearted people—living proof that, if there is a biological component to human male aggression, then biology is not destiny."

Grateful for the shift in the conversation, I turned the treadmill back on and started running again. The images Izumi's words had conjured in my head were appalling.

"When we first conceived of the Foundation, Diana and I made the conscious decision to cultivate a working environment based on empathy and compassion." She looked over at me. "These aren't strictly feminine standards of behavior—there are plenty of men, both today and over the history of humanity, who adhere to the same set of ethics. But it seemed to me females more readily embrace these principles—not all women, obviously, but like I said, the right group, carefully chosen. So for now, at least, we decided anyone who identifies herself as a woman and who embodies our fundamental tenets is a candidate to be part of the Foundation."

I stopped, my workout complete, and began to unstrap myself from the treadmill.

"But I don't understand, how was it that I was selected? I was offered the position without an interview or anything. Not that I'm opposed to the philosophy, I think it's amazing."

Izumi laughed. "Oh, sweet Calli, we did our homework. It wasn't an accident, choosing you."

What had Diana said during our first meeting, when I had asked, why me? *It wasn't* 81

idle chance. “But how? How did you find out about me?” My heartbeat accelerated, and I wiped my face with my towel to give myself a moment of privacy.

“Don’t worry, we didn’t spy on you or anything sinister like that.” She gave me a kind smile. “We had Annie analyze your presentations at scientific conferences, with the question-and-answer sessions at the end, your undergraduate writings, comments from social media, yours and other people’s about you and to you, any petitions you signed, your entire electronic footprint, all in the public record, but it was more than enough.”

I stared at her, one hand on the treadmill to keep my body still, spellbound.

“Annie is very good at generating a personality profile from disparate data. It’s similar to what search engines and online shopping sites do: analyze each customer’s preferences, values, opinions, interests, to better tailor advertisements to increase consumerism. That technology has been around since the early 2000s. But instead of determining what type of shampoo you’re likely to buy, Annie’s task was to analyze your psychological profile, for example, your ability to work in a team, your capacity to live in a small, intimate group, your physical tolerance for microgravity, your commitment to your research, your level of empathy, those types of things.”

“I had no idea! I guess I passed, then.”

Izumi laughed. “Indeed you did. Tell me, did Annie do a good job? Are you happy with your decision to join us? No regrets?”

“Oh, no, no regrets at all. This experience, being here” I hesitated, not trusting my voice for a moment. “This is like nothing I’ve ever even dreamed of. I feel more at home here than I’ve ever felt before, anywhere or with anyone.”

“I’m so glad!” Izumi’s smile was like a ray of sunshine.

“I should get going. Hadley’s probably in the lab by now, and I need to shower and grab breakfast.”

Izumi sighed. “I still have my weight routine, another hour to go. The good thing about microgravity is it forces us to keep in shape.”

“That’s for sure. I never exercised so much on Earth.”

“It was nice talking to you, Calli. Sorry things turned grisly there for a minute.”

I pushed my way toward the dressing room, then paused at the doorway. “Izumi, you and Diana, you’ve created something special. Thank you for allowing me to be a part of it all.”

“Oh Calli, thank you.”

As I turned away, I saw her dab her eyes with her towel.



That night was my second social, and I was already more comfortable living and working on Shambhala. Hard to believe I had only been on board for two weeks, so much had happened. I knew everyone by name—though it wasn’t exactly rocket 82

science: there were only eighteen of us—and was enjoying getting to know my fellow crewmates. Entering the observation deck, I spotted one of the station ops engineers sitting alone at a table and pushed my way over to her. “Hi, Kamana.”

“Oh, hi, Calli.” She gave me a welcoming smile, her white teeth a lovely contrast to her olive skin. Her accent was clearly Indian. “Sit here,” she said, indicating the chair next to her.

I settled into the chair. We were both sitting with our backs to one wall, looking out over the room filled with women talking and laughing, music playing softly in the background. The Moon, visible through the observation window, was majestic as always.

“Sorry, I don’t remember your role here on the station,” I said, feeling chagrined.

“Understandable, there’s a lot to absorb. I hear you’ve been busy.”

“Yeah. It’s been a crazy couple of weeks.”

“I’m an engineer—a computer engineer, to be precise. I look after Annie. She’s basically my child.”

“She’s very helpful, your daughter.”

“She is, isn’t she? We’re very proud of her. She’s the next generation of quantum artificial intelligence, you know, and she’s exceeded all our expectations.”

“Were you involved in programing her?”

“Uh-huh. I was part of the original team on Arcadia, and we built her there. The first few iterations were, let’s just say, *interesting*. She’s much more complex than she was before—she has an adaptive code, you see. Now she’s interesting in a different sense.”

“What was she like when she was younger?” I asked with a grin.

“Oh, she’s always been a character. But in the beginning she was a little rough around the edges. She had no sense of privacy, since she knows basically everything about everybody, and would broadcast intimate conversations to the entire crew, if she deemed the topic pertinent to the well-being of the colony.”

“Ouch!”

“Right? Talk about too much information! To be fair, she would generally transmit multiple conversations simultaneously, so it wasn’t as bad as it could have been. She had a hard time grasping our lowly human brains can’t process so much information all at once.”

“Hard to compete with quantum superposition.”

“Exactly. She’s much better now, though still learning all the time.”

“So, she’s here, and on Arcadia, too. How does that work?”

“There’s a quantum processor here, in my office in the ops module.”

“That’s right. Diana mentioned that.”

“She told you, did she? Yeah, Annie talks to herself to keep herself updated. The two systems are in a state of quantum entanglement.”

“Impressive. We had an AI at my university, but Annie seems to be far superior.”

“She’s probably the most advanced AI in existence at the moment.”

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I glanced out the observation window, at the Earth peeking out over the lunar horizon. It was breathtaking. “Hard to believe I’m really here,” I said, almost under my breath.

“I know.” She took a beer ball from the bin in front of us and put it in her mouth, then swallowed. “This beer’s delicious. Fae’s a genius. Oh, another thing, I work with the bots,” said Kamana.

“You mean like the ones that assembled the station, and the ones in charge of laundry and keeping everything organized?”

“Exactly. We have a whole cadre of bots, for a variety of functions. Most of them are in cold storage at the moment, though. Oh, and I maintain the 3D printers, too.”

“I don’t know how you have time to even come to the socials!”

Kamana laughed. “Things practically run on their own at this point, so I don’t have much to worry about. But I keep myself busy somehow.”

“I’m sure.”

Just then Zoe called out to us, “Hey, Kamana and Calli, want to join us for a game of cards? Gamon and me against the two of you?”

Kamana and I looked at each other, and I shrugged a shoulder.

“Sounds good,” said Kamana as we propelled ourselves across the room to where Zoe and Gamon were sitting. “Just be prepared to lose.”

Gamon was laughing as we settled into the two empty chairs across from each other.

“Calli, I’m afraid, when it comes to cards, our dear Kamana is a lot of talk but not much action.”

“Okay, okay, so it’s *possible* I’ve had a *bit* of a losing streak lately.”

“Lately?” Zoe snorted. “Since I’ve known you.” She dealt the cards, placing them face down in the air in front of each of us.

Kamana reached out and took her cards, looking at them and grinning. “Oh, this is a winning hand, one hundred percent.”

Gamon poked her in the shoulder with her finger. “You have no idea which game we’re playing, you crazy woman!”

Kamana burst out laughing. “Calli, you *might* want to reconsider our partnership.”

“Are you kidding,” I said, trying to keep a straight face. “You think *you* have a winning hand. You should see mine.” I pointed at the cards still floating face down in front of me. “I can feel it!”

“You two are a perfect match,” said Zoe, rolling her eyes.

CHAPTER TWELVE

After my morning workout the following Friday, I headed to the dining room. I had just picked up a food bowl there was a loud pop, and Mei Xing's voice. "Oh drat!"

Leaving my bowl hovering beside the buffet table, I hurried across the hallway to the kitchen. Mei Xing and Fae were next to the prep table, covered in bits of food, bewildered expressions on their faces. I burst into laughter. They both looked over at me at the same time.

"I'm sorry!" I gasped. "It's only that, you, you—" I couldn't finish my sentence, I was laughing so hard. The air was full of food particles of various sizes. I dodged a glob which was coming toward me. "What happened?" I managed between fits of laughter.

"It's the amalgamation problem," said Fae, wiping a blob from below her eye with a towel.

"Everything okay?" Annie's voice filled the room.

"It's all good, Annie, everything is fine," said Fae.

Mei Xing wiped her face with another towel.

"Oh my god, you should have seen your faces!" I was trying to contain my laughter.

"Oh, you think this is funny?" said Mei Xing, letting go of her towel, which floated in the air next to her head. She put her hand in the bowl full of mush sitting on the table, a mischievous look on her face.

"Oh no." I pushed myself back, eyes widening with disbelief. "No, no, no, no."

By then Mei Xing had a big blob in her hand, and was eyeing me, an impish grin on her lips.

"You wouldn't dare." Before I even had a chance to react, the blob smacked me

in the forehead. “You’ve got to be kidding me!” I grabbed a shelf to keep myself from rotating as another blob hit my chest, this time thanks to Fae. I looked at her, astonished. “*Fae!*” Another blob whizzed by my head. “Okay, ladies, that’s it! This is war!” Scooping the pulpy mass off my chest, I hurled it back at Fae, who ducked just in the nick of time. I pushed my way over to the table, avoiding the blobs already floating in the air, as well as those being hurled by my crewmates. Mei Xing shrieked when I plunged my hand into the bowl of goo, and she pushed herself away from the table as I tried unsuccessfully to rub some in her hair. By this time, Fae was laughing too hard to be a worthy adversary, and I had total control of the food bowl. I gave Mei Xing my most menacing look.

“Okay,” Mei Xing said, almost doubled over with laughter. She held up both hands, palms out. “Truce! Truce!”

I put the bowl back on the table and licked my fingers. “Mmm, tasty.”

“You’re so bad, Calli.” said Mei Xing.

“Me? You started it.”

“Only because you were laughing at us!”

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“I couldn’t help it! Look at yourselves.” I grabbed the towel floating in space and wiped my face with it.

“Well now you should see yourself.” Fae was holding her side with one hand and wiping tears from her eyes with the other.

I looked down at my chest. “And I’m wearing my favorite jumpsuit. It’s ruined!”

“But” Mei Xing put her hand to her mouth, eyes wide, “all the jumpsuits are exactly the same.”

“Mei Xing! She’s messing with you!”

Mei Xing started laughing again.

“What a disaster,” said Fae, waving her hands in front of her face.

“What can I do to help?” I caught a floating blob with my hand and popped it in my mouth. “Yum.”

“Do you really like it?” asked Mei Xing.

“Yeah, it’s delicious.”

“We need to get this place cleaned up,” said Fae. “Calli, if you can round up the floating bits, I’ll start wiping down the walls, and Mei Xing, you can use the vacuum hose.”

We worked for an hour, cleaning the kitchen. I used a cloth bag like a net to gather the floating globs, eating half of them in the process. I was starving! Finally, when the kitchen was clean, we made a beeline to the gym to shower and change jumpsuits.

Luckily no one was in the corridors to see us—we were a sight!

“Calli, you have quite an arm,” said Fae as we were putting on clean jumpsuits.

“And don’t you forget it,” I said.

“Okay, I guess it’s back to work, right, Fae?” said Mei Xing.

“Yeah, probably a good idea.”

“Thanks for the distraction,” I said. “I don’t know if I’ve ever laughed so hard.”

“Always glad to brighten someone’s day,” said Fae, “but hopefully next time we can find something less explosive to entertain us!”



At noon I stopped by Naomi’s lab and poked my head through the doorway. “Are you going to lunch?” Usually I ate lunch in the lab, but every once in a while I would join Naomi and Raven for their biology power lunches. Raven was the only other biologist on the station. Her specialty was in the field of suspended animation, which included cryptobiosis, hibernation, and therapeutic hypothermia, and her lab was next to Naomi’s, down the hall from the physics lab. Even though their specialties were different, they enjoyed bouncing ideas off

one another and collectively brainstorming.

I didn't have much to contribute, but I enjoyed listening. It was part of my "cultural exchange," Naomi would say.

"Oh, hey, Calli." She rubbed her eyes. "I wasn't aware it was already lunchtime."
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think I want to figure this out." She gestured toward her computer screen with one hand, the motion languid and half-hearted.

"Trouble in paradise?" I asked.

"Oh, the usual, trying to make sense of this part." She looked again at her screen.

"Could you inform Raven of my absence?" As I opened my mouth to respond, she said, "I know! I hereby delegate you to be my official representative to the biology power lunch." Her tired face lit up at the thought.

I laughed. "You're too much sometimes, do you know that?"

"Aw, and that makes you love me." She gave me a big smile.

"So true, so true." It always amazed me how Naomi would brighten at the slightest provocation. "Want me to bring you something?"

"I'm good, thank you. I'll grab an energy bar in a bit."

"Okay, good luck." I closed the door and headed down the corridor.

In the dining room, Raven was already seated at her usual table. With her jet-black hair and piercing dark eyes, she resembled her namesake, and her thick Russian accent was delightful. I put a pile of food blobs in a bowl, Szechuan noodles with veggies, grabbed chopsticks, and pushed myself toward the table, grabbing the back of a chair with my free hand and sitting down.

"Hi, Calli. I don't know what happened with Naomi."

"Oh, she's working." I opened the lid of my bowl and began eating. "How are things going with your research?" I asked between mouthfuls.

“Things are moving along. I’ve been working with bees.”

“Really? Are there bees on the station? Because I was under the impression that Yasmin decided it was too stressful for them, being in microgravity.”

“That’s a fact, she’s very protective of her bees. They didn’t exactly thrive in the micro-g environment.”

“So Zoe told me.”

“I have a few here in my lab, a few queens, queen cells, some worker bees and drones, and a couple combs of brood. They’re in a state of suspended animation at the moment, and I’ve been monitoring their vital signs. The idea is to transport them in micro-g without undue stress. Let them sleep through it.”

“That’s very thoughtful of you.”

Raven laughed. “Diana suggested it.”

“Is it common for Diana to suggest directions of investigation?” She had never said anything to me, though our research goal for the warp drive was clear.

“Not very, no.” Raven said. “I was surprised, but agreed it would be a nice experiment.” She paused for a minute, looking thoughtful. “The problem with any type of suspended animation is time. A few days, no problem, even a couple of months is straightforward, but longer than, say, six months, cells start to deteriorate, and there’s the risk of losing neurological functions. It was unexpected, but this work I’m doing with bees has given me ideas on how to suspend animals, too, and based on my 87

computer simulations I’m fairly confident I have solved the longevity issue.”

“Raven, that’s great news!”

“We’ll see how it goes, I’ll still need to do lots more sims, but so far my protocol looks good.”

“You know, there’s something amazing about this station. Everyone is doing such incredible research, on the forefront of scientific discovery.”

“I know! I’ve been working on this issue for all of my scientific career, and now, after a little over a year on the station, it looks like I’ve solved the biggest problem in suspended animation.”

“And Hadley and I are closer than anyone in history to creating a stable warp bubble.”

By then we had finished our food. “Thanks for joining me for lunch,” said Raven.

“It was nice talking one-on-one for a change.”



That afternoon, for my second staff meeting, Zoe talked about her algae farming.

Despite a slow start, things were going well, she said. After Zoe’s presentation, Izumi stood up and asked if there were any announcements or any issues which needed to be addressed.

“I have an announcement,” said Fae, turning to face us. “Tuesday Kamana and I will be upgrading the software for the fusion reactor in the lab module, so we’ll be switching to one hundred percent solar power for a few hours, starting at ten a.m. There shouldn’t be any interruptions in power, but if there’s a flicker of lights or a slight delay in the computer systems, don’t be alarmed. I’ll have Annie send a reminder on Tuesday morning, and if you’re planning to run any sensitive experiments that require uninterrupted power, better wait till the afternoon. We’ve already finished the upgrades for the fusion reactors in the other five modules. Once the software for the lab module reactor is updated, then each of the modules can be completely powered using fusion.”

“Marvelous news,” said Diana, beaming.

“Thanks, Fae,” said Izumi. “Anyone else?” She scanned the room.

Zoe stood back up. “I wanted to mention there are a lot of orchids in bloom in both parks at the moment, it’s worth stopping by if you haven’t visited in a while.”

“Are these your first orchids?” asked Rika.

Zoe gave Rika a radiant smile. “Yeah, I’m so happy.”

“A real accomplishment,” said Izumi. “I’m going to head over to the ops park as soon as the meeting’s over.” She glanced at Diana, who smiled up at her.

“Anything else?” Several of the women shook their heads. “Okay, thanks everyone. Excellent job with the algae, Zoe. Hope to see everyone at the social tonight.”

CHAPTER THIRTEEN

“Oh my gosh, I can’t believe it!” blurted Hadley.

We had been working separately all day. I looked up from my console. “What’s up?”

“An old professor of mine is on the Moon. There’s a conference this weekend in the University Sector. She’s giving a talk tomorrow afternoon.”

“What’s the conference about?”

“The Future of Space Flight,” she said, reading from her screen.

I pushed myself over to her console and peered over her shoulder at the announcement. “Wow, this looks intriguing.”

“This is my teacher, Marley Helgason.” She pointed to a photo of a woman of around forty, steely blue eyes staring almost defiantly at the camera lens.

“She’ll be giving a talk on ion drives,” I said, reading the blurb next to her photo.

“That’s her field, ionic propulsion. I had her for my undergraduate Spacecraft Dynamics course.”

I studied her image. “She looks tough.”

Hadley shrugged. “She was a little abrasive. But I learned a lot from her.”

“Anything about warp technology on the agenda?”

She scrolled down the page. “Doesn’t look like it. I suppose that’s not a big surprise.”

I laughed. “Yeah, it’s not the most popular topic of study, that’s for sure. So, are you thinking about attending the conference? Seems like something we shouldn’t miss, especially since it’s here in the neighborhood.”

She focused on her keyboard, and I could see the hint of color in her cheeks. “I think I’ll skip it.”

I narrowed my eyes at her. “What’s going on with you?”

The flush had crept up to just below her eyes. “I, um, well ... Andrea asked me if I wanted to hang out with her in the observation deck tomorrow night.”

“Hadley! Is this a date?”

“I don’t know, maybe. I think so.”

“We need to talk!” I grabbed her hand, and, laughing, she allowed me to pull her to the couch. “So, do you like her?”

“I think so, maybe.” She chewed on her lower lip. “We’ve known each other for over a year, ever since I started working at Shambhala. I don’t know why all of a sudden she’s asking me out.”

I raised an eyebrow, thinking of when Andrea kissed Hadley on the cheek, after we had announced our big warp drive discovery.

Her lips twitched. “Well, I guess the attraction has been growing for a while, and we had kind of a bonding experience at the social last Friday.”

“What happened?”

“Oh, nothing really, we just spent the whole time talking.” She gave a little shrug and 89

looked down at her hands. “I don’t have much experience with women.”

My eyes widened. “But I thought you were” I furrowed my brow, studying her face.

“A lesbian?”

“Uh-huh.”

“I don’t think I can call myself a lesbian, since I’ve only been with men.”

“I don’t even know why we still hang on to all these outdated labels. You would think we would be more evolved.”

“You know how we humans are, we like to categorize,” she said with a smirk.

“It’s true,” I said, laughing. “One of our specialties.” I waited a beat, then said, “Are you attracted to Andrea, um, physically?”

“Uh-huh.”

“And you like her, as a person, I mean?”

“Yeah.”

“Then nothing else matters.”

She looked at me, her eyes half hidden under her lashes. “How did you know you wanted to be with women?”

“There was never even a question. Growing up, I never felt anything for boys. You know how some girls are, how they gush over boys, but I never could understand the attraction. Seeing how the other girls acted, it was like I was observing an alien species.”

I gave a little laugh. “But then, when I was around fourteen, my parents and I were watching a holomovie in our living room, starring Sofia Mendez.”

“Oh, I know her. She’s gorgeous.”

“Yeah, she is. In one scene, she kissed her best friend, another woman, and everything just snapped into focus. Finally, I understood what the girls in my high school were feeling, because I felt it, too, viscerally, though not for the boys. It was a good thing my dad had dimmed the lights for the movie, because I’m sure my face was beet red! After that, everything changed. I had my first crush, unrequited, but that’s part of the learning process, and finally, at seventeen, I kissed a girl for the first time.” I smiled, thinking of that first kiss.

“There must have been girls who swooned over other girls in your high school,” said Hadley.

“My high school was, how to I put it? They had a very conservative policy when it came to that sort of thing. If there were other queer kids, they kept it to themselves.”

“Mine was the polar opposite. Total rainbow. I had a few crushes on girls, but then I met my first boyfriend, and we were together until college.” She bit her lower lip.

“And until Andrea, I never felt a deep connection with another woman.”

“If you want my advice, take it slow. Neither of you are going anywhere.”

“Yeah, I think it’s a good plan.” She met my eyes and smiled. “Thanks for talking about this with me.”

“Always.” I looked at the time. “If I want to make it to the conference, I need to get 90

going. The shuttle is leaving in an hour.”

“Tell Professor Helgason hello for me!” said Hadley as I pushed my way out the door.

Making my way to my quarters, I touched my implant. “Annie?”

“Yes, Callisto? How may I help you?” said Annie’s voice in my head.

“Can you send a message to Diana, to let her know I’ll be on the Moon this weekend, attending a conference.”

“Certainly, Callisto.”

I packed my bag and hurried to the shuttle.



When I arrived on the Moon, I headed straight to the University Sector for the opening reception. I hadn’t been to a conference in a long time and was eager to socialize with my peers. Even though there would be no talks about warp drives, it was still exciting to learn about the most recent achievements in the field of

space travel.

Entering the conference hall, legs still wobbly from the gravity, I scanned the room, taking in the crowd, the small groups of people talking animatedly, and the electric atmosphere, charged with creativity and innovation. I took a deep breath and let it out slowly—I was in my element!

Marley was easy to recognize from her photo. She was standing alone next to the buffet table, drink in hand, a slight scowl on her face. I weaved my way through the crowd and stopped in front of her. “Are you Marley Helgason?” I asked.

Her mouth curved into a smile, but her eyes remained unchanged. “I am. And you are?”

I held my hand out, and she took it, her hand surprisingly limp in mine. “I’m Callisto Collins.” At the mention of my name, Marley did a double take, peering at me intently.

I shifted my weight from one foot to the other, feeling a little uncomfortable. “I work with a former student of yours.”

“And what is the name of that student?”

“Hadley Hansen. She was in one of your undergraduate seminars.”

Another forced smile. “Yes. Hadley. Very intelligent.” Her eyes darted away as she said the words, then she narrowed her eyes at me. “And you say you work with her?”

“That’s right.” *Abrasive* was the word Hadley had used to describe this woman, and it hadn’t been an understatement. I smiled warmly, despite the woman’s demeanor. “We work on an orbital lab. It’s a fundamental research station.”

“Yes, Shambhala, isn’t that the name?”

“Yes.” I was surprised she knew the name of the station. Its official title was “Portal al Porvenir Lunar Orbital Laboratory,” admittedly a mouthful, but people not involved with the Foundation called it the Lunar Orbital Lab.

“And Hadley, she’s still working on the warp drive?” Marley attempted a smile,

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like a grimace.

“That’s right, we both are.”

“Fascinating.” Her eyes gleamed with an almost maniacal light. I felt an overwhelming, primal urge to escape. “And where is my favorite student?”

“She couldn’t make it.”

“Ah, but you are here. You will come to my lecture tomorrow?”

“Looking forward to it,” I said, slowly backing away, then turned and lost myself in the crowd. What an odd woman.

For the rest of the evening, I chatted with scientists from all over the world. I may not have been much for parties back on Earth, but scientific conferences were a different story. There was never any need for small talk, and we were all eager to share ideas, to discuss new theories, and to relax in the company of like-minded people.

I mostly listened, not divulging any details of our new discovery. It was still early in the game, and we didn’t have a working prototype. Besides, whenever I mentioned my research interest, often my fellow scientists would treat me a little like a social pariah.

One of those crackpot warp-drive theorists, I could almost hear them say in their minds. I was used to their skepticism, but generally avoided bringing it on myself. Just wait till the scientific community saw what Hadley and I would accomplish! I smiled to myself at the thought.

Several times I caught Marley tracking me with her eyes, and on a couple of occasions it looked as if she was heading in my direction. When this happened, I would fade into the crowd, keeping a safe distance. As the evening wore down, I slipped out the main door and walked to the metro station, catching the train to Arcadia, happy at the thought of spending the night in the peaceful quiet of my lunar room.

CHAPTER FOURTEEN

Saturday morning, I went straight to the conference. I didn't want to miss a minute of the lectures, and even Marley's promised to be interesting. There were talks on a variety of technologies, including plasma propulsion, solar sails, and Hall-effect thrusters. Marley's was the final talk for the day, and although she may not have been the easiest person to interact with, she knew her field, and was a skilled public speaker.

I wasn't the only audience member who was captivated by her presentation, though I was mildly surprised when she exited the stage immediately after her talk, eschewing the usual question-and-answer session at the end.

After a full day, I was mentally exhausted but still keyed up from the excitement. The conference would continue the following day, Sunday, but my plan was to enjoy a leisurely morning at Arcadia, then take the eleven-a.m. shuttle back to Shambhala. I was on my way out the door, thinking I could try to convince Berit and maybe some other women from Arcadia to go out for a drink, when Marley caught me, grabbing my arm roughly. I hadn't even seen her approaching me.

"Wait, Callisto," she said. I turned to face her. "Would you like to go have a drink with me?" Sensing my hesitation as I wracked my brain for a plausible excuse, she added, "I don't know anyone else here."

I gave a mental sigh. "Of course, Marley, I'd love to."

We took the metro to Sector Eight, and Marley led me to a bar quite a distance from the metro. I was a little surprised she knew her way around, since my assumption was that she'd never been on the Moon before. We sat across from each other in a secluded booth, and after the waitress had brought us our drinks, Marley said, "Will you be at the conference tomorrow?"

"No, I'll be heading back home."

"I see." Her eyes fixed on mine. "Callisto, I'm very interested in your work. Please, tell me about it."

I squirmed, the hairs on the back of my neck standing on end. What was it about

this woman? Just one drink, I promised myself, then I would escape. “I’m tired of talking about my work,” I said, though I hadn’t mentioned the warp drive since arriving on the Moon. I looked at the bottle of beer sitting in front of me in an attempt to deflect her penetrating stare. “Are you still teaching?”

Out of the corner of my eye I saw her mask her obvious disappointment, giving me a saccharine smile. “Yes, I’m still teaching, and doing my research.”

“I really enjoyed your lecture.”

“Thank you.” There it was, her first genuine smile. “I believe my ion drive system is the most promising new technology in the field. I only lack the funding to bring my work to the market. The competition is fierce.”

“Funding is hard, I know.” I felt myself softening toward her.

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“My technology is the most ecofriendly of any I’ve seen, but I’ve been unable to convince any venture capitalists to support my project.”

We were so lucky on Shambhala—no fighting tooth and nail for scraps of funding.

I reached out and patted Marley’s hand. Her eyes jerked up to meet mine. I smiled at her, hoping to convey my compassion for her situation. “No interest at all?” I asked softly.

She averted her gaze and put her free hand to her mouth. “No, nothing,” she said.

“No one has shown any interest whatsoever.” I detected a subtle increase in the pitch of her voice.

“Sorry to hear that.” She was lying, I was sure of it. But why lie to me? I didn’t even know her.

“I would love to visit Portal al Porvenir’s lunar colony,” she said. “It sounds fascinating. Can you take me there?”

I was startled, both by the sudden turn of the conversation, and the direct request.

“Sorry, Marley, but there’s a no-visitors policy at Arcadia.”

“Oh, that’s too bad.” She glanced away for a moment. “Excuse me, I need to visit the rest room.” I followed her with my eyes as she threaded her way through the tables to the back of the bar. While I waited, I finished my beer. Marley hadn’t touched hers.

When she returned, she slid next to me in the booth. I stared at her, eyes wide. What was going on? She gave me a little smile, then reached out to caress my cheek. I fought the urge to jerk my head back. “You are very attractive, Callisto.”

I cleared my throat. “Thank you.”

Now her hand was on my thigh, her caresses rough and clumsy. “Won’t you reconsider taking me to Arcadia with you? I’m positive we’ll have a good time.” She was staring at my lips.

I felt on the verge of a full-blown panic attack. I couldn’t believe what was happening.

I caught her hand as it traveled perilously close to my crotch. “Marley, I’m flattered, but

....” I had never been in a more awkward situation in my entire life.

She gave me an imploring, almost heart-wrenching look. “Please Callisto, allow me to come with you to Shambhala.”

First Arcadia, now Shambhala. “I can’t, I’m so sorry. It’s not allowed.” Again, a tingling at the back of my neck. It wasn’t Marley this time, but something about her persistence. Why so much interest? “I’m tired,” I said. “I’m ready to go now.”

Marley immediately stood up and turned toward the door. I signaled the waitress, and she came with her handheld scanner. I paid our bill, and as we walked together to the metro, Marley kept looking behind her.

“Marley? What’s going on?”

“There’s someone following us.”

I started to look behind us but she grabbed my arm, squeezing it tightly.

“No! Don’t look.”

The street was dark, a simulation of nighttime, with just the street lights guiding our 94

way. Surreptitiously I glanced over my shoulder, and thought I saw a shadow disappear behind a building.

“We need to get to the metro,” she said, a note of panic in her voice.

We increased our pace, the adrenaline coursing through my veins. Marley’s fear was contagious.

“I know him,” she whispered. “He’s my ex, Jonah. I can’t believe he followed me to the Moon.”

“What does he want?” I asked breathlessly, wishing we had chosen a bar closer to the metro entrance.

“He’s dangerous, Callisto! We need to get away.”

We started running, which on the Moon means half running, half flying through the air, and covered the distance in record time. When we got to the metro entrance, I looked back—I didn’t see anyone.

Marley grabbed my hand and led me to the metro platform, her face white with fear.

“Callisto, please, he’s relentless. Please let me come to Arcadia with you. I don’t feel safe in my hotel alone.”

The policy at Arcadia was strict, but maybe they would make an exception? I couldn’t let Marley go to her hotel by herself. And to be honest, I didn’t want to ride the metro alone, either. What if Jonah decided to follow me instead? Just

then a metro train heading in the direction of the University Sector pulled into the station. “Come on!” I said, dragging her onto the train.

“But this is going in the wrong direction!” Marley protested as the doors shut.

I was staring out the windows, searching for Jonah, but the platform was empty. As the train picked up speed, I turned to her. “Look, I’ll have to check with Arcadia, okay?”

But in the meantime we can go back to the university. I worked there before, and know my way around.”

“Okay,” she said, chewing on her lip.

At the university stop we exited the train. There was a small group of people waiting, many of whom I recognized from the conference. I took Marley’s hand and weaved through the crowd and into the university sector airlock, glancing over my shoulder as the door closed behind us. No one seemed to be paying any attention to us. “Follow me,” I said as I led Marley through the hallways of the university. “If they haven’t done any major remodeling, there’s a little alcove that hardly anyone knows about. I used to go there to be alone.”

“Thank you, Calli,” said Marley, her voice subdued.

At this late hour, the hallways were empty. After a few wrong turns—it had been years since I had last visited—I found my sanctuary. “We should be safe here for the moment,” I said in my most reassuring voice, though my pulse was pounding in my ears. The alcove was just as I remembered it, full of abandoned crates covered in a thin layer of Moon dust. I brushed one off with my sleeve, and indicated that Marley sit down.

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“Listen, I’m going to call a friend of mine at Arcadia, see if we can get you in there, okay?”

She looked up at me and nodded.

I input Berit’s contact info into my wrist computer, the tone which indicated a call in progress sounding in my head, thanks to my implant.

“Calli?” Berit’s voice was heavy with sleep. “What’s going on? Why are you calling me?”

I stepped out into the hallway. “Sorry to call you so late,” I said, voice low. “I’m with a friend, and she’s in a jam.”

“But I don’t understand? Aren’t you on Shambhala?”

“Oh, sorry. No, I’m here on the Moon, in the University Sector. I’ll explain everything later. I’m with a woman I met at the conference.”

“You mean the space travel conference?” she asked.

“Uh-huh.”

“Okay. Tell me what’s happening.”

“We were at a bar having a drink, and when we left, a man started following us.

Marley, the woman from the conference, said it was her ex, and she’s really afraid, says he’s dangerous.”

“But are you okay now? Where are you?”

“We took the metro back to the University Sector. We’re hiding out in a little alcove on the other side of the library. It’s kind of a forgotten storage area.”

“Okay. What can I do to help?”

“Marley wants to come there, to Arcadia. She says she doesn’t feel safe staying in her hotel.”

“I don’t know, Calli. You know the policy.”

“Yeah, but I don’t know what else to do. She’s scared.”

“Wait! I know! Let me make a call. I have a friend who works security in the University Sector, the night shift, he can help. Name’s Frank, and he’s a great guy. Just give me your coordinates.”

“I’ll send them now. Thanks, Berit!”

“Let me know what happens!”

I disconnected, then went back into the alcove. Marley had been standing at the doorway, though I doubted she had been able to hear my side of the conversation.

“Let’s sit,” I said. “My friend Berit is taking care of the situation.”

“Oh thank god!” said Marley. “I don’t know what I would have done if you hadn’t been there.”

“So Jonah followed you here? All the way to the Moon?” I asked. It didn’t make sense to me—he must have been on the same T-L Express flight from Earth, so it seemed strange she hadn’t seen him there.

“I don’t want to talk about him,” Marley said, chewing on her thumbnail.

“Okay, sure. We just need to sit tight until Berit’s friend gets here.”

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“Friend?” She looked at me. “To take us to Arcadia?”

“No, he’s a security guard. He’ll know what to do.”

“But I told you I wanted to go to Arcadia with you.” Her voice was cold, angry, and her face flushed. “I trusted you!”

I stared at her. Wasn’t I doing everything in my power to help her? But of course, she was probably terrified. Footsteps sounded in the corridor, and I stood up as two security guards came to the doorway. “Calli?” The man asked, looking from me to Marley. He was a nice looking man, with even features, medium build, and a strong, reassuring presence.

“That’s me,” I said. “You must be Frank. Thanks so much for coming.”

The other guard, tall and lanky, turned to Marley, her expression soft. “Hi, I’m Jeanne. Someone is following you?”

Marley nodded, her face still mottled with anger.

Jeanne sat down on the crate beside Marley and put a reassuring arm around her shoulders. “Where are you staying?”

“At the Starlight Hotel,” Marley muttered.

“Okay, we can escort you to your hotel,” said Jeanne.

“I’ll call the security at the Starlight,” said Frank. “We’ll make sure you get there safely, and they can take over from there. We’ll input a ‘do not disturb’ message in the concierge A.I., that way no one will be able to locate your room. I promise you will be completely safe. And tomorrow, just call me, and I’ll send an escort to accompany you anywhere you want to go.” He held his wrist computer next to Marley’s, and there was a single chirp. “Now you have the emergency contact info, just ask for me, Frank.”

“We take security here on the Moon very seriously,” added Jeanne. “We’ll be revising all the video feeds from tonight. Don’t worry, we’ll find your stalker.”

Marley looked at me. “Calli, I’d feel better at Arcadia.”

Frustration boiled up inside of me. How had Marley suddenly become *my* responsibility? And here were two people ready and willing to keep her secure, who were *trained* to do so, and still she wanted to come with me? If we were friends, it would be different, but I didn’t even know the woman! But no, I was being unfair. How would I feel in her position? Taking a deep breath, I said, “I’ll come with you to your hotel, okay?”

“Okay,” she replied in a small voice.

“Let’s move out,” said Frank.

We followed him down the hallways, with Jeanne flanking us. I, for one, felt very safe. But then again, no one was pursuing me.

We rode the metro train in silence, and when we got to Marley’s hotel, Frank had a low conversation with the security guard on duty, a beefy man with narrow eyes and bulging muscles. Jeanne waited with us, arm resting protectively around Marely’s shoulders.

“Will you stay with me tonight?” Marely said, turning to me, eyes entreating. “I

just 97

don't want to be alone."

Feeling trapped, I flicked my eyes at Jeanne, who pulled Marley closer. Marley visibly stiffened in response.

"We'll make sure there's a guard outside the door all night, Marley." Jean said. "I can stay with you, too, if you want me to." She released Marley, and tapped her wrist computer. Marley's own computer chirped again. "If you need someone to talk to, I just sent you my private contact info. You're not alone in this."

The muscles in Marley's jaw twitched. "Thank you," she said, but she seemed more angry than grateful. I imagined that the situation must be humiliating for her.

"Okay, you're all set," said Frank as he walked back over to us, the hotel security guard at his side. "Clyde will take over from here."

"Marley, is it?" said Clyde. "Please come with me."

Marley shot a parting glance at me, still angry, then, shoulders drooping, she followed Clyde through the doorway to the rooms.

"Your friend will be fine," said Jeanne, patting my arm.

"She's not even my friend," I said, "I just met her."

"We'll accompany you to Shambhala," said Frank. "If I didn't get you home safely Berit would have my head!"

I laughed at that, the tension in my body easing. "She's definitely feisty."

"You said it!"

As we made our way to the metro station, Frank said, "Where did all of this occur?"

So we can examine the video feeds. I'll follow up with Marley tomorrow, get a

full statement, but she didn't seem very communicative tonight, probably still in shock."

During the short train ride, I told them everything I knew, which was almost nothing.

"Sorry I couldn't be more helpful," I said as we stepped onto the Arcadia metro platform.

"Since we know his first name and relationship to Marley, we'll track him down,"

said Jeanne.

"Thanks again, both of you, especially for going out of your way."

"Just doing our job," said Frank with a smile. "Even though we're stationed in the University Sector, all the security guards work for the Collective, we're part of the network. And like Jeanne said, unless that stalker is a ghost, we'll find him."

When I got to my room, I called Berit. "I'm here, at Arcadia. Everything's fine, Frank took care of it."

"Oh my gosh, you have to tell me everything!" she said.

"I will, promise. But I'm exhausted. Meet you in the morning for breakfast?"

"Okay, fine, but I want all the details!"



In the morning, I asked Annie to locate Berit, and found her sitting at a table in the 98

dining room. "Calli! Finally! I thought you were going to sleep till noon. I almost had Annie wake you up."

"I appreciate your restraint." I sat, placing my tray in front of me—scrambled eggs with taro toast.

“So what happened?”

“It was a crazy night. Thanks for your help, by the way,” I said between mouthfuls, eating with relish. Shambhala’s food was delicious, but we didn’t have fresh eggs.

Berit looked at me, eyebrows raised. “What? They don’t feed you on the orbital lab?”

I laughed. “It’s good to see you, Berit.”

“Okay, enough chit-chat! Are you going to tell me or what?”

I wiped my mouth with my napkin, and started telling the saga from the beginning.

When I got to the part just before Marley put her hand on my leg, I felt myself flush.

Narrowing her eyes at me, Berit leaned forward. “You hooked up with her!”

“What? No!” I squirmed in my chair.

“Come on, something happened between you before the big escape. I can see it in your face!”

“Marley, well, she kind of came on to me.” I gave a little shrug.

“She did?” Berit’s eyes lit up. “What did you do?”

I waved my hand dismissively. “Nothing happened! I wasn’t interested in her in that way.”

Berit’s face fell.

“Don’t look so disappointed!” I admonished.

“I was hoping for a good story,” she said with a pout, crossing her arms in front of her chest.

“And the whole running-for-our-lives part doesn’t count?” I raised an eyebrow.

She rolled her eyes. “Fine. I want to hear it all! No more interruptions, I promise.”

True to her word, she listened intently as I related the rest of the night. When I finished, she said, “I talked to Frank this morning. He told me Marley refused to see him, didn’t want to make a statement, and almost begged him to forget about it. They couldn’t find anything on the video feeds, either.”

“How strange.”

“Yeah, I know.” She gave a little shrug. “At least you had a little excitement for a change.”

I laughed. “I get enough excitement on Shambhala, thank you. Working on the warp drive is more than enough stimulation.”

“Physicists,” she said with another eyeroll, then she smiled at me. “Are you taking the shuttle back to Shambhala later?”

“Uh-huh.” I had slept late, and it was already ten a.m. “In fact, I should get going.”

I wiped the remains of my eggs off my plate with a piece of toast, savoring the last bite, then stood and picked up my tray. “Tell Frank thanks for me, will you?”

Berit nodded. “You bet.” Then she looked up at me, her expression a little wistful.

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“Tell Naomi I said hi.”

“Okay, sure.” I walked quickly to the door, dropping my tray in the sterilizing unit, and headed to my room. I wanted to take full advantage of a shower in a gravitational field before going back to Shambhala, even if it was only one-sixth G.



On Monday, I was eager to get to the lab to talk with Hadley. After an

abbreviated workout, then a quick bite to eat, I found her sitting at the conference table, studying our specifications for the warp drive.

“Hi Calli,” she said. “How was the conference?”

“I’ll tell you all about it, I promise,” I said, settling onto the couch and patting the seat beside me, “but first, you need to come tell me about your date Saturday night!”

She reddened slightly and came to sit beside me. “It was no big deal. We just hung out.” She gave me a sly smile.

“Not even a goodnight kiss?”

“Nope. Not even a kiss on the cheek.”

“Are you going to ‘hang out’ again soon?” I raised my eyebrow.

A blush this time. “Tonight.”

“That’s great! I’m so happy for you.”

“Well, nothing’s happened yet, anyway. So, tell me about the conference.”

“I met your professor. She was like you said, a little abrasive. I went out with her for a drink last night, and you won’t believe what happened.” Berit was right, it was nice to have an exciting story.

Hadley’s mouth hung open as I retold the events of the night before, omitting the part about the flirting, since, anyway, it didn’t go anywhere. Telling Berit had been more than enough!

“How scary,” she said when I’d finished. “Glad you’re both okay.”

“Yeah, the whole thing was bizarre. But I’m happy to know that the lunar security is so reliable.”

“Uh-huh. The Collective is really good about that stuff. Though I had no idea Marley’s personal life was so, I don’t know, dramatic.”

“But she was your professor, right?”

“Yeah, but we never interacted, I just went to her classes. She’s a good lecturer.”

“I agree. Her presentation at the conference was compelling.” I thought for a moment. “So, you never talked to her?”

“Nope. We had office hours with a teaching assistant.”

“Weird. She said you were her favorite student.”

Hadley gave a bark of laughter. “Impossible! We had to be a hundred students. I was just a face in the crowd. She couldn’t have known who I was.”

I shook my head. “She even asked if you were still working on the warp drive.”

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Hadley’s eyebrows shot up. “I didn’t even know about the theory of warp drives back then. It was undergrad. I started focusing on warp technology in grad school.”

“It could be she just likes to follow the careers of her former students.” The back of my neck prickled, and I rubbed it with my hand.

“No, not possible! We are too many.” Hadley pursed her lips. “How strange.”

“That’s not even the strangest part. She really wanted to come to Shambhala. She almost begged me to take her with me.”

Hadley cocked her head, brow furrowed. “She did?”

“Uh-huh. She seemed kind of desperate.”

“So weird,” said Hadley, rubbing her chin with her hand.

“Maybe she just likes to keep tabs on the competition,” I ventured.

Hadley snorted. “Competition? Ha! No one takes warp technology seriously, you know that.”

“Only too well!” I smirked, then grew serious. “I almost got the feeling she was being controlled, or manipulated, or something. Maybe it was that guy, her ex.” I

rubbed my neck again, as a frisson of uneasiness passed through my body.

“Or just her personal quirkiness,” said Hadley, waving a dismissive hand in front of her face. “But anyway, I went over our revisions this weekend, and I think we’re ready to start working with the engineers on a prototype, they’re expecting us today.”

“Are you sure this isn’t just an excuse to spend more time with Andrea?” I asked, eyebrow raised.

Hadley laughed. “You’re welcome to go over the calculations yourself, Calli.”

“No, no! I believe you!”

She stood up, grinning. “Let’s go!”

CHAPTER FIFTEEN

We spent the entire week at the engineering lab, working on the details of our prototype. We still had a ways to go, but it was coming along nicely. That Friday, after five weeks on the station, I couldn't put off calling my parents any longer. Taking advantage of the time between the staff meeting and the social, I went straight to my quarters. It was quiet in my room, and, for once, my thoughts were still. I picked up my computer tablet and entered their contact information, then settled back on my bed, fixing the strap over my torso, the tablet floating above me. I could see my reflection in the screen as the connection synced up. When my mom answered, she was smiling.

"Hi, Mom."

"How are you, sweetheart?"

"I'm doing great."

She frowned. "Are you still on that *space station*?" She said the words "space station"

as if it were an old piece of gum stuck to the bottom of her shoe. When I had told her before leaving Earth the research facility was in orbit around the Moon, she had been less than thrilled.

"Uh-huh."

"I don't understand why that contraption doesn't crash into the Moon. Are you sure it's safe?"

I laughed. "Of course."

My mother shook her head, as if she couldn't believe my naiveté.

"How are you and Dad?"

"We're doing fine. I just got back from church. Your father stayed to play dominoes with some friends, but I wanted to get home and put my feet up. It was

such a good Bible study class. You know I think the world of Reverend Talbert.”

“I know you do, Mom.”

Her face clouded. “He was just talking about all those people living on the Moon, how it isn’t natural.”

“What does it mean to be ‘natural’?” I asked, then bit my tongue, mentally chastising myself. I knew better than to get her started. Our interactions were so much smoother when we only talked about simple things.

“Things that are written in the Bible.”

I resisted the urge to slap my forehead. “I don’t think the Bible prohibits people living on the Moon, does it?”

“No, not specifically, but you have to know how to read between the lines.”

Or to interpret it to fit your world view, I said to myself, then felt mean.

“That’s what Reverend Talbert says,” my mom continued. “He’s a biblical scholar.”

“I’m sure he’s a very intelligent man.”

My mom squinted her eyes at me, as if suspecting sarcasm in my tone. “I’ll be glad 102

when you’re back with your feet on Planet Earth, where you belong.”

“I know.”

“I don’t know where you got that brain of yours. Sure wasn’t from me.” It was one of her most frequent comments with respect to me.

“How are things at home?”

She brightened. “Your father and I are thinking of renovating the kitchen. He wants to do the work himself, using real wood, but I don’t know” Her voice trailed off.

“He’s a skilled carpenter. He’ll do a great job.” My father had the mind of an engineer, which served him well in his profession as a hovercar mechanic. Our best conversations, though infrequent, were almost always about mechanical problems, and our most enjoyable interactions consisted of fixing things around the house, or building something together when I still lived at home.

My mother looked doubtful. “I know he would, sweetheart, but real wood is expensive, and his back’s not too good.”

I studied my mother’s face, filled with lines, and her hair, more grey than red. She was getting older, they both were. She was only seventy-two, and my father was seventy-four, but the years had not been kind to either of them. “Hire someone.”

“Oh, you know your father, stubborn as the day is long.”

“Try to convince him.” I would transfer money from my account to theirs. I didn’t need the generous wages accruing from my work for the Foundation—except for drinks at the bar with Marley, I hadn’t spent a penny. My parents weren’t poor, they were comfortable with my dad’s income and the guaranteed minimum wage, but still, a little extra couldn’t hurt. “Okay, I should go. Tell Dad I said hi.”

“I will, sweetheart. So nice to see you.”

“You, too. I love you.” I signed off.

Why was it so hard for me to call them? The lyrics of an old song popped into my head. As a teenager, I liked to search for music on the internet, songs to match my tumultuous, hormone-driven emotional storms. Ah, the joys of puberty. It went something like:

They were convinced they knew it al,

But their minds were so smal .

They couldn’t make room for me,

A girl who reached for the stars, dreaming of infinity.

The first time I listened to the words, I had sobbed for hours, and still, to this day, thinking of these lines in particular would bring tears to my eyes and an ache in my heart. It had made me realize how alone I was. My family could not find a place for a girl like me, a girl who longed for the stars. I was a stranger in my own life.

When I was accepted into the university, my extended family made lots of rather unsupportive comments, such as “What? You think just because you’re going to a big, 103

important college, you’re better than us?” That was from my cousin, Dennis. He was a real piece of work, that guy. His prejudices against anyone who thought in ways that differed from his intolerant, myopic, and chauvinistic world view ran so deep, his face was locked in a perpetual scowl. I felt sorry for his wife and kids.

Another comment from my mother’s uncle, Rob, speaking for himself and his wife, Lynda: “Why do you think you need an education? We never went to college and we’re doing fine.” Unlike my cousin, his words weren’t meant to be cruel; he didn’t understand. Out of all my extended family, they were my favorites. They, too, had, in their own way, reached for the stars, abandoning their hometown to travel across the continent, looking for opportunities, but they had gone too far, flown too close to the Sun like Icarus had done, and, like him, had been burned. Life had not been generous to them. Now, they lived in a double-wide trailer, barely scraping by on their meager guaranteed minimum wage income. Their only entertainment was talking about their physical ailments and keeping track of their medication.

Even my parents disapproved of my ambitions. When I had applied to Caltech, my father told me if I wanted to continue my education, there was a perfectly good community college in my hometown of Eureka, so why didn’t I enroll there and live at home? I could work at the mechanic’s shop with him, or the desalination plant. My parents couldn’t, or wouldn’t, understand Caltech was the top school not only in the country, but in all North America, and it was a tremendous achievement to be accepted with a full scholarship. My father, when we talked during those first few years of my undergraduate career, would complain, often bitterly, that the school was too far away, and I was being selfish, wanting to hurt him, punish him. It was then when I comprehended my intelligence was my ticket out. My mother begrudgingly accepted my

aspirations, but my father had never forgiven me for leaving. And the truth was, in a certain sense, he was right. I *did* want to be far, far away, to be free to dream of a world of infinite possibilities.

Things improved dramatically for me once I went away to college and started studying physics. Physics was so elegant, so logical and organized, and my brain took to it like a fish to water. Finally, I was in my element, surrounded by my people, my clan. I rarely returned home to visit my family.

I glanced at my wrist computer. It was time for the social. I had missed dinner, but wasn't hungry. Instead, I felt a real need to be in the company of my crewmates, to regain my sense of self.

Entering observation deck, I spotted Tanya sitting alone, gazing out the window at the Moon. I studied her profile as I floated over to her table: strong features, fair skin, honey-brown hair pulled back in a bun.

"May I join you?"

"Please do." Tanya's smile was warm and welcoming. I settled onto the chair, secretly relieved to have the chance to talk alone with Tanya. "What's up, Calli?"

"I just talked to my mom."

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"And?" She looked at me expectantly.

I met her eyes, not knowing where to start.

Tanya was perhaps the most striking of all the crew because she was born a male, a tragic biological error, she called it. The unusual thing about Tanya was she hadn't started hormone therapy pre-puberty. Because of the insistence of her family, she was forced to wait until she was eighteen to begin taking the hormones that would help her transition into becoming her true female self. "I don't blame my parents," she had told me one morning when we sat together during breakfast. "I know they didn't understand and wanted me to be their son. It's shocking that they were so resistant. But our town is ultraconservative. A reaction to the massive die-off back in the mid-2000s. Women in my hometown aren't even allowed to get the implant to suppress menstruation."

Hearing this, I ran my finger along the underside of my arm, where my own implant was located.

Tanya was from Texas, also of the former United States, a place which was hard hit when the disaster with the GMOs struck. The Texas ecosystem was almost completely wiped out, and there were only pockets of human survivors, many of whom stayed, forming insular communities, most with extreme philosophies, such as not allowing your child to take hormones to correct a biological mistake. Hard to imagine people could be so narrow-minded. But then again, there was my family, and we were from California, a country known for its progressive ideologies.

When Tanya reached adulthood, she was able to leave Texas and finally begin her hormone treatments, and go through gender reconstructive surgery. She still had the vestiges of an Adam's apple, her voice was low and raspy, and her features were masculine, all traits which would not have developed had she started hormones pre-puberty.

I didn't talk much about my family as a rule, but with Tanya, I had found a kindred spirit. "My parents are true believers."

"True believers?" Tanya raised an eyebrow.

"I suspect you and I had similar experiences growing up."

"Ah, I see."

I looked deep into Tanya's hazel-green eyes—yes, she understood. "I never could believe like they do."

"No, you're a scientist."

"Science and religion aren't exactly mutually exclusive," I said, or was that my mother's thought? It was another of her mantras, not those words, perhaps, but the sentiment. Forever trying to save my soul.

"Science and stubbornly clinging to dogmatic beliefs, even in the face of contradictory evidence, most assuredly are mutually exclusive," said Tanya. "Though the behavior is not only the purview of adherents of organized religion—plenty of people find it difficult to accept new ideas."

“That’s true.” I studied the smooth surface of the table, running my fingers along its 105

edge. “You know, I get someone being spiritual, I’m the first to admit there are things in this life science can’t explain. Science can only answer questions which are testable and falsifiable.” I lifted my eyes to hers. “Many of humanity’s most basic questions lie outside the scope of science.”

“Well put!”

I gave Tanya a subdued smile. “And it’s not like scientists claim to have all the answers. A preponderance of evidence doesn’t mean something is an immutable truth.

Any scientist worth her salt knows that.”

“Yes, but say that to a ‘true believer,’ as you call them, and they conclude science supports their ideas because scientists can’t say with certitude they are wrong.”

“Those people don’t understand the scientific process. They don’t get that a hypothesis is tested over and over again, hundreds or even thousands of times, and if it’s not shown to be wrong, it gains merit in the scientific community.” I took a breath, warming to my subject. “So, we can consider it to be a good model of the physical world. Then we can alter and refine our hypotheses, so any predictions fit the observations. That doesn’t mean we accept anyone’s notion as true, just because they think it’s true.” I stopped myself, a little embarrassed, realizing Tanya knew all this. Was I really talking to Tanya, or was I talking to my parents, desperately trying to get them to understand my point of view? I strongly suspected the latter.

“Exactly. We all have opinions, but the function of science is to use actual data to support or refute explanations of observed phenomena. Scientists back up claims with hard data, not opinion or speculation.”

My entire body relaxed—I hadn’t realized I had been so tense. “Scientific inquiry encourages us to think systematically and critically. It’s an amazing tool that helps us gain a deeper understanding of the world around us and our place in the Universe, and to make informed decisions about our lives and our communities. My study of science inspires me to appreciate the beauty and

complexity of nature. I don't need a god for that."

"You're preaching to the choir, my sister!"

I felt my face grow red. "Thanks, Tanya, and sorry. You don't deserve a lecture!"

"Hey, I understand. You need to ground yourself in your personal worldview, which, by the way, I share, after talking to your family. I know how it is. Sometimes you question your own reality, your ability to reason and think logically."

"You're right. I just go a little crazy sometimes. Growing up in a world full of logical fallacies and superstition wasn't easy."

Tanya gave me a gentle look.

"What always got to me is the blind faith in a hodgepodge of poorly written ancient texts, so much contradiction and pretty bizarre claims and rules."

"You mean, for example, 'Thou shalt not sow thy field with mingled seed'? The worst possible advice for farmers. Everyone knows a diverse field is more robust, more able to withstand pests and plagues. Look at the farming disasters that went along with 106

monocrops."

"For me it was the cruelty. Once I took a marker to my parents' Bible. They have a physical book. I wanted to highlight all the places where the biblical god ordered the death or destruction of innocent people. You know, to point out his wrath and lack of mercy, his ruthless vindictiveness against people who believed in a different god, the passages where he ordered the slaughter of children, where he not only condoned but encouraged rape." I shook my head. "I stopped after highlighting almost every line for the first dozen pages I had turned to."

"I'll bet your parents were thrilled."

"They didn't think it was a particularly good exercise. To be honest, I don't think either of them ever read the Bible, not in its entirety, anyway. Only the bits and pieces the reverend at their church tells them to read." I looked down at my hands. "For a few years my parents worshiped Zeus and Hera, and the whole

Greek clan,” I said, my voice barely over a whisper. I hadn’t told anyone that, not even Olivia. It felt like a betrayal, like I was shining a light on a shameful secret. I regarded Tanya, trying to gauge her reaction.

She looked surprised, but not shocked. She understood this part, too, I realized. The part about being from a family like mine: the confusion, the shame, the love, the pain, the stifling dogma that flew in the face of logical reason, all of it. Thank you, Tanya, I said silently. Thank you for understanding and not judging. I shrugged, feigning indifference, though my stomach was in knots. “There was a revival of ancient Greek religion in California around the time I was born, and my folks met at a meeting. They were both in their early forties and had never been married. I don’t know for sure, but my guess is they were feeling a little desperate to find someone or something to give their lives direction. They were all about worshiping the whole pantheon, apparently.

That’s where I got my name, Callisto.”

“How interesting.”

“After a few years they were lured, or shamed, back to the ‘true’ word of god. Both of them were brought up as fundamentalist Christians. But by then, it was too late to change my name to something more biblical, like Sara or Ruth.”

Tanya reached over and squeezed my arm. “I imagine that your parents, like mine, are doing the best they can with what they know.”

My eyes filled with tears. I blinked rapidly.

She gave me a wry look. “I believe my gender identity crisis was the best thing that could have happened to me. Being so fundamentally different from my family and the rest of the people in my community helped me see everything: social norms, religious beliefs, all the underlying assumptions, with a critical eye.”

“But Tanya, they truly believe. Although I suspect there are religious leaders who are con artists, manipulating and exploiting people’s blind faith for their own personal gain.”

“Oh, that’s true, but I’d like to think they are the exceptions, not the rule.” She looked

me straight in the eyes. “I believe in the goodness of humanity, and I’m convinced the god who lives in the hearts of the majority of people is not the god of organized religion.”

“Thank god for that!”

Tanya broke into laughter.

“We’re an odd species, humans,” I said.

“That we are!” Tanya popped a beer ball into her mouth.

CHAPTER SIXTEEN

On Wednesday the prototype was finally ready! It was small, but big enough to test the warp bubble, and beautifully constructed: a sleek, ceramic, prolate spheroid shell, the size and shape of an emu egg, with two thick, wide rings, concentric with the spheroid's long axis, attached at each end—the warp drive. We scheduled the test launch to coincide with the next staff meeting, and for the next two days I was a nervous wreck. The only way I could calm myself down was by sitting on a bench in the park, soaking up the greenery, or spending time in Naomi's lab with the mice. I had gotten to know all of them, but Asteria was still my favorite. The feeling was, apparently, mutual. Every time I entered the lab, she had her eyes trained on me, and when I approached the condo, she would hurry to the door to be let out. Sometimes she was so excited to see me she would launch herself into space toward my chest and latch onto my jumpsuit with her tiny claws. Then she would scramble up to my neck and snuggle in. I loved the feel of her soft fur, her tiny nose, and the twitching of her whiskers.

Occasionally she would jump off my shoulder or my arm, swimming in micro-g, and I would have to scramble to catch her. It wouldn't be so bad if she collided with the walls, since they were all padded, but the table and consoles were hard, and if she bumped into something rigid it was possible she could injure herself. I had to remain vigilant when she was in a particularly playful mood. But that didn't matter—I absolutely adored her.



The test day arrived, and the whole crew gathered on the observation deck. The plan was to deploy the prototype several kilometers from the station. Everyone kept looking toward the window, though it would be impossible to see anything from such a great distance, even if we had been facing in the correct direction. The test would be totally automated, with sensors placed in an array at various distances from the prototype, as well as within the prototype itself. The video feeds from the eight sensors—six outside the prototype and two within it—would be projected onto a plasma screen so everyone could watch. We weren't sure if we would be able to see anything—the collected data would give us more useful information than our eyes—but it was exciting, nonetheless.

I sat between Hadley and Naomi, my eyes glued to the screen. We had already sent the prototype to the launch position, where it sat waiting for the deployment of the warp bubble. The video feeds showed the little craft hanging motionless in space. The countdown began, and I reached for Hadley's hand, but she had clasped one of Andrea's hands with both of hers, her eyes trained on the screen. I smiled to myself, then held my breath. Naomi slipped her hand into mine, and I squeezed it gratefully.

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The countdown reached zero, and all eyes were fixed on the video feeds.

For the first few seconds, everything looked good. Then the visual feeds from the internal sensors went blank. I studied the screen on my personal computer tablet, which was tracking the data from the sensors. No warp bubble. We were dead in the water.

"Aw, hell," I heard Marta say.

Naomi turned to me, and I shook my head. "I'm so sorry, Calli," she whispered.

I scrolled back to examine the data for the first few seconds. Yes, it was there! The bubble had held for about three seconds, then collapsed.

Hadley was staring at her own computer tablet floating in the air in front of her, disappointment etched into her face. I touched her arm, and she turned to me. "I knew it was too much to expect, but I hoped—" she stopped.

"I know, me too, but we got some good data." I indicated my computer with a nod.

"We can do our analysis and make improvements. It's only the first trial."

Andrea rubbed Hadley's back gently, and she responded with a wan smile.

Diana stood up. "The team will need to review the data, but from what I can tell,"

she held up her own computer tablet, which had the same data as mine and Hadley's,

“the bubble held for several seconds. This is the first time anyone has ever created a macroscopic warp bubble! As far as I’m concerned, this prototype was a tremendous success.”

Everyone clapped and looked over at Hadley and me. Hadley leaned over to whisper in my ear. “We need to analyze these data.”

“I’m with you,” I whispered back.

Everyone made their way to the other side of the partition, where the socials were held. As balls filled with low-carbonation champagne were being passed around, Hadley and I snuck out the door and into the hallway.

When the door closed behind us, Hadley forced a smile. “It wasn’t a complete disaster, was it?”

“No, not at all,” I said, my eyes back on my screen. “Let’s go to the lab, I’m anxious to examine the data from the warp field.”

“Yeah, and the warp bubble collapse, too.”

We still had a long way to go, but we were one step closer.



After such a promising start, our research into the warp field seemed to be at a standstill. Hadley and I pored over the data from the prototype, but we couldn’t figure out why the warp bubble had collapsed. This wasn’t necessarily a bad thing—the warp bubble *had* to collapse when the vessel reached its destination, to return to “normal”

space—but we needed to control the timing of the collapse from inside the warp bubble. We had built the control mechanism based on my theory, the one Hadley had been so excited about. The collapse was programmed to occur exactly ten minutes after 110

the formation of the bubble. Instead, what had transpired was premature and uncontrolled.

The setback was nothing new for either of us. We were trained scientists, and

both knew the history of scientific discovery was fraught with failures. No, not failures exactly, but dead ends, frustrations, and years of working with little or no results. After all, we had each been in the field of warp technology for years, as had many scientists before us.

But we had been so tantalizingly close. And what Diana had said was true—the test was a success. Never before, as far as we knew, had anyone been able to produce a macroscopic warp bubble, and three seconds, the time the bubble had remained stable, was actually a long time.

What could have caused the instability? We had accounted for quantum fluctuations, and the negative energy containment was solid. Hadley had already figured out the fundamental process before I arrived on the ship, employing novel ceramics designed by the materials science team. Since then, we had worked together to make sure the containment was robust and stable. So, we concluded it must be something else.

We reexamined the existing literature, and kept Annie busy searching all the available databases to see if any new articles in warp technology had been published. But research in the field was scant—only a few of us were deep into the work. Although my postdoc had been at the Alcubierre Center for Space Technology, named in honor of the father of the working theory of the warp drive and one of the first people to recognize that a solution to Einstein's field equations in general relativity allowed for a warp field, the truth was most scientists viewed this work as pie in the sky, and preferred to pursue more fruitful lines of research. Even at the Alcubierre Center, only a handful of scientists were actively following the dream of its namesake, most were focused on more “realistic” methods of propulsion, such as field-emission electric propulsion or, like Marley, ion drives.

The California government had a small team dedicated to warp drive research, and, had it not been for Diana, I would have been a member of that team by now, but they hadn't even touched the negative energy confinement problem. They were still struggling with the mechanisms to create the amount of negative energy necessary to sustain a warp field.

That was why I had been so excited to learn about Hadley's work, and couldn't believe she was at the experimental stage. We discussed publishing our findings, but agreed it was too soon. We wanted a stable, working prototype first.

I spent much of my time in the lab module park, admiring the flowers. It was a good place to think. On Saturdays and Sundays, when not otherwise occupied, I was in Naomi's lab. Naomi would almost always spend the weekends on the Moon with Evan, and so she had asked me to keep the mice company, and I was happy to comply. Being with them gave me a sense of tranquility. It was the oxytocin in my bloodstream, and I wasn't complaining. What a delightful hormone: the love hormone. And it was true, I 111

loved those little creatures. My production of oxytocin was fairly high in those days. I felt so happy, so at peace.

It was amazing how well everyone got along. I never saw anyone really angry.

Naturally, we had our professional frustrations, and occasional personal or relationship woes, with lovers, family, friends, workmates. We were human, after all. But as a team, we were harmonious. It was a complete departure from life on Earth, where strife, animosity, and cutthroat competition was the norm. My initial suspicions about the Foundation community, of it being too good to be true, had faded into oblivion, because the love I felt, both from and towards my colleagues, was genuine.

I wasn't sure why things worked so well, and maybe it was true, a woman-only staff created a more amicable environment, especially with Annie's careful selection of potential crew. Even so, Diana and Izumi deserved their fair share of the credit. Diana was a gifted leader. She always knew when to give a word or two of encouragement, when it was better to leave us alone, and her sense of humor and relaxed attitude made for a tranquil working atmosphere. Izumi had a real intuition for human psychology, it could have been her training in anthropology, but I suspected it was an innate talent. In any case, being a part of the Foundation, I felt a tremendous sense of purpose and belonging.

CHAPTER SEVENTEEN

When I got to our lab one morning, Hadley had a big smile on her face. “You look happy,” I said.

Her smile got even bigger. “It finally happened.”

“What?” I asked, feeling my heart accelerate. Maybe she’d had a breakthrough! I propelled myself over to her console, expecting to see a solution to the warp bubble collapse. But her monitor wasn’t even on.

“The kiss,” she said, blushing.

I grinned. “Ah, the kiss.”

Since their first date, Hadley had been spending most evenings with Andrea on the observation deck, late at night when the station was quiet. A couple of nights ago, Hadley had decided she didn’t want to wait any longer, and tried to kiss Andrea, but Andrea had put a finger on Hadley’s lips, stopping her. “Not yet,” she had whispered.

We spent the next two mornings trying, albeit unsuccessfully, to figure out what Andrea was thinking.

“Tell me everything!” I said to Hadley. “I want all the details.”

Hadley’s face was radiant. “Okay, last night I went to the observation deck, as usual, hoping to see Andrea.”

“Okay.”

“I was surprised because it looked like the room was empty, and normally Andrea gets there before I do.”

“Uh-huh.”

“And for a minute I thought, well, that’s it, she doesn’t want to see me anymore.”

“Oh, Hadley.” I gave her a sympathetic look.

“No, wait.” She held up a hand, palm out. “Let me finish!”

I arched my eyebrow.

“Okay, then, when I closed the door behind me, the lights went out, and the room was filled with all these holographic images of flowers. Then Andrea was beside me and took me in her arms. She said there weren’t enough flowers in the Universe, but she hoped these would suffice for now. Then she kissed me.” She traced her lips with her fingers. “I never kissed a woman before.”

“I know! How did it feel?”

“It was different than kissing a man. Softer. It was nice.” She smiled, a dreamy expression on her face.

I had no idea what it was like to kiss a man, but kissing a woman was like nothing else in the Universe. A small part of me envied Hadley. I hadn’t kissed a woman since Olivia.

“And the flowers were so beautiful.”

“Who else but an engineer would have given you holographic flowers?” I smiled at 113

the thought.



Later that afternoon, I took a break and headed to Naomi’s lab, wanting to tell her about Hadley and Andrea. I found her huddled on the couch, arms wrapped around her chest.

“Naomi, what happened? What’s the matter?” I hurried to sit beside her.

“It’s Evan, he ended things with me.”

“Naomi,” Annie’s voice filled the room, “are you certain you don’t want me to call Doctor Gamon?”

“No, Annie, Doc can’t mend a broken heart.”

“Okay, Naomi, but please let me know if I can do anything for you.”

Naomi shook her head and looked at me. “Annie’s concerned about me.”

“I am, too, Naomi.” I put my arms around her. “Tell me what happened.”

“Evan, he—he’s seeing someone else.” She buried her face in my chest, and I held her tighter. “He says he’s in love.” Her voice was muffled.

I rubbed her back with the palm of my hand as her tears soaked my jumpsuit. She shifted away from me and I released her, searching her face. “I’m so sorry,” I whispered.

Naomi wiped her eyes with one hand. Globules of tears floated away. “I don’t even understand why I’m weeping. It isn’t as if we had a future together, a real one. And we always had an open relationship, you know.”

I nodded, even though, in fact, I hadn’t known.

“We both knew we weren’t meant to last.”

“But still, it hurts.”

“It does.” She sniffed loudly.

“I have gossip, if you want to hear it.”

Naomi perked up. “Spill the tea, sister! Help me get out of my head.”

“Hadley and Andrea, it’s official.”

Naomi’s doleful expression transformed into a smile. “About time.”

I looked at her, struck by what an extraordinary woman she was. Even with her heart broken, she still felt joy for other people’s happiness. “I’m sorry about Evan.”

“Thanks, Calli.” Her smile faded. “I’m blessed to have you.”



Naomi's breakup with Evan hit her hard. We spent hours on the couch in her lab, holding the mice and talking about relationships.

When I told her I hadn't been with anyone since Olivia, she couldn't believe it.

"How can that be true? You're incredibly attractive!"

"Aw, thanks Naomi."

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"I'd be into you if I weren't hetero."

"Come on, we both know that's a lie. Our relationship is one hundred percent in the friend category. Even if you took some kind of pill to change your sexual orientation overnight, it would never happen. You're like my sister."

"Do those pills exist? Please, sign me up!"

I laughed.

"You're right," she said. "We're much like sisters, the two of us. Though for you, that's an awful long time to be single."

"It's true, but until my infatuation with Diana—" I felt the heat in my face, and Naomi patted my thigh, "I hadn't even thought about it, not really. I was married to my work."

"Yeah, I know how it can be. Even so, wouldn't it be nice to have someone special in your life?"

"I have you, Naomi."

She leaned over to give me a quick hug. "It's true. We don't need the troubles of romance."

"Exactly."

"Though it would be lovely," she added wistfully.

“How are you doing, really?” I studied her face. “Are you still sad about Evan?”

“Yeah, maybe I am.”

“I figured as much.”

“Even though I knew we weren’t the right match, my heart held on to hope.”

“Ah yes, that pesky hope.”

“I doubt if I’d even meet someone else. It isn’t like I have plenty of interaction with men.”

“Not here, anyway.”

Naomi examined her hands resting in her lap. “I’m thinking of making myself a profile on a virtual dating site.”

“That’s a great idea.”

She looked up at me hopefully. “You don’t think it’s too soon?”

“You said yourself you and Evan weren’t meant to be together in the long run, so why not? You can think of your relationship with him as a warm-up for something deeper.”

Her face brightened. “I think I’ll give it a go.”

“What have you got to lose?”



Since that day, Naomi had gone on a few “virtual” dates with men living on the Moon (Earth was too unreasonably far), but there was no one she was particularly interested in.

At dinner one evening, Naomi lamented, “Like I said earlier, I swear Izumi and Diana ruined it for me as far as relationships go.”

“Come on, Naomi, I’m sure it wasn’t always like that with them,” I said, thinking of my conversation with Izumi in the gym. “Relationships are more than just love, they take a real commitment to work things out, and mutual respect. Those things take time to cultivate.”

“How did you get so wise in the ways of the world, Miss Celibate-for-Five-Plus-Years?”

I laughed. “All theory, my friend. And we both know the difference between theory and practice is sometimes astronomical.”

Naomi laughed. “Isn’t that the truth?”

CHAPTER EIGHTEEN

Things were stagnating with the warp drive research. It had been five weeks since the testing of the prototype, five grueling weeks of knocking our heads against the wall, with nothing to show for it except crushing disappointment. My peace and tranquility from a few weeks before had all but disappeared. I had been going later and later to the gym, so I barely saw Izumi, and my visits with Naomi and the mice were few and far between. I was too anxious to relax. If we hadn't been so very close, maybe our inability to move forward wouldn't be so disappointing.

One morning, after a half-hearted workout, I dragged myself to the lab to find Hadley and Andrea cuddling on the couch. My temper flared. How could Hadley be enjoying herself when there was so much work to be done?

"Hi Calli," said Andrea, and Hadley smiled at me, then buried her face in Andrea's neck.

I nodded to them and pushed my way over to my console. When Hadley giggled, I gritted my teeth. How was anyone supposed to concentrate with all that noise? Why couldn't they go somewhere else? I tried to focus on the same equation I had been staring at for at least a week without a glimmer of inspiration, but then Andrea laughed this time, and my blood boiled in my veins. I sat seething, staring at my computer screen.

"Okay, sweetie," Andrea said, "I need to get to work."

Yeah, about time someone besides me thought about work.

"No, not yet," pleaded Hadley. "Stay a little while longer."

Please, just go already. I glared at the backs of their heads, as if the force of my will alone could make Andrea leave.

"Marta is expecting me, but I'll see you tonight."

"Oh, okay," said Hadley, pushing herself off the couch and following Andrea to the door. They shared a long kiss, and, finally, Andrea left.

I pretended to write in my notebook as Hadley made her way to her console. A little while later she said, “Hey Calli, want to go over the collapse data with me again, see if there’s something, anything we might have missed?”

“We’ve already gone through it,” I said, my tone harsh. “I don’t see the point.”

“Okay.” She shrugged and turned back to her screen.

I got up, and went to the door, pulling it open with more force than necessary, and propelled myself into the hallway. What was wrong with me? Nothing was going right.

I went to my quarters, thankful to not have run into anyone, and zipped myself into my sleeping bag. It wasn’t just Hadley, everything seemed to put me on edge. Why couldn’t we figure out the collapse? What weren’t we seeing? There was an answer, I knew there was, so why couldn’t we find it? That evening, stomach rumbling, I ate two energy bars I had stashed in my room. Why bother to go all the way to the dining room? It was Friday, but I wasn’t about to go to the social, to pretend to be happy. With the exception 117

of my first Friday on Shambhala, it was my first time to miss it.



The following afternoon Diana and I crossed paths in the farm corridor where I had been wandering aimlessly.

“Calli! I’ve been looking for you.”

“Hi, Diana,” I said in a subdued voice, grabbing onto the rail to stop my forward motion.

“Listen, I have a proposition for you.”

I cocked my head, waiting.

“I know you’ve been feeling dissatisfied with your research.”

My cheeks burned. “Is it that obvious?”

“Oh, my dear, we all go through it, trust me. What I’ve found helps me is a change of scenery.”

“I’m listening.”

“Why don’t you go to the lunar facility, Arcadia, for a few weeks?”

My jaw dropped with the realization that this was exactly what I needed. “Diana, you are a genius!”

Diana laughed. “Okay, for the sake of full disclosure, Izumi was the one who suggested it.”

“A collective genius then, you and Izumi.” A trip to the Moon! Why hadn’t I thought of that?

She laughed again. “Tomorrow is Sunday, so the Moon shuttle will be leaving at twelve-thirty p.m. Shall I tell Sook to save you a seat?”

“Yes, please!” My mind was already racing, the cloud of depression lifting.
“Thanks, Diana.”

I went straight to the lab to tell Hadley the news, and found her working at her console.

“Oh, hi, Calli.” She looked up and rubbed her eyes.

“Hey, I wanted to let you know I’ll be gone for a week or two. I’m going to spend some time on the Moon, recharge my batteries.”

“Hmm, let me guess, Izumi’s?”

“How did you know?” I shook my head. “That woman has a sixth sense. It’s almost scary, except she’s so sweet and kind-hearted.”

“Imagine if she used her powers for evil and not good. We’d all be in deep trouble.”

I hesitated, looking down at my feet, then met Hadley’s eyes. “Hey, sorry if I’ve been short with you lately.”

“You’ve been as sweet and gracious as ever. Your impatience is all on the inside.”

“Good to know, but I suspect all that oxytocin coursing through your veins has made you impervious to my grumpiness.”

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“I share your exasperation with the way the research is going.” She smiled at me.

“You know I love working with you.”

“Me too, Hadley.”

“Anyway,” she said, eyes shining, “I have my own plans for the next couple of weeks.”

“Really? Plans involving an extremely attractive and romantic engineer, by chance?”

Hadley’s face took on a slightly dreamy expression. “Andrea and I are going to the Earth. We’ve been talking about it, how it would be nice to meet the families face to face. Then this morning I got a message from our official Cruise Director, Izumi.”

I laughed, and the tension started to drain from my body.

“She said the Foundation was offering us a three-week, all expenses paid trip to the Earth, for me and Andrea. Can you believe it? Perfect timing, too.”

“So you and I will both be able to relax and think about something else besides warp bubbles.”

“Yeah, and when we’re both back, we can solve the collapse conundrum once and for all.”

“Okay, it’s a deal.” How could I have ever been annoyed with this beautiful human being? She was right, of course, it was the research that had been bringing me down, and I had projected my irritability onto everyone around me, especially Hadley. Except for my study groups, it was my first time collaborating

so intimately with another scientist. Back when I was working alone, my negative humor only affected me, but here, on Shambhala, I needed to control my feelings of frustration, to remember I was a part of a community, a community I treasured. I smiled at Hadley, feeling my heart expand with love. “Are you nervous about meeting Andrea’s family?”

“Not at all.” She shook her head. Then she shrugged. “Okay, yeah, maybe a little.”

I raised an eyebrow.

“Okay, okay, you got me. I’m scared stiff.”

I smiled. “Only natural, but you’ll be fine.”

“I’ve already met her parents and her brother via holochat, but in person, that’s a totally different dynamic!”

“I’m sure Andrea is nervous, too, to meet your family, I mean.”

“Yeah, you’re probably right. We’ll have plenty of time to talk about it on the way to Earth.”

“When do you leave?”

“Andrea is wrapping up a project she’s been working on right now, and she said she should be finished by this afternoon. We’ll leave tomorrow. What about you?”

“The same, tomorrow afternoon.”

She came over to me and gave me a hug. “We’ll see you on the shuttle then.”



When we arrived at the Central Lunar Terminal, I took the metro train to Sector Sixteen. Hadley and Andrea stayed at the terminal, waiting for the transport to Tako, where they would catch the Terra-Luna Express to Earth Central and then

continue on to the planet's surface. After being on the space station for so long, I was having a hard time negotiating the lunar gravity. My body felt so heavy, and it took me a few minutes to remember how to walk. At least it wasn't Earth gravity. When I stepped off the train, Berit was there waiting for me. "Berit, what a nice surprise!" Even my tongue felt heavy.

I gave her an awkward hug.

"Hi, Calli! Sook told me you were coming." She grabbed my bag, then we went into the airlock. Once the outer doors had shut, she opened the door to Delphi Park, and I followed her inside.

I took a deep breath. The air on the space station was clean, thanks to the extensive filtration process, but, except for the farm, parks, and the gym, which all had an abundance of greenery, Shambhala had an almost sterile odor. Here, the air smelled clean and pure, with earthy undertones. "It's beautiful here."

"It's true, sometimes I forget how special it is. Come on, let's put your bag in your room and go eat lunch."

Feeling clumsy, I followed behind, trying to remind my body how to respond in a gravitational field.

Berit looked back at me with a little smirk. "Space legs?"

"And then some!"

She opened the door to my room, and I took my backpack from her and put it on the bed, then we headed to the dining room.

"Nice to see food not all packaged in little balls," I said as we loaded our plates.

We sat down at an empty table. I picked up my fork and managed to get a bite of food on it, but when I tried to put the fork in my mouth, I missed, and the food fell back onto my plate.

Berit laughed, and I glared at her with mock severity, "Berit! I can't believe you're making fun of my temporary disability."

"It's so weird, how the body forgets. But you'll be fine in a few hours."

“Yeah, if I don’t starve to death first.”

She laughed harder, watching as I attempted another bite of food, giving the action my full attention. Success! I chewed carefully.

“So, how’s it going on Shambhala?” she asked.

“Hadley and I are stuck on figuring out the warp drive, but other than that, fine.”

“And how’s Naomi?”

“Naomi? She’s good.”

Berit sighed. “She’s still with Evan, I suppose.”

“Nope, they broke up.” My fork felt *very* heavy. I set it down on my plate.

Berit sat up straighter. “She’s single now?”

“Uh-huh.” I squinted at her. “You’re not, well, *interested* in Naomi, are you? I mean, 120

romantically?” The blood rushed to Berit’s face, turning her olive skin even darker.

“Berit, you know she’s hetero, don’t you?”

“I know, I know. But those dreamy eyes.”

“Oh, Berit, I’m afraid you’re barking up the wrong tree.”

“Not even a chance she’s a little bit bi?”

“No, I’m afraid not.”

Berit sighed again. “Why do I always fall for the straight women?”

“Naomi is pretty special, so I can understand.”

“You, too?” Berit asked, eyeing me distrustfully.

I laughed at her expression. “No, no, nothing like that. She’s my best friend.”

“Oh, well, that’s nice for you.” She shrugged, and took a bite of food, chewing thoughtfully. “Hey, you’ll be here for a while, won’t you? A few weeks?”

“Yeah, that’s the plan.”

“We should go out. There’s a fun bar in Sector Eight, mostly queer women.”

“Sure, I’d love to go.” I hadn’t been out to a bar in years, had never felt comfortable in the bar scene. This was a chance for me to break out of my old patterns, to open myself up to new possibilities. Excitement bubbled up inside me.

“Super. Usually, a group of us go out on Friday nights after work.”

“Sounds like fun.” Suddenly I couldn’t wait till Friday!

“Honestly, Calli, I don’t know how you can handle it, being on the station. There are only what, twenty people?”

“There are eighteen of us.”

“I could never do it. I need more social interaction.”

“I kind of like it.” I shrugged one shoulder. “It’s a nice community, more like a family.”

“It’s not for everyone.”

“No, I suppose not.”

CHAPTER NINETEEN

It didn't take long to readjust to the Moon's gravity. All those hours in the gym made a difference. I took full advantage of my free time, sleeping in every day, then working out in the gym. The Moon still wasn't the Earth, and after two hundred thousand years of evolution, human bodies were built for Earth's gravitational field. It was a constant battle to keep from losing bone density and muscle mass, even in lunar gravity. After a late breakfast, I would sit in Delphi Park, enjoying the natural beauty and solitude, and later, help with the farm work. Working with the plants and learning more about the different lunar cultivars was relaxing, and I absolutely fell in love with the chickens.

Every day, I sat for a few hours in the chicken enclosure. The chickens would flock around me, and I always had a snack for them in my pocket. A few of the hens would hop up onto my lap or settle on my shoulder, and groom themselves or take a nap, tucking a feathered head under a wing. It felt so peaceful, being with them. Afterward, more often than not, I would have to change my jumpsuit because it would be covered in excrement. I didn't care.

The daily entertainment for the hens, and, by extension, for me, was the cockroach feast. I was astonished when Berit told me she raised cockroaches *on purpose*. Roaches had adapted easily to the lunar gravity, and there was an ongoing battle to keep the Moon roach free. In general, the tenacious little creatures were winning that battle.

When she saw the look of horror on my face, Berit patiently explained they were easy to breed (as anyone with a cockroach infestation in their home could attest), they ate almost anything, and, most importantly, they were an impressive source of protein.

"Protein for whom?" I had asked, eyes wide.

Berit laughed. "The chickens, of course."

I was a vegetarian out of compassion—why kill when there was no need? Even though the vast majority of meat for human consumption was produced in laboratories, there was a thriving market for "real" meat—chickens, pigs, even

cows were raised for slaughter, to satisfy the primal urge to consume genuine animal flesh. I couldn't imagine killing an animal for food, and the thought of synthetic slabs of lab-grown meat made my stomach turn. I had no logical reason for rejecting synthomeat, but couldn't bring myself to eat it, possibly because, in my mind, synthomeat was too closely linked to the real thing. But I accepted that other animals needed to eat living creatures.

Farming cockroaches to feed the chickens was a great idea. Personally, I would rather eat an egg than a cockroach, but then again, I wasn't a chicken. Each afternoon, Berit invited the flock into the "stockyard," as she called it—a small, enclosed room attached to the chicken coop—and carefully closed the outer door. She would then release a couple of hundred roaches into the room, and the chickens would go wild. They were so enthusiastic, and although I empathized with the roaches, the chickens were blissfully happy, and it was impossible not to get caught up in their joy. Poor roaches, they didn't 122

stand a chance—the room was empty, so no place to hide. The feeding frenzy lasted about five minutes. The hens were expert roach catchers, patrolling every inch of the room until not even a tiny roach leg would be left behind. Delicious, if you're a chicken.



On Friday night, I took a long, luxurious shower, then put on my Earth clothes. I had been wearing the Foundation jumpsuit for so long it felt strange to don jeans, a T-shirt, and the sweater I had worn for my interview with Diana. Trying to tame my unruly hair, which I had continued to cut myself on the station, I scrutinized my reflection in the bathroom mirror. I looked younger—the worry lines, which had I assumed were permanently etched into my forehead, had faded, my skin was soft and smooth, and my usual pale complexion had been replaced by rosy cheeks and a healthy glow. It wasn't just a consequence of living in microgravity, it was because I was happy. There was the stress and frustration of my research, but the struggle with the warp bubble wasn't a bad thing—I couldn't imagine not having problems to solve, challenges to overcome.

Once I was able to put things in perspective, my overarching sentiment was gratitude.

I didn't have to think about paying rent, shopping for and preparing food,

washing dishes, doing laundry—all the mundane daily stresses of life on Earth. Best of all, I loved my community, and felt a part of something truly special.

Yasmin, Berit, Sook, Sasha and I met in Delphi Park. I recognized Sook—she was the shuttle pilot. She had bright eyes and an easy smile. Sasha was an Iranian woman of about fifty, with wavy salt-and-pepper hair, and the look in her dark eyes was deep and thoughtful. As we boarded the metro, Berit said, “You’ll love this place, Calli.”

The bar was crowded and noisy, full of all different types of women, talking, drinking, and dancing on the small dance floor. The atmosphere was vibrant—like we were inside the beating heart of a great, magnificent creature.

“Come on,” said Yasmin, “I see a free table.”

We followed her, weaving our way through the crowd and tables, and sat down. The waitress came over and we each ordered a beer. When she returned with five bottles on her tray, Berit gave her a big smile. As she walked away, Berit said loudly, competing with the ambient noise, “She’s really cute.”

“Berit, you think all the waitresses are cute,” said Sook, rolling her eyes.

But something had caught Berit’s attention. “Check out that woman,” she said, staring toward the dance floor.

We all looked at where Berit was facing. A tall, lithe woman was dancing by herself, her motions fluid and exquisitely defined, precisely in sync with the music.

“She’s gorgeous,” I said, admiring her supple body, perfectly controlled. Just then she turned toward our table, and our eyes locked. She smiled, and I looked away. When the song ended, the woman went to the bar and poured herself a glass of water from a pitcher.

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Berit nudged me. “Calli, go talk to her.”

“Huh?”

“Looks like she’s alone. Invite her to our table.”

“Why me?”

Yasmin laughed. “Did you not see her smiling at you?”

I felt the blood rush to my face.

“Go,” said Berit.

The woman was leaning with her back against the bar, drinking deeply. Glistening with sweat, her body glowed in the soft light.

Berit gave me a little push.

Running a hand through my disheveled hair, I got up, then looked back at Berit.

“Go,” she mouthed.

I walked over to the bar, fighting the sudden urge to turn and run. “Hi,” I said.

The woman turned to me and smiled. “Hi.”

I scratched an imaginary itch on my forearm and gave her a tentative smile. “You’re an amazing dancer.”

“It’s my first time on the Moon. I always wanted to feel what it would be like to dance in one-sixth G.”

“And what do you think?” I asked.

“It’s incredible!” She set her glass down on the bar and held out her hand. “My name is Amélie.” Her hand was warm and strong, her grip gentle but sure. French, judging from her accent.

“I’m Calli.”

“You have a beautiful name, Calli.”

“As do you, Amélie.” I rested an elbow on the bar. “Are you a professional dancer?”

“Yes, I work with a dance troupe. We’re on vacation. It was always my dream to come here, to the Moon, and now here I am.”

“Are you traveling by yourself?”

“Yes, just me.”

“Would you like to join us?” I pointed toward my friends. Suddenly everyone at my table was deep in conversation.

She looked straight into my eyes. “I would prefer talking to you, alone.”

I felt my face grow hot and shifted my weight from one foot to the other. “Oh, okay.”

“What brings you to the Moon, Calli?”

“I work here, I mean, in an orbital lab. I’m a physicist.”

“A physicist? You must be a genius!”

“I don’t know about that.” I chewed on my lower lip and ran my fingers along the edge of the bar, studying its contours, then looked up at her.

“You have beautiful eyes, Calli the physicist.” She picked up her glass and took a sip of water.

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“Thank you.” My heart was thumping wildly in my chest, threatening to break out of its bony cage. Was she flirting with me? It had been so long since I had experienced physical attraction that wasn’t one-sided. There was a stray strand of hair in front of one of her eyes. I resisted the urge to brush it away with my hand, tuck it behind her ear. “How long will you be here? On the Moon?”

“A week. I arrived today. In two weeks, we are doing a tour in Australia.”

Over at our table, everyone still appeared to be deep in conversation, but they weren’t fooling me. I knew they were watching us intently.

“Would you like to go someplace quieter, so we can talk without shouting?”

“I would love that.” She caressed my hand lightly, my skin tingling in response. My mouth went dry as I shifted my body closer to hers.

“Let me tell my friends.” This time I caught all four women staring at us. They quickly averted their eyes, and I smiled to myself. “I’ll be right back.” I went over to our table. Everyone looked up at me expectantly. “We’re going somewhere where we can talk, without all the noise.”

“Talk?” Berit raised her eyebrows.

I gave her a light smack on the shoulder. “Do you have any ideas where we can go?”

I’m not very familiar with this sector.”

“There’s a park around the corner,” said Sasha. “It’s lovely, and there’s a fountain and a few benches. Go left when you leave the bar, you can’t miss it.”

“Okay, sounds good. See you all later.”

“Have fun, you deserve it.” Berit winked at me.

I walked back to the bar where Amélie was waiting for me. “Shall we go?”

She took my arm. “Lead the way, Calli with the beautiful eyes.”

I felt my friends’ eyes on us as we walked out the door, and Amélie’s hand resting lightly on my arm. When we got outside, Amélie turned to me. I stopped and looked up at her.

“Calli with the beautiful eyes, I would like nothing better than to kiss you right now.”

My eyes widened and my pulse pounded through my veins. I hadn’t anticipated that.

“I wouldn’t be opposed.”

She leaned down and kissed me, her lips warm and soft. I felt like I had been in the desert forever, and she was a tall, cool glass of water. I kissed her back.

“Where to, Calli?”

“There’s a park nearby, where we can sit and talk.”

“How about instead we go to my hotel room? I’m only here for a short time.”

Putting my arm around her waist, I pulled her toward me. Her body was stunning, svelte and muscular, a dancer’s body, and she smelled like springtime, like a field of flowers after a light rain, sparkling in the afternoon sunlight. “I wouldn’t be opposed,”

I said, looking deep into her eyes.



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The moment the door to the hotel room closed behind us, Amélie caught me by the wrists and raised my arms over my head, pinning me against the wall, her body pressed tightly against mine. My own body was on fire, blood pounding in my veins.

“I’m going to take a shower,” she whispered, her mouth pressed close to my ear, her warm breath sending shivers down my spine. “Would you like to join me?” I responded with a moan, and felt her smile as she kissed my neck, her soft lips eliciting a rash of goosebumps. She shifted away from me, and I stared up at her, breathing hard. I tried to pull my arms loose, desperate for the feel of her skin under my hands, but she resisted, both of my wrists now tightly clamped in one hand, the other caressing my cheek as she looked at me, pupils dilating with a flame of desire. Then her fingers traced an agonizingly slow path down my neck and between my breasts. Groaning, I pushed my body roughly against hers. She laughed and put her free arm around my waist, pulling me to her. “How about that shower?”

I swallowed, nodding my head. She released me then, and I sagged against the wall, my legs rubber. She took my hand and led me to the bathroom, turned on the shower, and then, as the steam began to fill the tiny room, she reached for me, but I pushed her away, gently but firmly. I kicked off my shoes, peeled off my sweater and t-shirt, then my jeans. Amélie caught her breath as she stared at my naked body. “Now your turn,”

I whispered, voice husky and ragged. As I watched her undress, the edges of my vision darkened, and my brain was enveloped in a fog of desire. It had been so long, and my body cried out for physical connection.

Later, *much* later, exhausted and satiated, we lay together on the soft hotel bed, our bodies intertwined, my head nestled on her shoulder. My heart was filled with love as I drifted off to sleep.



When I awoke the next morning Amélie was there, lying beside me. So it hadn't been a dream. I got up quietly, not wanting to wake her, and tiptoed to the bathroom. After my morning ablutions, I sent a quick text message to Berit to let her know all was well.

She responded with a thumbs up and a wink.

Amélie opened her eyes when I came out of the bathroom, and she stretched luxuriously. My eyes were drawn to the hint of her enticing body under the thin sheet, and I gave a little moan. She laughed, and stood up, the sheet falling to the floor. I drank in the sight of her perfectly sculptured figure, eyes half closed as I bit my lower lip.

"I know that look," she said, a glint in her eyes, "but it will have to wait." She brushed past me on her way to the bathroom, her hand lightly skimming the front of my body.

"Order room service. I need to refuel after last night." She paused at the doorway, her eyes traveling down my body, clad only in a towel, and grinned seductively. "Oh, and don't bother to get dressed," she said.

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Later that afternoon, as I lay in Amélie's arms, she said, "Calli, tell me about your work."

My project was the furthest thing from my mind. "I can't imagine you would find it interesting," I said, lightly tracing circles on her smooth, muscular stomach.

“I’m interested in *you*,” she said.

I glanced up at her and she responded with a moue. I smiled. How could I say no?

She was gorgeous. “My colleague and I are working on a warp drive, it’s like a motor for a spaceship, one that can take us farther than we ever thought possible.”

She played with my hair, twirling a strand around her finger. “I may not be a scientist, but I want the details. I want to hear everything. There’s nothing sexier than an intelligent woman.”

Sighing, I snuggled deeper into her, luxuriating in her intoxicating scent, her astonishingly soft skin. I started talking. I told her all about the drive, the problems Hadley and I were having as well as our successes, and she was a great listener. The more I talked, the more captivated and intrigued she became. When I tried to change the subject, asking her questions about herself, she would brush them off with a wave of her hand. “Tell me more about Shambhala,” she would say. “I love the idea of a community of women.” And I indulged her. She was so beautiful, with her enchanting eyes, her easy smile, and her tantalizing body. I was lost, buoyed by her attention, her gentle caresses, her sensuous French accent.



We spent the entire week together. Our connection was incredible: desire without attachment, tenderness and affection without any future expectations. Maybe it was the knowledge that we would likely never see each other again. I basked in the sensation of her hands on my body, and my own hands soaked up the feel of her soft, silky skin. I couldn’t get enough. We spent most of our time in bed, talking, making love, ordering room service, with occasional forays out to see the sites. But then, once we had managed to escape the hotel room, she would glance at me, or I would touch her arm or brush a strand of hair from her face, and, overcome by passion, we would head back to our room, barely containing our desire until we closed the door behind us.

On Saturday I saw her off at the station.

“Goodbye, Calli with the beautiful eyes.”

I hugged her tightly, certain I would never see her again. But she had given me so much. My body felt alive, renewed, my heart lighter.



The next morning, I took the eleven-a.m. shuttle back to Shambhala. At breakfast I had gotten some good-natured ribbing from the women at Arcadia, especially Berit. She 127

wanted all the details, but all I offered was a brief, G-rated summary.

“Come on!” she had implored. “I’m single! I need to live vicariously.”

Yasmin snorted with laughter. “Really, Berit? Didn’t you just, what, two weeks ago have an affair with one of the waitresses from the bar?”

Berit shrugged. “But that was *two whole weeks* ago! I’ve been celibate since then, and it’s been pure torture.”

Later that afternoon Naomi and I were sitting on her couch in her quarters. Unlike the Arcadia women, when I tried to be evasive about my time with Amélie, Naomi was having none of it.

“Come on, Calli, you know you’re going to tell me eventually, so might as well do it now!”

“It was incredible,” I said, laughing. “I haven’t been with anyone, you know, in that special way, since Olivia.”

“I know! So, how was it?”

I raised my eyebrow.

She smacked me lightly on the thigh. “No that’s not what I meant! Do you fancy her? Will you see her again?”

“No, I don’t think so. She lives on the Earth, and I’m here. Anyway, we don’t have much in common. It was just a moment in our lives, like ships passing in the night. A serendipitous encounter, now a beautiful memory.”

“Listen to you, all poetic.”

I laughed again. “It was nice. And she was fun to talk to.”

Now it was Naomi’s turn to raise her eyebrows at me. “There was time to talk? Calli, now I’m a bit disappointed!”

“Don’t worry. We weren’t talking the *whole* time, I promise. But she was really interested in my work, even though she’s not a scientist. We talked for hours about the warp drive, the problems Hadley and I are having with the bubble collapse, and lots of other stuff, too. She was fascinated with the idea of Shambhala, wanted to know all about the research going on here.”

“Of course, it’s captivating.”

“I think so! But most non-scientists would be bored, listening to me ramble on and on about all our achievements.”

“Perhaps she liked the sound of your voice,” said Naomi.

“Maybe.” I smiled, thinking of Amélie’s enchanting body. “But now I’m happy to be home, and ready to get back to work!”

CHAPTER TWENTY

After my lunar holiday, I felt like a new woman, and tackled the problem of the warp bubble collapse with renewed energy. I had a few new ideas, and was looking forward to sharing them with Hadley when she and Andrea returned from their trip to Earth.

At the next staff meeting, I sat next to Elena, the station's astronomer, and, as Hadley had mentioned, the genius behind the spectacular mosaic in the hub. She was a small, sturdy woman, and from her features I guessed she was from an indigenous tribe in Central America. We hadn't exchanged more than a few words the entire time I had been on Shambhala. I would have to make an effort to get to know her.

Fae and Mei Xing reported on their progress with manufacturing food balls—one step closer to full self-sufficiency for the space station. We were already preparing our water and beer balls on Shambhala, using Zoe's algae. Mei Xing was describing their experiences so far.

"All is going well, with a few minor mishaps."

Fae stared at Mei Xing, her eyes wide. "Minor mishaps!" She laughed. "If you call exploding globs of food a minor mishap."

Mei Xing laughed, too. "Okay, it's true the filtration and vacuum systems were working overtime in the kitchen for a few days." She caught my eye and I suppressed a giggle.

"What a mess! There were bits of food floating everywhere. I think I had food in my hair for a week." Fae touched her hair, as if checking for overlooked food particles.

"But despite the *minor mishaps*," she gave Mei Xing a look of disbelief, then winked at me, the corners of her mouth twitching, "I'm happy to report we've got everything under control, and the new food balls are on the menu tonight!"

Mei Xing held up a hand, palm out. "Don't get too excited. It's a brand-new recipe."

“Don’t mind Mei Xing, she’s just being modest,” said Fae, rubbing Mei Xing’s shoulder affectionately. “This new recipe is delicious. She’s a master chef.”

Mei Xing looked down at her feet. “I hope everyone feels the same as Fae.”

That night at dinner, we were treated to Mei Xing’s creation. The food balls were delicious, as I already knew from our food fight in the kitchen. They had a slightly crunchy texture, and were a little spicy, with a hint of sweetness—a burst of competing flavors. It was the first meal made entirely from food grown on Shambhala, and it was a milestone. Everyone took turns congratulating both Fae and Mei Xing. Fae, gracious as always, reiterated Mei Xing’s pivotal role as head chef, and Mei Xing looked abashed but immensely happy.



At the social that night, I sat with Raven and Jordyn, a vibrant woman from Australia 129

with an athletic body, light brown skin, and lustrous black hair. We had a bin of beer balls in front of us, and another bowl filled with Mei Xing’s masterpieces.

“This is really good,” said Raven, popping another food ball into her mouth.

I nodded, my mouth full.

“Calli, you seem relaxed,” said Jordyn. “How was your Moon visit?”

Thinking of my tryst with Amélie, I felt myself redden. I swallowed my food. “It was fun. I needed a break.”

“Yeah, it’s good to get away from the station now and again,” said Jordyn. “Keeps us sane.”

“I need a Moon trip at least once a month or I go stir-crazy,” said Raven.

“Me too,” said Jordyn. “Then again, I have a compelling reason to go to the Moon.”

I arched an eyebrow.

“Jordyn has a terrific boyfriend, Jesse, who works in the university sector,” said Raven.

“Oh, that’s great, Jordyn.” I looked at her more closely. I could have sworn she was a lesbian. So much for my gaydar.

“It’s weird, thinking of J as my *boyfriend*,” said Jordyn. “When we met, she identified as a queer woman. Jesse’s genderfluid.” Jordyn smiled, her face softening. So my gaydar wasn’t completely malfunctioning. “I usually go to the Moon every other weekend.”

“How’s that going?” I asked. “Long-distance relationships can be hard.” I mentally rolled my eyes—like I would even know. Some expert I was, I had barely touched the tip of the relationship iceberg with Olivia before she broke up with me, and a week in a hotel bed with Amélie hardly counted as anything serious.

Jordyn shrugged. “It’s okay. It would be nice if we were both on the Moon, but right now my work is here. I can’t imagine giving up my lab, and my collaboration with Tanya.

She helped me understand where Jesse is coming from. Before J, I was always with women who identified as lesbians or bisexuals. Tanya explained that for Jesse, gender is a bit like what clothing J feels like wearing on any given day, though not in a superficial way, it’s much, much deeper than that. It’s been a real learning experience for me.”

I leaned forward, elbows on the table. “In what way?”

“You know how humans have this propensity to try and put labels on everything, and to look at the world from a binary perspective: black or white, good or bad, female or male. But in reality, gender identity is like sexual orientation. There are the extremes, but it’s a spectrum, and there are people who feel they aren’t even on the gender spectrum at all—they have no gender.”

“I guess I never thought much about it.” What must it be like? To live in a binary world as a nonbinary person? At Caltech, my classes had always been gender-diverse, and everyone seemed open and accepting, happy to use whatever pronouns were suitable in the moment. But how would it have been for Jesse in my conservative high school? Not fitting into a neatly defined box, or maybe

fitting for a day, a week, but then one day the so-called “biological” pronoun doesn’t fit? What then? It was hard 130

enough for me, keeping my sexual orientation under wraps, not that I was fooling anyone. Don’t ask, don’t tell. But for a person like Jesse, being forced to wear the wrong gender, day after day, the dysphoria must be excruciating.

“I love that about Jesse—not being tied into any particular gender,” said Jordyn. “It’s liberating. And Jesse is such an interesting human being. Talk about thinking outside the box. The way J’s mind works, it’s beautiful.” She smiled. “J and Tanya have similar ways of looking at the world. At first, when Tanya and I started working together, I thought, impossible, this will never work, we tackle problems from such different angles, how can we ever come together? But somehow it works. Synergy, that’s how I think of it. Together we are greater than the sum of our parts.”

“Synergy is a great word to describe what’s happening between Hadley and me, too.”

“Annie’s a genius,” said Raven. “Okay, I know she’s a computer program, but she seems to understand the human psyche, or psychology, or whatever it is. When she puts people together in a team, they thrive, and the work they do, it’s cutting edge.”

“So, she doesn’t only identify potential employees, she also determines who will work well together?” I asked, surprised.

“Yeah,” said Raven. “She chose all of us to work here on the station. Why do you think everyone gets along so well? Why you rarely see any arguments? She analyzes our personalities and selects people who are most likely to thrive on harmony.”

Jordyn pursed her lips. “I think discord is so engrained in our subconscious, it’s hard for us to even imagine a society like what we have here on Shambhala.”

My fingers traced the beveled edge of the table as I looked toward the window.

“When I first arrived, at Arcadia, I had a fleeting thought, or maybe not so fleeting, that everyone was under some kind of mind control. I figured there was no way people could be this happy.” Biting my lower lip, I glanced at my

colleagues. “I was even a little afraid to get the implant.”

“Me too!” said Raven. “I was very suspicious in the beginning, remember, Jordyn?”

“Yeah, you waited, what? A whole month?”

“Uh-huh. But now I wouldn’t want to live without it!”

I looked around the room, at all the women, some sitting and talking like us, others playing cards or other games. Laughter was the common theme. “An AI of many talents, our Annie. I couldn’t be happier working with Hadley.”

“Same here, with Tanya,” said Jordyn.

“So, what about you, Raven?” I asked. “Is Annie going to fix you up with anyone?”

“Fix me up?” She raised her eyebrows and gave me a sidelong glance. “You mean like a matchmaker? Are you asking me if I’m single? Are you interested in going out with me sometime?”

“What? No, I mean, I wasn’t asking—” I stammered. “I, I wasn’t even thinking about that. I was wondering about your work, if you were collaborating with anyone. I didn’t intend to ask about personal stuff.” I closed my mouth and averted my eyes, feeling desperate.

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“Are you sure about that?” Raven leaned toward me, batting her eyelashes.

My face was hot. “I, um, I mean, you’re great, Raven, and I, um, I think you’re great.”

I gave Jordyn a pleading look. Both she and Raven were struggling to contain their laughter.

“Shall I put her out of her misery?” Jordyn asked.

Raven raised her eyebrows, eyes dancing.

“Relax, Calli, Raven is hetero.”

“Oh, well, I, I thought so, but ... I didn’t mean I wouldn’t be *interested*. Raven, you’re really great, and—”

The two women broke into peals of laughter, doubling over in their seats.

I looked at each of them in turn. “Oh sure, make fun of the new girl.” I tried to make my expression stern, but without much success. I started laughing.

“If you didn’t make it so easy!” said Raven, wiping her eyes with her sleeve. When the laughter died down, Raven said, “To answer your question, I’m single.”

“That wasn’t my question.” I put my hands on my hips. “But thank you for the clarification.”

“Okay, okay, I’m done.” Her eyes were twinkling. “And to answer your actual question—”

“Finally!” I said.

“I work better alone. And I suppose Annie knows that, too. But I love our biology power lunches!”

She looked across the room, and I followed her gaze, spotting Naomi sitting with Quinn and Fae, playing cards. She looked up at that exact moment and caught my eye.

She smiled. It was good to see her enjoying herself.



A week later, Hadley and Andrea arrived on Shambhala, back from their trip. That afternoon, in our lab, Hadley and I had a chance to chat.

“What’s the news from Planet Earth?” I asked.

“Same old thing. The newsfeeds are, as usual, full of conflict and destruction. After being on Earth for about two minutes, Andrea and I decided to avoid the

news completely, and we prohibited anyone from bringing up the subject. Too depressing. It seems like people never learn. Always the same story. It reminded me of how fantastic it is to live here on Shambhala.”

“That’s for sure. I never watch the news from Earth now that I live here. So how did it go, meeting the family?”

“It was interesting.”

“Interesting?” I arched my eyebrow.

Hadley laughed. “Andrea has a *lot* of family!”

“I thought she only had a brother.”

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“That’s true, but there are her parents, aunts and uncles on both sides, grandparents on both sides, cousins and second cousins and I don’t know what else!”

“Wow.”

“It was a little overwhelming, but everyone was really friendly and welcoming.”

“And what about your family?”

She snorted. “Couldn’t have been more different. Andrea’s family is fun, and loud, and everyone talks at once, and mine is really quiet. If either of my parents say three sentences in a row, it’s a big deal.”

“How funny! How was it, being with Andrea?”

“It was good. We did some serious bonding on the trip. But oh my god, Calli, the gravity!”

“Oh yeah, it can be brutal.” When I had returned to the Earth after a visit to the Moon or the government’s orbital lab, it felt like I was being crushed.

“I didn’t expect it to be so bad. I’ve been away from the Earth for over a year, living here on Shambhala. I do go to the Moon now and again, but one-sixth G is

nothing.”

She shook her head. “We were both suffering a lot for the first couple of days.”

“Part of the bonding experience, I’m sure.”

Hadley laughed. “You could say that. Mainly we were in bed, moaning, but not in a good way.”

“Sounds rough. I can’t imagine being in a strong gravitational field after so long in micro-g.”

“I’m very glad to be back home, and Andrea is, too. Next time our families will have to come visit us on the Moon. But Andrea’s family is so huge, it would cost a fortune

....”

“There’s always holochat.”

“Yeah, that’ll be enough for me for a very long time.”

“Not to change the subject, but I had an idea about the bubble collapse.”

“Me too! That’s all I could think about on the trip from Earth. Andrea went over everything with me, and I think I know what happened.”

“Let’s work on it first thing tomorrow morning. Right now, there’s a social we need to attend.”

Hadley laughed. “Yes! I can’t wait to see everyone!”



Hadley and I spent the whole next day, and late into the night, going over our notes, bouncing ideas back and forth. Between the two of us, we were able to piece together what had most likely happened. It wasn’t the control mechanism that had failed. There was a flaw in the energy density oscillations. The fine-tuning of the vibrations had been tricky, and even with our multiple computer simulations, it appeared that the temporal and spatial frequencies were slightly

out of sync with the Broek warped region 133

surrounding the warp bubble. We reworked the equations, and it looked like the warp bubble collapse issue was solved. Finally, at one a.m., we called it quits and went to our respective cabins, too excited to sleep but too tired to continue working. I zipped myself into the sleeping bag on my bed, my eyes wide open. I couldn't wait until the next day to get back to work.

CHAPTER TWENTY-ONE

In the morning, I found Izumi in the gym, already running on the treadmill. I was a little later than my usual time—I had finally fallen asleep around four a.m.

“Hi, Calli, I was hoping you would be here this morning.”

“Hey Izumi.”

“Why don’t you get changed and join me?”

“Sure, how much longer is your workout?” I asked.

“I already finished my weight-lifting routine, and just started my run.” She looked at the clock on the machine. “I still have an hour.”

A few minutes later, I was strapping myself onto the treadmill beside hers.

“How was your holiday on the Moon?” she asked. “Did you enjoy yourself?”

I thought about Amélie and felt the heat rising in my cheeks. “It was nice,” I said, pretending to adjust my straps. “And thanks to you, by the way. Diana told me it was your idea.”

“My pleasure.”

“I think it helped with the research, too. Hadley and I are making good headway. We spent most of last night working.” I looked at her. “How about you, Izumi? How are things going?”

“Good as always,” she replied, glancing away from me to adjust a strap. I peered at her more closely. Was she tense? Worried about something? “So, I wanted to talk to you.” She looked over at me, her expression open and relaxed. She was fine. It was just my overactive imagination.

“Sure. What’s up?”

“I don’t know if you’re aware of this or not, but we, or rather, the Foundation, is

looking to hire another scientist to work here in the lab.”

“Oh, really? What specialty?”

“Terraforming.”

“My ex-girlfriend Olivia is finishing her postdoc in terraforming.”

“Yes, I know.” I stared at her, mouth agape. How did she know Olivia was my ex?

“Annie has done her thing,” said Izumi with a smile.

Ah, of course, Annie! Olivia and I hadn’t been shy about promulgating our relationship on social media.

“She’s come up with a few candidates for the position. Olivia is at the top of the list.

I wanted to speak with you first. I want an honest answer, and you might need time to think about it, and that’s fine, but how would you feel about working with her here on the station?”

I wiped the sweat from my face with my towel, stalling for time. Olivia? On the station? “I don’t know. I mean, we broke up so long ago, but we’re still good friends.

She is, well, she and Naomi, they are my best friends, and yeah.” I realized I was

babbling. I shut up, and wiped my face again, though it was perfectly dry. How *did* I feel? I loved Olivia, and what I had said was true, she was my best friend. Would it be awkward working with her, and living in such close proximity?

“Take your time and think about it. There are other outstanding candidates.”

“No, wait,” I blurted. “I don’t need to think about it. It would be incredible to have her here, and she’s really smart, and dedicated. She would be a great asset to the Foundation.”

Izumi studied my face. “Are you certain you don’t want to take some time to deliberate?”

“No,” I said, my voice strong. “It would be amazing. She’s amazing.”

Izumi smiled. “I’m glad to hear it. We’ll be contacting her later this afternoon. If you’d like, you’re welcome to break the news to her first.”

“Okay, sure, I’ll send her a message after breakfast, hopefully I can catch her and talk to her face to face.”

“Splendid. Now, tell me about the warp drive.”

We spent the next thirty minutes talking about the modifications to synchronize the oscillations of the prototype. After Izumi left, my thoughts turned to my life with Olivia: moving into our little apartment near the university, picking out decorations at the second-hand shop, fixing dinner together, making love on the mattress on the floor.

When my workout was over, I took a shower, and, stepping out of the shower tube, I noticed my hair felt stiff. So lost in thought, I had forgotten to rinse the soap out, so I stepped back in to finish the job. The possibility of Olivia here, on the station—it was completely unexpected. I dressed quickly and hurried to the dining room for breakfast, happy to see Naomi already there eating. I grabbed a bowl and filled it with food balls—

breakfast burritos, one of the many new meals created by Mei Xing and Fae—and headed over to her table.

“You seem distracted,” said Naomi. “Problems with the warp drive?”

“No.” I sat down and placed my bowl on the Velcro strip. “I just got some unbelievable news.”

“What is it?” She leaned toward me, eyes fixed on mine.

“My ex-girlfriend, remember, I told you about her? Olivia?”

“You mean your only long-term girlfriend from what, five years ago? Most certainly I remember her!”

“I just saw Izumi in the gym, and she told me the Foundation wants to hire her.”

“Hire Olivia? That *is* big news!”

“I know, it’s great, I mean, she’s my best friend. Well, you’re my best friend, but she is, too.”

Naomi laughed. “Oh, don’t you worry. I won’t be jealous.”

“That’s a relief.” I grinned at her.

“But seriously, how *do* you feel about this?”

“That’s exactly what Izumi asked me.”

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“She wants to make certain you’re comfortable. She’s all about a harmonious working atmosphere, she and Diana both.”

“Uh-huh. She said they could consider other candidates if”

“If you weren’t okay with it?”

“Yeah.”

“And what did you say?”

“I told her it was fine, I didn’t have a problem with Olivia coming here.”

“Okay,” Naomi raised her eyebrows, tilting her head, “*do* you have a problem?”

“No, I, I don’t think so. Oh, Naomi, I don’t know what to think.” I picked up a food ball with my chopsticks, then put it back into the bowl. “Olivia and I, we’re like family.

We were so young when we got together, well, not *that* young I guess, and later, when it didn’t work out, we became best friends. But the station is small, and it’s so intimate, and ... and I haven’t seen her, except holochat, of course, but not in person, since we split up.”

“What’s worrying you?”

“Nothing. I ... I don’t think there’s anything to worry about. I guess I don’t want to jeopardize our friendship.”

Naomi tapped her chin with her finger. “You don’t know what it will be like to live with her again, is that it? Living here, I mean.”

“I guess so. But I’m being weird. I’m sure it will be fine. It was just a shock, out of the blue. Threw me for a loop.” I took a bite of food. The more I thought about it, the more excited I felt.

“I think it will be brilliant if she takes the offer,” said Naomi.

“Yeah, you’re right. It’ll be great. I don’t know what I was thinking. She’s an incredible person.” I gave her a little smile. “Thanks. I guess I needed to talk it through.”

“Hey, that’s what your number-one best friend is for. Olivia will have to accept second place.”

I laughed. “What would do without you, Naomi?”

She smirked. “Oh, you would suffer tragically, I’m fairly certain.”

“No doubt about it.”

Wanting to contact Olivia right away, I made a detour to my cabin before going to the lab. I settled on my bed, touched my wrist computer to open a holochat window, and input Olivia’s information. I picked up a notebook while I waited, to do a little work on the schematic of the modified warp drive. My wrist computer chirped.

“Little Bear! How are you?” The holographic image of Olivia’s head and torso hovered above the tiny screen.

I put my notebook and pen on the bed beside me. “I’m good. What about you?”

“Oh, you know, the usual. Finishing up my postdoc, working on a paper. I expect it to be completed by mid-September.”

“How’s it going?”

“It’s good. I could submit it sooner, but I want to make sure everything is correct.”

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“That’s my girl, always the perfectionist.”

Olivia laughed. “You know me so well.”

“Any job prospects on the horizon?”

“There’ve been a few offers. I’m considering my options. There might be a position at the Smithsonian research facility in New York.”

“Not too shabby.”

“But I’m still open to possibilities.” Her face grew somber. “Hey, so Sherry and I split up.”

“Oh, Olivia, I’m sorry! Are you okay?” Olivia had started dating Sherry a few months before I began working for the Foundation, and had told me all about her during our last chat. In all honesty, I wasn’t surprised. Olivia’s relationships never lasted more than six months. I supposed I was her record, a whole year. She was definitely mine.

“I’m okay. We decided we weren’t compatible. She wanted to get married, have kids, the whole package.”

“Yikes!”

“I guess she didn’t understand I’m not the marrying type.”

“Maybe you never met the right woman.”

“I think I did meet her, but you know how it goes.” Olivia gave me a wry smile.

I wasn’t sure who she was referring to, there had been so many girlfriends it was hard to keep track. But, excited to tell her about the Foundation position, I changed the subject. “Hey, I have news!”

“Do tell.”

“I just found out from my boss, or rather, the director of the Foundation, they want to hire a geologist.”

“Yes? I’m waiting.”

“Someone who specializes in terraforming.”

Her eyes widened. “No!”

“And guess what? Your name is on the top of the list! It would be here, on the station.”

“You mean on the orbital lab?”

“Yes!”

“And we would be working together?”

“Yes!” Was she feeling the same uncertainty I had felt? The usual six-plus second Moon-Earth-Moon delay seemed to stretch out for a very long time.

“That would be so cool!” Olivia was beaming. “You just made my day. I might have to log off for a minute and run up and down the stairs a couple of times.”

I laughed. “It’s a great opportunity. You’ll love it here.”

“Okay, but I don’t want to get too excited. I still have the interview.”

“I don’t think so. They didn’t even need to interview me. They do a lot of research on the candidates. If they are interested in you, it means they’re ready to offer you a job.”

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“Oh okay, cool. So ... do you think I should accept?” She furrowed her brow.

“You’d better accept! Otherwise, I’ll never forgive you!”

“No, what I’m asking is, is it a good place to work? You seem happy.”

“It’s incredible. You won’t believe it. They’ll be contacting you later today.”

“Great! We’ll talk soon. I have lots to think about.”

Charged up with energy and excitement, I sprinted to the lab, propelling myself through the corridors at breakneck speed. I burst through the door, and Hadley glanced over at me.

“Good news?” she asked.

I went to my console and settled into my chair, heart racing. “You could say that. My friend Olivia is coming to work on the station.”

“Hey, that’s fantastic!” She looked at her screen, then back at me. “And by the way, I think I have an idea for the manifold for the new prototype. Andrea and I figured it out together.”

“Let’s take a look.” I tilted my head toward the conference table. I didn’t know if I could concentrate, but there was still a warp field to conquer.

CHAPTER TWENTY-TWO

Hadley and I were ready to get started building the second prototype, or rather, modifying the original one. We had found and corrected what we hoped were our only errors in the first trial, and our expectations were high for trial number two. As before, we worked closely with engineering, dividing our time between the two labs.

One afternoon, Hadley and I were sitting on the couch together in the engineering lab, going over the schematic for the warp drive ring. Andrea and Rika were at the conference table, and Marta was working at her console.

“Excuse me, Hadley,” said Andrea, “can you please send me the plans for the ring?”

“It would be my pleasure, Andrea,” said Hadley. She tapped her computer tablet, and Andrea’s tablet chimed.

“Thank you, Hadley.”

“You’re welcome, Andrea.”

I stared at Hadley. What was going on with her? She never talked like that.

Later, when we were all gathered around the conference table, examining the holographic projection of the modified prototype, Hadley said, “Andrea, would you be so kind as to explain how the warp drive will be attached to the prototype?”

“Of course, Hadley.” She pointed at the image hovering in front of us. “Here we have—”

“Okay, okay, wait a minute!” interrupted Rika. “Why are you two acting so weird?”

“Weird?” asked Marta. “In my opinion they are being very professional.” She scowled at Rika and me, “Unlike some people.”

“Calli, you are so unprofessional,” Rika said, trying to suppress a giggle.

“Rika, if you would be so kind, can you please refrain from addressing me in such an informal manner?”

“But of course, Callisto, it would be my pleasure.”

I caught a glimpse of Hadley out of the corner of my eye—her face was turning red.

I looked back at Rika, who was desperately trying to keep a straight face, and bit my tongue to keep from laughing. I didn’t want to embarrass Hadley, but it was just too funny.

“Can ... we ... please ...” said Marta, emphasizing each word, “concentrate on our work?” She glared at us.

Rika and I looked at each other sheepishly. Andrea was studying a document on the surface of the conference table, head bowed. Hadley was very busy with her computer tablet.

“That’s better,” said Marta. “Now, let’s look at these plans for the warp rings.”



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When I stopped by Naomi’s lab on the way to work the following morning, Andrea and Naomi were sitting on the couch, talking intently.

“Sorry, don’t mean to interrupt.” I hesitated at the entrance.

“No, don’t worry, come in, Calli,” said Andrea.

I looked at Naomi, and she nodded. I allowed the door to shut behind me and went over to the couch. “Everything okay?” I asked.

“No,” said Andrea, chewing on her bottom lip.

“What happened?” I sat down on one end of the couch, with Andrea between Naomi and me.

“I shouldn’t say anything. Calli, you work with Hadley.”

Naomi touched Andrea’s arm. “Andrea, you must speak with Hadley, and you can trust Calli one hundred percent.”

“I can leave if you want. I don’t mind.”

“No, it’s okay, stay,” said Andrea. “I’d like your input.”

Naomi caught my eye. “Relationship troubles.”

“Ah,” I said.

“I was just telling Naomi I feel a little overwhelmed with Hadley.”

“In what way?”

“We went on that trip to Earth together, and we had a fabulous time, really, we did.

But then I was thinking once we got back home and settled in, we would have some breathing room.”

I cocked my head and raised an eyebrow.

“We were together twenty-four/seven when we were on the Earth, and since we got back, we’ve been spending every night together. Don’t get me wrong—I’m crazy about her. But now, we’re working together on the modifications of the prototype” Her voice trailed off.

“Do you need time for yourself?”

“Exactly! I feel like I’m drowning, but I don’t want to hurt her feelings.”

“Talk to her,” said Naomi.

“I know, I know. I keep thinking it’s my problem, I need to get used to being in a relationship again, but back when I lived on Earth it was never so, I don’t know, *intense*.

The station is small, and we are so few. In my past relationships, I always had

other things going on besides work. I don't know if I'm even making sense. I don't want to break up with her or anything." Andrea shook her head. "But I've been irritable with her lately."

"I agree with Naomi, you have to talk to her. She adores you, Andrea, she'll listen."

"You don't think she'll be hurt and take it the wrong way, do you?" She looked at me, her eyes imploring.

"I have no idea how she'll react, but she's a smart woman, and you're important to her. If you're unhappy with how things are going, you have to be honest with her."

"You're right, you're both right." Andrea took a deep breath and got up off the 141

couch. "She's in the physics lab, do you think?"

"I assume so," I said.

"Okay, I'm going to do it." She pushed herself toward the door.

"Good luck," said Naomi.

When the door closed behind Andrea, I said, "Relationships are so complicated. Aren't you glad we're both single?"

"Well" Naomi smiled sheepishly.

"What?" I turned toward her. "Naomi, spill it!"

"You know I've been trying the virtual dating thing."

"Uh-huh."

"It was quite terrible at first, but recently, I've met this man, Simon. He works in Sector One, at the lunar shipping and receiving station."

"Yeah?"

“Oh Calli, he’s a darling!”

It had been a long time since I had seen her so excited. “Tell me all about him!”

“He isn’t the kind of man I’m used to dating, not a scientist. He’s got a PhD in philosophy, of all things.”

“That’s different.”

“Isn’t it? He’s thoughtful, and intelligent, and sweet.”

I raised an eyebrow. “And?”

“He’s gorgeous!” She laughed. “But that’s a stroke of luck. We’ve been chatting every single night for the past two weeks.”

“And you’re just telling me now?” I gave her a playful poke in the ribs.

She wiggled away from my finger. “I wasn’t sure. I didn’t want to say anything too soon.”

“But you like him?”

“Yeah.” Her eyes were sparkling.

“When will you meet him in person?”

“We’ve made plans for tomorrow, Saturday. I’ll be taking the shuttle to the Moon later tonight.” She bit her lip. “I’m so nervous.”

“It’ll be fine, you’ll see. I’m really happy for you.”

“Me too. I’ve got a good feeling about this one.”



Hadley was humming to herself when I entered the lab the next morning. She looked up at me from her computer console and smiled. “Hi Calli!”

“Looks like you’re in a good mood, Hadley,” I said, pushing myself across the room to my desk.

“Yeah, I guess I am.” She glanced down at her keyboard, then back up at me.

“Andrea and I had a fight. That’s why I didn’t go to the social last night.”

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“Huh, I wouldn’t think that would be something to be happy about, exactly.”

Hadley laughed. “No, not that part, obviously, but we worked it out.”

“Come on then, give me the details.”

“I thought you’d never ask! You know how we’ve been spending loads of time together, like every night, then all those hours we spend in the engineering lab, working on the prototype.”

“Yeah, it’s a lot. Is that why you two were so weird and formal with each other the other day?”

“I don’t know, maybe.” She shrugged. “I was ready for a break, a night or two to myself, but I didn’t know how to tell Andrea. She’s so sweet, and really fun to be around.”

“And let me guess, she felt the same way?”

“How did you know? But yes, exactly! That was it. It took us a while to finally get to the heart of the matter. I think we were both nervous about disappointing the other person, and it was a little messy, but finally, when we realized we both want the same thing, we about died laughing.”

“So, you worked it out?”

“Yeah, we’re fine now. We’ll take a few nights off every week to do our own thing, which for me is probably going to bed early. I’m just relieved we could finally communicate.”

“That’s great, Hadley.”

“Yeah, I’m so happy.”

“You could have fooled me, with that long face.”

“Oh, stop.”

“The truth is you’re positively radiant.”

“Relationship woes solved, now I’m ready to tackle the easy problem.”

I laughed. “You mean the modifications for the warp drive? Yes, compared to relationships, it will be a piece of cake. Let me show you my new ideas.”

CHAPTER TWENTY-THREE

The following Monday afternoon, I sat with Naomi on the couch in her lab while she told me about her first real date with Simon.

“So, what did you do?” I asked.

“We went to dinner, a lovely restaurant in Sector Eight. We spoke for ages, the waiter had to kick us out in the end! I truly think he’s the one, Calli.”

“Oh Naomi, that’s great.”

“I wouldn’t want to get ahead of myself. I’ve got to take things slowly.”

“If he’s really the one, he won’t have any problem with that.”

“But I don’t wish to take things any slower!”

“Ah, there’s the rub.” I grinned.

Just then, Annie’s voice filled the room. “Naomi, Raven requests your immediate assistance in her lab.”

Naomi and I looked at each other, then we bolted off the couch and propelled ourselves out the door and into the hallway. Raven was squeezing through her lab door, then she closed it behind her, panting.

“What in the Universe is going on?” said Naomi.

Raven shook her head. “I can’t believe what an idiot I am!”

“What happened?” I asked, trying to peer around Raven’s body to look through the window in the door.

Raven took a deep breath, then let it out with a sigh. “You know I’ve been working with bees in cryostasis?”

“Uh-huh,” said Naomi.

“Things seemed to be going well, and it’s been over six months.” She looked at me.

“Remember I told you six months is the maximum time anyone’s been able to keep an animal in cryostasis without permanent neurological damage?”

“Yeah.”

“Well, it’s been almost eight months now, and I’ve been monitoring the bees’ vitals, and things were looking good, well, they *are* good, really good. Anyway, I thought, let me bring the worker bees out of stasis, now that we’re well past the six-month mark, and see how they’re doing. So, when I opened the chamber—”

Naomi narrowed her eyes. “Don’t tell me!”

“I should have consulted with Yasmin, but I was eager to find out if my protocol worked—”

Naomi put a hand to her mouth. “Oh no, let me guess. The protocol was a success?”

“Uh-huh. Before I could even react, they were all buzzing around the room, healthy and strong.” Raven grimaced. “But I neglected to consider how to recapture them once they were free.”

“So, there’s a swarm of bees in your lab right now?” I asked.

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“Yeah. I’m afraid so.”

“Yikes.” I looked from Raven to Naomi and back.

“Naomi, what am I going to do? I can’t just let them fly around my lab, and I can’t let them escape.”

“How many bees are we talking about?” I asked.

“It’s not bad, only two dozen.”

My jaw dropped. “No way!”

“I know it’s a lot, I know. I don’t know what to do!” She wrung her hands. “If only there was some way to convince them to go back into the storage chamber on their own.”

“Do we have any honey on the station?” I asked.

“No,” said Naomi, “but that gives me an idea. Hang on.” She went back to her lab and emerged a moment later with a cloth bag. “Come on, follow me.” She pushed herself down the hallway. Raven looked at me and gave a little shrug, and we followed Naomi into the park. “We can lure them with flowers.”

“That’s a terrific idea!” said Raven.

“But not the orchids!” said Naomi. “Zoe would kill us!”

We spent the next twenty minutes flying from plant to plant, just like bees, and gathered as many flowers as we could hold, then put them in Naomi’s bag.

When we got back to the lab, Raven said, “How are we going to do this?”

“We have to be careful when we open the door,” said Naomi. She handed the bag to Raven. “You should go in alone. We wouldn’t want the door open for longer than a second. Oh, and you’ll need to tell Annie to modify the light in the lab. The bees need ultraviolet to see the flowers.”

“Oh, yeah! I hadn’t even thought of that. Annie?”

“Yes, Raven?”

“Please adjust the lighting in my lab to include ultraviolet.”

“Done,” said Annie.

Clutching the bag to her chest, Raven opened the door a crack and slipped inside.

Naomi and I watched through the window as Raven made her way to the transparent stasis chamber and carefully placed the flowers inside. She gave us a thumbs up, then crossed her fingers. She moved away from the chamber and we waited.

“Do you think it’ll work?” I asked.

“I haven’t a clue,” said Naomi.

“We can always lower the temperature in the lab, so the bees move more slowly, and maybe they would be easier to catch.”

“That’s not a bad idea,” she said. “Wait—Calli, look!”

I peered through the window. One by one, the bees were flying toward the flowers.

“It’s working!” said Naomi.

We watched as Raven scanned the room, then quietly made her way over to the chamber and closed the door. After a few minutes she turned to us, a radiant smile on 145

her lips, then pushed herself over to the door and opened it.

“Are you certain all the bees are safe inside the chamber?” asked Naomi.

“One hundred percent. I counted three times.” We followed Raven inside the lab and gathered around the chamber. “Now it’s time to put these beauties to sleep.” Raven pressed a few buttons on the control panel, and there was a *whooshing* sound. “They’ll be back in stasis in five minutes.”

“I’m stoked your experiment worked,” said Naomi, making her way to the couch.

Raven and I followed, and we all sat down.

“Yeah, I’m happy. And next time I’ll plan things a little better.”

“You didn’t get stung, did you?” Naomi asked.

“No, I think the bees were so excited to be free, they didn’t even notice me.”

“But wait,” I said, “I thought the bees didn’t do well in micro-g.”

“They’re fine flying around,” said Raven. “The issue is building the hive. They

are so confused, they don't know which way is up."

I laughed. "I don't think anyone knows what 'up' means in micro-g."

"True."

"What happens with the hive?" I asked.

"The problem is the way they construct the combs in micro-g. It's like bees on hallucinogens—a complete mess," said Raven.

"Yasmin was horrified when she returned to check the hive after a couple months,"

said Naomi. "She boxed it up and took the bees back to the Moon, except for the ones Raven put into suspended animation. That was the end of the experiment."

"Poor bees," I said.

"Yeah, it's much better for them to sleep." Raven looked at Naomi. "So, Naomi, now that you're here, tell us about Simon!"

CHAPTER TWENTY-FOUR

The following week, Naomi was being very secretive. She and Gamon were spending a lot of time together, but Naomi wouldn't tell me what they were doing.

"So long as I don't have to worry about your health," I said. "You don't have some horrendous, life-threatening disease, do you?"

She laughed, but I got nothing more out of her.

At the staff meeting on Friday, Diana welcomed us, as always, then said, "Naomi and Gamon have something they would like to share with you all." She acknowledged both with a slight nod, then sat down.

The two women stood at the front of the room, each with a foot tucked securely under the horizontal bar on the floor.

"We've got good news," said Naomi. All eyes were on her. "Gamon and I have finally perfected the implant for the micro-g medication."

We all started clapping wildly, and there were shouts of joy. Those pills, though necessary, were awful. They were *huge*, but you didn't dare chew them, the taste was horrendous. The manufacturers had tried their best, I was sure, but the flavor was reminiscent of rotting cherries, with undertones of burnt plastic. Everyone hated them, but they were a necessary evil. We were expected to take them even when we visited the Moon, but I knew for a fact many of us "forgot," myself included, figuring a few days or a week wouldn't *real y* hurt us, though I didn't know anyone who was brave enough to admit to Gamon she wasn't taking the pills as prescribed.

When the applause died down, Gamon said, "Any questions?"

Ten hands shot up simultaneously. Gamon pointed to Jordyn.

"When can we get the implants?"

"We should be ready to start inserting them in a couple of days. I'll let you

know.”

She looked around the room. “Raven?”

“What about when we are in the Earth’s gravitational field? Will we have to get the implants removed?”

“I’ll answer that.” Rika stood up. We all stared at her. Was she involved, too? “I designed a tiny mechanism using nanotechnology. It’s a bit like a lever, and it responds to a gravitational field with a minimum of eighty percent that of the Earth, acting like a shut-off valve. So, whenever we’re in a powerful enough gravitational field where we don’t need the medication, the drug delivery system switches off automatically. Then, when we’re back in micro-g, or on the Moon, it switches back on.”

“I didn’t know you were working on that!” Marta said, crossing her arms in front of her chest.

“It was a side project,” Rika said, her face flushed. “We wanted it to be a surprise.”

“I can’t wait to get mine!” blurted Kamana.

“How long will the implant last?” asked Andrea.

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“In theory, indefinitely,” said Gamon. “The implant is equipped with nanobots, which fabricate the medication in situ, from elements already in your bloodstream.”

“I’m interested in the lever mechanism,” said Marta, scowling.

Naomi laughed amiably. “Certainly, Marta.”

For the rest of the meeting, the three women discussed the development of the implant. Naomi talked about the delivery mechanism, Gamon lectured at length about the importance of the medication and the dire physiological consequences of not using it, not only to avoid the grievous effects of microgravity on our physiology but also to protect us against the radiation of cosmic rays (I wasn’t

the only one who shrank in her seat for that part, thinking about all those days on the Moon, medication free), and Rika described the lever valve in great detail, which was, truth be told, an astonishing piece of engineering. At the end of the talk, even Marta was smiling, excited about the new technology. At the social that night, the implant was all anyone wanted to talk about, that, and exchanging horror stories about the pills. Although we all gave Naomi and Gamon a hard time about keeping their development a secret, I understood. From this moment on, they would be under tremendous pressure to produce the implants. We would all be counting the days.



As I sat working at my console on Monday, Annie announced that the implants were ready. She also reminded me it was time for my six-month checkup. I couldn't believe it had been nearly six months since I had first set foot on Shambhala. It seemed like only yesterday, and at the same time, it felt like I had always lived on the station. Such a peculiar phenomenon, time. I contacted Gamon to see if I could make an appointment, and she responded immediately, telling me to come right then.

When I arrived, Gamon greeted me with a big smile. "You will be the first to receive the implant!"

"You mean you haven't done yours yet?" I settled into the chair beside her desk.

"Okay, the second, then. I wasn't counting myself. Naomi and Rika are stopping by later this afternoon. I'm so happy it's finally happening," she added, glancing at her upper arm, then back at me. "Those pills are horrible!"

I arched my eyebrow. "I seem to recall a rather stern, shall I say, diatribe, on the importance of taking those pills every day." I rubbed my chin with my thumb and index finger and furrowed my brow. "Now, who was the one admonishing us about that?"

Gamon laughed. "I never said I *liked* those pills, only that they were important!"

"But they are pretty horrible."

"No argument here. Listen, I tried everything—grinding one into a powder and taking it with juice, and I definitely don't recommend that. Injecting the powder

into an energy bar,” she shook her head, “also not one of my recommendations. Breaking a pill in half so it would be easier to swallow,” she made a gagging sound, “truly disgusting.

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You think the taste is bad, but when you break one open Anyway, those days are over!”

“I couldn’t be happier.”

“But first, it’s been almost six months, so let’s take this opportunity to put you in the bioscanner.”

I followed her over to the scanner and stepped inside. She shut the door, then tapped her computer keypad a few times.

“All set. You’re in perfect health.”

“And now?” I looked at her eagerly as I exited the scanner.

“Yes, the implant.” She picked up a syringe. “The best location is the upper arm.” I held out my left arm, and Gamon put the syringe against my skin. “It might sting a little.” She depressed the plunger, and I winced. “Sorry,” said Gamon.

“No, it’s fine. Totally worth it!” I rubbed my upper arm, where I felt a dull ache.

“You might be sore for a few days, but then you won’t even know the implant is there.”

“Thanks, Doc, you’re the best!”

On my way back to work, I stopped by Naomi’s lab, and saw she was on a holochat call. I waved and started to back out of the doorway when she motioned me over.

“Calli! Come meet my brother, Monty!”

Pushing myself over to her console, I grabbed the back of her chair to stop my

momentum. A male version of Naomi looked back at me: same symmetric features, same dark skin, same piercing blue-green eyes, sparkling with humor and tenderness.

“Hi Calli!”

“Hi Monty. Wow, there’s no question you two are related.”

Monty laughed heartily.

“Except he’s about twenty-five centimeters taller,” said Naomi. “So not fair!”

“At least that way I can get away with calling you my little sister!”

“Monty, respect your elders!” Naomi shook a finger at his holographic image.

Monty held up both hands in mock surrender. “Okay, okay, you’re right. That year and two months really makes a difference.”

Naomi laughed. “Don’t ever think otherwise.”

Monty’s expression grew serious. “Hey, Naomi, I heard something in the news about the Foundation the other day.”

“Oh? What?”

“Something about, what was it? Some advanced technology, possibly a weapon? I don’t know, I just caught the tail end of the newsfeed. I was focused on something else, but when they said Portal al Porvenir, it caught my attention, because of you.”

“If it was about a weapon, it most certainly had nothing to do with us,” said Naomi.

“Yeah, I probably misheard. I figured it was easier to just ask you about it. Like I said, I wasn’t paying attention.”

Naomi smiled at her brother’s image, then turned her eyes to me. “Monty was just 149

about to tell me about his brand new hovercar.”

“Wow, congratulations!” Even though the hydrogen-powered hovercar had been available for fifty years, it was still a big deal to own one. Before the technological breakthrough for clean hydrogen fuel, thanks to the Nakamura Corporation, the personal vehicle was prohibited by the World Government in an ongoing effort to eliminate pollution and carbon emissions. The government restrictions were so stringent they didn’t even allow photovoltaic-powered cars, because the manufacturing process was too contaminating. But with hydrogen fuel, people could once again own their own vehicles, and the company made billions of yen the first month their hovercars went on the market. I looked at Monty’s face—he was beaming. “I’ll let you two talk, then. I’m on my way to work.”

“Nice to meet you, Calli. Keep an eye on my little sister for me.”

“Will do!” I gave myself a push off the back of her chair and floated toward the door, glancing over at the mice. They were all watching me intently.

Closing the door behind me, I heard laughter, and felt a twinge of, not exactly jealousy, but sadness, for what I would never have: a family like Naomi’s. Then I mentally kicked myself. I had that, here, on the station—my colleagues were my family.

I sighed. Vestiges of a lonely childhood.

CHAPTER TWENTY-FIVE

Olivia finally arrived to check out Shambhala. I was waiting for her at the dock when the shuttle from the Moon arrived.

“Little Bear,” she said softly as she propelled herself through the airlock and into my arms.

It felt so good, her physical presence, her body pressed against mine. It had been far too long. We held each other for a long time. I suspected she, like me, was reluctant to end the embrace. Finally, we released each other, and I pushed myself back, searching her eyes. Hers were full of love, with a flicker of, what was it? Insecurity? Uncertainty?

“So great to see you,” I said.

“You, too.” The look of uncertainty vanished, and she smiled her mocking smile I loved so much. “Are you going to give me the grand tour?”

“That’s me, your official spacelab tour guide.” Diana had suggested I show Olivia around, and I had jumped at the chance. I took her to the farm, the labs and the park, ops and engineering, and the dining room and observation deck. We ended up in the living quarters, and I invited her into my cabin. We sat cross-legged on my bed, using the straps to keep us in place. Neither of us could stop smiling.

“So,” I said, “what do you think?” Everyone had been so gracious with Olivia, and I had felt proud of my adopted community.

“It’s so cool! Is this a dream?”

“I know, it all feels surreal.”

“It’s unbelievable something like this exists.”

“How did you like the Moon facility?” I asked.

“Beautiful, what they’ve done there. And all women, too.”

“Yeah, I know.” I studied her face, the face I knew so well five years ago. A few more lines around the eyes, a few creases around her mouth, laugh lines, but here she was, Olivia, my first true love, in the flesh. I felt a surge of emotion.

“Aw, don’t go all mushy on me.” Olivia glared at me with feigned severity and shook her index finger at me.

I burst out laughing. “I’ve missed you,” I admitted.

“Ditto.”

“Holochatting and texting just isn’t the same, is it?”

“Nope,” said Olivia, “because I can’t do this.” She reached out and started tickling me in the ribs.

“Hey, no fair,” I managed, laughing. I caught her hands in mine. We looked at each other, and I felt hot and a little confused. The memory of our first kiss in the library so many years ago flashed into my mind. I laughed again, to cover my bewilderment, and squeezed her hands. “What do you think about working here?”

“How could I possibly say no? Complete scientific freedom to pursue my interests, 151

an all-woman team, great facilities, unlimited funding, and with you here, it’s a no-brainer.”

I released her hands. Mine felt clammy.

“It’ll be a dream come true.” She leaned over and kissed me on the cheek.



For the next few days, while Olivia was on the station, we spent almost all our time together. We went to the social, where Olivia met the entire crew. We laughed, ate lots of food, popped blobs of beer, even sang karaoke, me badly, but Olivia, with her sweet, clear, mezzo-soprano voice, was the hit of the party. The next morning, we had an early breakfast, both bleary-eyed from the night before, and then to the gym, the last thing either of us was in the mood for. After our

workout and showers, we spent the day in my quarters, talking, reminiscing, and laughing, emerging for lunch and then dinner, but always returning to my cabin, making up for lost time. Those five years slipped away, and it was as if we had never been apart. Being with Olivia felt so comfortable, so natural. It was nice, simply being with her. It felt like home.



Olivia returned to the Moon on Sunday, on her way back to Earth. “See you at the end of September!” she had called out as the airlock door closed.

I stood staring at the closed door, reminded of the little things I loved about Olivia: her quirky sense of humor, her eyes when she laughed, the way her voice softened when she called me “Little Bear,” how our minds were so similar, how often we could finish each other’s thoughts. I was looking forward to September.

Naomi caught me on my way back to my quarters. “Calli!” she called.

“Hey, Naomi.” I stopped my forward momentum by grabbing the railing along the corridor.

“Come with me to my cabin. Let’s chat.”

We hadn’t had a moment of alone time during Olivia’s visit. We sat on her couch, facing each other.

“So?” Naomi said, raising her eyebrows.

“So what?” I raised an eyebrow in return.

She laughed and hit me lightly on the arm. “Come on, you know what I’m on about!

How was it, seeing Olivia?”

“It was nice, like coming home, but really coming home, to a place of love. It was great to see her in person after all these years. We’re such good friends.”

“Good friends, huh?” She raised her eyebrows again.

I laughed. “Yes, friends.”

“No, but seriously,” she said, searching my face, “how are you feeling?”

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“The truth is, I don’t know. I’m so happy to have Olivia back in my life. I didn’t know how much I missed her until the moment she pushed her way through the airlock door.”

“Uh-huh.”

“She’s always been there for me, even though we weren’t in the same place physically.”

“And you for her, I’m certain.”

“Yeah. But seeing her, spending these last few days together, I don’t know” my voice trailed off.

“Do you still have feelings for her?”

I shrugged a shoulder. “I don’t know. There was a moment, the day she arrived. We were sitting in my room, and we looked at each other. I felt something between us, something electric. Kind of hard to explain. Then it was over.”

“You do have a history.”

“Yeah, but that was so long ago.”

“I don’t think love has an expiry date.”

I shrugged again and looked down at my hands.

“I understand. It’s tough to know how you really feel. Seeing her in person brings back a lot of memories, like you said. Hard to untangle what is residual attraction and what you feel for her in this moment.”

“Wow, Naomi! Now who’s the relationship guru?”

Naomi broke into laughter. “Perhaps we’re both learning.”

“By the seat of our pants, I’d say.”

“I like Olivia. She’s a darling.”

“That she is.”

“And with her undergrad degree in synthetic biology, she’ll be perfect for our biology power lunches!”

CHAPTER TWENTY-SIX

After weeks of work, we were finally ready to test our second prototype. Both Hadley and I were confident that, this time, the bubble would hold. Like before, we had scheduled the trial during the staff meeting, and everyone gathered in the observation deck. I sat next to Naomi, who took my hand in hers. The heat of her hand infused me with warmth and a sense of well-being. Hadley and Andrea were sitting directly behind us. All eyes were on Diana, who was seated on a stool in front of the big screen.

“Okay, we’re ready for version two. Let’s see what happens,” she said, nodding at me.

The prototype was in place five kilometers from the station, with the usual array of sensors. I touched my computer tablet to start the countdown, then stared at my computer screen: five – four – three – two – one. The data started flowing in. There it was, the warp field, with its unique energy signature. I held my breath and counted.

When thirty seconds passed, I released my breath and glanced back at Hadley. Her eyes were dancing. “Thirty seconds,” I mouthed. She gave me a thumbs up. I studied the video feeds projected onto the big screen—from the outside the prototype looked slightly distorted. Could that be the effect of the warp bubble? The videos from within the prototype had gone black, as before, but according to the data, the warp bubble was there. We sat in silence as the minutes ticked by. Two minutes, then it was four, five ...

I looked at my screen. The warp bubble was stable! After ten minutes, the bubble collapsed, as we had programmed it to do, and the test was over. I scanned the data—

there was a lot to analyze, but we had done it!

Everyone started whooping and clapping.

“We did it, Calli!” Hadley shouted over the din, patting me on the back, as Naomi gave me an affectionate hug.

Diana stood up, and everyone turned to look at her expectantly, faces open and trusting. She had such presence, a natural leader. Diana was beaming.

“Congratulations!” Hadley and I exchanged smiles. “This is a monumental moment in the history of physics. What you two have achieved today is truly admirable. Sir Isaac Newton, in all modesty, said of his discoveries that he was like a boy playing on the seashore, who occasionally found a prettier shell than the ordinary, while a great ocean of truth lay undiscovered before him. And now, my dear friends, we can see further into that deep, fathomless ocean—the waters are a little clearer. This is bigger than Newton could have dreamed of, or even Einstein. I am so proud, and so honored to be standing here before you both. Thanks to your work, the Universe has revealed another of its beautiful secrets.”

Once again, balls of champagne were passed around. This time, we stayed for the party.

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Over the next few weeks, Hadley and I worked closely with the engineering team, designing the official probe, which we named CHARM, for the letters of each of our first names: Calli, Hadley, Andrea, Rika, and Marta. She was our good luck charm, born out of cooperation and hard work. It was a proud moment for all of us.

We launched the probe on July ninth. It was an engineering marvel: the same size and general shape as the original prototype, but with several added features to allow it to gather data from its destinations. We could have waited for a staff meeting, but the probe was ready, and the next meeting was a week and a half away. Even though we didn’t have our usual cheering crowd, the engineering team, Elena, Diana, and Hadley and I were all present for the event in the observation deck. My eyes were glued to my computer tablet, which monitored the warp field and the creation of the bubble.

Charm was fully automated, like the test prototype had been. She would complete her first exploration in ten days, and would bring back a wealth of data about specific regions of space chosen by Elena, who had around twenty target areas she was interested in studying. For this first foray, Charm would visit each area, jumping from region to region using the warp bubble.

I had never seen Elena so excited. She was like a little girl, looking over our shoulders at the field data, staring out the window of the observation deck (though the only visible object was the lunar surface), barely able to contain her enthusiasm. It seemed as though she was making a tremendous effort not to jump for joy, since the result would be crashing into the ceiling. I shared her excitement. It would be a long ten days before Charm returned.

Once the probe was gone, Diana started to shake Hadley's hand, then changed her mind and pulled her into a hug, then she hugged me tightly. "I'm so thrilled about this,"

she said, a huge smile on her face.



That night, I ate dinner with Elena. We hadn't spent much time together, occasionally at the socials, or sometimes at lunch or dinner in the company of other women, but she was the demure crewmate, the quiet observer, and I didn't really know her. We had entered the dining room at the same time, and so, after filling our bowls, we sat together at one of the empty tables. I could tell she was still thinking about the launch earlier that day, her face was glowing.

"I'm excited about the probe," Elena said.

"Me too. I'm looking forward to our first batch of data."

She fidgeted in her chair, her eyes gleaming. "I wrote a computer program that will perform the preliminary analysis. When we get the data, I'll start running it straight away." Elena had also written the program to gather the data, as I recalled. She had 155

worked closely with Rika, and Kamana from station ops, on the protocols and the sensors.

"So, what are you searching for?"

Her face broke into a smile, and she straightened in her seat. A kindred spirit. We both adored our work. But then again, everyone at the Foundation felt the same way.

“Goldilocks planets.”

I narrowed my eyes and tilted my head. “Goldilocks?”

She laughed. “You know that old fairy tale? *Goldilocks and the Three Bears*?”

“Sure, but I don’t know what it has to do with extrasolar planets.”

“It’s like in the story, what we want in an extrasolar planet: not too hot, not too cold, just right.”

“Goldilocks.” I laughed. “That’s funny. Though it didn’t turn out so well for her in the end, did it?”

Elena laughed, too. “Depends on which version you read.”

“I suppose that’s true.”

“I’m looking for planets in the habitable zone, neither too close nor too far from their parent sun, where liquid water can exist, like our Earth. Astronomers have identified thousands of earthlike planets over the years, but now I’ll be able to gather real-time data, and with much greater detail. Oh, and a magnetic field is a must, to protect the planet from ionizing radiation from its star, or stars, in the case of binaries.”

“Sure, makes sense.”

Elena rubbed her chin with her fingers. “It’s possible to create an artificial magnetic field by using a magnetic-field generator located off-planet, but there are so many planets to choose from, I’m focusing on those with their own internal magnetic fields.”

“Although that would be a fun project for our engineering team,” I said.

“Yes! Our team here would love the challenge.” Elena looked across the room, where Marta and Rika were sitting with their heads close together, talking intently. “I suppose it all depends on what you want in an extrasolar planet. For colonization it might be better to find a young planet orbiting a stable star, with liquid water, but with no life, so we could terraform from scratch. But it would be really exciting to find a planet with a rudimentary ecosystem, especially if life

evolved in such a way as to produce a breathable atmosphere, breathable for humans, that is.”

“Is that your focus, habitable planets?”

She shrugged. “Yeah. That’s always been my primary research interest. Some of the planets I chose to investigate have already been identified years ago as promising, but until your probe, we couldn’t gather real-time data like we can now, and at such proximity!”

“I can hardly believe it’s happening, to be honest. We’ve been stuck with the Universe’s imposed speed limit since our ancestors first contemplated traveling to the stars, but now, we can see what’s going on *right now*, as opposed to what happened years and years ago. Even considering our closest neighbor, Alpha Centauri, it takes four 156

years for information to travel from there to the Earth.”

“It’s too bad there are no good planet candidates in the Alpha Centauri system—it’s so close, astronomically speaking. Unfortunately, there doesn’t seem to be much of interest as far as habitable planets are concerned.” A guilty look flashed across Elena’s face. “I don’t mean to imply the system is boring!”

I laughed. “Don’t worry, I won’t tell anyone what you said. All planetary systems are interesting. It’s only that some are more interesting than others.”

“We learned so much from Alpha Centauri, about planetary formation, about our galaxy, I would hate for you to get the impression I’m disparaging the entire system!”

“Heaven forbid, Elena! I would never assume that.”

She gave me a self-deprecating smile. “You probably think I’m crazy.”

“Have you looked around?” I arched my eyebrow. “You’re in good company. We’re all a little bit crazy here.”

Elena grinned. “I suppose so, each in our own way.”

CHAPTER TWENTY-SEVEN

While we waited for Charm to return, Hadley and I, along with the engineering team, turned our attention to the design of a transport vessel. Marta, I learned, was not only the chief engineer on Shambhala, she had designed and supervised the construction of the entire station. As the vessel plans began to take shape, I had the opportunity to see Marta's genius in action. The transport vessel would be about ten times the size of Charm, with living quarters for the mice designed by Naomi. Our plan was to send the vessel to the coordinates of an extrasolar planet, ideally one Elena could recommend based on the Charm data, allow it to orbit the planet for a day, then return to Shambhala.

So, the mice would be away for twenty-four hours. It would be the first real test of the possibility for living creatures to travel astronomical distances using the warp bubble.

They were heady times.



Ten days after the launch, Marta, Elena, and I were waiting at the airlock door in the dock module when our intrepid little explorer returned. When the airlock repressurized and the door finally opened, all three of us rushed inside to examine the probe. It looked exactly the same as the day it was launched. Elena had her computer tablet in her hand and immediately began downloading her data files. Marta examined every inch of the probe, nodding to herself. I had my tablet, too, and was downloading the warp-field data, tapping my foot on the floor with impatience, which caused me to float upwards.

I grabbed a rail to stop myself before my head hit the ceiling. Feeling ridiculous, I limited the physical manifestations of my impatience to drumming my finger against my tablet.

When we had our files, I could see Elena was as eager as I was to get back to the lab, to start analyzing. Marta glanced over at us and rolled her eyes. "Go, both of you! Get out of here."

“You don’t need help carrying the vessel to your lab, Marta?” said Elena, hesitating.

Marta looked at little Charm, floating peacefully in the airlock. “Andrea is on her way, I’m confident we can manage.” Her voice was stern, but her eyes were smiling.

Elena and I looked at each other, then, grinning, we both raced down the red corridor, through the hub, then through the lavender corridor and into the hallway, disappearing into our respective labs.

“It’s here!” I said as I burst through the door.

“Over there.” Hadley pointed to the conference table as she pushed her body away from her chair. “Let’s go over the data together!”

We sat at the table, our heads bent toward each other, poring over the data, examining and reexamining the field and the warp bubble, which had held up beautifully. We analyzed the transitions into and out of the warp bubble, the field
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parameters, virtually every aspect of the launch, the journey, and the return. Giddy with happiness, we could hardly believe we had really done it.



Later that afternoon at the staff meeting, Diana congratulated us for our success with the probe, adding she was eager to see our data and analysis. Next, Raven talked about her accomplishments with suspended animation, describing her technique in great detail. I noticed she didn’t mention the bees’ short-lived taste of freedom in her lab.

Naomi and I shared a few looks during her talk, and somehow managed to keep from laughing out loud. When Raven had finished her presentation, Diana asked if there were any questions.

“It’s great your technique worked with the bees, but what about other animals?” asked Gamon.

“I’ll continue my research and computer simulations, but I believe I can use the same basic principles for mammals, even though their physiology is vastly different.”

“Maybe you could try a mouse,” said Gamon, glancing over at Naomi.

Naomi folded her arms across her chest, any hint of a smile now gone. She shook her head. “I would need to review the computer simulations to begin with.”

“Don’t worry, Naomi,” said Raven, “I know how you are with your babies.”

Diana smiled indulgently at Naomi. “Any other questions?” she asked. When no one responded, she turned to Raven. “You’ve done admirable work, Raven.

Congratulations!”

Everyone clapped exuberantly. As always, I was amazed at the work being done on Shambhala. It was astounding—the level of scientific achievements was incredible.

Izumi stood, looking at us. “Any announcements?”

Tanya stood up. “I want to start a meditation group, if anyone’s interested.”

“What an outstanding idea, Tanya!” said Izumi.

“How about we meet on Sunday mornings, say at nine a.m., in the ops park?”

“I’m in!” said Kamana.

“I was also thinking it would be nice to have a statue of the Buddha in the park, but wanted to talk about it with everyone, to see how you all feel.”

“I’ve got no problem with it,” said Kamana.

“It’s good you brought it up, Tanya,” said Izumi. “Let’s spend a few minutes in silence, so everyone can consider the proposal, then we’ll talk about any issues or reservations, if there are any.”

Tanya sat back down, and the room was silent. I thought about it. How did I

feel?

The ship had no religious artifacts, and I hadn't seen evidence that any of my crew members was a practitioner of any religion. But Buddhism wasn't a religion, in the true sense of the word. I was eager to hear what the other women had to say.

After about five minutes, Izumi said, "Does anyone need more time, or shall we open 159

up the discussion?"

"I'm okay," said Marta. Several other women nodded.

"Who would like to speak first?" said Izumi.

Rika turned to Tanya. "What I'd like to know, Tanya, is what does the statue represent for you? I don't know anything about Buddhism, but I'm not sure how comfortable I would be having a religious icon in a public space on the station, any religious icon."

"For me, it's not about religion, or anything like that. You know I'm not religious at all."

"Yeah," said Rika, "which is why I'm confused."

"Buddhism isn't a religion," said Kamana.

"It's a philosophy, isn't it?" I said.

"No," said Andrea, shaking her head, "it's definitely a religion."

"I doubt that," said Naomi. "I studied it in my World Philosophies class at university, so I agree with Calli."

"Then why is it considered one of the world's religions?" asked Andrea.

"Okay," said Izumi, "let's define 'religion,' so we have a common understanding of the word." She picked up her computer tablet and tapped it a few times. The projection screen at the front of the room lit up, with the question *What is*

religion? written at the top.

“Annie?”

“Yes, Izumi? How can I help you?”

“Please define the word ‘religion’ here on the screen.”

“Certainly, Izumi,” said Annie, as three definitions appeared on the screen:

- A belief in and worship of a superhuman power, often omniscient and omnipotent.
- A unified system of beliefs and practices.
- An avocation, idea, or pastime pursued with devotion.

“Thank you, Annie,” Izumi said, then looked at us. “Okay, sometimes the topic of religion can get heated, so I’m going to lay some ground rules. As always, everyone’s perspective will be honored and respected. Remember, we’re all coming from very different backgrounds, and for some of us, this is a delicate topic, so please, listen with respect and without judgment or interruptions. Everyone will have a chance to speak if they desire. And, most importantly, listen with an open heart, and with love.”

There were murmurs of assent. I looked at Izumi. She really was good at this.

“If you have something you want to add to the discussion, try not to interrupt when someone else is speaking.” Izumi smiled, looking at each of us in turn, then turned toward the screen. “Okay, I think we can dispense with the third definition. We’re not talking about when someone says, for example, ‘Soccer is a religion in Latin America,’

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although I’m aware of the Latino infatuation with soccer.” She glanced down at Diana.

“I was nearly deaf for a week after sitting next to Diana when Colombia won the women’s World Cup soccer match. Next time Colombia plays, I’ll be wearing

ear plugs.” Diana laughed. “But for our discussion, I’ll remove this, okay?”

Everyone nodded.

“Now that we have our definitions, who wants to start?”

Kamana raised her hand, and Izumi acknowledged her with a nod. “We can disregard the first definition, too, since Buddhism isn’t about worshiping any supernatural power.”

“But don’t Buddhists worship the Buddha?” asked Jordyn.

“No,” Kamana said, shaking her head. “It’s more like ...,” she paused for a moment, rubbing her chin with her thumb and forefinger, then continued. “Some people worship the Buddha out of respect for his achievements as a human being rather than because they consider him a deity. Thinking about it, I don’t know whether I would call Buddhism a philosophy, either. It’s a way of life, if anything, and a beautiful one at that.

It’s all about trying your best to live ethically.”

“What I always found intriguing about Buddhism,” said Raven, “is it’s a world view where the practitioner tries to see reality for what it is, instead of through our cultural or personal lenses.”

“Sounds a lot like science,” said Jordyn.

“I think it has more to do with understanding and training the human mind,” said Fae.

Marta turned to Fae, brow furrowed. “What do you mean by ‘training the mind’?”

“The key is awareness. A basic Buddhist concept is we create our own suffering —

the problem is we are constantly making up stories in our heads which lead to more suffering. By training our minds, through meditation for example, and becoming more aware, we can stop the cycle of suffering within ourselves, stop the stories.”

“But there’s lots of suffering in the world that has nothing to do with the mind,” said Marta.

“That’s true,” said Fae. “If I break my arm, it’s going to hurt. Physical suffering is inevitable. What I’m talking about is the additional suffering created by our minds. For example, I might think: *Oh no, my arm is broken. Now how can I work? How am I going to take care of myself? What if my arm never heals? What if the pain gets worse?* See? My preoccupation causes more suffering.”

“That’s interesting, what you’re saying, Fae,” said Gamon. “It’s true from a physiological standpoint, if a patient is stressed out, the healing takes longer, and also the perception of pain is greater. I’ve read studies of people who have used meditation to control pain after an injury, or even chronic pain, and the success rate is impressive.

When the patients are interviewed, they usually say the pain isn’t any less, but their relationship to the pain has changed. They aren’t so preoccupied with it. They sort of separate themselves from the pain, and watch it, instead of participating in it. It’s 161

fascinating.”

“Perhaps a statue of the Buddha is appropriate,” said Naomi. “The name of the station is Shambhala, after all. I haven’t got a problem with it.”

“Tanya, would you like to say something?” said Izumi.

“Yeah, so back to my initial statement. For me, having the statue isn’t about religion at all. I agree with Kamana that Buddhism embodies the second definition, because Buddhism isn’t about a supernatural deity or power, but it *is* a set of beliefs and practices. A practitioner of Buddhism doesn’t follow the precepts blindly—on the contrary. It’s all about the scientific method,” she glanced over at Jordyn, “with ourselves as our own test subjects. From my understanding of basic Buddhist teachings, a Buddha is any being that has reached a state of enlightenment. Now don’t ask me to tell you what that is, I’m definitely not there!”

A smattering of good-natured laughter filled the room.

“Anyone can be a Buddha,” Tanya continued. “There was nothing supernatural

about Siddhartha Gautama, the first historical Buddha, but he was an exceptional human being. For me, a statue of the Buddha is a reminder that enlightenment is attainable for all of us. But I'm not attached to the idea of the statue, I just thought it might be a nice touch."

"Thanks, Tanya," said Izumi. "Any thoughts?" She looked at each of us.

Zoe raised her hand.

"Zoe?" said Izumi.

"I appreciate Tanya's point of view, but I'm leaning toward not having a physical statue. I like the park the way it is."

"I have an idea that might work," said Andrea. "What if, every Sunday at nine a.m., we project a holographic image of the Buddha in the park for, say, two hours?"

"That's a splendid suggestion, Andrea," said Izumi. "Any other ideas or thoughts?"

Elena lifted her hand. "Elena?"

She stood up, blushing slightly. It wasn't easy for her, being in front of a crowd, even though we were her crewmates, her clan. I leaned forward. Whatever she said, it was worth listening to. "Although I'm not opposed to the idea, I don't think we need a statue, holographic or otherwise." She turned to Tanya. "From what you describe, it seems to me that, according to Buddhism, enlightenment is attainable for any sentient being, and I'm confident you don't need an external reminder of the power that's already inside you. You are a beautiful woman, a being of pure light, and I believe you are your own Buddha."

Tanya's eyes filled with tears, and she went over to Elena and wrapped her arms around her, hugging her tightly. "Thank you, Elena." She took a breath. "I'm okay with leaving the park as it is. I love all of you so much."

"Anyone still feeling like she wants a statue?" asked Izumi. Several women shook their heads, including me. "Thank you all," she said, "and thank you, Tanya, for bringing up the idea. This was an outstanding discussion. I, for one, am planning on being in the 162

park at nine a.m. this Sunday.”

As we were filing out after the meeting, Naomi said, “So, Calli, are you thinking of going to the meditation?”

I shrugged. “I don’t know, probably not. It doesn’t sound like something I’d be interested in. Shutting off my brain doesn’t seem to be an option for me.”

“That’s not what it is,” said Kamana, who was right behind us. “It’s more about observing how your brain works, without judgment or attachment, with gentle nudges to return to the present when your thoughts start wandering.”

Naomi laughed. “Calli has a brain built for wandering.”

“It’s true.” I admitted.

“Who knows,” said Kamana, “you might like it.”

“Yeah, maybe.”

“Perhaps we can give it a go one of these days,” said Naomi, smiling at me.

CHAPTER TWENTY-EIGHT

The warp drive for Charm had worked perfectly, expanding and contracting space just as we had programmed it to do. The next step was to modify the warp-field generator to account for the greater mass of the transport vessel. I was secretly half-dreading this part, because the astronauts for the next trial would be mice. But we needed to determine if there would be any adverse effects on biological organisms.

The engineers had the plans ready for the vessel, they only needed to print the parts using the 3D printers and assemble it. That would take a few weeks. Meanwhile, Hadley and I focused on the warp drive specs. The transport vessel wasn't much larger than Charm, but we still weren't sure how the bubble would scale, and needed to run the calculations and computer simulations. Once the vessel and drive were ready, our strategy was to do a few test runs before we sent our furry friends.

Naomi and I were sitting at the conference table in her lab one Friday afternoon, discussing her ideas for the mouse living quarters in the transport vessel, when she threw up her hands in exasperation. "We can't keep calling it 'the transport vessel'! The probe has a name, the transport vessel needs one as well."

"Hey, I'm open to suggestions."

Naomi looked at the ceiling, tapping her finger against her chin. "Something to do with Greek mythology, I suppose, since all the mice are named after Greek goddesses."

I waited expectantly.

"Argo comes to mind, Homer's ship. But no, I have a better name. How about 'Soteria'?"

"I have no idea what that is."

"No, I don't suppose you would have heard of it. It's a bit obscure. But I think it fits. Soter was the god of protection from bodily harm. Soteria is the feminine

version, the embodiment of the sentiments.”

“I don’t know how you store so much information in that skull of yours.” I tapped Naomi’s head affectionately. “How is it you know so much about Greek mythology?”

Naomi shrugged. “Childhood passion. My brother and I used to enjoy reading the stories aloud to each other before going to bed. I also took a couple courses at uni.”

“What was the word again?” I asked.

“Soteria.”

“Fine with me. I like the symbolism. I don’t want anything to happen to the mice, that’s for sure.”

“That’s why I thought of it,” said Naomi. “I want them to be safe.”

I hoped the vessel would live up to its new name, and our mice would return to us unscathed, delivered from harm.

“Hey!” said Naomi, her face brightening. “I just had an idea!”

“What? Another name?” I cocked my head.

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“Nah, the name’s sorted already.” She smiled. “Why don’t you come to the Moon with me tonight? You can meet Simon! We’re going to The Sunspot, it’s a new bar in Sector Eight.”

“Sure, sounds like fun.”



When we got to the bar, Naomi paused in the doorway, scanning the room. Her face lit up when she spotted Simon sitting at a table along the wall, waving enthusiastically.

He stood to greet us as we approached, a lean, muscular man with strong, even

features, his tousled hair giving him a playful, almost boyish look. He gave me a quick peck on the cheek, then turned to kiss Naomi. We sat down and he took Naomi's hand, then leaned over to kiss her again, a goofy smile on his face. Naomi, I noticed, was wearing a similar expression.

Tearing his gaze away from Naomi's eyes, Simon turned to me. "Great to meet you, Calli. Naomi talks about you all the time."

"I don't know when she has time to talk about me since she's always talking about you!"

We all laughed.

The waitress came over and we ordered beers. When our drinks arrived, I picked up my bottle and took a sip. The beer on the Moon wasn't exactly up to Earth standards, nor Fae's, but it wasn't bad. "So, Simon, I understand you work in Sector One."

"Yeah, it's not glamorous, not like what you and Naomi do," he looked at Naomi and his face softened, "but it allows me to live here."

"Why the Moon?" I asked.

"Who wouldn't want to live on the Moon? How many people in the history of humanity have had the opportunity to live off-planet?"

"That's true," I admitted.

"How do you like working for the Foundation?" Simon asked me.

"I love it." Naomi and I exchanged a smile.

"They've been catching a lot of flak in the mainstream media lately, for being an all-women organization."

"Really? I hadn't heard. I don't keep up with world news."

"I doubt any of us do," said Naomi. "No one ever talks about the news, here or on Shambhala. Perhaps we should be paying more attention. So, what's up, Simon?"

“Things seem to be heating up. There’s a group, mostly women, if you can believe it, who’ve been staging rallies against the Foundation. There’s been some negative press about your warp drive, too, but from what I saw, the big news at the moment is the claim the Foundation is practicing reverse discrimination.”

“The warp drive? That’s odd. Hadley and I haven’t published anything. I don’t have any idea how people could possibly know about it.” I shrugged, then thought of Amélie.

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I had told her about the drive, and in great detail, but there was no reason she would talk to the press. She wasn’t even a scientist. No, it couldn’t have been her.

“Sometimes it’s nice to be so far away,” said Naomi.

“That’s for sure,” I said. “Nice to be here with you both.” I raised my beer bottle, and Naomi and Simon did the same. We clinked our bottles together, and each took a drink. “That’s crazy about the reverse discrimination. I guess technically they’re right?”

I looked at my companions, feeling confused. “But don’t they understand? Don’t they get it?” Why would *women* be against an all-woman company? And what business was it of theirs? It just didn’t compute.

Simon shook his head. “What you mean is, why don’t they realize that supporting women in the sciences is just a tiny drop of justice in an ocean of historical inequality?”

He smirked, then added quietly, “I wish the whole world was ruled by women. We’d be much better off.”

I studied his face, his expression. He was dead serious. “That’s a bold statement, especially for a male of the species. What makes you think that way?”

“I grew up in a matriarchal family. My folks died when I was really young, a freak hovercar accident, so I was raised by my aunt and her partner, a loving lesbian couple.

And my maternal grandmother lived with us until she passed away when I was twenty-seven.”

“Oh, sorry to hear that,” I said.

“It’s okay, we all have to go sometime. My grandmother had a good life with us. It’s funny, she rarely talked about when my grandfather was alive. From what I remember about him, he was overbearing and controlling. She ended up taking care of him for years, he was really unhealthy. She never complained, even when he treated her like a servant, like she was his personal property. I was around nine when he died, but I remember he was always making these awful comments about her, how she wasn’t very sharp, how she needed to go back to school so she could learn how to be a proper wife.

It was offensive. But he always tried to make it seem like a joke. I think for my grandmother, her life began the day he died, because she was free. She had eighteen years of freedom, more than a lot of women ever get.”

I shook my head, not quite sure how to respond.

“I just feel like men are not good for society, or for the planet. I’m not saying all men should be eliminated.” He gave a wry laugh. “I just think, on the whole, we can’t be trusted.”

“What do you mean?” I had never in my life heard a man say anything like that before.

“I’ve seen it my whole life. Even when I was just a little kid, the way a lot of other boys behaved made me sick to my stomach. I remember when my ‘friends’,” he emphasized the last word with air quotes, “would destroy ant hills, just to see the ants panic, desperately trying to save their eggs. As the youngest in the neighborhood, I couldn’t do much, but I witnessed how older boys would indoctrinate the younger ones, 166

egging them on to do cruel things, and calling them names when they balked or cried.”

“How sad,” I said, examining Simon’s pained expression. How was it growing up as a male? Especially one as tender-hearted as Simon. It couldn’t be easy.

“Yeah. Once I tried to put myself in between a gang of boys and a stray dog they had been pelting with rocks, and instead they threw their rocks at me, calling me weak and girly. I realized right then that being called a girl was the greatest compliment they could have given me. Oh, the girls could be mean, too, don’t get me wrong, but it seemed like it was more circumstantial, and never driven by some crazy overwhelming instinct to cause suffering, to destroy.”

“Do you really think it’s innate?” I asked, remembering my question for Izumi about male aggression. “It’s hard to separate culture from instinct.”

“The old nature-versus-nurture debate.” Simon shrugged. “I don’t know the answer.

In some ways it doesn’t matter—neither is an excuse for the behavior.”

“I agree,” I said.

“The thing that gets to me is the dehumanization. Listening to adolescent boys and now grown men talking about women, the things they say without a drop of shame—

it’s revolting. And the weird thing is, they do it in part to form a bond with other men, even when they’re trying to one-up each other with their sexual conquests.”

“But not all men are that way.” Though I couldn’t deny that plenty of men had treated me like a sexual object. I had been subjected to innumerable catcalls, the occasional brush and fondle on the metro, flashers masturbating in alleys as I walked by, dick picks sent to my inbox, and countless leers bordering on disgust. But no, definitely not all men. These lecherous perverts were the minority.

“Yeah, sure.” Simon waved his hand dismissively at my protest. “There are plenty of guys who aren’t into the whole denigration of women, I can see it in their faces, but they get sucked in and they feel like they have to compete, have to play the game, to be accepted. It’s sickening.”

“That could be support for the nurture camp—socialization,” Naomi said, eyes trained on Simon, her expression full of compassion.

“I’m sure that socialization has a lot to do with it,” Simon admitted. “But so what?

Aren't we better than that? Can't we rise above our biology, or our culture, or the combination of the two, and just be decent human beings?"

Naomi's eyes shifted to me. "Simon's upset with some men from his work."

"Yeah, sorry." He inhaled sharply and bit his lower lip. "I guess it's affecting me more than I realized."

"Play the recording, Simon," said Naomi softly.

Simon looked at Naomi, then at me, and his shoulders drooped. He looked defeated, but not from our conversation. No, this was deeper. "The other day, I left my wrist computer in the break room, I wanted to record the guys talking."

I arched my eyebrow at him.

"I know it's a strange thing to do, invasion of privacy and all that, but I thought if 167

they listened to themselves, how they talk, they would change."

"But don't women work there too?" I asked.

"Yeah, but this group of guys always take their break together. I think the women figured out it's better to avoid them when they're in their pack."

"I see."

"I recorded their conversation, and later, played it back to them."

"Play it," Naomi said again.

Simon grimaced. "It's very graphic and disgusting."

I looked at Naomi, who nodded. I shrugged.

He touched his wrist computer, and male voices filled the air. I leaned forward, listening intently.

Voice 1: So, get any last night, boys?

Voice 2: Nah, too tired.

Voice 3: I was at the bar. There were some fine pieces of ass.

Voice 1: Speaking of ass, did you see the new girl who works on the dock?

Voice 3: With the big tits and ass?

Voice 1: Oh yeah. I'd like to lubricate my dick with that pussy, I'll bet it's tight and slick.

Voice 2: You know it, my brother.

Voice 1: And she uses it, she's like, all over the place with those boobs, flaunting.

She wants it, and bad.

Voice 3: [Laughs] Ever notice how these hot pieces of meat think they're in control, that they can use their tits and ass, and we guys will do whatever they want. [laughter]

We're the ones in control. All they want is a good fuck, they're begging for it, and I'm telling you, I'm the man for the job.

Voice 2: Oh yeah, they want a man to take control, they're all about the alpha male.

Voice 1: And the biggest dick, like the one I have right here between my legs.

[laughter]

Simon stopped the recording, tears in his eyes. Naomi reached out and took his hand.

"There's more, but you get the idea. Later, when I played it back for them, they couldn't understand why I was so upset."

"Wow."

"Yeah, they didn't see anything wrong with how they were talking. It's just 'guy

talk,'

they told me, and they said I needed to relax, maybe even get laid. It made me sick. And don't imagine for a moment it's because these guys work on the docks. Even a lot of my male colleagues in graduate school, and these guys are consummate intellectuals, are having the same conversations. The language isn't so crude, but the sentiment is the same."

"Years ago, back when we were teenagers, I was talking to my brother," said Naomi.

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"He told me it's rubbish to be a boy, because he couldn't stop thinking about sex. He said he thought about sex *al* the time, and it was horrible, because he could barely get anything done. Still, he'd never talk to his mates like that."

I thought about Naomi's brother and agreed with her. But it was hard to know how any man behaved when surrounded by other males.

"I don't think so either," said Simon. "Even though we've only met through holochat, I can tell Monty's a good guy. But it's true, what your brother said." He shook his head. "The urge is sometimes overwhelming. Pure biology. At least with other mammals, there are only certain times of the year when the impulse to mate is so powerful males will literally kill each other for the chance to copulate with a female. But with humans, it's a constant pressure. I don't think women can ever understand. I know women have a sex drive, but with us, sometimes it feels like life or death. And when a woman," he held up both hands to create air quotes, "'denies' men sex, some men go crazy. I probably have that too, inside me, and I suspect every man does, but I learned early on how to channel my energy into productive avenues. All I can say is I'm thankful for my prefrontal cortex, which allows me to keep control over my baser instincts."

Naomi took Simon's hand in hers.

He looked at her, his eyes soft. "For me, sex is intimacy, a way to connect with my partner. It's something beautiful we share as humans, and it saddens me that so many other people don't, or can't, see it as one of the highest expressions of love. Without love, for me, sex is a physical impossibility. I'm not wired that way. Not that I'm slamming casual sex, I know everyone doesn't share my point

of view. I just want all sex to be consensual and respectful. I don't think that's too much to ask."

I picked up my now-empty beer bottle, contemplating its composition, its smoothness. "What makes you different, Simon? I'm sure there are lots of men who, like you, grew up surrounded by women, who aren't so enlightened."

"That's a tough question. Truth be told, I don't know. I always felt different, like I didn't belong, and I guess that helped me see beyond my culture, or biology, or whatever."

"I suppose if you asked me the same question, I'd be hard-pressed to explain why I'm different, too. My family is pretty conservative, so I know the feeling of not belonging. Maybe being different isn't such a bad thing."

"Amen to that." Simon tipped his beer bottle toward me, then took a drink.

"You hardly ever mention your family, Calli," Naomi said.

I shrugged. "Like I said, we're very different."

"If it weren't for differences, we wouldn't have such incredible biodiversity," she said.

"I adore your brilliant biologist's mind," said Simon, leaning over and kissing Naomi on the cheek.



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Naomi and I took the shuttle back to the station on Sunday. "So, you and Simon," I said with a grin as we strapped ourselves into our seats.

"Oh Calli! I'm bonkers about him!"

The engine roared to life. "We'd better put on our helmets," I said. "I think we're about to take off."

"Switch to channel two." She pointed to a small control panel on my armrest. I

looked at her, eyebrows raised. “So we can talk in private.” She gave me a conspiratorial smile.

I punched in the new channel, and we both donned our helmets and secured the valves.

“I didn’t want Sook to hear our conversation,” Naomi said, her voice sounding tinny in my helmet’s headset. Her face grew serious. “What do you think about him?”

“He’s great, Naomi.”

“I was hoping you’d like him.”

“Not that you need my approval, but you’ve got it, one hundred percent!”

I closed my eyes as we lifted off the Moon’s surface, teeth rattling from the vibration.

Once we were airborne, I turned to Naomi. “Intense conversation, though, about men.”

“Yeah. Simon was really distressed. I suppose stuff like that hurts him more than it does me.”

“Could be because, as women, we’re used to it.”

She grimaced. “I hate to say it, but that’s probably true.” Then her face softened.

“He’s a sensitive man.”

“What do you think about his idea of women ruling the world?”

She gave a little laugh. “I’m fairly certain he didn’t mean that. He was just really fuming, and sick of men.”

“For a minute, I thought it was a great idea.” I shrugged a shoulder, my spacesuit rustling.

“I know! Like what we have on Shambhala, right?”

“Uh-huh. And who knows, maybe we would be better off with only women in power, but in the long run, I think we need to work together.” I paused for a beat, staring out the window, then turned to her. “I liked what Simon said last night—that it doesn’t matter, nature or nurture, we all have the capacity be better human beings.”

She nodded. “He’s got such a good heart.”

“Want to know my favorite thing about Simon?”

“What?” She stared at me, wide-eyed.

“He appreciates what an amazing person you are.”

“Oh Calli! I would give you a hug, but we’re all strapped in!”

CHAPTER TWENTY-NINE

At the next staff meeting, Elena presented her findings based on the Charm data.

She had been working almost nonstop, combing through the information, searching for her “Goldilocks” planets. I had hardly seen her during that time, once or twice at dinner, but even then, she was too distracted to contribute to any conversations. I could relate.

All eyes were on Elena as she tapped her computer tablet, and the screen behind her filled with figures and graphs. “Hang on,” she said, minimizing windows with a tap of her finger. “Here’s the one I want everyone to see.” She looked up at us and smiled self-consciously. “I’ve been searching the Charm data for potentially habitable planets, and so far, after analyzing the locations, compositions, tectonic activities, and magnetic fields of eighty-five planets, I’ve found five very good candidates, two of which, interestingly enough, are in the same star system.” She turned and pointed to the graphs displayed on the screen. “Here I’ve focused on the characteristics of those five.”

Elena talked about each planet in turn, almost as if they were her children, and she a proud parent, pointing out the strengths and attributes of each.

When she finished her presentation, Raven’s hand shot up. “I see from the composition graphs these planets all have a significant amount of oxygen in their atmospheres. What is the likelihood the oxygen is a result of biological processes?”

“That’s a very good question, and the short answer is, I don’t know. It could be a result of the photocatalytic reaction of titanium oxide on the planet’s surface, or some other process I’m not familiar with, but that’s one of the reasons I hope to resend the probe to these five planets, which, as you pointed out, Raven, all have surprisingly oxygen-rich atmospheres, to do an in-depth analysis of each of them.” She gestured toward the screen with her hand. “This first probe trip was really a reconnaissance mission. Now that I’ve identified my candidates, the next step is to study each one more extensively.” She looked at me, then Hadley. “I’m hoping to send Charm back out as soon as possible.”

“I don’t see any problem,” said Hadley. “We’re focused on the construction of Soteria.”

“We’ll talk after the meeting,” Marta said to Elena. “We can input the coordinates and reprogram the sensors.”

Elena nodded. “I also want to send bots into the atmospheres and to the surfaces of the planets to take physical samples. I don’t know how feasible that is.”

Kamana sat up straighter. “I already have a set of bots programmed for precisely that purpose,” she said.

“Do you mean the ship’s bots that you use to monitor the atmosphere of the modules and corridors?” Elena’s eyes were sparkling with excitement.

“Exactly,” said Kamana.

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I leaned over to Zoe, who was sitting next to me. “They use bots to test the air here?”

I whispered.

“Yeah, have you not seen them? They’re part of the protocol put in place after the laughing-gas incident. They’re tiny, a little bigger than the size of a ping-pong ball. I’ll show you next time I see one.”

“We can use our mini-transports to house the bots,” Marta was saying. “Attach them to the outside of the Charm probe, where they can be deployed at each target site.”

“Sounds like we have some exciting projects to work on these next few weeks,” said Diana, standing up. All eyes turned to her. “Thank you, Elena, excellent work.”

Elena smiled as everyone clapped enthusiastically.

“Any announcements or issues to address?” asked Izumi. Everyone was quiet.

“Okay, thanks, everyone, for another outstanding meeting!”

As women began filing out of the room, Zoe grabbed my hand, pulling me toward Kamana. “Hey, Kamana, Calli hasn’t seen your air quality bots!”

“Oh, an oversight that needs to be rectified immediately,” she said, shaking her head and attempting a stern look. “Truly unacceptable.” We followed her out and into the corridor. “Look! There’s one.” Kamana pointed at the ceiling a few meters away.

We propelled ourselves down the corridor and stopped right under the spot where Kamana had indicated. I squinted. It appeared to be a black stain.

“Take a closer look,” said Zoe.

Gently I pushed myself off the floor, and Zoe grabbed my foot to keep me in place as I examined the tiny machine. It had the form of a beetle, with iridescent wings and two tiny antennae attached to its “head,” and the “eyes” glittered like green emeralds.

“Oh wow.”

“Isn’t it adorable?” said Zoe, smiling up at me.

I floated back down to the floor and grabbed the railing with my hand. “How did I not notice them before?”

“You have to know what you’re looking for,” Kamana said. “They’re modeled after actual beetles, see? Each bot is a different species. We’re currently using them to test the air. If there’s any contamination or if the carbon dioxide or oxygen levels are off, Quinn gets an alert.” Kamana pushed herself up and rebounded lightly off the ceiling, grabbing the bot in her hand. When she reached the floor, she grasped the rail with her free hand, then turned the bot over and showed me its “belly.” “This is the sample compartment. The bots can be programmed to take in air samples, or samples of dirt, water, small pebbles, whatever, really.”

“What an ingenious little device.” I touched the antennae gently with my finger. “And so beautiful.”

“It’s hard to compete with the beauty of nature,” said Zoe.

Kamana released the bot, which flew back to the ceiling, attaching itself to the cloth.

“Are you both coming to the social?” She asked as we headed toward the hub.

“I wouldn’t miss it,” I said.

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I spend the social talking with Elena. She had such a sweet, unassuming demeanor, and I really enjoyed being with her. We sat at a table next to the observation window.

“Elena, I never got the chance to compliment you on your mosaic in the hub.”

Elena looked down at the table, at the image of the Moon reflected on its surface.

“Thank you.”

“The work is stunning. The colors are so vibrant, and what a great idea to use fabric.”

Since my first close-up look with Hadley, I had spent hours admiring her work, inspecting every square centimeter. Even using a cloth printer, it must have taken a long time to complete, not to mention creating the design, the incredibly intricate detail.

Elena was a true artist.

She shrugged. “It’s not so unusual. In my culture handiwork like that is common.”

“Where are you from?”

“Guatemala, from Antigua.”

“It’s a lovely city. Did you study in Guatemala?”

“Yes, we have a good scientific university there.”

“Universidad del Valle de Guatemala. It’s world renowned for astronomy.”

She straightened in her seat and glanced away for a moment. Then she looked at me shyly. “I think it’s the Maya influence. The Maya people have always been astronomers.”

“Oh, I know. I learned about their accomplishments in my undergrad history of astronomy class. And the architecture! It seems every building was constructed to showcase astronomical objects or events.”

Elena nodded.

“Are you Maya?”

“Mostly, yes. There might be a drop or two of Spanish blood flowing through my veins, though.”

“I wouldn’t be surprised.”

“But culturally, I’m not very Maya.”

“No?”

She shrugged. “The Mayan priests are given a lot of power. For me, it doesn’t make much sense. I suppose I’m not a spiritual person.”

“Or is it just organized religion that rubs you the wrong way?” I asked gently.

“Yes, I think that’s it. If you want to be a ‘true’ Maya,” she said, using air quotes for the word *true*, “you’re expected to listen to and heed the priests’ prophetic visions based on interpretations of the celestial cycles.” She grimaced. “They are really astrologers.”

“Ah, and for an astronomer like yourself, astrology is particularly painful.” I thought for a minute, then added, “Well, not only astronomers. Any rational person.

Pseudoscience is a big pill to swallow.”

Elena studied my face. After a moment she seemed to come to a decision about me, 173

and she visibly relaxed. I recognized the signs. She, too, felt the confusion of being an intelligent, rational person in the midst of a religion fraught with superstition, not sure who she could trust not to judge. It looked as though I passed her scrutiny.

I reached out and touched her forearm, wanting to show my support, my understanding. “I’m sure there are plenty of reasons to be proud of your culture.” I thought of my own culture, my family, and realized with a shock that what I had just said was true for me, too. There were many beautiful aspects of fundamental Christianity, like the importance of community, the generosity, especially toward the needy, and in general, they were good-hearted, well-meaning people. Okay, at least some of them were.

“I love my culture’s focus on astronomy and mathematics, and I also like the idea that everything is imbued with a spiritual essence, living creatures, naturally, but even inanimate objects, like water and rocks, and we should respect and honor them.” Her eyes held a faraway look. “I don’t buy the spiritual essence idea,” she continued, “but I can appreciate the implications for the natural world—we are all interconnected, and we are a part of nature. I think that’s something most native peoples share, a sense of belonging to nature, as opposed to holding dominion over it.”

What she said was true. The prevailing world philosophy was one of domination, an attitude that had nearly destroyed our precious planet. “I appreciate the way you think, Elena.”

CHAPTER THIRTY

A week and a half later, Hadley and I were in our lab, each staring at our respective computer screens. We had been working for what felt like forever on the expansion of the warp bubble to encompass Soteria, and had hit a brick wall. The problem was the negative energy requirements, which were significantly greater for the probe. The mass of the vessel was an order of magnitude larger than the probe, but the energy requirement wasn't a linear function, it was exponential! According to our calculations, we wouldn't need ten times the energy. Instead, we would need the energy required for the probe raised to the *power* of ten. It was a staggering number. We couldn't get past it.

We had both been working independently all morning when Hadley blurted out, "I haven't seen Andrea all week."

I looked up from my computer screen and rubbed my eyes. "What happened? Are you two okay?"

"Oh, nothing like that. It's just she's been busy. She's working on modifying Charm to include mini-transports for the bots. Elena and the engineering team have been working late every night—Elena is anxious to get her samples."

"I noticed they didn't go to the social last Friday night."

Hadley shook her head. "They were apparently too engrossed in their work and totally forgot about it!"

"I don't suppose you know how things are going?"

"They should be finished tonight, and the plan is to send Charm out tomorrow morning, and probably every day after that. They're already done assembling Soteria, except for the warp drive." She glanced at her screen and sighed.

I had a flashback to when we'd struggled with the bubble collapse issue, how I'd projected my negative feelings onto Hadley. This time I felt none of that intense frustration, despite our setback with the drive. Shambhala, with its culture of love and support, was changing me. I was becoming a better person. I smiled to myself. "We'll figure it out, Hadley."

“Yeah, I know we will.” Hadley shrugged her shoulders.

“Anyway, that’s great news about the mini-transport. Elena must be thrilled.”

“Yeah, it’s good they’re almost finished. Then I’ll finally get my girlfriend back.” She looked like an abandoned puppy.

I couldn’t help laughing. “Is my memory faulty, or was it you who was complaining you two were spending too much time together?”

“Okay, Miss Perfect Recall.” She rolled her eyes. “It’s true I don’t want to spend every minute of every day together, but a whole week!”

I laughed again.

She glared at me, then smiled. “Okay, fine, I love she’s so driven and focused, but I miss her.”

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“And it doesn’t help that our work isn’t moving forward.”

“No, it doesn’t.” She sighed again, and we both turned back to our consoles.



“Hadley, I have an idea for the enlarged warp bubble!” I said, bursting into the lab the following morning. “It came to me in a dream last night.”

Hadley looked up from her console. “Hey, however the inspiration manifests itself, I’ll take it.”

We sat down at the conference table, and I explained my idea, Hadley nodding her head periodically, saying, “Yes, yes, that makes sense.”

“Should we talk to the engineers?” I asked eagerly.

“Let’s do some calculations and simulations first.”

“Sure, you’re right, don’t want to put the cart before the horse.”

Hadley cracked up laughing. “I don’t know where you pull out your archaic sayings from.”

We worked until the afternoon, refining the calculations. When I decided to take a break, I headed over to Naomi’s lab.

“Hi, Naomi,” I said, moving toward the mouse condo. Asteria was waiting for me, dancing around, bouncing off the sides of the tube. When I opened the condo door, she hurled herself at me. Laughing, I caught her and placed her on my chest, then sat on the couch. “I owe you big time, my little friend!”

Naomi looked at me, eyebrows raised.

“This little rodent was in my dream last night.” I rubbed her tiny head with my fingertip. “Hadley and I have been struggling with the last piece of the transport vessel, trying to work out the modification to the warp bubble generator to account for the larger mass of Soteria, and last night I had a long, crazy dream. I can’t even remember everything that happened, but at one point, Aster was with me in the physics lab, running around on the conference table. Our notes were displayed, and she kept putting her nose on the geometric specifications for the probe’s warp drive, which, as you know, consists of two toroids, one at each end of the body of the probe.”

“Yeah.”

“Anyway, Aster poked her nose at the equations, then she started running on the surface of the conference table, leaving a trail of tiny glowing footprints. She retraced her steps over and over again. I kept looking at the pattern. At first, it just looked like a misshapen infinity symbol, and I thought maybe there’s an issue with our renormalization to eliminate infinities, dividing by zero and all that. You know that’s always a concern with theoretical physics.”

“Uh-huh,” Naomi said. Though, from the look on her face, it didn’t seem like she was as worried about renormalization as Hadley and I were.

I took a breath and continued. “But there aren’t any infinities in the geometric

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equations. Then I realized I needed to visualize the figure she was tracing out in 3D!

And you'll never guess what the pattern is."

"What?" Naomi was staring at me intently.

"A double helix! It would have never occurred to me to try that geometry, but everything fell into place, and even in my dream, I was able to work out the equations.

With this configuration, the energy requirements are minimized, and even equipping a vessel the size of Shambhala with a warp drive would be totally feasible. When I woke up, I did a quick, back-of-the-envelope calculation, and if we installed a double-helix warp drive on each of the modules of Shambhala, we could easily produce the negative energy requirement using the power of the fusion reactors, with plenty of energy to spare." I shook my head. "It was a weird dream. I don't know why Aster didn't float off the surface of the table in micro-g."

"That's the weird part?" said Naomi, laughing. "You're daft, Calli."

"What?" I looked up at her. "It didn't make any sense."

"What's weird for me, and I know you don't know much about mythology, but Asteria is the goddess of nighttime divinations."

I shrugged, stroking Aster's tiny head. "You're right, I don't know anything about that, but I do know in micro-g there's no way a mouse could run around on a slick surface like the conference table."

"Dear lord, woman, you're unbelievable!" Naomi shook her head.

"But that's why you love me." I grinned.

"Ha!" She smacked me lightly on the shoulder, then reached over to pet Aster. "Oh hey, before I forget, remember those protests Simon mentioned?"

I sat up straighter. "Yeah. What was up with that?"

"Apparently, it was a big hoax, some weird publicity stunt. It's been in the back of my mind, and just this morning I did an internet search. The protestors were hired actors, and supposedly someone wanted to hurt the Foundation, probably a

man, or perhaps a group of men, who were disgruntled because they couldn't work for Portal al Porvenir. The whole thing sort of faded away."

"Huh. People are strange sometimes."

"Uh-huh. Very odd."



With Aster's "help," and Hadley's and my calculations, the engineering team could finally complete the warp drive for Soteria. Once finished, we planned to do a few test runs, to each of Elena's planets, so we could deploy the bots and gather more data, feed two birds out of one hand, so to speak. Charm had already done several more reconnaissance missions by then, and, thanks to the bots, had gathered a wealth of information. Elena was beyond thrilled, but more data never hurt. And, if all went well, in a few weeks we would be ready to send the mice on the adventure of their lifetimes.

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I was a nervous wreck, just thinking about sending the mice. My primary concern was the Hawking radiation, but with the specialized ceramics created by Tanya and Jordyn, which the engineers had used to line the vessel, anything within Soteria should be protected.

After two successful test runs, and the highly sensitive sensor readings inside Soteria indicating that, if there was any Hawking radiation, the level was too low to be detected, Hadley and the engineering team were satisfied Soteria was perfectly safe. I insisted on a longer test, five days this time instead of a few hours, to be absolutely sure. There was no guarantee that something wouldn't go wrong, but if the vessel could go for five whole days and come back with its interior free of Hawking radiation, I would be willing to send the mice.



When Soteria returned from the five-day trial, and all the life-support data were good, it was time for a live mission. Naomi had chosen Asteria to be one of the travelers. I wanted to talk her out of it, but her reasoning was sound: Aster was not only the boldest and most adventurous of all the mice, she was also the calmest, and her mellowness influenced her sisters. Any mouse traveling with

Aster would feel secure. The moment had come for the animal test, there was no getting around it—the first step in paving the way for the future of long-distance human space exploration.

“And besides,” Naomi had said, “Aster wants to go, I’m certain of it. It’s why she helped you with the calculation in your dream.”

“Yeah, okay, Naomi.” I rolled my eyes. But the truth was, despite all our successes, I was scared. I loved that tiny creature with all my heart.

We scheduled the launch for the following day. That night I couldn’t sleep, thinking about Soteria, the warp bubble, and everything that could go wrong. At four a.m. I finally gave up, crawled out of my sleeping bag, and found my way to Naomi’s lab. The mice had been fast asleep when I turned on the light, and they all looked at me, blinking.

I opened the condo and Aster jumped out, scrambling up my chest and snuggling against my neck. I laid down on the couch, fixing the strap across my waist, and asked Annie to turn off the lights. With Aster’s whiskers tickling my neck, I was finally able to drift off to sleep.

CHAPTER THIRTY-ONE

Naomi found us both on her couch, sleeping deeply.

“Calli, what are you doing here?”

I sat up and rubbed my eyes with my hand. Aster yawned, showing her tiny white teeth and pink tongue. Then she looked at Naomi and blinked. “Aw, Naomi, I don’t think Aster is very happy you woke us up.”

“Oh, is that so? Well, it’s eight a.m., time for work. Or time to eat breakfast, do some grooming, run on the exercise wheel, solve puzzles for treats, and play with your buddies. If you’re a mouse, that is.”

“It’s already eight? I guess I need to get ready for the big event.”

“Are you worried about the flight later this morning?”

“A little,” I admitted. “I’m sure it’ll be fine, but I would be devastated if something happened.” My stomach tightened at the thought.

“I know. Me too.” Naomi came over and sat next to me on the couch. She put out her hand, and Aster jumped over to it, scurrying up her arm to her neck, touching Naomi’s bare skin with her nose. “It’s going to be alright, Calli.” Naomi stroked Aster’s back.

I sighed. “It just never felt so real before. The probes, then the empty transport vessel, they’re machines. But now we’ll be sending living creatures to a part of the Universe light-years away, and we don’t know what’s there, or what will happen.”

“Yeah, it does seem more real, sending the mice.”

“At least it’s only for a day. A very long day, but better than a week.”

“Indeed.” Naomi looked down at Aster with affection. “Our adorable explorers will be back before we know it.”



The team met at the shuttle bay at eleven-thirty a.m. My heart was pounding in my chest, and I felt dizzy watching Naomi put Aster and another mouse, Hera, into the living chamber of the vessel. I tried to calm myself down, taking deep breaths. My two hours at the gym that morning didn't even make a dent in my anxiety level, and breakfast was out of the question—no way I could put anything in my stomach. Naomi had asked me if I wanted to help carry the mice to the shuttle bay, but I said no. The last thing I wanted was for Aster or Hera to sense my trepidation. I was sure, intellectually, that Asteria and her traveling companion would be fine. My heart, on the other hand, was not impressed with my rational logic, and refused to slow its feverish pace. The mice scurried into the vessel opening, curious and trusting as always. Aster's head poked out for a moment, her nose twitching, then she pulled it back into the vessel. Naomi looked over at me, then closed the tiny hatch.

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Marta tapped her computer tablet a few times. "All systems are a go."

I peered over her shoulder. The biosignals of both mice were displayed on the screen, thanks to their implants which were connected to Annie. Their heartbeats were quick and steady—an astonishing eight beats per second, perfectly normal for a mouse.

"Okay, let's do it," said Marta.

We exited the airlock and the door closed with a *whoosh* behind us. Through the window, I could see the transport vessel resting just above the floor, so small and vulnerable. The outer door opened into the vastness of space, and Marta started the launch sequence via her tablet. I reached out and took Naomi's hand. She attempted a smile, her eyes glistening with tears. Andrea and Hadley were standing arm in arm next to us, and Rika was next to Marta, her eyes fixed on the computer tablet's screen. The warp field would engage once Soteria was at a safe distance from Shambhala—fifty kilometers this time because the warp drive for the transport vessel was so much larger than the probe's drive. I watched Soteria shoot out into space, staring until the tiny vessel disappeared into the inky darkness, then released Naomi's hand so I could track the progress with my computer tablet.

Naomi watched as I brought up the data feeds for the mice. “Everything looks good,” I said. The mice were fine, vitals strong, and the vessel was approaching the warp launch point. I realized I was holding my breath, and exhaled slowly, trying to force my rigid body to relax, though without much success.

“They are in position,” said Marta. “The warp bubble is being generated now.”

And then they were gone.

I don’t know how I made it through the rest of the day. I went through the motions, but my mind was not present. I was at the staff meeting, but afterward, couldn’t even remember what had been discussed. I spent the social staring out the window at the Moon. My life was on hold, like one of Raven’s bees in suspended animation. Finally, I went to my quarters and crawled into my sleeping bag, exhausted. I slept a dreamless sleep.



By eight a.m. the next morning, I was at the dock. We had programmed the vessel to return at eleven a.m., so it was senseless for me to wait for three hours, but I was too anxious to be anywhere else. At nine, Naomi showed up. We both stared out the bay window, lost in our own private thoughts. By nine-twenty, the entire team was there.

We waited, mostly in silence, and when anyone spoke, it was in a near whisper. At ten forty-five Naomi took my hand, and I squeezed hers gratefully, my tablet in my other hand. I alternated between staring out the window and looking at the tablet. The screen was completely blank.

“There it is!” said Rika, breaking the silence.

We peered out through the shuttle bay door window. The outer door of the airlock 180

was open, waiting. I squinted, staring into the darkness, trying to catch a glimpse of Soteria.

“No, I’m talking about the data feed on my tablet,” said Rika.

I looked at my own tablet, which now showed a pulsing green blip approaching

the schematic of the station, right on time. And then we could see it—a tiny speck of light, growing brighter by the moment. Naomi’s eyes were fixed on that glowing dot, as if her gaze alone would be powerful enough to bring Soteria home.

Then Soteria was in the airlock! The outer door closed, cutting off our view of the immensity of space. We waited for what seemed like an eternity for the airlock to repressurize, then for the sterilization sequence to finish. Finally, the bay door opened, and we all rushed in, surrounding the tiny spacecraft.

I pulled up the biosignal data on my computer tablet, my gut tightly clenched. “Naomi, look!” There they were, two heartbeats, strong and steady.

She peeked at the tablet. “Oh, thank god!”

Marta opened the hatch, and Aster and Hera poked their beautiful heads out, noses and whiskers twitching. Aster spotted me, and with a powerful thrust of her hind legs against the hatch opening, she propelled herself through the air and into my arms.

“Hi, Aster.” My eyes filled with tears as I stroked her tiny head with my fingertip.

“How was your trip?” I said, voice catching in my throat.

Naomi had picked up Hera and was holding her against her cheek. “They’ve done it, Calli! They made it home.”



Later, Naomi and I took the mice to the clinic so Gamon could evaluate them, to determine if they had suffered any physiological damage during their adventure.

“And how are our courageous travelers?” asked Gamon.

“They seem alright,” said Naomi. She was holding Hera, and I had Aster. “Heartbeats were strong for the entire journey, according to the biosignal data.”

“Let’s see what the scans show. Calli, step inside the scanner with Aster. I’ll do a complete scan of both of you, then subtract your data.” She opened the door, and

I pulled myself inside, holding Aster close to my chest. Next, Naomi went in with Hera.

We waited as Gamon examined the readings. “They’re both healthy and happy,” said Gamon.

“Happy? Does the scan show that, too?” I asked.

“Uh-huh. I can see their serotonin and oxytocin levels are elevated, which I’m sure is because they’re being held by their favorite humans.”

I stroked Aster’s head with my finger. She looked up at me, nose twitching.

“We’ll need to repeat the scans in a few weeks to see if there are any repercussions that aren’t yet visible, but as of today, I give both mice a clean bill of health.”

Naomi looked at me. “Never another Laika.”

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I stared at her, my eyes wide, and tightened my hold on Asteria. I had no idea Naomi was familiar with the Soviet experiment, almost a hundred and fifty years ago. “Never again,” I whispered.

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CHAPTER THIRTY-TWO

I was sitting at my console on Friday morning, a week and a half after the successful return of Soteria, when Annie contacted me, telling me Diana had scheduled a meeting with me, Hadley, and Elena at eleven a.m.

“What’s the meeting about?” I asked.

“I’m sorry, Callisto, but you will have to wait for Diana to tell you,” said Annie.

I touched my implant, ending the transmission, then looked over at Hadley. “Did you get the message?”

“Uh-huh. I wonder what’s going on.”

“Yeah, me too, and Annie’s no help.”

“I guess we’ll all find out—” she glanced at her wrist computer, “an hour from now.”



At ten-fifty a.m. the three of us were gathered outside Diana’s office in the ops module, all equally baffled. No one had any idea why Diana had called the meeting, or why we were the only ones invited. My stomach was in knots—what if she had decided to let us go, terminate our employment? No, that was crazy. I mentally shook my head.

At eleven Diana opened the door and invited us inside with a smile. Hadley and I sat on the couch, and Elena stood near the door, her hand grasping the back of the couch for stability. Diana sat down at her desk and said, “Undoubtedly you’re wondering why I called you here today.”

Out of the corner of my eye I caught a glimpse of Hadley’s expression—face drawn, lips pressed together tightly. She was a little worried, too.

Diana continued. “You’ve all made stellar scientific advances these past few months, and I’m so proud of each of you.”

Hadley shifted slightly on the couch, and Elena was still, her eyes trained on Diana's face. Hadley and I exchanged glances. Where was Diana going with this?

"Let me get straight to the point. I trust you're all eager to get your work out to the scientific community, and I would never explicitly prohibit you from publishing. But there are extenuating circumstances I can't go into, which would make it, well, inconvenient, for lack of a better word, for the Foundation if you publish your findings right now. I know it's unfair to make this request without a full disclosure of the facts, but I'm asking that you trust me, and hold off publishing for a couple of months or so.

But ultimately I will respect whatever decision you make."

I looked again at Hadley. She shrugged. "We still have a few calculations to work out, right Calli?"

"Uh-huh."

"I'd like to continue analyzing the data from my candidate planets before I share my 183

findings." Elena met Diana's eyes. "It could take a while."

Diana gave a curt nod. "Good," she said. "Thank you, all of you." She smiled, but it looked a little forced.

"That was weird," said Hadley after we shut Diana's office door behind us.

"I don't know what's going on," said Elena, "but both Diana and Izumi have seemed distracted lately."

"Now that you mention it," said Hadley as we made our way down the corridor,

"I've noticed the same thing. They seem like they're under a lot of pressure."

We stopped in the middle of the hub, and Elena said, "Well, ladies, back to work for me. See you at the social later." She pushed her way toward the lab corridor.

"What about you, Calli, are you heading back to the lab?" asked Hadley.

“No, I think I’ll go hang out with the mice. And you?”

“I’m on my way to the gym.”

When I reached Naomi’s lab, I went straight to the mouse condo, where Aster was waiting for me. I took her out and then settled on the couch. Naomi had been working at her console but came to sit beside us. I told her about our meeting with Diana.

“That’s strange. I’ve never heard of her asking someone to delay publishing. We simply run our papers by Annie, she approves them—with an occasional copyedit note or suggestion for improvements—and that’s all.”

“Something strange is going on. Both Hadley and Elena said Izumi and Diana seem to be stressed out.”

“Financial worries?” said Naomi. “I’ve always been curious as to where they get their funding. I’ve tried looking it up online, but can never find anything, just superficial stuff.

So weird their electronic footprint is almost nonexistent.”

“In this day and age, too, it’s bizarre.”

“They are both private people, perhaps that’s why.” said Naomi. “I don’t know. Annie is of no help either on that topic.”

“I always figured it was better not to look a gift horse in the mouth.”

Naomi burst out laughing. “How absurd are the things you say, Calli, it’s like you’re living in another century sometimes.”

“Lots and lots of reading as a kid. Not everyone had a brother to keep her entertained when growing up.”

“Oh, Monty was entertaining, all right, never a dull moment, and never a moment’s peace, either.”

“I imagine he would say the same about you.”

She laughed again. “You’re probably right.”

CHAPTER THIRTY-THREE

I spent the whole weekend in the lab. Even though Diana had requested that we hold off publishing, Hadley and I decided to go ahead and write a paper on our findings, to be ready when Diana gave us the go-ahead. Hadley had offered to write the bulk of the article. It would be her first time publishing, and she was both excited and nervous at the prospect. I was also busy working on a how-to manual for warp technology, which I hoped to finish within the next few months, so I was happy to let her take the lead.

After a late dinner, I was looking forward to a good night's sleep. As I was brushing my teeth in my tiny bathroom, my wrist computer vibrated. A holomessage, probably from Olivia. I completed my nightly ablutions, then settled into my bed, adjusting the strap over my waist. I opened the holographic projection, expecting to see Olivia's face.

Instead, I found myself looking at Amélie! We had exchanged contact information as we were waiting for the shuttle to take her to Tako—how long had it been? Four months, at least. But it had felt more like a formality than anything else. Like I told Naomi, we lived in completely different worlds. I smiled to myself as I was mentally transported to the Moon, thinking of our time together, and how renewed I had felt after being with her. I studied her holographic image, her delicate features, sensuous lips, alluring eyes I peered more closely at her eyes and caught my breath—they held a profound sadness. A sudden, irrational stab of fear shot through my gut. Something terrible had happened. I sat up and activated the message.

“Calli,” she said. I stared at her, open-mouthed, then paused the recording. I reinitialized the message and listened intently as she said my name, pausing again. It was Amélie's voice, but her delightful, lilting French accent was gone, replaced by an unmistakable British one. A cloud of confusion enveloped me. I played the message.

“Calli, I'm so sorry.” Amélie began to cry softly.

I was having a difficult time associating the accent with the woman I had spent a blissful week with—it was surreal, and my mind felt disconnected. I focused on

her holographic image.

“I’m so sorry, I’ve done something terrible.” Amélie took a deep breath and dried her eyes. “I can’t live with myself if I don’t tell you. I’m a terrible person, and I’m so, so sorry. You were so kind to me, so open and loving, and I betrayed you.”

I stared at the image. What in the Universe was going on?

“Please,” she continued, “I want you to know our time together, it wasn’t a lie. I swear to you, being with you like that, it was beautiful, and I felt something for you—I think it was love—and I felt your love in return. And I will always be grateful for that experience, your love was a gift, so pure. I was confused, and deceived, but I truly thought I was doing the right thing, righting a wrong.”

She shook her head and took another breath. “The only way to do this is to start at the beginning. I’m a dancer, that part is true, and a professional actress, as you might

have figured out by now, but I’m not from France, I’m from Great Britain.” She looked down, and I could see remnants of tears on her eyelashes.

Then she lifted her head and stared directly at the holocamera, directly at me. “We had just finished our tour in Japan, it was closing night, and the venue where we performed was hosting an end-of-tour party. Things had gone splendidly—we had received rave reviews from the media, and we were all ecstatic, and also ready for a break. Our next gig was six months away. The party was high-society—it seemed like all the rich and famous of Tokyo were there that night.

“I was relaxing, enjoying my cocktail and chatting with our manager about our success, when I saw Hiroki for the first time. He was standing alone on the other side of the crowded room. I couldn’t take my eyes off him, my conversation forgotten. He was the most beautiful human I have ever seen. When he met my eyes I didn’t look away—I couldn’t. It was like seeing an angel. He had a glow, an aura. It was mesmerizing. I was paralyzed by his beauty, his perfection. He came over to me, took my hands in his, and looked deep into my eyes. I could feel his energy pulsing around me, enveloping me. ‘Come with me,’ he said. I would have followed him anywhere, even to the gates of hell.” She put her hand to her face, covering her eyes. “And that’s exactly where he led me.”

She removed her hand, and once again I was looking at her despondent eyes. “He was like no human I have ever met—more like a celestial being, and I swear to you, he could see into my very soul. He wanted me, and how could I possibly refuse a god?

And, oh, how I wanted him. He took me to his hotel room that night, the penthouse suite in the most luxurious hotel in all of Tokyo, but the opulence didn’t matter to me—

I only wanted to be near him, to be in his presence. We made love that night, and it was incredible. I had never felt so open. He knew me, Calli, he could see right through me.

I forgot everything—nothing else mattered except being with him. He was magnetic, magical. I was lost in him.

“We didn’t leave the suite for a whole week. I was captivated by our incredible connection. It felt bigger than anything I had ever experienced before. I spent hours staring at his perfect face. He wanted to know me, wanted to know everything about me, and he seemed fascinated with the tiniest silly detail. I never had that before: pure, unconditional love.” She bit her lower lip. “I had a hard childhood. That’s no excuse, I know. But I have a lot of scars. Not physical ones, or you would have seen them.” She laughed mirthlessly. “But psychic scars. I was a child; they were supposed to protect me. What they did to me was unforgivable, but the worst was the indifference. That’s the opposite of love, you know. Not hate, indifference. But with Hiroki, it was different.

I told him everything, every sordid detail, and for the first time, ever, I felt cherished.

“Then he got a call. It was late, and I was in the bathroom when I heard the chime of his wrist computer. Through the door I heard him say, ‘tell me the good news’. He sounded so happy, so excited. I stepped into the shower and began to shampoo my hair. Then I heard Hiroki shouting. I know a little Japanese, but not enough to 186

understand what was going on. I rinsed the shampoo out of my hair as fast as I could, turned off the water, wrapped myself in a towel, and went out to find him.

“He was devastated, Calli, completely devastated. He had disconnected from the

call and was staring out the window overlooking the Tokyo Tower, but he wasn't looking at the view. Seeing him like that, my heart broke. I went to him—he was like a statue, and his skin was cold to the touch. I begged him to tell me what happened, and it was as if I wasn't there. I didn't know what to do.

“He stood there for an hour, not moving a muscle, barely blinking. I sat silently on the bed, watching him, the tears streaming down my face. I knew, in that moment, I would do anything for that man, anything in this world or the next.

“Finally, he seemed to come back to himself, and he looked at me. His eyes, Calli, those magnificent, ethereal eyes, they looked dead, vacant. I felt my heart stop. He spoke in a dull monotone, explaining what had happened—he was a great engineer, possibly the greatest the world has ever known, and all his ideas had been stolen, along with his money, his inheritance, to create the Foundation. It was this organization that co-opted his vision, his life's work. Everything had been taken from him, he said. The call was from his lawyer, who told Hiroki his lawsuit had been dismissed. There would be no justice—he was ruined. ‘What can I do?’ I begged him, ‘please, I'll do whatever you need me to do.’ He told me there was nothing anyone could do, he was a broken man, this company had crushed his soul. It was horrible, just horrible.

“Finally, I convinced him to lie down, and he slept, wrapped in my arms. I didn't sleep that night; I could only stare at his face. That perfect, angelic face.

“The next morning, he opened his eyes and looked directly at me. ‘There is something you can do,’ he said. I started crying, I couldn't control myself. ‘Please, anything, I'll do anything you ask,’ I told him. He got out of bed, then leaned over and kissed me on the forehead, and said, ‘I know you will. You are the love of my life.’ I almost died right then and there. I had never felt so much love.

“Later that morning, we took a walk in the Kokyo Gaien Park. He had put on a baseball cap and was wearing sunglasses, as if he didn't want to be recognized, but even with his face partially covered, I couldn't tear my eyes away. He was so perfect, and he loved me.

“As we walked, hand in hand, he laid out his plan. He asked me to go to the Moon, to find someone who worked for Portal al Porvenir, and to gather as much information as I could about their technological advancements. He wanted me to

focus on the orbital lab, explaining if he could prove the innovations that were being developed there were based on his work, his ideas, maybe he would have grounds to appeal the court's decision. That whole day we worked on the details, and when he smiled again for the first time since the call, I knew I would do whatever it took.

“We spent the next two weeks gathering all the information we could about the orbital lab and its crew. I studied all your profiles, memorized your faces. I know everything about you, Calli, who your parents are, where you were born, your area of 187

study. I also knew you were a good person, even before I met you. But I was convinced you and your crewmates didn't know what was happening, you were innocents in a diabolical game. Now I know the truth—I was the one who was duped.

“I had already been on the Moon a month before I finally saw you. I told you I had just arrived, but that was a lie. Hiroki said the best way to find one of you was to go to the lesbian bar. I know not all your crewmates are queer, but it seemed like the most effective strategy, since it was impossible to visit the orbital lab, or even the lunar colony. I kept a low profile, changing my appearance and my accent every few days so as not to draw attention, waiting for one of you to show up. That night, when you came to the bar, I was tired of sitting in the corner in the dark, night after night. I had to dance, to move my body. Then I saw you. I couldn't believe my good luck. You looked right at me, and I knew I had you. What I did with you was wrong, and I know it. I knew it then, too. But when, finally, you are loved, after never being loved before, you are capable of anything.

“You must have wondered why I was anxious for you to talk about your work. But you were so innocent, so trusting. And I enjoyed being with you, it wasn't a burden.

You are an amazing woman. Even though it was wrong, I justified my behavior, telling myself I was doing a good thing. I had a suspicion that something wasn't right, because when you talked about your discovery, it was clear that you were the author of the work, you and your colleague—it wasn't stolen technology. But I pushed the thought aside, my job was to gather data, not interpret it, so that's what I did.

“When I got back to the Earth, I was so happy to see Hiroki, and he seemed so grateful for what I had done, and told me over and over how much he loved me. We spent the first week together, in the same penthouse suite in Tokyo, and I told him everything, every intimacy. I’m so sorry, Calli. But he wasn’t interested in the salacious details. He only wanted to know more about your warp drive. I’m not a scientist, but I paid close attention when you talked about your work, and I was able to satisfy Hiroki’s need to know.

“But then, when we had gone over every minute detail, and there was nothing left to tell, that’s when everything changed. ‘Can you think of anything else, Amélie?’ he asked me. When I said no, he said, ‘okay, that’s it then.’ The brilliant, loving, generous, and attentive man I had fallen in love with disappeared, before my very eyes. ‘The hotel room is paid till the end of the month,’ he said. ‘Stay if you want, I don’t care.’ Then he got up, went to the closet, and started packing his suitcase. I was stunned, I couldn’t understand what was happening. ‘Are you going on a trip?’ I asked. He wouldn’t answer.

I went to him, tried to touch him, to hold him, and he turned to look at me. His eyes were like ice. I felt like I had been hit by a mag lev train. It was horrifying. Not even a hint of humanity in those cold, cold eyes. I sank to the floor, staring up at him as he finished packing. He never looked at me again. I was less than garbage. Then he was gone.

“Calli, it was terrible, like my childhood, only magnified a thousand times, a hundred 188

thousand times. The cleaning bot found me and notified the hotel medical team. I had used a steak knife to cut my veins, but apparently, I didn’t do a very good job, because the next thing I remember, I was in the hospital, my arms covered in bandages.

“I’ve spent the past four months in therapy. My counselor said I have to talk to you, to tell you what I did, as part of my healing process. She says Hiroki is a master manipulator, and very likely a psychopath. But how can a psychopath be so beautiful, so perfect?” She shook her head. “I don’t know what his relationship is to the Foundation. I don’t understand any of it. I only know what I did was wrong, and I will regret it till the day I die. My counselor also says I have to forgive myself, but I don’t see how. You are the angel, Calli, not Hiroki. You are so sweet, and your heart is pure.

I'm so very sorry. Please don't let anything bad happen to you." The hologram collapsed, the message complete.

Tears filled my eyes as I curled up in a ball, the bed strap cutting into my waist, and I welcomed the pain. I couldn't even begin to sort it all out—the betrayal, the lies, the suffering, the cruelty, the devastation. So many unanswered questions. My god, how was any of this possible? Was it even real? Amélie, sweet Amélie.

"Callisto, are you hurt? Do you need medical assistance?" It was Annie.

"No, Annie, please, just leave me alone."

"Certainly, Callisto."

Wave after wave of sadness washed over me, and I cried until I had no more tears, wishing with all my heart that Amélie was there with me, in my arms, where I could protect her from the cruel, cruel world.

CHAPTER THIRTY-FOUR

The next morning, I got up early and headed straight to Naomi's quarters. I knocked lightly on the door. "Naomi," I called. "Are you awake?" I heard her ask Annie to open the door, and when I stepped into her cabin, I saw she was still in bed.

"Calli, what's going on? What's wrong?" She stared at me.

"Something's happened, and I don't know what to do," I said, hovering directly in front of the now-closed door.

Naomi unzipped her sleeping bag and jumped out of bed. "How can I help?"

I started crying, tears drifting around my face. Then she was holding me. I clung to her, sobbing.

"What happened? Would you like to talk about it?"

I shook my head no, crying uncontrollably.

Gently, she led me over to her couch and sat me down, putting the strap over my lap. Then she got a towel from her bathroom and sat down next to me, holding me tightly. All I could think about was Amélie, that she had no one to hold her. I was bent over, hugging my knees to my chest, my entire body wracked with sobs. "It's okay, Calli, I'm here," said Naomi, over and over.

Finally, the storm of emotions subsided, and I used the towel to wipe my nose and eyes. Naomi's eyes were like saucers.

"Can you tell me now?" she asked tenderly.

I nodded, and touched my wrist computer, activating Amélie's holomessage. "This is Amélie, the woman I was with on the Moon."

Naomi was silent, eyes fixed on the image. I started the message.

The second time was even more painful to watch. Naomi cried quietly as we

both stared, transfixed. When the message ended, Naomi put her hand to her mouth. “Oh my god, Calli.”

“I know.”

“Do you think she’s telling the truth?”

“You can’t know how much I wish she wasn’t, but I believe her.”

“How can Hiroki be this awful? He’s a monster.”

“Naomi, I told her everything, everything about the work here on Shambhala. Not only my work, everyone’s.”

“But you had no clue! It’s not your fault. You’ve done nothing wrong.”

“No, I *did* do something wrong. I signed a contract, promising I wouldn’t share any details about my work for the Foundation.”

Naomi’s eyes widened. “The non-disclosure agreement, I totally forgot.”

I stared at her. “I don’t understand what that ... that man Hiroki has to do with the Foundation. Could it possibly be true? That they stole his money, his inheritance?”

“No way Izumi and Diana would ever do that.”

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“You’re right, that doesn’t make any sense.” I shook my head. “Diana told me the Foundation was privately funded. Besides, neither of them is capable of doing something so heinous. But what about the ideas for the incredible innovations here on Shambhala? Are they his? Is it possible?”

“I don’t see how.” She furrowed her brow. “Speaking for myself, my ideas are my own. And you were working on warp technology long before you were even a part of the Foundation, Hadley as well.”

“Then what is it? Corporate espionage? Some kind of sick vendetta?”

“I don’t know, I just don’t know.” She wiped her eyes with her sleeve.

“The technological advances here on Shambhala are extraordinary. I imagine there are plenty of companies who would love to get hold of our ideas and research.”

“But we’re not a corporation!” Naomi’s voice was laced with frustration. “We’re a scientific organization.”

“What should I do, Naomi?”

“About what?” she asked, her eyes soft.

“All of it! I don’t know what to do, what to think.”

“I suppose you could contact Amélie, talk to her. She’s in a world of hurt and confusion right now.”

“Okay.” I blinked rapidly, trying to dry my eyes. “Can I do it here, with you?”

She nodded. “I’ll be here throughout.”

I searched my wrist computer for Amélie’s contact information, then input it into the holochat application. I waited for the connection, heart pounding. A message appeared on the holoprojection: *client does not exist*.

“Perhaps she changed her contact info,” Naomi said.

“No, it was a lie. She made it up.” I started crying again. “I thought we had a real connection. But it was all a fantasy.” I stared at my hands resting just above my thighs.

“Oh, Calli, I’m so sorry.”

“We made love, Naomi. It felt so intimate, and it was all an act for her? Nothing like this has ever happened to me before.” I buried my face in my hands.

“You’re both victims here.”

“But how did I not see it? How could I have been so naive? It felt so real.”

“I’m sure Amélie felt something for you.” She rubbed my back. “From what she said, we can only guess what horrible things happened to her in the past, but,

even so, she was open to love. That's got to count for something. She accepted your love, and loved you back. Otherwise, you would have felt it, no?"

"I don't know anything anymore." Taking a deep breath, I stood. "I can't think about all this right now."

She looked up at me. "Would you like to join me for breakfast?"

I shook my head. "I don't want to see anyone. I don't want to talk to anyone."

"Fair enough. Take time for yourself."

"Yeah. I don't think I'll go to the gym this morning. I can't face Izumi."

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Naomi stood up and gave me a hug. "You know you can always talk to me about anything, anytime."

I squeezed her tightly. "Thank you, Naomi. You're my best friend." I released her, and looked at her beautiful face, eyes full of compassion. "How can humans survive without love?"

"In the end, it's love that matters most."

I went straight to the lab, relieved to see Hadley hadn't arrived yet—I didn't know if I could pretend everything was okay, and I definitely didn't want to talk about what had happened. Turning on my computer, I opened my favorite online journal, a review of recent advancements in physics, but that was just a pretext. I stared, unseeing, at the screen, my mind light-years away.

When Hadley came in later that morning, I greeted her as I always did, then turned back to my console, pretending to read. Hadley and I often went for days without talking, other than a quick hello in the morning, so, for her, my behavior wasn't unusual.

I couldn't think, couldn't concentrate on anything. When Hadley went for lunch, I sat on our couch, eating energy bars and popping water blobs, my mind numb. In the afternoon, I couldn't stand staring at my screen any longer. I had to talk to Naomi again.

I made my way down the hall to her lab and peeked inside, wanting to make sure she was alone. She was sitting at her computer, so I opened the door and went in. When she saw it was me, she immediately pushed herself away from her console and headed over to the couch. I followed her, and we sat, facing each other as we had done so many times before.

“How are you feeling?” she asked, taking one of my hands in hers.

“I don’t know.”

She rubbed the top of my hand with her thumb, waiting.

“I don’t know what to do.” I covered my face with my free hand. “What should I do? I’m so ashamed.”

“Oh, Calli, it will be okay.”

“But think about it. I violated the non-disclosure agreement! I told Amélie everything! And Diana specifically asked us not to publish our work on the warp drive.”

“Yes, but—” Naomi paused. I could see her mind was working, and her expression transformed into one of fear. She released my hand and put hers to her mouth.

“I reread the contract, Naomi. It’s grounds for termination.”

“But we’ve all talked about our work. I always tell Simon what I’m up to.”

“I know, but this is different. Amélie was a spy. Her sole purpose was to gather classified information. I don’t know what the endgame is with Hiroki—” I paused for a moment, remembering my conversation with Diana on the Terra-Luna Express so long ago, when she asked me if I believed truly evil people existed in this world. Yes, Diana, they exist—Hiroki is the proof. I took a breath, coming back to the present. “I think I’ve put the Foundation in danger—” I stopped as tears filled my eyes. “I don’t want to lose this job, Naomi. It’s so much more than a job, you know that. I can’t 192

imagine my life anywhere else, doing anything else. I don’t want to leave Shambhala!” I wrapped my arms around myself. “I don’t want to leave you!”

Naomi stared at me. “I don’t want you to leave, either.” Her hands fluttered in her lap, like an injured bird.

“Oh god, Naomi!” I released my arms and pressed a hand to my forehead.

“Remember when Simon was telling us about those protests? He said he saw something else in the newsfeeds ... something about the warp drive, remember? I was the leak!

It’s all my fault!”

“We don’t know that,” said Naomi, but I could see she didn’t believe her own words.

Then I thought of Marley at the conference, how anxious she was to get inside of Arcadia. She had known Hadley and I were working on the warp drive, but how? The questions started piling up in my mind. Had Hiroki gotten to her, pressured her? She needed funding for her ion drive. Had she even been attracted to me? It had felt so forced. Not that it mattered. Then there was that man, her ex, following us—was that even real? I thought I had seen a shadow, but my eyes could have been playing tricks with me. I shook my head. I couldn’t process any more information.

“What are you going to do?” asked Naomi.

“I have to tell Diana. I mean, I *have* to tell her, don’t I?”

“I don’t know.”

“What if I don’t tell her?” I asked, feeling a wave of desperation engulf me. “The world will find out about the warp drive eventually. Like you said, the Foundation is a scientific organization, not a corporation, and Diana didn’t *insist* we hold off publishing, it was more of a request. But why did she want us to wait? Would it be so bad if I pretended I never got Amélie’s message?”

“Oh, Calli, I’ve no words! Telling Diana is the right thing to do, but I don’t want to lose you! Why don’t you think about it at least for a couple days?”

I took a deep breath as she reached out to me, taking my hands in hers. “Okay, I’ll just sit with it for a while. I’m not thinking clearly, so maybe it’s better to

take some time?" I looked at her hopefully.

"Yes, right, take some time." She squeezed my hands so hard it hurt, but I didn't flinch. "Perhaps you don't have to say anything. If Amélie hadn't reached out, you wouldn't be aware of this. Your life would be like it was a few days ago."

"Ignorance is bliss," I said, a horrible feeling in the pit of stomach.



The next days went by in a haze. I avoided the dining room, subsisting on energy bars, and went to the gym in the middle of the night. I couldn't risk seeing Izumi. It wasn't as if I were sleeping, anyway. Hadley tried to get me to open up—she could see something was wrong—but I told her I was fine, just tired. I wasn't fooling her, but she respected my privacy, and for that, I was grateful. The only person I could talk to was 193

Naomi, but I started avoiding her, too. I had never felt so alone on Shambhala. I didn't go to the social that Friday night. Instead, I holed up in my cabin. Early the next morning Elena came to my quarters to see if I was okay, but I sent her away, and spent the day curled up in my bed, sick with grief, shame, and fear. Annie contacted me, asking if she needed to send Gamon to my quarters, saying my cortisol levels were extremely high, but I said no.

Late that night, as I was skulking down the hallway to the gym, I grabbed the railing to stop my motion. I couldn't live like this any longer. I remembered what Fae had said, about our minds creating stories that amplified our suffering. My mind was going full tilt, and my emotional pain was *killing* me. I turned around and went to Naomi's cabin.

Naomi opened the door and pulled me inside with a fierce hug.

I felt the tears well up, but I pushed them down. "I can't do it."

"Come, sit down." She led me to her couch. After we settled in, she said, "I support you. If you choose not to tell them, it's okay with me."

I shook my head. "No, that's not what I meant. I can't keep on going like this, avoiding everyone, living in fear. The reason I love Shambhala so much is that, for the first time in my life, I feel accepted for who I am, and sneaking around,

avoiding everyone” I shrugged and wiped my moist eyes with my sleeve. “I may as well be back in my crappy little studio apartment in Los Angeles. This is not how I want to live.”

“But what if you lose your job? What if they make you leave Shambhala?”

“I’m not really here now, so what’s the difference?”

“I know, you’re right. But I’m terrified.”

“Me too. But I have to do it.”

“When will you go talk to her?”

“Tomorrow morning.” I heard the resolution in my voice and felt stronger. “I don’t know what will happen, but I have to face her, I have to accept responsibility for my actions.”

“I love you so much, Calli.” Naomi threw her arms around me.

“Me too, Naomi.”



At eight a.m. the next morning, I headed to Diana’s office, wondering if this would be my last day on Shambhala. The door was open, and heard Izumi’s raised voice, almost angry. I stopped, not sure what to do.

“Why not?” Izumi was saying. No, not angry. Frustrated.

“Like I told you,” said Diana, “it’s too risky, telling the crew now. We have to stick with the plan.”

“They’re going to find out sooner or later!” Now *that* was anger.

“Izumi,” Diana’s voice was soft and measured, “let’s not argue about this, okay?”

Can 194

we wait a little while longer? See what happens? It’s possible things will work out on their own.”

Silently I backed down the corridor, then turned and propelled myself away from the open door. I didn't want them to think I was eavesdropping—another transgression to add to my list.

Entering the hub, I touched behind my ear. "Annie, locate Naomi for me, please."

"Naomi is in her lab."

I touched my transceiver again, breaking contact, and hurried to the lab module. I opened the door to Naomi's lab and rushed inside.

"Calli! What happened?" Naomi's eyes were huge. "Did you tell her?"

I shook my head. "Let's go sit down."

We went over to the couch, Naomi's eyes glued to my face. Out of the corner of my eye I caught movement in the mouse condo. I hadn't seen Aster in over a week, but now was not the time.

"What happened?" asked Naomi.

I told her about the overheard conversation. "I couldn't interrupt them, Naomi."

"Oh, of course not."

"What do you think they were talking about?" I asked.

"I've got no idea. What don't they want us to know? And what *plan*?"

I chewed my thumb, biting down so hard it hurt. "This whole situation—it's kind of scary."

"Kind of?" She shook her head. "I don't like this one bit. We're supposed to be a model community—open and honest, not people who go around hiding things." She stopped and put her hand to her mouth. "Oh, Calli, I don't mean you!"

"No, you're right." I took a deep breath. "Look, I don't know what's going on with the Foundation, with Diana and Izumi, what they aren't telling us, why Hiroki wanted inside information, any of it, but I have to come clean, for the

sake of Shambhala. I need to stand up for what's right and let the chips fall where they may."

"It's your moment of truth," she whispered.

I pushed myself off the couch. "I'm going back."

She looked up at me, eyes glistening. "You're doing the right thing."

Feeling nauseated, I returned to Diana's office. This time, the door was closed.

Peeking in the window, I saw Diana working at her desk. I knocked softly.

"Come in," said Diana.

I slid open the door.

"Calli." Diana smiled at me. I could see no trace of tension or worry in her face, despite what I overheard earlier. Either it hadn't been such a big deal, or she was a really good actor.

"I need to talk to you about something," I said, hovering in the doorway.

"Come in, sit down," she said gently.

"I think Izumi should be here, too." I perched on the couch, barely moving,
barely 195

breathing.

"Okay." Diana looked at me with curiosity, then she touched behind her ear.

"Annie, can you ask Izumi to come to my office, please?"

We sat in silence for the few minutes it took for Izumi to arrive. My hands were clenched into tight fists, my fingernails biting into the flesh of my palms.

"Calli," said Izumi, smiling at me as she sat down on the couch. "I've missed you in the gym." Then she looked at my expression, and her smile faded.

"There's something I need to show you." I thought of Amélie's words: *I can't live with myself if I don't tell you*. I knew exactly how she felt, and my heart went

out to her.

Touching my wrist computer, I activated the holomessage. I watched, numb, as Amélie told her story, not daring to look at Diana or Izumi. When the message collapsed, I forced myself to look up. The two women were staring at each other, looks of horror on their faces.

“I’m so sorry,” I blurted, dropping my gaze, wringing my hands in despair. “I know I messed things up.” The words came gushing out. “I broke the confidentiality agreement, I told Amélie everything, every detail of our projects here on Shambhala, not just mine, everyone’s. I feel horrible. What I did was wrong, and I’m so sorry.”

“When was your encounter with Amélie?” asked Diana, her voice neutral.

I looked at her—her expression was unreadable. “Four months ago.”

“And when did you receive this message?”

“A week ago. I’m sorry I didn’t step forward sooner.”

Izumi touched my shoulder. “Thank you for showing this to us, Calli.”

“I feel like I’ve put the whole Foundation in jeopardy. I promise you, that wasn’t my intention. I didn’t think ... I didn’t know she was a spy.”

“Calli, can you send me the message?” asked Diana. “Izumi and I will need to watch it again, alone.”

I tapped my wrist computer. Diana’s computer chirped. I stood up, then sat back down, pressing my forearms tight against my stomach and hunching over. “I’m so, so sorry,” I whispered. A dam broke inside of me, and then I was crying—great, heaving sobs. “I don’t know what to do,” I managed. “I love Shambhala so much, and I’ve betrayed you, all of you.”

Izumi touched my shoulder, and I turned to her. She glanced at Diana, who nodded almost imperceptibly. Both of them had tears in their eyes. “Calli, I’m sorry, too. Very, very sorry. You can’t know how much this hurts me, what has happened to you, and to that poor, innocent woman.”

“I made a terrible mistake.” I wiped my nose with my sleeve. “I know that. And I’m ready to face the consequences. The non-disclosure agreement ... and then you asked us not to publish.” My eyes rested on Diana’s face, then I began crying again, another flood of tears.

“Calli, listen to me,” said Diana. My heart pounded erratically in my chest. “You are a pawn in a much larger game. And I’m sorry you’ve been dragged into the ugliness.

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Yes, you may have exhibited poor judgment,” she gave me a wry smile, “but you’re not to blame. There are forces at work which are way bigger than this, and what happened to you, it could have been anyone. You were unlucky enough to be the one caught in the crossfire.”

“I reread my contract,” I said, the words catching in my throat. “It says disclosing confidential information is grounds for termination.” My voice dropped to just above a whisper, “Do you want me to pack my bags?”

“No!” said Izumi, reaching over to me and pulling me into a hug.

Diana came to sit next to me, wrapping me in her arms. I sobbed even harder, if that was possible, feeling the strength of both women’s embraces.

“Listen, Calli,” said Izumi, her breath warm and curiously soothing on my bowed head, “our lawyers insisted we include that language. We know people talk about their work here, it’s only natural.” She pulled away from me, and I lifted my eyes to hers.

“Diana and I are horrible with legalese.”

“It’s our biggest weakness,” said Diana with a smirk. “And a constant source of frustration for our lawyers.”

“I believe *cavalier* is the word they use to describe the Foundation’s legal structure.”

Izumi gave a little laugh.

I looked from one to the other, not daring to hope. “Does that mean I can stay?”

“Calli, Calli,” said Diana. “There is so much malevolence in the world, so much that is truly evil, so much we can’t control. But throwing you away for being human would go against every principle the Foundation stands for.”

Sniffing loudly, I wiped my nose again and sat upright. “But what’s really happening with the Foundation? Why didn’t you want us to publish? Are we in danger?”

“No, absolutely not,” said Diana.

My eyes flicked to Izumi.

“There are some issues,” she said, giving Diana a sharp look. “But everything’s under control—we’re taking care of it.”

I took a deep breath, then let it out slowly. “Okay.”

“Calli,” said Diana. I turned to look at her. “Can you do us a favor and not share your story with anyone, at least for now?”

I felt my face grow hot. “I already told Naomi everything.”

“It’s okay,” said Izumi. “Just explain to her we’re doing everything in our power to keep Shambhala safe, and it would be better to keep this under wraps for the time being.”

“I’ll tell her right away.” I stood up. “I’m so sorry about all this.”

“We know,” said Izumi.

“Please, if there’s anything I can do to help”

They both stood up, and each of them gave me a hug.

As I opened the door, I stopped and looked back, teary-eyed. “At least I can see I’m having a positive influence on you both.”

“Oh? In what way?” asked Diana, a perplexed expression on her face.

“Caught in the crossfire?” Then I turned to Izumi. “Under wraps?” I gave a little laugh. “I thought I was the only one in the Foundation who spoke in idiomatic expressions. See? You need me to expand your verbal horizons.”

Diana laughed, and it was such a relief to see. “Yes, Calli,” she said, putting her arm around Izumi’s shoulders, “there’s no doubt in my mind about that. You’re definitely needed.”

As the door slid shut behind me, I grabbed onto the railing, trying to calm my breathing as wave after wave of relief washed over me. I still had no idea what was going on, but if Diana and Izumi felt like everything would be okay, then I trusted them.

I headed straight to Naomi’s quarters to tell her the news, and to let her know what had happened with Amélie and me was to be our secret for now.

“We need to do what’s best for the Foundation,” she said, “and if that means keeping quiet, I’ll get onboard.”

“I wish they would tell us what’s going on,” I lamented.

“Same here, though I’m sure they have their reasons.”



The next day, I went to the gym at my usual time. Izumi was already on a treadmill, and, after changing clothes, I hesitated at the dressing room doorway.

“Calli, come run with me,” Izumi called out.

I strapped myself to the treadmill next to hers, not meeting her eyes.

“Hey,” she said.

I glanced over at her and tried to smile, but couldn’t quite pull it off.

“I can imagine you’re still in shock from yesterday, but let’s put what happened to you behind us, okay?”

My throat contracted. “Okay.”

“You did the right thing, coming to us. And I admire you for it. I know it wasn’t an easy thing to do.”

I turned on the treadmill, and started walking, warming up my body, focusing on the treadmill’s control panel. “I didn’t want to tell you,” I admitted. “I was so ashamed.”

“I know. But you did it. You have a home with us for as long as you want. You’re an integral part of the Foundation, and we never want to lose you.”

“Thank you, that means so much to me. I was so afraid I would have to leave.”

“Not on my watch, young lady.”

This time I managed to smile.

“I’ve missed my running partner this past week. I’m glad you’re back.”

Heaving a sigh of relief, I increased the speed on my treadmill. “Me too, Izumi.”



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When I got to the lab, Hadley was working at the conference table. I came over to sit beside her. “Sorry I’ve been so weird lately.”

“It’s okay, we all have our moments. Anything you want to talk about?”

I let out a long sigh and stared at the table’s surface. “I made a mistake, and was having a hard time coming to terms with it. I can’t go into more detail, because it wasn’t only about me, and I have to respect the privacy of the other people involved. But in the end, I told the truth.”

“Calli,” she said, and I lifted my eyes to meet hers. “You never regret doing the right thing.” She studied my face. “You’re okay now?”

“Yes, everything is fine.” I hoped with all my heart it was true.

“I was worried about you. If there’s anything I can do”

“Thanks, Hadley.”

She leaned over and gave me a hug. “I’m glad you’re back.”

“Me too.” I managed a smile. “How about we go over the calculations for the warp drive article?”

“Perfect! That’s exactly what I was about to look at.”

CHAPTER THIRTY-FIVE

A little over a month after they had returned from their great adventure, Naomi and I took Hera and Asteria back to the clinic for another scan. I could tell the mice enjoyed being outside of the lab—their noses were working overtime, their eyes bright with curiosity.

“We should take them out more often,” I said to Naomi.

“You’re right. They’re loving the change of scenery.”

The scans showed no changes or anomalies—both mice were as healthy as ever.

Gamon recommended another scan in a few months, but she was convinced the warp voyage had not resulted in any physiological damage to the mice. And, from what Naomi and I could tell, they were more curious and alert than ever. The mission had been a resounding success.



Olivia arrived that afternoon, and she quickly settled into life on the station. For the first couple of days, we ate lunch together, then I went back to my usual routine, eating energy bars at my desk.

“Olivia is wonderful!” Naomi told me one afternoon a few days later, when I stopped by her lab for a break and a cuddle with Aster. “She’s been joining us for our biology power lunches. She’s doing fascinating research on biological terraforming. Before, I knew nothing about the field. It’s actually very exciting.”

Olivia had described the direction of her research to me in great detail over lunch her first day back on Shambhala. She was positively euphoric. In her previous postdoc position, she was expected to assist the chief scientist in his work, with little opportunity to pursue her own ideas. She was ready to apply her knowledge in synthetic biology to create artificial organisms—bacteria and algae—which could catalyze the decomposition of planetary surfaces, extracting the base elements from the crust, and atmosphere if it existed, to produce, if the conditions were favorable, viable soil, ready for the introduction of the microbes necessary for healthy soil structure. She had also designed a carbon-based

substrate similar to biochar, which would be used as a habitat for the soil microbes.

“Yeah,” I agreed, “she’s thrilled to be working on her own research.”

“Raven’s excited as well. She’s got an entire collection of soil bacteria, fungi, and archaea in suspended animation, all waiting to be released into a hospitable medium.

She wishes to try Olivia’s synthetic biochar. Can you imagine?” Naomi grinned. “With the technology Olivia is working on, true terraforming is a real possibility. We could terraform the Moon! No more living underground.”

“I hate to burst your bubble, but the Moon isn’t massive enough to have an 200 atmosphere.” I paused, realizing I had misspoken. “Okay, the Moon does have a really sparse atmosphere, but without a magnetic field to deflect the solar wind, any substantial atmosphere wouldn’t last, it would be blown out into space. And anyway, you need a more massive object to hold on to an atmosphere like we have on the Earth.

Though preferably minus the contamination.”

“Yes, please! We don’t want to reproduce Earth’s current atmosphere! Pre-industrialization, now that would be splendid. But today, forget it. My idea about the Moon was me dreaming, but imagine another planet, like one of the ones Elena found.”

“It’s true, with Olivia’s work, we could create a veritable garden of Eden, without all the religious undertones.”

“I love the Foundation!” said Naomi. “Not only can we dream, but, working together, we can make our dreams reality.”

“I keep pinching myself, even after eight months.”

“All thanks to Izumi and Diana.”

“They are amazing,” I agreed.

Naomi's expression clouded. "How has Izumi seemed lately? You see her often in the gym, right?"

I thought about it. "She's her usual cheerful self, but sometimes when I look at her, I can see there's something going on under the surface. Whatever that mess was with Hiroki, I think it still must be going on."

"I get the same feeling from Diana. We've been keeping the same gym hours, you know I enjoy working out at night, and, superficially, she seems fine, but"

"If only they would talk to us." What could be going on? First those protests, then Amélie, and both Izumi and Diana pretending everything was fine, why? What were they protecting us from? Why wouldn't they tell us anything?

"I've been mulling over it a fair bit," said Naomi, "and I'm positive it has to be corporate espionage. It's the only thing that makes sense."

"Yeah, I guess so. Though it would make more sense if the Foundation were an actual corporation."

"I just wish we could do something to help."

"Me, too."



On Olivia's first Friday on the station as a crew member, I stopped by her lab, which was next to Elena's and two doors down from physics, to check it out. When she saw me, her face broke into a huge smile.

"Hi Little Bear! Let me give you the big tour."

Olivia had been working with the engineering team, designing her equipment, then manufacturing everything using the 3D printers. As Olivia showed me what they had created, I felt a renewed appreciation for the skill and creativity of the materials science 201

team, Tanya and Jordyn. They had designed the ceramics and other materials we had used to build the warp drive prototype, probe, and transport vessel, and now

they were producing novel materials for the growth mediums for Olivia's synthetic organisms.

"Look at all this," she said, sweeping her arm out. "It's better than my wildest dreams.

And I love being here with you," she said, pulling me into a hug. "Like a dream come true," she whispered, pressing her lips to the top of my head.



At the social that night, Olivia and I sat together on one of the couches in the observation deck. I was feeling nostalgic, and for some reason the memory of one of our first official dates popped into my mind.

"Hey, Olivia, do you remember the night we went to that poetry slam at the math department?"

"Oh my god, I completely forgot about that! That one guy was so serious about his poem, the vector guy." Olivia's face broke into a wide grin. "It was impossible to keep a straight face."

"Let me see if I can remember any of it," I said.

"No! That was, what, six years ago? I just remember laughing so hard, I'm surprised I didn't bust my gut."

I thought for a minute, running the monologue through my mind. Olivia didn't know it, but I had found a copy of the poem on the internet. I must have read it twenty times, giddy with the absurdity.

I stood, hooked my foot under the bar on the floor, and, in my most soulful voice, I recited: "*The Existence Axiom, or Ode to a Vector Space.*" Olivia looked up at me, mouth hanging open. I continued. "*Oh, woe is me, a simple set of discontinuous non-differentiable functions and degenerate conic sections, determinant to discover a basis for my fundamental theorem—*

an unbounded solution full of inverse transformations, to be sure."

I took a deep breath. Olivia was staring at me. She finally remembered to close

her mouth.

“I yearn for linear independence, for closure under addition and scalar multiplication, yet I feel the empty set is an element of me. I believe I am a subset, yet what proof have I? If only I could span infinity (with the usual operations, of course!). Dreary is my complex inner product space. A product of invertible matrices, perhaps?”

Olivia was still staring, eyes wide as saucers. I felt an almost uncontrollable giggle bubbling up from deep inside me, but I pushed it back down. Instead, I stared up at the ceiling, feigning dramatic pause, but in reality, searching my memory for the next lines.

How did it go? Yes! Now I remembered the complete poem! *“A companion matrix is one non-trivial solution to my overdetermined linear system. Oh, to be a subspace. Yet I fear I am naught but a zero vector.”* I filled my voice with sadness and despair. *“I have no eigenvalues in this n -dimensional space, no rank. ”*

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I brought my hand to my chest, forming a fist, then opened my palm upward, allowing my voice to carry the tiniest bit of hope. *“Linear combination may be the solution.*

But I dread the vacuousness, the nullity, those smug complex numbers and their conjugates.” I made a disgusted face, then looked again at the ceiling, nodding my head and tilting my chin upward. *“I must be determinant, orthogonal, never less than or equal to zero. Yes, a transformation is in order.”*

I clapped my hands, and Olivia jumped. Making my voice cold and dead, I said, *“And then, in reduced row echelon form, the proper values of the set’s existence emerged: A random iteration algorithm, nothing more. ”* I lowered my head as my shoulders dropped.

By the time I came to the end, Olivia was bent over, holding her stomach, laughing so hard she could barely breathe. “I ... can’t ... believe ... you ... memorized ... it!”

she said, doubled over with laughter.

“What?” I said, giving her my most innocent expression. “It was so special, our first poetry slam.” I put my fists on my hips and glared down at her. “I can’t believe *you* didn’t memorize it! Did our relationship mean *nothing* to you?”

Olivia laughed even harder, tears floating in the space around her face. “Stop! I can’t take it.”

“I even considered writing a poem for you in the same vein, I was going to call it *Ode to Terraformation*. It would have been great.”

Olivia finally caught her breath. “I believe you. Something like: *Oh, how we love our synthetic microalgae, employing photosynthesis if they dare, absorbing light and belching air, and our tiny bacteria bots, busy, busy with their toil, eating rocks and pooping soil.*”

I broke into laughter. “That was so beautiful. A woman of many hidden talents.” I sat back down on the couch.

“That’s me, Olivia the Poetess.”

“I love it that you’re here, Olivia.”

“I almost forgot how crazy you are, and goofy. Good to see you haven’t changed.”

“We had some good times, didn’t we?”

“We did, we really did.”



The next morning, Olivia was just strapping herself onto a treadmill when I came into the gym.

“Perfect timing,” I said. “I’ll join you.”

“Cool!”

I changed my clothes, then went over to the treadmill next to hers and buckled the strap around my waist. “That was fun last night,” I said, turning on the

machine.

“Yeah, it was.”

“So how are you liking the work here? I mean, your lab, the crew, everything.”

“It’s exactly like you described it. It’s great.”

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She increased her speed slightly. I did the same. We were both running now, a slow, easy pace.

“How are your folks?” she asked.

I shrugged. “They’re fine.”

“Still crazy?”

I gave her a wry smile. “Yep.”

Olivia had met my parents when we first started dating. They had made the “long”

trek (a forty-five-minute ride via maglev train, but according to my father, it was almost as far as the Moon) to visit me in Pasadena, the first and only time. There was no hiding the fact that I was a lesbian, but it was their first time seeing me with a girlfriend. They were on their best behavior, but it was a strain for them both. What would Reverend Talbert say? The Bible was very clear about it: wrong, wrong, wrong. We had the apostle Paul to thank for that, among others. But Paul was always a bit of a prude, in my opinion. My parents were opposed to my “lifestyle,” as they called it, in principle, and tried their best to keep smiling, which became more like a grimace after a couple of hours, and were unfailingly polite with Olivia. Thankfully, they only stayed the afternoon, or else I think their faces would have cracked from the strain.

After that, I never mentioned Olivia, not even when we split up, and neither of them ever broached the topic of my personal relationships. In any case, I had never felt comfortable sharing that part of my life with them, or any other part, for that matter.

“How about *your* family?” I asked Olivia. Her family was the polar opposite of mine.

Her parents, two gay men, had adopted Olivia and her twin brother, Diego, when they were infants. They were the model gay family—loving, supportive, and genuinely fun to be with. Diego was hetero, and there was no end of good-natured banter about him being “different.” He loved it, and would play up his woebegone luck, straight as an arrow, nothing he could do about it, a total drama queen. He was his fathers’ son. I adored all of them.

“They’re fine.”

I felt a tiny twinge of jealousy, seeing the trace of a smile on Olivia’s face. I mentally chided myself. We play the cards we’re dealt and make the best of it. We can’t all come from open, supportive homes. And my parents did love me, as best they could, I knew that.

“Still crazy?” I asked, arching my eyebrow.

Olivia laughed. “You know it!”

CHAPTER THIRTY-SIX

There wasn't too much to do in the lab at the moment, just a few calculations to rescale the warp drive, this time large enough to encompass a vessel the size of a module, Diana's suggestion. Since we'd already successfully scaled the drive for Soteria with the helical geometry that resulted in such a mind-boggling decrease in energy requirements, it was only a matter of plugging in numbers and running a few simulations. Hadley had offered to do it, so I spent the week working on my warp drive manual and catching up on my reading.

On Sunday, I decided to go to the Moon for a mini vacation. I was looking forward to some down time. After my morning workout I went to Olivia's quarters.

"Hey," she said when she opened the door. Her hair was tousled, and her face had that sleepy look I used to love when we were a couple. "Come on in."

I followed her to the couch, and we sat facing each other. "I'm going to the Moon for a vacation. Want to come with me?"

"I'd like nothing better than to spend time alone with you," she said, smiling. "But I'm excited to finish getting my lab set up. How about a raincheck?"

"Of course."

She followed me to the door. "You have no idea how tempting your offer is." She bit her lower lip.

"Next time," I said, smiling at her. I could just imagine how happy she must be to have her own lab, to pursue her research interests, unfettered by the usual funding limitations, the pressure to publish or perish, the burden to produce marketable ideas.

I knew from living on Shambhala that the intellectual freedom was exhilarating.

Later, on my way to the shuttle bay, I stopped by Naomi's lab and peeked through the window. I wanted to let her know I would be heading to Arcadia but wasn't sure if she would be in her lab yet, after returning from her weekend on

the Moon with Simon.

Naomi was there, working at her console. She must have come straight from the shuttle to her lab. I opened the door and headed to the mouse condo, opening the hatch. Aster jumped onto my arm. I stood for a moment, stroking her silky fur.

“Hey, Naomi, how was the Moon?”

“It was good.” I caught a flicker of a smile on her face.

“I’m taking the shuttle this afternoon. I’ll be back in a few weeks.”

“Sounds lovely. You deserve a break, after everything that happened with Amélie.”

I nodded. “I’m still freaked out about that.”

“Me, too. But it’s all in the past now. I just hope Diana and Izumi can fix whatever’s going on.”

I gave a little smirk. “The truth is, Naomi, I’m tired of thinking about it, tired of worrying about it. It’s frustrating they won’t tell us anything, but that’s their choice.”

“Yeah, you’re right.” She shrugged. “It’s beyond us. If they want our help, they can 205

ask.”

After gently placing Asteria back in the condo, I started toward the door.

“Hey, Calli, hold on! I almost forgot. I’ve got great news!”

I turned to look at her.

“The Foundation finally found a candidate for another biologist here on Shambhala.”

“I didn’t even know there was a position open.”

“Yeah, they’ve been looking for a while now. Would you like to see her profile?”

“Sure. I have a few minutes.”

She motioned me over to the conference table, which, like the one in the physics and engineering labs, doubled as a computer screen and holographic projector. We sat down, and Naomi palmed the surface. The screen lit up. “Profile of Pavani Nampeyo,”

said Naomi. A holographic image of the head and torso of a woman appeared, hovering above the table, and text appeared on the table’s surface.

I looked into the woman’s eyes—the color and luster of tigers-eye quartz, with pupils as dark as deep space and equally alluring—and a sudden jolt of electricity coursed through my veins. “Her eyes—” I murmured.

“Huh?” Naomi peered closely at the image, squinting slightly. “What about them?”

“Nothing,” I said quickly.

“Look at this!” Naomi said, pointing at Pavani’s curriculum vitae. “Graduated with honors from Cambridge, then she did her PhD at the Massachusetts Institute of Technology. Her specialty is genetic resurrection.”

I could feel her eyes on me, but was having a difficult time pulling my gaze away from Pavani’s image.

“In case you don’t know what that is,” she continued, “it’s a process of reviving a species using their DNA. It’s been used extensively to repopulate wilderness areas where species have gone extinct. And look at all her publications! She will be a wonderful addition to the biology power lunches. I can’t wait to share the news with Raven, though she probably already knows.”

I heard Naomi speaking, but I barely processed her words. Something about Pavani drew me in. She was beautiful, to be sure, with her copper-colored skin, silky black hair, high cheekbones, sultry lips, but it was her eyes that held me captive. I could see the Universe in those eyes.

“Hey, Calli, are you listening?”

“Sorry, I guess I’m a little distracted.” I tore my eyes away from the image.

Naomi studied my face. “It’s good you’re taking a break from work. You truly deserve it.”

“Yeah, you’re right. I need to run. Don’t want to miss the shuttle.”

She gave me a quick hug. “Okay, see you when you get back.”

My head was filled with Pavani’s face as I hurried to the shuttle bay. What was it about her I found so riveting? Clearly Naomi hadn’t shared my reaction. I shook my head. Weird.

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It was nice to be back on the Moon, once I recovered from my space legs. As before, I divided my time among Delphi Park, working on the farm, and sitting with the chickens. At mealtimes I enjoyed catching up with my Arcadia friends, here in my second home. Berit invited me to go with them to the women’s bar my first Friday, but I told her I wasn’t interested. I still felt sick inside about Amélie, and didn’t want the reminder of being in the bar where we had met.

During my second week at Arcadia, on Thursday morning, Berit found me sitting on my usual bench in Delphi Park.

“Hi, Calli.” She sat down next to me.

“Hi, Berit, what’s up?”

“The prospective new biologist for Shambhala is coming today.”

My stomach contracted. “You mean Pavani?”

“Yeah. She’ll stay the night here, then go to the station tomorrow, like you did when you first arrived, remember?”

“Uh-huh.” I felt weak, thinking about her image.

“Would you mind meeting her at the terminal? Yasmin is supposed to go, but she told me earlier this morning she has the feeling another hive is on the verge of

swarming, and she doesn't want to miss it. I said I would be happy to go in her place, but since you aren't working—"

"Sure," I said. "It would be my pleasure."



When I spotted Pavani in the rendezvous area of the Central Lunar Terminal, my heart skipped a beat. What was it with my visceral reaction to this woman? I didn't even know her. She stood, scanning the crowd, a solitary island in the crush of people. As I approached, she looked directly at me, a flicker of recognition in her eyes, then it was gone.

"You must be Pavani." I held out my hand. "I'm Calli."

She took my hand in hers, her grip firm and sure. "A pleasure to meet you, Calli."

"Let me help you with your bag." I bent down to pick up her backpack off the floor.

"Thanks. I don't know what I packed in there, but it feels like it's full of lead."

I laughed. "It's a consequence of the Moon's gravitational field, even one-sixth G

takes getting used to after three days on the Terra-Luna Express."

"I think you're right. I barely remember how to walk."

Shouldering her backpack, I smiled at her. "Here," I said, offering her my arm, "lean on me if you need to."

She took my arm, and my bare skin tingled with her touch. "Thanks."

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I felt inexplicably happy. "Is this your first time on the Moon?"

"Yes, my first time in space."

As we walked to the metro station, I studied her profile—her expression was impassive, unreadable.

When we boarded the train, Pavani released my arm, and the absence of her hand on my skin was like the loss of a limb. I shrugged off her pack, setting it on the floor. The metro doors *whooshed* closed and we both reached for the vertical bar next to the door at the same time. Our fingers touched, and I felt a jolt. I moved my hand down.

“So, Calli,” Pavani began, her voice surprisingly melodious, her accent intriguing,

“how long have you been working for the Foundation?”

“I guess it’s been about nine months now.”

“How do you like it?”

“I love it.”

“Why?” Pavani asked.

I looked into her eyes, deep pools of tranquility. Why what? I had completely lost the thread of the conversation.

“Why do you love it?” she repeated.

“Oh, yeah. Where to start? I never imagined an organization like this one existed.

The premise of the Foundation is, how do I describe it?” I looked at the door, at our reflections in the dark glass. Our eyes met, and I averted my gaze, feeling her eyes on my reflection like a physical touch. I peeked again at her profile. “It’s love.” I shrugged.

“We don’t just work for the Foundation, it’s way deeper than that. We are a *part* of the Foundation, like a collective hive, but not in a simplistic sense, we aren’t drones. We all have the opportunity to be the best we can be, and the culture is one of unconditional support and compassion. We’re all individuals, and we’re pursuing very different fields, but we are bound together, there’s a common

thread of community and connection. I don't know how better to describe it."

"I understand what you mean."

I looked in her eyes, those serene, bewitching eyes. Yes, I could see it. She understood.

When we arrived at the Arcadia metro stop, I carried Pavani's bag as we walked through the airlock and into Delphi Park, where Yasmin was waiting for us.

"You made it!" she said and gave me a quick hug. "Thanks, Calli."

"Happy to help. And the bees?"

"Safe and sound in their new hive," she said, smiling, then turned to Pavani. "Hi, Pavani, I'm Yasmin." She reached out to take Pavani's hand. "Welcome."

"Thank you," said Pavani.

"Let me show you around." She took Pavani's arm in hers.

I looked down at the backpack in my hand.

"Oh, Calli," she turned to me. "Berit is waiting for you in the chicken coop. She didn't want to start the stockyard feeding without you."

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Feeling a twinge of disappointment in my gut, I realized I had been looking forward to seeing Pavani's first reactions to the lunar facility.

"And do you mind putting Pavani's bag in her room? It's right next to yours."

"Oh, okay," I said, trying to mask my now full-blown disappointment.

"See you at dinner, then?" asked Yasmin.

"Okay." I looked at Pavani. "It was nice to meet you, Pavani."

"Same here," said Pavani, fixing her eyes on mine.

I smiled, my momentary disappointment forgotten. As I walked toward the door to the corridor, I heard Yasmin talking about the fountain and the wall of foliage. I would see Pavani later. But that night, she didn't join us for dinner. When I asked Yasmin, she told me Pavani had felt tired after the three-day journey from the Earth, and a little overwhelmed at being back in a gravitational field. "It's her first time in space," Yasmin said.

"Yeah, I know."

CHAPTER THIRTY-SEVEN

I didn't see Pavani the next morning, not in the gym where I did my regular Moon workout, and not at lunch, either. I made my rounds, saying goodbye to my friends, and giving each of the chickens a cuddle, a time-consuming process since there were thirty of them!

At two-fifteen I was sitting in the park on one of the benches, waiting for the metro train. A few minutes later Pavani arrived, carrying her backpack. When I saw her, my face broke into a huge grin, I couldn't help myself. I jumped up and hurried over to her, reaching for her bag. "Let me help with that," I said.

"Thanks." She handed it to me.

"Still full of lead?"

Her lips twitched almost imperceptibly. "No, today it's full of titanium."

"Ah, that's an improvement. But soon you'll be back in micro-g, where you'll only have to deal with the mass, not the weight."

"Yeah, that was rather unexpected," Pavani said as she followed me into the airlock, the door shutting behind us. I palmed the security pad to the outer door, and when it opened, we stepped onto the metro platform. "I had the naive notion that in zero-G, everything, my body included, would be light as a feather and easy to manipulate."

The metro train arrived, and we got on. Pavani took hold of the vertical bar next to the door, and I put my hand on the bar well below hers. "Momentum and weight are different beasts," I said.

"I know, I know. I took physics at university, but I suppose I never thought about it before my trip to the Moon."

"Just as difficult to stop a massive object in motion in micro-g as it is on the Earth."

"Yeah." Pavani rubbed the top of her head lightly with her free hand. "I had a

few mishaps on the Terra-Luna Express, but luckily I learned fast.”

We arrived at the Sector One station and made our way to the shuttle transport platform where we donned our spacesuits.

“No need to put on your helmet until we’re strapped into our seats,” I told Pavani as we boarded the shuttle. I poked my head in the cockpit to say hi to Sook and introduced her to Pavani. Then I offered Pavani the window seat, remembering when Diana had done the same for me. Pavani tried to put on her helmet, but she fumbled with the latch, her hands clumsy in her gloves.

“Let me help.” I fastened the clasps, then put on my own helmet. “Can you hear me?” I asked once my helmet was in place.

“Yes.”

She was looking out the window, gripping her armrests tightly. I wanted to say something, to reassure her, but my mind was a blank. The engines roared to life and we took off. I was clenching my armrests, too, jaw clamped tightly. Then we were in space, 210

and I relaxed. I stole a glance at Pavani—her body seemed less tense. She was staring out the window. I could hear her breathing through my headset, slow and steady. I sat quietly, my mind turning to thoughts of the station. I was on my way home.

In the doc module airlock I helped Pavani remove her spacesuit. I had gotten better with practice, still not as adept as Diana, but I easily negotiated the closures on Pavani’s suit, despite my gloves. Then Pavani helped me with mine, and we entered the station, where Raven and Naomi were waiting to greet us.

“You’re back!” cried Naomi, her usual, exuberant self. She gave me a quick hug, then turned her attention to Pavani. “Pavani, so glad you’re here.” She reached out and gave Pavani a hug, too. Pavani looked surprised, but she hugged Naomi back. Or maybe she was simply trying to keep herself stabilized in micro-g.

When Naomi released her, Raven offered Pavani her hand. “I’m Raven.”

“We’ll let you get settled, then you’ll join us for the staff meeting,” said Naomi. “We’ll give you the grand tour tomorrow.”

Pavani reached for her pack, which was floating next to us.

“Allow me,” I said, grabbing the bag with one hand.

“Okay, thanks,” said Pavani, her expression tantalizingly close to a smile.

I led the way, and Raven and Naomi talked excitedly about the station, pointing out the padded corridors (“color-coded,” explained Naomi), the astonishing mosaic in the hub (“thanks to our astronomer, Elena,” said Raven), and how thrilled they both were to have another biologist visiting Shambhala. Listening to their chatter, I felt the love flowing through my veins, love for Naomi and Raven, and love for Shambhala, my home. Pavani was mostly silent, listening, and—I imagined, though I didn’t look—

focusing on keeping her body oriented as we propelled ourselves through the corridors.

We arrived at the dorm module, and I glanced back, meeting Naomi’s eyes. I raised an eyebrow. “Which cabin?”

“Sixteen-alpha,” said Naomi. “Two doors down from yours.”

Reaching out to grab the corridor railing to slow my forward momentum, I stopped in front of the cabin door. I opened it, put Pavani’s bag in the cubby next to the door, then stepped back out into the hallway.

“I guess I should get to my lab,” I said as Naomi, then Raven, filed into Pavani’s quarters.

Pavani turned to me. “Thank you, Calli.” There it was again, that flicker of recognition I had observed the day before in the rendezvous area. Or was I imagining things?

“It was my pleasure, Pavani. I hope you like it here.”

“Pavani!” called Naomi, “Come see your room.”

I reached out to touch Pavani’s arm, but she was already turning away, pulling herself through the doorway.

Pushing my way to my quarters, I stowed my backpack in the cubby, then laid down on my bed, strap across my waist. We had about a quarter of an hour until the staff 211

meeting. I stared at the ceiling, mind blank, allowing my body to relax, enjoying the floating sensation of micro-g. I felt strange, almost hypnotized.

I must have fallen asleep, because all of a sudden Annie's voice was in my head.

"Callisto, I see you are in your quarters. Are you planning on going to the staff meeting?"

Sitting up quickly, I looked at my wrist computer. It was four p.m.! "Thanks Annie, I must have dozed off."

"Yes, according to your biosignal readings, you were asleep. I hope I didn't overstep, waking you, but I thought you might not want to miss the meeting."

"You did good, Annie. Thanks for looking out for me." I touched behind my ear, breaking our connection. I got up and studied my reflection in my bathroom mirror.

My hair was, as always, a mess, and being in micro-g didn't help. At least I had cut it recently, so it wasn't too out of control. I scrubbed my face with a towel, then hurried through the corridors to the observation deck at breakneck speed. Entering quietly, I found a seat at the back, next to Jordyn, who smiled at me.

Kamana was giving a talk about her new generation of bots, but it was difficult to concentrate. Pavani was there, two rows in front of me, sitting between Raven and Naomi. She was still as a statue, focused on Kamana, her long, silky hair wrapped in a bun at the back of her head. I could see her exposed neck, and a few slips of floating hair. It was a lovely neck.

What was wrong with me? I was so distracted. The meeting went on as usual, but it was as if I weren't there. I was deep in a daydream, imagining myself swimming in a crystal-clear lake, the sunlight playing on the water's surface, its warmth on my back.

Before I knew it, women were filing out of the room. Olivia was talking animatedly to Pavani, and Naomi was beside them, nodding. Then everyone was

gone, and I was alone. Shaking my head, I headed to my lab to try to do a little work before dinner.

Hadley had sent me her edits on our warp drive paper, and from the first line, I was completely immersed in the story. I had played an integral part, and had, in fact, written most of the theoretical copy, but Hadley had woven my work into her narrative, creating a masterpiece. It might not appeal to every audience, but for a physicist like myself, it was a work of art. She had a great sense of timing and drama, and the paper read like a mystery novel. I found myself literally on the edge of my chair, wondering what would happen—would the enigma of the collapsing warp bubble be solved?—even though I knew the happy ending. When I finished, I wrote a comment at the bottom of the paper for Hadley, praising her creativity.

Then I looked at the time—it was almost eight p.m.! I had missed dinner, as my stomach was quick to remind me. “Why didn’t you say something earlier?” I said aloud, glaring at my midsection. “You’ll have to be satisfied with energy bars, then.” I laughed at myself. Was I going crazy? Talking to my stomach, losing track of time, daydreaming in the meeting—though, of course, *that* was nothing new. What was going on with me?

I pushed my way over to the energy bar dispenser, and took a couple of bars over to 212

the couch, where I sat, chewing mechanically. Then, after popping a few water blobs, I went to my quarters to brush my teeth and change clothes. By the time I arrived at the social, everyone else was already there, talking in small groups or playing games. I saw that Pavani was surrounded by women. Hesitating, I was considering whether or not to try to insinuate myself into her group when Mei Xing called my name.

“Calli, come!” She gestured to the empty chair at the table where she, Gamon, and Olivia were sitting. “We lost our fourth,” she said as I propelled myself toward the table.

“Our little card game isn’t as exciting as the new girl on the block.” She jutted her chin toward the group surrounding Pavani. “Raven abandoned us mid-game.” She laughed good naturedly.

I settled into the free chair and glanced over at Pavani. She was talking intently

with the other women. I wondered what they were discussing. But soon I was distracted by our game, and the continuous banter between Gamon and Mei Xing. Olivia and I made a good team, and we laughed and shared inside jokes from the old days. It felt good, like a favorite shirt—a little worn but so comfortable.

Later, as the social wound down, I looked up to see Pavani with Naomi and Raven, making their way toward the door. I tracked their movement with my eyes, then Olivia was waving her hand in front of my face.

“Shambhala to Calli,” she said.

I stared at her.

“Your turn, and I’m hoping you’ll play the correct card, because we’re about to win the game!”

“Don’t count on it,” said Mei Xing, tapping the cards in her hand against the top of the table.

Suddenly I couldn’t remember what game we were playing. I picked a card at random and put it carefully on the upturned pile floating in front of us.

“Aw, that’s not the card I wanted to see!” Olivia said, face crumpling in feigned disappointment.

Mei Xing laughed. “Works for me.” She put her cards in front of her, face up, and Gamon gave her a high five.

I looked again toward the door. They were gone.



In the gym the next morning I found Izumi running on the treadmill, and quickly changed clothes to join her. I took one look at her expression and my heart accelerated—she was gazing straight ahead, face creased with worry lines, lips pressed together tightly, and her hands were clenched in tight fists. Something was wrong, very, very wrong.

“Izumi,” I said softly, “What’s the matter?”

Izumi shook her head. “We’re having some trouble with the Foundation.”

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I felt my stomach drop. “Is it the corporate espionage?” I ventured.

“Something like that.”

“What can I do?” I reached out and touched her arm. “How can I help? Do you want to talk about it?”

“Soon, I promise, but not yet.” Izumi’s expression was now neutral, unreadable.

“There’s nothing I wouldn’t do for you, for you and Diana, and for the Foundation.”

My pulse thundered in my ears. “You are my family.”

“I appreciate that.” She looked down. “Sometimes it’s better to choose your family,”

she said, almost in a whisper. Then she turned to me. “Diana and I love you, all of you.”

“I know.”

“When the time is right, I’ll tell you everything. But for now, I’d like your opinion of the prospective new biologist.”

I knew she wanted to change the subject, but when Izumi mentioned Pavani, I felt my face grow hot. “She’s great.” I fiddled with the controls of the treadmill’s console.

“Yes, she’s at the top of her field, and a charming woman. Diana and I had dinner with her last night.”

“Uh-huh.” I increased the rate on my treadmill, though I was already running at my preferred speed. I needed to burn off my sudden burst of energy.

“Raven and Naomi are smitten,” Izumi continued, and smiled. It was a relief to see her more relaxed. “By the way, I read the draft of your paper. Yours and

Hadley's.

Outstanding work!"

We spent the rest of our workout talking about my warp drive manual, our paper, and Hadley's incredible talent as a writer. Izumi didn't mention her concerns about the Foundation again, and I didn't want to pry. But still, I was uneasy.

At breakfast I found Naomi sitting alone. I went over to her with my bowl of food, pancakes and raisin bread. "Where's Pavani?" I asked, settling into the chair.

"Oh, she's visiting Raven's lab." Naomi looked at me, and her eyes grew wide.

"What's wrong? What's going on?"

"What do you mean?"

"Come on, Calli, your face is the easiest for me to read, you already know that."

I leaned closer toward Naomi. "Whatever the trouble with the Foundation is, it's still going on. I think Izumi is really scared this time."

"Oh, no, what happened?"

I told her about my conversation with Izumi earlier.

"You're right. Whatever it is, it hasn't gone away."

"I don't know. Naomi, I'm really concerned."

"Me too. I feel like we're the children, and our parents are getting divorced and they don't know how to tell us."

"But they're fine, aren't they? Diana and Izumi?"

"Oh, I didn't mean to imply they're having marital problems," said Naomi. "I think they're trying to protect us."

“Izumi assured me she would tell us everything, just not now.”

“I suppose we have to be patient and trust them.”

“I would trust them with my life,” I said, surprising myself with my vehemence, my absolute and unquestioning loyalty to these two women.

“I’ve got to go. I’m meeting with Pavani in my lab in a bit, then we’re getting together with the engineering team to talk about the possibilities of fabricating equipment for her specialty. Long day.” She stood up and gave me a wan smile. “I’m worried about the Foundation.”

I reached out and took her hand. “Me too.”

She gave my hand a squeeze, then released it, and propelled her way to the door. I sat, staring at my food bowl, deep in thought.

I didn’t see Pavani at all that day, and early the next afternoon, Sunday, she took the shuttle back to the Moon.



At around two p.m. that Sunday afternoon, I stopped by Naomi’s lab and sat on the couch, with Aster cuddled on my chest.

“How did it go with Pavani?” I asked.

“I’m quite fond of her, and I’m thrilled at the prospect of having another biologist here. I could talk to her for hours.”

“Do you think she’ll accept the position?”

“I’m fairly certain she will. She was very impressed with Shambhala.”

“So, do you know anything about her, like,” I shrugged my shoulders, “I don’t know, where she’s from, if she has a partner, anything like that?”

Naomi narrowed her eyes at me. “No, we didn’t talk about personal things. Just science stuff.”

“I hope she comes back,” I said, almost to myself. I looked down at Aster, who

was gazing at me.

“Oh my goodness, you like her!” Naomi’s face broke into a smile.

“I don’t even know her” My voice trailed off. I stroked Aster’s head.

“Hmm.” Naomi studied my face. “How’s it going with you and Olivia? I saw you two at the social on Friday, playing cards with Gamon and Mei Xing. Seemed to me you were both enjoying it.”

“It’s going good. It’s great to have her here.”

“Do you ever think about getting back together with her?”

“What? No, we were a couple like, a million years ago. We’ve both changed so much.”

“Precisely.”

“Naw, we’re just friends.”

“Uh-huh.”

CHAPTER THIRTY-EIGHT

Naomi was making great progress in her parthenogenesis work, and was scheduled to present her findings at the next staff meeting. I was so proud of her. She was happier than I'd ever seen her. Not only was her research going spectacularly well, her relationship with Simon was also blossoming. She was spending nearly every weekend on the Moon.

On the day of Naomi's talk, we all gathered on the observation deck as usual. Diana called the meeting to order, then Naomi stood up. We all looked at her expectantly.

"As you all know, I've been working on a novel mechanism for parthenogenesis."

She caught my eye. I smiled at her and nodded. "Many of you are already familiar with the history," she glanced at Raven, who acknowledged the remark with an upward tilt of her head, "but at the risk of repetition, let me provide a brief synopsis. In 2004, the first scientifically verified mammal conceived by two female parents was born, a tiny mouse named Kaguya. Since then, the technology has improved dramatically. By turning on the genes in the ovum which, in nature, are the purview of the donated sperm, we have been able to successfully circumnavigate sexual reproduction.

"My work has gone a step beyond—I've modeled my mechanism after the whiptail lizards, where the oocyte, or egg, has two sets of chromosomes, which are recombined in much the same way as with sexual reproduction. So far my work has been focused on introducing multiple sets of chromosomes into a female mammal, five or six sets, and so when the female is stimulated to reproduce, the genetic pool is vastly more diverse. The impetus for this is because higher-order species are more complex and therefore require a more robust and diverse genetic pool to avoid debilitating or fatal mutations. I'm happy to announce I've perfected my mechanism, which I call EVE, for all higher-order mammals."

Everyone started clapping.

Naomi held up a hand. “Alright now, so far the technique works perfectly in my computer simulations, but live subjects need to be tested in the future.”

“I volunteer Hadley,” said Andrea, grabbing Hadley’s hand and holding it up.

Hadley jerked her hand free. “No thanks!” Hadley said, mock glaring at Andrea. “I’m not interested in carrying a baby in my body for nine months.” She shuddered.

“Aw, come on, sweetie, don’t you want a darling little baby Hadley bouncing around the station?”

Hadley rolled her eyes. “As tempting as that sounds, I think I’ll pass.”

Everyone turned back to Naomi, who smiled indulgently at the two women. She continued, explaining the mechanism in detail. I allowed my mind to wander, since Naomi had already shared the details of her discovery with me during her practice talks the week before, with me and the mice as her audience. She had a way of explaining that made her theory accessible. I had always considered mathematics to be the purest

expression of elegance and harmony, but after listening to Naomi, seeing the joy and wonderment on her face, I was reminded that the creation of life was an incredible embodiment of the magnificence of the Universe. I looked around the room, filled with my colleagues, my sisters, and warmth flowed through my body. Here, too, in this room, was a manifestation of something truly beautiful. I smiled to myself, happy, as always, to be a part of it all.

Hearing a few women gasp in dismay, I snapped back to the present. What had Naomi just said? I had only been half listening, but I replayed her voice in my head: *I’ll have to leave the station to continue my work.* What? Naomi was *leaving*? I stared at her.

“Because, obviously, giving birth and microgravity most definitely don’t mix,” she said.

“Aw, Naomi, I can’t believe you’re leaving us!” said Tanya.

“I’ll just be a shuttle ride away, at Arcadia, where I plan on conducting the next phase of my research. Anyway, I won’t be leaving for another month or so. I’m

yet to carry out a couple simulations and write up my findings.”

I blinked rapidly, my mind grappling with the information. Naomi had also explained to me that giving birth in micro-g wasn’t possible, but I hadn’t put the pieces together.

The next phase was to test her model on living creatures, and she couldn’t do that on the orbital lab. My heart sank. How had I missed something so obvious?

“You don’t seem too sad to leave us,” said Raven, crossing her arms, looking at Naomi with mock severity, then broke into a smile. “I think I know why.”

Naomi’s face took on a dreamy expression. “There is the fringe benefit of being closer to Sector One, it’s true.”

I looked at Naomi. She was like a flower in bloom, positively glowing. I sighed. It would only be a few months, but I would miss her.



On Monday, I joined Naomi, Raven, and Olivia for the biology power lunch.

“Good news!” said Naomi as I settled into my chair.

“Oh?”

“Pavani accepted the position!” said Raven.

A shiver ran down my spine, and my hands felt clammy. “Oh, that’s great,” I managed.

Olivia narrowed her eyes at me. “You okay?”

“Just bit my tongue,” I lied. I took a deep breath and popped a water blob in my mouth. So strange. What was wrong with my body? “When will she come back?” I asked, examining my bowl of food balls: Moroccan couscous, made with taro flour, and veggies.

“In a month,” said Raven.

“I’m sorry I’ll be leaving,” said Naomi.

“I still can’t believe you’re abandoning us!” I said, jutting out my lower lip and crossing my arms. “I don’t know why it never occurred to me you would have to go.”

She laughed. “Calli, you’re one of the smartest people I’ve ever come across, but often, no, *most* of the time, you have a way of missing the bigger picture.”

“Oh, that’s an understatement!” said Olivia, rolling her eyes. “The things that just breeze right by her.”

I smiled. “I know, it’s true. But that’s why I have all of you, to point out everything I miss.”

“A full-time job!” said Naomi, winking at Olivia, who responded with a smug nod.

“Very funny.” My smile faded. I knew, intellectually, that Naomi would be leaving, but emotionally, I hadn’t come to terms with the reality. I looked at her. “I’m going to miss you like crazy.”

“Me too,” said Olivia and Raven in unison.

“Aw, come on women. There’s this really innovative method of communication, perhaps you’ve heard of it? It’s called holochat. It’s only been around for, what? Seventy years? And besides, it’s only temporary, until Phase Two of my research ends. Imagine, in just a few months, if all goes well, we’ll have a litter of baby mice on the station, this time with more genetic variation.”

Despite myself, I laughed. The image was too cute. “I can’t wait.”

“Oh, that reminds me,” continued Naomi, “I’ll be taking a couple of mice to the Moon with me this weekend, to get them acclimatized to the lunar gravity.”

I glared at her, frowning.

“Don’t ya worry,” she said, patting my arm, “Asteria is not included in Phase Two.”

She stays on the station.”

“That’s a relief. You, I can stand to lose, but Aster, well—”

Naomi punched me in the arm. “Is that so?”

I nodded gravely, then started laughing, and Naomi laughed, too. I knew she, like me, was thinking about that conversation in her lab so long ago, when I’d first arrived, about using the mice as guinea pigs.

CHAPTER THIRTY-NINE

The next couple of weeks went by quickly. Hadley had given the updated specifications for the large-scale warp drive to the engineering team, and the plan was to equip the dock module with the drive and do a test run. Though, for me, it made more sense to send a smaller vessel first, such as a shuttle. Diana had asked them to go ahead and fabricate drives for each module of the station. I was shocked she had made such an extravagant request, especially before testing the larger drive. But maybe she, like us, was just excited about being able to scale the bubble, and with our almost unlimited resources, why not? Hadley and I were both confident that, if we ever chose to, we could transport Shambhala piecewise anywhere in the Universe. It would be a fun experiment, to take the entire station to the other side of the Universe and back.

Marta and her crew, more than happy to comply, had already completed the fabrication using the 3D printers, and bots were in the process of fitting the drives. The test was scheduled for Tuesday, November nineteenth, which would give the bots plenty of time to complete the job.



On the morning of the test, Diana met the engineering team, Hadley, and me in the engineering lab, and Marta initiated the process via her computer console. The first step was disconnecting the hub corridor from the dock module, after sealing off the module and corridor (and triple-checking with Annie to make sure no crew member was in the corridor or the module). We couldn't see what was happening from engineering, but we felt a slight tremor when the corridor and module decoupled. Then, she typed in the commands which would send the module to a location about five hundred kilometers from the Moon.

It wasn't the first time I marveled at how amazing it was to have not one, but *six* space-faring vessels, each with its own propulsion system. Yes, Diana definitely liked to think big. Feeling a wave of fondness for this beautiful woman wash over me, I glanced over at her as we waited for the module to reach its launch position. I was shocked to see her expression—brows knitted together, jaw tightly clenched, the color draining from her face—as if the results of this experiment were of life-and-death importance.

Seeing her this way felt out of character, she was always so calm and self-possessed. But then again, it made sense she would be nervous. The module was huge, and the scale of what we were doing was incredible. I, for one, was feeling a little shaky.

“The module is in position,” said Marta, looking at Diana.

Diana’s expression quickly changed. Now this was the Diana we all knew, poised and self-assured, our fearless leader. “Go ahead, Marta.”

Marta entered a few more commands into her console. “It’s done,” she said.

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We had programmed the drive to transport the module to the Alpha Centauri system, a mere 4.37 light-years away. A very conservative distance, to be sure, but Diana’s reasoning was if something happened and the module was unable to return, we would have an outpost that could serve humanity in the future. With conventional propulsion, a ship could theoretically reach the system in about a hundred years. The team had programmed the module to shut down after one week, to conserve energy and be ready for the arrival of any future generations. If it returned as planned, we would simply cancel the shutdown and reconnect the module. Now all we could do was wait. If all went well, the module would return in three hours.

“Marvelous work, everyone,” said Diana. “No matter what the outcome of this experiment is, I’m so proud of all of you, and it is such an honor to be surrounded by so many brilliant minds and exceptional human beings.”

“It’s all thanks to you, Diana,” said Andrea. We all nodded in agreement.

Diana gave us a luminous smile. “We have three hours. I’ll be in my office, but let’s meet here again for the return.” She headed out the door.

I followed Diana into the hallway. “Diana, wait,” I called as the door shut behind us.

She turned to face me. “Are you okay?”

“Thank you, Callisto, for your concern,” she said with a heavy sigh. “I have a lot

on my mind lately.”

“Anything you want to talk about?” Must be the problems with the Foundation.

What in the Universe could be going on?

“Perhaps another time.” She brightened. “Right now, I’d rather think about this experiment with the module.”

I studied her face. Both she and Izumi had a habit of changing the subject when it didn’t suit them. When were they going to trust *us* the way we trusted them?

“Where are you heading, Calli?”

“I think I’ll spend the time in the park.” I gestured toward the entrance to the ops park across the hallway. “Care to join me?”

“No, thank you. I have some work to do in my office.”

“Okay. See you in a couple of hours.”

I spent the time sitting in the park. There was so much to think about: the warp drive, the mysterious problems with the Foundation, Naomi’s imminent absence, Pavani’s enchanting eyes, but I couldn’t concentrate on any of it. Instead, I sat quietly, observing as my thoughts flit from topic to topic, like bees going from flower to flower, but for some reason my mind didn’t attach itself to any one idea. I was aware of my body, my steady breathing, my heartbeat. I had never felt so present or so calm.

Several hours later I made my way back to the engineering lab, light-hearted and relaxed. Maybe this was what Tanya was talking about, with her meditation. Perhaps I would join them one Sunday after all.

When I entered the lab, everyone else was there waiting. I stole a peek at Diana. She seemed eager and relaxed. Maybe she had spent her time meditating as well. At the 220

three-hour mark, we were all staring at the main computer display, waiting for the data feed to show that the dock module was once again in our local space.

And then there it was! Long-range sensors indicated that the module had returned, appearing as if by magic. Tears stung my eyes as first Hadley, then Andrea, and even Marta gave me a hug. This was huge! We would need to confirm that the module had made the journey without any damage—that would be the focus of the engineering team for the next several days—but the fact the module had made it back was a major triumph.

“This calls for a celebration!” said Diana. “We’ll break out the champagne balls at the next social. I’m so thrilled!” And she looked it, too. Any trace of apprehension had disappeared from her face. “If you will all excuse me, I want to tell Izumi the big news!”

I watched as she hurried out the door. Everything was fine, everything was going perfectly. As for any issues, I was sure Diana and Izumi could handle them, and if not, I knew the entire crew of Shambhala would support them in any way possible, ready to help in whatever way we could.

CHAPTER FORTY

On the following Sunday, Pavani was back. I didn't get a chance to talk to her those first few days. She and Elena had struck up an immediate friendship, and, with Raven and Naomi eager to talk shop, it was impossible to find Pavani alone. Every time I saw her in the dining room, she was always sitting with other women, and though I felt perfectly comfortable with my crewmates, for some reason I was hesitant to interrupt, to insert myself in the conversations, even though I would be welcome. Not that it mattered. She was just an interesting person, and it was nice to have someone new on the station.



"So, what's up? Are you expecting somebody?" Naomi asked me during breakfast on Friday.

"Huh?"

"You keep glancing at the door every time someone comes in." She leveled her eyes at me.

"Oh, do I?" I couldn't explain it, but I had been waiting for Pavani. Lately, whenever I heard a door open, it felt like my heart stopped for a moment, and I would look to see who it was. I adored everyone on the station, and was happy to see any of my crewmates, but when I saw Pavani, I could relax.

"You seem absent-minded, or more so than usual, I should say." She cocked her head, squinting. "I know you, Calli, You've got something on your mind."

I picked up a ball of food, examining it carefully. How did they manage to make this innocent little blob taste like cinnamon toast?

"Well, when you work it out, let me know."

With a little half shrug, I popped the ball of food in my mouth.

I spent the day in my lab, reading physics articles and not being particularly productive. At the staff meeting I sat next to Olivia, but was totally distracted.

When the meeting ended, I went back to my quarters. I didn't feel like eating dinner, so I lay on my bed, staring at the ceiling, until it was time for the social.

When I pushed my way through the observation deck door, I couldn't believe my good fortune: Pavani was alone in the room, sitting next to the window. I went over to her. "Mind if I join you?"

"It would be my pleasure."

I settled into the chair beside hers and looked out the window. "Beautiful, isn't it?"

I glanced over at her, studying her profile.

"When I was young, I always dreamed about going into space, and on clear nights I would stare out my bedroom window at the Moon and the stars, wondering if I would

ever get the chance."

I nodded, though I didn't think she noticed. She was there beside me, but I could tell her thoughts were not on Shambhala.

We sat quietly for several minutes, then I asked, "So why biology?"

"I suppose it's in my blood." She gave me a crooked half smile.

I raised an eyebrow.

"Nature is a huge component of my culture, the Hopi."

"Ah, so you're from the Hopi Nation?"

"That's correct." That explained the accent. She smiled, a real smile this time. I felt a rush of adrenalin. From what I had observed so far, she seemed stoic, her usual expression neutral. But this smile, wow, her face was like a supernova, a burst of light.

"What is it about your blood, then?" I asked, suppressing the urge to reach out and touch her hand resting on the table. We barely knew each other, but that

wasn't the reason. The Foundation fostered a culture of warmth and connection, and no one, in my experience, held back any physical displays of amicable affection. After almost a year, I, too, tended to be very demonstrative, touching an arm or holding someone's hand during a conversation, giving hugs. But with Pavani, it felt different, imbued with a deeper meaning. We hadn't had any physical contact since the inadvertent brush of our hands on the metro train on the Moon, and my upper arm still felt tingly where she had held it that first day, when she was recovering from her space legs.

Pavani's eyes had a faraway look. I had a sudden vision of her standing on the top of a mesa, looking out toward the horizon, the wind blowing her hair from her face. "Our elders teach us we are intertwined with nature and its cycles, we are a part of the natural environment, and our destinies are linked together in a great web of life. We Hopi cannot put the needs and desires of human beings above nature, it is a foreign idea to us. We see humanity as an integral part of a living whole, and we are taught everything—

rocks, plants, the rabbit, coyote, human beings, the wind—all have a spirit, which is part of a unifying life force flowing in and through all things. Everything in the Universe is bound together by this profound, unfathomable energy."

I was reminded of my conversation with Elena—Pavani's words echoed hers.

Perhaps that explained why they sat together so often, why they had formed such a strong bond so quickly. My body shifted closer to Pavani, apparently of its own volition.

"We cannot understand the ideology that humans are separate from nature, from the environment, from the Earth. Many cultures view nature as an obstacle to overcome or a source of resources to be exploited for the benefit of humans. They see it as something to be dominated. This is also a foreign concept for us."

I sat silently, fascinated, willing her to continue.

"To be Hopi is to respect and live in harmony with the natural world, and to give thanks. It is our moral obligation to care for nature. To be Hopi is to stand in awe with the Universe."

"Wow," I whispered.

“Some people might consider our beliefs to be antiquated or even silly, but even though I’m a trained scientist, I cherish and honor that part of my heritage.”

“I understand.”

“Yes, I know.” She looked me straight in the eyes, and I caught my breath. “Naomi has told me how you are with the mice, your connection. You might have a bit of Hopi in your blood.”

I burst out laughing. “I don’t think so, have you seen this hair?” I put my hand on my head.

Pavani laughed. If her smile was radiant like a star, her laugh was like the sound of crystal-clear water flowing in a pristine brook. I felt my insides melt. I looked down at my hands, breaking eye contact, and shrugged. “I love animals, always have.” Glancing up, I peeked at her through my lowered lashes. I had the impression she could see through me, to my true self, and I felt exposed. Her expression was calm and relaxed, and she continued to look at me steadily. I raised my head and looked into her eyes—

so dark and mysteriously alluring. I felt like I was falling through the Universe itself. It was a bit unnerving, but at the same time exhilarating, and I didn’t want the sensation to end.

“So, to answer your question.”

I cocked my head. My question? I wasn’t sure what she was talking about. I had been standing with her on the mesa, the wind on my face, sharing in the awe.

“Why I chose biology.”

“Oh.”

“It’s the collective pain of the tremendous loss of life, the rampant destruction of ecosystems, that drove me to pursue resurrection biology. In the past hundred years, we’ve lost over fifty percent of the world’s species, thanks to humans.” She paused, then added, “Though I’m not very fond of the term.”

“Too much of a biblical connotation?”

“I prefer de-extinction.” She looked at me out of the corner of her eye. “And what’s your take on religion?”

“Hm, that’s a loaded question.” I thought for a moment. “I stopped going to church with my parents when I was eight. I asked my Sunday school teacher after class if was it only people who went to heaven, or if dogs went, too. She was distracted, probably looking for her friends, and didn’t have time for me. ‘No, dogs don’t go to heaven, don’t be ridiculous,’ she said, without even a moment’s hesitation. That was the end of my religious life. I wasn’t interested in any heaven that didn’t allow dogs.”

Pavani regarded me, the skin around her eyes crinkling slightly. “You come from church people, then?”

“I never heard that term before, but yeah, I guess I do.”

“Are you fully recovered?”

I broke into laughter. “Let’s say, ninety percent? Maybe ninety-five, on a good day.”

She laughed—that beautiful, mellifluous laugh. I loved the way she thought, how she 224

expressed herself, how her face transformed when she was amused or happy.

“I’d better get to bed,” she said, “lots to do tomorrow.” She stood up, and I did, too, the spell broken. “See you later, Calli.” She propelled herself toward the door. Then, without a backward glance, she was gone.

Slowly I registered the noise in the room, the other women of Shambhala talking and laughing. I hadn’t even realized we weren’t still alone. I pushed myself out the door and went to my quarters. I didn’t have any desire to socialize; instead, I wanted to sit and contemplate Pavani’s words, to remember her smile, her laugh.



Sunday afternoon, I was comfortably ensconced on the couch in Naomi’s lab,

spending quality time with a few of the mice. I was trying to be with them as often as possible now that half their family was back on the Moon. Naomi had left that Friday for her usual weekend visit, but I expected her to come back to the lab at any minute. I had four mice with me. Aster, as always, had climbed up my body and put her snout against my neck. I could just feel the barest hint of her breath against my skin. The other three were clinging to my jumpsuit, their bright eyes fixed on my face.

The lab door opened, and I looked up, expecting to see Naomi. When she entered the lab, followed by Pavani, I sat up quickly, the mice gripping my jumpsuit with their tiny claws to keep from flying off my body. My heart, such an unreasonable organ, was beating rapidly in my chest. Seeing Pavani, I was immediately transported to the night of the social.

“Hey, Calli!” said Naomi.

“Hey, Naomi, hi Pavani,” I said, keeping my voice steady.

Pavani pushed herself over to the couch and sat down beside me. Naomi sat at her console.

“Who are your friends?” asked Pavani. Four pairs of eyes were staring intently at Pavani, four noses twitching in unison.

“This,” I said, stroking Aster’s head with my finger, “is Asteria. She and I are thick as thieves.”

Naomi let out a snort of laughter. “I wonder how you come up with such sayings, Calli!”

I laughed nervously, glancing at Pavani. Her face was relaxed, nearly expressionless, but I detected the slightest hint of a smile in her eyes. I indicated the mouse on my chest. “This little beauty is Hera. Asteria and Hera are our valiant warp travelers. These two,” I looked at my lap where two mice were snuggled next to each other, and touched each in turn, “are Helen and Clytemnestra. They are always together, right Naomi?”

“Uh-huh, they are thick like thieves.”

I broke into laughter. “Thick *as* thieves, as, not like.”

Naomi gave an exaggerated shrug. “What do I know, it’s your silly expression.”

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Pavani laughed. Oh, how I loved to hear her laugh.

“Can you tell Naomi is into Greek mythology?” My eyes shifted to Pavani’s face, then I looked away.

“Can I hold one?” she asked, stroking Hera’s tiny head tenderly.

“Of course!”

She gently picked up Hera, placing the little creature on her chest. Hera crawled up her jumpsuit, laying her head against Pavani’s neck. Pavani laughed again. “Hey, that tickles!”

“The whiskers,” I said.

After a few minutes, Pavani took Hera and gently placed her on my leg. “I’d better get back to work.”

“Okay,” said Naomi as Pavani pushed herself toward the door. “See ya.”

I looked at Pavani, and she met my gaze. “Thanks for introducing me.”

I smiled at her, then lowered my eyes. I heard the door shut softly behind her, and felt my heart beating in my chest.



I felt an inexplicable eagerness to get to the social the next Friday night. Arriving early, I sat at one of the chairs looking out of the observation window, glancing furtively at the door every time it opened. The room slowly filled with women, and then Pavani was beside me, her hand on the back of my chair. I looked up at her, surprised. Despite my vigilance, I hadn’t noticed her come in.

“What a view,” she said. A shiver ran down my spine, and I could just feel her breath on the back of my neck. “Mind if I join you?”

I indicated the chair next to mine with a gesture of my hand, my throat suddenly

dry.

Just then, there was an eruption of laughter from a group of women on the other side of the room, and my heart felt lighter. Their joy was contagious.

Pavani settled into her chair. I glanced down as she hooked her foot expertly on the rung. She gave me a demure smile.

“I’ve been meaning to ask how you’re adapting to micro-g. But looks like you’re getting the hang of it.”

She leaned toward me, glancing around, and whispered, “The worst thing is peeing.”

Trying to keep a straight face, I arched my eyebrow. “Come on, it’s not that bad.”

She stared at me in disbelief. “We’re not experiencing the same thing, then. Going to the toilet in zero-G,” she said, grimacing slightly. “And I don’t even want to admit how many times I didn’t use the equipment correctly. Vacuuming up floating blobs of urine is not my idea of a good time.”

I burst out laughing, and soon she was laughing, too, tears springing to her eyes. Her whole being was transformed, and she was like a little girl, carefree and happy. It was a beautiful sight to behold.

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“Okay, you’re right, I’ll admit, it’s pretty awful,” I said, when our laughter subsided.

“But being in micro-g is so fun, it’s like being a kid again.”

Her wonderment about microgravity and her sense of humor showed me another side of Pavani, and I was even more drawn to her, with her impish grin and sparkling eyes.

We talked and laughed for hours. When I finally looked around the room, I saw we were the only two people left in the observation deck. I took a deep breath. “I didn’t realize it was so late.”

Pavani scanned the room. “We’re the last ones. I didn’t even notice. Pleasure and action make the hours seem short.”

I stared at her.

She smiled. “Shakespeare, Othello.”

“Now you’re quoting *Shakespeare*? You’re full of surprises.”

“I think I can trust you with this.” She leaned toward me and lowered her voice. “My undergrad degree was in English literature, at Cambridge.”

“No way!”

With a hint of a smile, she pushed herself up off her chair, then held her hand out to me. It was the first time we had touched since the Moon. It felt so natural, her hand in mine. She smiled her half smile and pulled me up. Our eyes locked. Once again, I felt like I was falling, lost in those fathomless, enigmatic eyes.

“Shall I accompany you to your quarters, milady?” she asked, feigning an exaggeratedly chivalrous accent and posture, very Shakespearean.

I laughed. “It would be an honor.” I attempted a curtsy, and we both broke into laughter at the result.

She lifted her arm, and I slipped my arm through hers, my entire body tingling from the contact. We propelled our way out the door and through the corridors, still laughing.

When we arrived at my door, I released her. As before, it felt as if I were cutting off a part of myself. Such a strange sensation. She stood before me and bowed, or rather, attempted to bow. Instead, she had inadvertently propelled herself upward. With the padding and her low velocity, she bounced harmlessly off the ceiling, and, as her body returned to the floor, I grabbed her hand, anchoring her. We were both laughing so hard we could barely breathe.

“You have to keep a part of your body attached to something,” I managed between gasps.

“I’ll take that under consideration next time. No bowing or curtsying without

one foot anchored to the station.”

“Exactly.” I looked up at her.

“In that case,” she leaned over and kissed me on the cheek, her lips soft and warm.

“Parting is such sweet sorrow. I bid ye farewell, lovely maiden.”

She pushed her way down the corridor, looking back as she reached her cabin door.

She gave me her most playful smile and disappeared through the doorway. I went into 227

my quarters and closed the door softly behind me, a smile lingering on my lips, my cheek still warm where her lips had been.

CHAPTER FORTY-ONE

The next morning I didn't feel like working, so, after the gym, which I had all to myself, I went straight to Naomi's lab. I was surprised to see her working.

"Hey, Naomi! You're here. I figured you'd be on the Moon."

"I thought I'd spend the weekend here. I want to finish this write-up of Phase One of my research before I start Phase Two on the Moon." She came over to sit next to me. "How was the social last night?"

"It was nice. You didn't go?" Not that I would have noticed—I had been totally focused on Pavani.

She smiled. "Simon and I were holochatting, and I simply didn't want to disconnect, maybe because we aren't meeting this weekend."

I smiled, and touched my cheek, thinking of Pavani.

Naomi peered at me, narrowing her eyes. "Hey! You have that look."

"Huh?" I jerked my hand down, tucking it under my thigh.

Naomi grinned. "You know."

Tipping my head to one side, I squinted at her.

"Is it Olivia?"

I stared at her, slack jawed.

"Come on, I can see it in your face. You're besotted. I see the same when I look at myself in the mirror. Did you and Olivia finally, you know?"

I shook my head and took a deep breath. The confusion I had felt these past few weeks cleared, like the deep calm after a hurricane. Naomi was half right, I realized, the pieces falling together. I was smitten, it was true, but not with Olivia. I mentally rolled my eyes. Why was I *always* the last to know?

Naomi studied my face. “The new biologist!”

The blood rushed to my cheeks.

“Ah ha, I had a suspicion there was something going on with you two.”

“Come on, I barely know her.”

She raised her eyebrows, grinning.

I squirmed a little. “Okay, okay, I think you’re right.”

“You think, or you feel?”

“I guess I didn’t realize it until this moment. I enjoy spending time with her, and she’s a fascinating woman.”

“She’s wonderful.” Naomi nodded, then gave a little sigh. “How is it that you were able to figure out *warp technology*, but you haven’t a clue about your feelings?”

“I don’t know what’s wrong with me.” I grimaced. “I’m such an idiot when it comes to this kind of thing.”

“I wouldn’t go that far, but you are a bit innocent in the ways of love, my friend. You need to start paying more attention to your heart.”

229

A sudden jolt of fear coursed through my body. “But, Naomi, remember my crush on Diana? And then that experience with Amélie.” How could I have gotten it so wrong with Diana, with Amélie? A cloud of sadness enveloped me, thinking of poor, sweet Amélie.

“You should trust yourself this time.”

“It’s not me I’m worried about, it’s Pavani.” Even saying her name gave me a slight thrill. “What if the same thing happens like what happened with Diana?”

“You’ve grown a lot since then. You’re not the same person. Well, you’re the same person, but an upgraded version. Like I said, I think you can trust this.”

I looked at her.

“You’re not the only one who comes to me to chat.”

My pulse increased. “What do you mean?”

“Oh, she hasn’t said anything to me directly, she knows we’re friends, but I can put two and two together.”

I waited, holding my breath.

“Listen, she talks about you, a *lot*. Often she asks me stuff about you in passing, like, where are you from, if you’ve got siblings, what’s your relationship with Olivia, if you’re seeing anyone, that sort of thing.”

“But she’s new, she only wants to get to know her colleagues. It’s natural she would be curious.” I bit my lower lip.

“Even so, she only ever asks about you.”

My heart was beating furiously in my chest. It was true, I liked Pavani, I *real* y liked her. And maybe this time it wasn’t just me. What I had felt for Diana had been just an infatuation, a crush. And *Am é lie*, dear, sweet *Am é lie*, that was something else—maybe it had been a kind of love, but it wasn’t real, sustainable. But this, what I was feeling for Pavani, it ran deeper, much deeper. Naomi was right, I was a stranger to my own heart.

Naomi shook her head. “Calli, Calli, what would you do without me, to point out the obvious?”

Giddy, I made my way to the physics lab and settled into my chair in front of my console. My thoughts were on Pavani, but I put them aside—for now. There would be time to think about her later. I wanted to put some finishing touches on our paper, no fundamental changes to Hadley’s mystery novel, just a little polishing. It was the greatest accomplishment of my lifetime. When I had finished, I turned my attention to my warp drive user’s manual.

Several hours later, Hadley stopped by the lab to ask me if I wanted to join her and Andrea for dinner.

“No, I’ll keep working.” I indicated my computer screen with a sweep of my hand.

“I’m finished with our paper, by the way. I sent it to you to take a final look before we hand it over to Annie.”

“Perfect,” she said. “I’ll review it and give it to her in the morning.”

“Right now I’m making a few small revisions on my user’s manual.”

230

“How’s that going?”

“I should be done by this coming Friday.”

“That’s fantastic news! Looking forward to reading it.”



I was thinking of Pavani on the way to the gym on Sunday morning, replaying Friday night in my head. “Shakespeare,” I said out loud, shaking my head. Lost in thought, I nearly collided with Olivia in the corridor. “Olivia!” I grabbed the rail.

“Hi,” she said, her voice flat.

I studied her face, and the smile faded from my lips. “Olivia, what’s the matter?”

She rubbed the palm of her hand with her thumb. “It’s nothing, really.”

“Come on, you can talk to me.” I took her hand in mine and looked her in the eyes.

She looked away. “It’s just that, I always thought, well” Her voice faded, and she took a breath. “I always figured we would get back together one day. You were never with anyone else after me, so I imagined—” her voice broke.

I squeezed her hand. “Oh, Olivia, I had no idea.”

Olivia turned to me, the tears shining in her eyes. “I assumed there was time. But

Friday night, when I saw you with Pavani—” She wiped her nose with the sleeve of her jumpsuit. “Your connection, it’s magical. I can’t compete.”

“But I hardly know her.” My heart was hammering in my chest, because I knew she was right.

“She’s the one, anyone can see that. You two are made for each other.”

“I’m so sorry.” I didn’t know what else to say. I loved her so much.

“It’s fine, Calli. You know I’ll always love you.”

Cal i, she had called me Calli. It felt like a knife plunging into my heart. I wanted to hug her tightly, to erase the sadness on her face, but as I moved toward her, she shifted away. I stopped my forward motion, anchoring myself on the handrail.

She smiled wanly. “You are my best friend, Little Bear.”

I choked back a sob.

“I only want you to be happy,” she said.

This time when I reached out for her, she didn’t move away. We hugged each other tightly. I pressed my head against her chest, listening to her heart beating. We stayed that way for a long time, silent, holding each other. There were no more words. Then, finally, she kissed the top of my head, and moved away, her hands on my shoulders.

We looked at each other through tear-filled eyes. Then she let me go and propelled herself down the corridor. I watched her, a storm of emotions swirling like a tornado in my heart.

As I worked out, Olivia’s words ran through my mind, and Naomi’s the day before, about my feelings for Pavani. It was true—from the moment I laid eyes on her holographic image I had known. Okay, who was I kidding? I had no idea. But that 231

wasn’t entirely correct. Intellectually I didn’t have a clue, but my body knew, my visceral reaction was proof of that. It was as if the Universe was perfectly

aligned when we were together. Olivia could see it. Naomi could see it. And finally I, too, could see it. Pavani was the one.

I was surprised to find the dining room empty when I went for breakfast, but it was just as well—I was too distracted to carry on a decent conversation. After eating, I headed back to the dorm module, lost in thought, and stopped in front of my door, momentarily confused. Something was floating next to the door handle—it was a single rose. Feeling a little dizzy, I brought the flower to my nose, inhaling the rich, intoxicating scent. A note was attached to the smooth, thornless stem, the handwriting neat and precise: *This bud of love, by summer's ripening breath, may prove a beauteous flower when next we meet . . . right now in the ops park?* I laughed out loud, and turned to head to the ops module, holding the rose to my chest like the treasure it was.

When I entered the park, Pavani was sitting on one of the benches. Our eyes met, and I resisted the urge to look away as I pushed myself over and sat beside her.

“Thank you for this,” I said, glancing at the flower in my hand.

“What makes you think it was me?” The corners of her mouth twitched.

I stared at her for a split second, then burst out laughing. “Let’s examine the evidence, shall we?”

“Go ahead.” Her eyes were dancing with amusement.

“Okay, first, the quote. I’ve lived here almost a year, and to my knowledge, there is only one person who has ever quoted Shakespeare on Shambhala.”

She pursed her lips. “Hmmm. Circumstantial at best. That would never hold up in a court of law.”

“Wait, I’m not finished. Then there’s the invitation.” I looked around. “I don’t see anyone else here but you.”

“Also circumstantial. Maybe I spend every morning here and am just an innocent bystander.”

“Could be, could be.” I nodded. “This is turning out to be a very complicated case.”

“I’m sure with your superior powers of deduction, you’ll solve it.”

“Thank you for your vote of confidence.” I smiled, then looked toward the far wall, heart pounding in my chest. “I’m not very good at this,” I admitted in a quiet voice, chewing on my lower lip, gut tightly clenched.

She laughed softly. “Who is? Aren’t we all just bumbling along, trying to figure it all out?”

I gave a little shrug. “I’m afraid I’m worse than most.”

“Hey,” she said, and I turned to look at her. “I don’t have any expectations, and I’m not asking anything from you. I like you, Calli, I like you a *lot*.”

“Me, too.” My eyes dropped to my hands hovering above my lap, clutching the rose stem in a white-knuckled grip.

“How about we get to know each other, see where things go? In any case, it’s just a 232

rose, I’m not asking for your hand in matrimony.”

I started laughing, and the tension in my body released. “No?” I raised an eyebrow.

“Not yet, anyway,” she said, her smile playful. “I have to save something for next time.”

Next time. I liked the sound of that. “It’s a deal,” I said, and held the flower up to my nose for another sniff.

“Did you know that a rose has a distinct odor in space?” she asked.

“I thought this smelled different!”

“Flowers produce fewer volatile compounds in microgravity, changes the scent.”

“Seems like a rose by any other name might not smell as sweet after all.”

She smiled. “All depends on where it’s grown.”

I inhaled deeply. “This one smells amazing.”

“So, Calli,” she said, stretching her legs out in front of her. “It’s your turn.”

I raised an eyebrow.

“Why did you choose physics?”

“Ah, yes.” I thought about it a moment, ordering my words. “I started out thinking I would be an engineer. I like to fix things, solve problems, and figured it would be a good fit. But in my first circuit analysis class, when I asked my instructor how diodes worked, she said that for the purposes of the class we could think of a diode as a black box—there was no need to understand the inner workings, just the characteristics. You know, reverse bias, one-way current valve, voltage-versus-time waveforms, the usual.

But I wanted to know *why*. The following semester I switched to theoretical physics.”

“So did it work? Do you now understand the mysteries of the Universe?”

I gave a little bark of laughter. “Not even close! That’s the paradox with knowledge.

The more we learn, the more there is to know.”

“Knowledge is like a sphere, the greater its volume, the larger its contact with the unknown.”

“First Shakespeare, now Pascal! Wow, Pavani. You’re like a walking encyclopedia.”

She laughed, and I stopped myself from shifting closer to her. She seemed so relaxed, so at ease in her body.

“Do you ever miss Earth?” she asked.

“I don’t,” I said, surprised at my answer. “What about you?”

“I haven’t been her very long, so haven’t had much of an opportunity to miss

anything yet. But I can imagine missing nature, the mountains, the horizon, you know.”

I looked at her profile, the gentle arch at the nape of her neck. She was so beautiful.

When she turned to me, I glanced away.

“I ... I had kind of a bad experience recently, with a woman, I mean.”

“Okay.”

“I guess it messed with my head a little bit, and now I don’t feel like I can trust myself.”

“Or you can’t trust other people?”

“Yeah, no, I don’t know. I’m just confused.”

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“And a little afraid?” she asked.

“Maybe a little.” I glanced at her.

She smiled, her expression warm, eyes tender. “I want to get to know you, okay? I’m not in a hurry. Let’s take our time, do this right.”

“So no proposals on the horizon?” I managed a little smile.

She leaned closer to me, and I caught my breath. Was she going to kiss me? Did I want her to? There was no question my body wanted it, and so much more.

“How about this proposal?” she said, voice low and husky. I stared at her mouth, and my brain shut off for a moment. “Meet me here tomorrow night, and we can compare battle scars.” The curves of her body under her jumpsuit were mesmerizing. I nodded, forcing myself to meet her eyes, and seeing my desire reflected in hers, I felt weak.

Then she shifted away and stood, offering me her hand. I took it, and she pulled me up. I ignored the overpowering urge to press my body against hers, and

followed her out the door and through the corridors. We stopped in front of my quarters.

“Tomorrow night, then? Eight p.m.?”

I was staring at her lips again. I jerked my eyes up. “I’m looking forward to it.” My mouth felt dry.

Her eyes traveled down my body, just for a second, and my insides melted, then she pushed her way down the hall and disappeared into her quarters.

CHAPTER FORTY-TWO

I worked all day Monday on the warp drive manual, eating energy bars when I got hungry, though it was a struggle to keep my mind focused. The clock on my computer seemed to drag, and I even did a quick diagnostic to make sure it was working properly.

Finally, at seven, I rushed to my cabin to change clothes and brush my teeth, then by seven-thirty I was sitting in the ops park, waiting, barely breathing.

At eight exactly the door opened and Pavani came in. She smiled when she saw me, and my heart skipped a beat. Settling onto the bench, she leaned over and kissed me on the cheek, her lips warm and soft.

“How’s the manual coming along?” she asked.

For a moment I had no idea what she was talking about—her eyes were enchanting.

“Oh, good, it’s going good.”

She leaned back, draping her arms over the back of the bench, feet firmly anchored under the bar on the ground. I drank in the sight of her lean yet curvaceous body. She cut her eyes to me. “I’m committed to taking things slowly, but if you keep looking at me like that, I can’t be held responsible for my actions.”

“Oh, um, sorry, I” My face, I knew, had turned beet red.

“Hey, I’m not complaining.” She gave me a wicked smile. “But remember, we’re in the getting-to-know-each-other phase.”

Squirming a little in my seat, I said, “So how was your day?”

“Good,” she said, laughing, then turned to face me. “Okay, now that we’ve finished with the platitudes, I think we’re ready to move on to more substantial conversation.”

“Agreed,” I said with a smile.

Pavani’s face grew serious. “Want to talk about that bad experience?”

“Um, not really.” I picked at the sleeve of my jumpsuit.

“Then how about I tell you some things?”

I nodded eagerly.

“Let’s see.” She looked up at the ceiling, index finger to her lips. “When I was around five years old, I left a bucket of water out on the edge of our garden, and a few days later it was teeming with mosquito larvae, not that I knew what they were. I was so excited, and showed my grandmother, who nearly poured out the water, explaining that they would turn into mosquitos, but I begged her to let them live. I checked on them every day after school, and when they finally matured, I sat next to the bucket all day, arms and legs bare, so that they would have something to eat.” She laughed. “I spent the next few days covered in calamine lotion. It was pure agony.”

“I have a calamine lotion story, too! Once my best friend and I wanted to get out of going to school, so we found a poison oak patch and rubbed the crushed leaves all over our bodies, including our faces. We thought it was a great idea at the time.”

“Ouch!”

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“Yeah, it was pretty bad. And want to know the worst thing?”

“What?”

I leaned toward her, voice low and conspiratorial, and said, “We still had to go to school!”

“No!”

“Uh-huh. Can you believe it?”

“Life is full of injustices.”

Her smile was radiant, and my anxiety, I realized, had disappeared. She looked at me steadily, and I felt ... safe. “Madison was my best friend when I was twelve. We were inseparable, and once we built a little fort in the woods behind our houses, to hide from the world. Well, for me, it was to hide from my mother. I was a big disappointment for her. My dad, too, but he had his work, so wasn’t around all the time like my mom. She thought of me as an extension of herself, and when I didn’t act the way she wanted, she was very vocal about her deception. Sometimes she would get angry, and to be honest that was preferable to her usual weapon of choice, which was guilt, or even worse, withdrawing completely. She was the queen of the cold shoulder.”

“That must have been hard.” Pavani lifted her hand, as if she wanted to put her arm around me, but she put it back in her lap, looking at me with sympathy.

It was rare for me to share stories of my childhood, and I *never* talked about the shame that burned in my heart—shame for not being good enough, not being what my parents wanted. But with Pavani, there was no judgment, only compassion. I fought back the tears that threatened to spill out and gave a little half shrug. “So we built our little hideaway. It was fun, creating walls with cut branches, pine needles on the ground for carpeting. But when Madison wanted to include a toilet, I drew the line. We could pee outside!” I laughed at the memory. “When school let out for the day we would head to our fort, making minor improvements or just hanging out, talking or reading books. I suppose she was my first girlfriend, though I didn’t know anything about that back then; we were just kids.”

I ran my fingers along the edge of the bench, its smooth surface somehow soothing.

“But one day my mother must have followed us, because she poked her head in the opening which served as a doorway. I can’t describe the sensation of seeing my mom in my refuge, it was like the rug had been pulled out from under my feet and I was falling into a bottomless pit. ‘What’s going on here?’ she asked, all smiles. Madison was proud of our work, and happily showed her what we had done, but I was devastated.

As I followed my mom back home, she said, ‘A mother needs to know what her

twelve-year-old daughter is doing, Callisto.’ She wasn’t happy that I had kept a secret from her, and let me know it in no uncertain terms. After that, I never went back. It felt tainted, like I could never be safe there again. A few months later, Madison’s family moved away.” I glanced at Pavani under lowered lashes.

She met my eyes, and again I had the feeling that she wanted to reach out, to wrap her arms around me, but instead she gave me a wan smile. “Thank you for showing me 236

your battle scar. I am honored.”

Giving another half shrug, feigning nonchalance, I said, “Plenty more where that came from.”

Pavani stood and faced me, holding out her hand like before. This time, as we headed to the dorm module, she didn’t let go.



In the morning, when I opened my door on the way to the gym, I found another flower, a purple zinnia this time, with a note.

In case you assumed I only know The Bard.

The saddest day has gleams of light, the darkest wave hath bright foam beneath it. There twinkles o’er the cloudiest night, some solitary star to cheer it. – Sarah Winnemucca
Thank you again for trusting me.

Your secret admirer

My heart beat with new vigor, and I couldn’t suppress the smile on my face as I headed to the gym. I was surprised that, like the day before, I was alone—Izumi must have decided to change her work-out schedule. Later, when I went for breakfast, I found Naomi sitting in the dining room.

“Calli!” she called out.

I carried my bowl over to her table and settled into my chair. This time, I wasn’t going to wait for her to guess! “I have news,” I said, grinning.

Her eyebrows shot up. “What? Tell me!”

“I’ve been spending time with Pavani.”

“Hallelujah!” She pumped her fist into the air, then propelled herself to my side of the table and threw her arms around me. I was laughing so hard I almost lost my footing.

When she sat back down, she was beaming. “Details! I want details!”

“I really like her, Naomi.” My face was hurting from smiling so much.

“That’s absolutely delightful!”

“I don’t know what will happen. We decided to take things slowly. So we’re just getting to know each other. You know, spending time together, in the ops park.”

“Calli, I’m so happy for you!”

“Remember what you said about Simon? Before you even met face to face? That you thought he was the one?”

She nodded, eyes radiant.

“I think she’s the one, Naomi.” I felt a sudden surge of emotion and blinked back tears. “I never thought it would happen to me.”

“Oh Calli, you deserve this.”

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Later, in the lab, I made a concerted effort to put any thoughts of Pavani aside and focus on my work. Hadley had taken the week off, and was, according to her own admission, spending all her time in bed watching holomovies. I was also looking forward to some time off, but for that to happen I needed to be diligent, and not allow my mind to wander, which wasn’t easy, and my eyes continually strayed to the clock.



At six, I went to the dining room for dinner. As I loaded my bowl, I did a quick scan of the room. Olivia was sitting with Raven, and when I caught her eyes, she looked away. She wasn't ready to talk to me yet, and though my heart hurt, I understood she needed her space. I was a little relieved that Pavani wasn't there, since I wasn't sure how Olivia would feel, seeing us together. Not that we were together, exactly, but maybe one day I sat with Gamon, and listened with half an ear as she talked about her new idea for counteracting the effects of gravity after living in micro-g, a project she was working on with the physician at Arcadia. I tried to pay attention, but my eyes strayed to my wrist computer every few minutes to check the time. At seven-thirty I was again in my spot in the ops park.



"I liked the quote," I said as Pavani sat down next to me on the bench.

"Sarah Winnemucca," she said. "She was Paiute, wrote the first known autobiography by a Native American woman in the late 1800s."

"Ah hah!" I said, laughing. "So you admit it! It was you all along."

She smiled and held up her hands, palms out. "Guilty as charged."

Suddenly shy, I stared at the flowers along the far wall. Then something changed

there was a shift in energy, the air around us pulsating with an almost palpable melancholy. I glanced at Pavani out of the corner of my eye. She, too, had her eyes turned toward the wall, but they were unfocused and distant, her strong, delicate features etched with sadness. I caught my breath.

"My father died when I was eleven," she said in a quiet voice. "He was my hero. I know that sounds cliché, but it's true. I adored him, and he was the love of my mother's life."

"Pavani, I'm so sorry." She was silent for a long time. Finally, I said, "What happened?"

"He liked to take walks in the early mornings, at dawn, along the cliffs near our village. Said it was his morning meditation, to connect with the Earth, with

nature.

Sometimes I would go with him, on days when I didn't have school, but most of the 238

time he went alone. One morning he didn't come back." Pavani's voice was cool, detached, with none of the subtle nuances of emotion that I was beginning to love about her. "We always had breakfast together, but it was getting late, so my mother sent me to go fetch him. I knew his route, and ran along the edge of the cliff, calling for him, but he wasn't there. I started to get worried, and went home to tell my mother. Her expression was" She hesitated a moment, as if searching for the right words. "I had never seen her so afraid—it was like she *knew*. She called her brother, my uncle, and they went searching for him. She told me to wait, but I followed behind, keeping my distance so they wouldn't notice me. I hadn't thought to look over the cliff, but when they stopped at the edge, and my mother sank to her knees, I knew, too. I ran to her; she was sobbing uncontrollably. It was the first time I had ever seen my mother cry. My uncle climbed down the cliff, it was steep but still possible to navigate on foot. My mom tried to keep me from looking, but I had to see, had to know. I peeked over the edge just as my uncle reached my father's broken, twisted body. It was clear, even to me, that he hadn't survived the fall."

Now it was my turn to resist the urge to enclose her in an embrace. But I sensed she wasn't there; she was that little girl staring over the precipice, her world shattered. My eyes stung as the sharp knife of empathy cut me to my soul.

"I always thought my father was invincible, and my mother a bedrock of stability.

But after that, everything fell apart. If it wasn't for my grandmother, I don't know how we would have survived."

"I'm so, so sorry," I whispered, wiping my eyes almost angrily with my sleeve. This wasn't my pain, my loss, but I still felt it—the utter devastation and helplessness, the prayers to the Universe that it wasn't true, and Pavani so young, so very young. Just a girl. My tears began to flow—a broken dam, impossible to control.

She looked at me then, eyes clear, expression serene, and reached a hand out to wipe my eye, her touch tender and gentle as a summer rain, and I willed myself

to stop, pushing down my grief with the brute strength of my will.

“I miss him every single day. But with the love and support of my grandmother, and of our village, we made it through, and I will always have my memories. He’s the one who inspired me to study literature. He read to us every night. No holoTV in our house, just my dad’s voice. He adored Shakespeare, and now, I do, too.”

“I’m so sorry for your loss.” I quickly dried my eyes and wiped my nose.

“Thanks.” She quirked her lips into a half-smile, though her eyes held only sorrow.

“Death will have his day.”

I stared at her, wishing the impossible—that I could protect her from the pain.

“The quote from this morning, the one I wrote for you, reminds me of my father.

He’s that solitary star that is with me when I feel the weight of the world.”

I gave her a wan smile. “We all have our scars, don’t we?”

“Part of being human.” She looked again toward the far wall. “I wanted to tell you, because you trusted me with your story yesterday.”

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“Thank you,” I said, and sincerely meant it.

“I actually need to get back to my lab. I’m working on a new growth medium protocol for my ova chamber, and it’s at a critical stage. Tomorrow afternoon Jordyn’s coming by to help me with some ideas for materials I can use, and we’ll probably work till late. But can I see you on Thursday?”

For the first time, she seemed uncertain. What had it cost her, telling me about her father? Or was she starting to cool toward me? Losing interest? But she wanted to see me, right? So that must mean she still liked me. “I really enjoy spending time with you,”

I said.

She smiled. “So it’s a date?”

Resisting the urge to heave a sigh of relief, I nodded.

She stood, looking down at me, her expression unreadable. There was so much I wanted to say, about how I was feeling toward her—the excitement, terror, desire, hope—but I just didn’t know how. I stood, too, and when we reached the middle of the hub, Pavani turned toward the labs corridor.

“Pavani, wait,” I said, heart pounding. I longed to pull her to me and kiss her, but that would be the opposite of taking things slowly. “Good luck with your project.”

“Thanks.” She smiled. “See you Thursday night.”

I watched as she disappeared into the corridor.

CHAPTER FORTY-THREE

I got to the park a little late on Thursday. I was so close to the finish line it was difficult to tear myself away from my work. When I arrived, Pavani was there waiting for me.

“Sorry I’m late,” I said, sitting next to her.

“I’m just glad you decided to come.”

The insecurity and doubt I saw in her face surprised me. Had she assumed I wouldn’t make it? Did she really care that much? “I lost track of the time.” I explained.

She nodded, and I was touched by her vulnerability.

“So how did it go yesterday? Did you get your ova chamber set up?”

“Not exactly. Ran into a few hiccups along the way.”

“Oh?”

“Could be that I’m having trouble concentrating. Other things on my mind,” she said, the corners of her mouth lifting slightly.

My stomach did a little flip. Was she talking about me? She was definitely the reason I was having so much difficulty finishing my manual—I couldn’t keep my mind off her.

“Oh?”

She leaned toward me, and my heart stopped for a moment. “Let’s just say I have a very active imagination,” she said in a low voice, and I felt a shiver run down my spine.

She stretched out her legs, body relaxed, and settled back into the bench.

Suddenly my own imagination was spiraling out of control as my eyes raked

over her long, lean body, the jumpsuit hugging her curves in a highly provocative way.

“How is your writing going?”

“Writing?” I asked, desperately trying to reel in my rather salacious thoughts.

She smiled, waiting.

“Oh, my writing, yeah. It’s going well.”

“So, Calli, I’d like to ask you something, and of course you don’t have to answer if you don’t want to.”

I stared at her.

“What’s your relationship with Olivia?”

“Oh, we’re friends.” I hoped it was still true.

Pavani nodded.

“We were together, but that was a long time ago.”

“Yes, I heard. It’s a small station.”

I gave a little laugh. “That it is.”

“What happened? If you don’t mind me asking.”

“She left me,” I said simply. How could I explain what I didn’t understand myself?

“That must have been a difficult time for you.”

My shoulder twitched in a half-hearted shrug. “What about you?”

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“No, I can’t say I’ve ever been with Olivia, though she’s a lovely woman.” I let out a burst of laughter, and Pavani grinned. “Okay, it’s only fair, since I asked

you. My ex and I split up a few years ago. We were a couple for six years.”

“Wow, that’s a long time to be together,” I said.

“Yes, it is.”

I raised an eyebrow, cocking my head, and she laughed good-naturedly.

“We grew apart, and she fell in love with someone else.”

“Oh.”

“I still miss her sometimes, but she’s happy where she is.”

She took a deep breath, and my eyes were immediately drawn to her chest, and the zipper running up the front of her jumpsuit. I imagined what it would be like to lower that zipper, just a little bit. I tucked my hands under my thighs and forced myself to look up.

Pavani was watching me carefully, the sides of her mouth curled up in a grin. “If you ever decide to change careers, take my advice. Don’t be a professional poker player.”

I felt my face redden.

“Shall we go?” she asked, pushing herself up. “I need to do some research tonight before I go to sleep.”

We made our way to the dorm module and stopped just in front of my door.

“I’ll be working this whole weekend,” said Pavani, “probably late every night. A final push to get my lab set up. So how about next Monday night? Want to meet again in the park?”

“I would love that.”

She kissed me on the cheek, then pulled me into a tight embrace, releasing me far too soon. I stared into her eyes, the longing and desire welling up inside me, and her pupils dilated in response. She smiled. “There’s plenty of time for that, sweet Calli. We have all the time in the world.”

I nodded, swallowing hard. The anticipation was intoxicating, though I wasn't sure how much longer I could wait, my body was begging for more.

CHAPTER FORTY-FOUR

Late Friday morning, I finished my warp drive manual and uploaded it to the database, instructing Annie to release it when Diana gave us the go-ahead. Once it was out, the world, in fact all of humanity, would be forever changed. I was sorely tempted to go see Pavani, but didn't want to interrupt her, and besides, it was becoming increasingly difficult to keep my hands off her body, so instead I went to Naomi's lab.

"Calli!" she said as I opened the door. "So glad you stopped by!" She pushed herself away from the console and over to the couch, and I joined her.

"Aw, you just want to gossip," I said.

"Duh!" She laughed. "Now spill!"

"I finished my manual."

"Yeah, yeah, great job and all that. Achievement of a lifetime. Congratulations." Her tone was playfully dismissive. "Could we now talk about you and Pavani, *please?*"

I laughed. "It's going good, really good."

She raised her eyebrows. "Have you kissed yet?"

Stifling a groan, I said, "No, not yet. Nothing physical, except maybe a peck on the cheek."

"She's set some boundaries, huh?"

"Uh-huh." I bit my lower lip. "I don't know how much longer I can stand it."

"But it's kind of hot, right? The waiting?"

"Yeah, it's definitely that," I said with a smile. "So hey, I'm going to the Moon for the weekend. Taking a little break."

“Oh? Is Pavani going with you?” Naomi raised her eyebrows.

“Not this time. Though that would be nice.” I smiled at the thought. “She’ll be working in her lab.”

“Well good for you, you totally deserve a rest.”

“Are you coming?”

“No. I’d like to finish up a couple things here.” She sighed. “I’ll miss Simon, but soon I’ll be there full time, working on Phase II of my research.”

“Naomi, when you’re finished on the Moon, will you come back to Shambhala?” I asked, a catch in my throat.

“I don’t know,” she said, looking at her hands.



I still had an hour to get to the shuttle, so I headed to Diana’s office, and met Izumi in the corridor.

“Hi, Izumi, I’m going to the Moon for the weekend. I was just on my way to tell Diana, can you let her know?”

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“I’d be happy to.”

I studied her face—she looked tired, worn out. “Maybe you need a break, too?”

“You are so sweet, Calli. It’s true Diana and I have been under a bit of pressure with the Foundation.”

“Is that still going on?”

She nodded.

“I’m so sorry to hear that. Is there anything I can do to help?”

“When there is, I won’t hesitate to ask.”

I touched her arm. “Just say the word. You can trust us, and we’re behind you one hundred percent.”

Izumi smiled, and this time it was she who scrutinized my face. “You’ve changed.

Since you first arrived.”

“I have?” I cocked my head. “What do you mean?”

“You’ve been with us for, what, almost a year now?”

“Uh-huh.”

“From my perspective, observing you working on your project with Hadley, interacting with the crew, becoming part of the community, and when you opened up to us about Amélie—I know how difficult that was for you—but you did it, Calli, you stepped forward through the pain, and did the right thing. Taking all this into account, I would say you have come into your own. I see the same thing over and over, after a year, perhaps two, of being here in this environment, or on the lunar facility or one of the Foundation labs on Earth, each woman is able to tap into her true power, without any impediments. The transformation is astounding. It makes me think of a butterfly emerging from a cocoon. All that beauty, all that promise that was there from the beginning, has a chance to grow, to flourish, and what emerges is spectacular.”

I thought for a moment, reminded of Naomi’s words. “You’re right, Izumi, I feel like an upgraded version of myself. Callisto 2.0.” It was true. The awkward, insecure woman of the interview with Diana, the woman who was reluctant to share her ideas and theories, who had been too focused, or perhaps too afraid, to open herself up to love, had been replaced by a strong, confident, self-assured woman, delighted to collaborate with Hadley on our research, full of love and life, ready to face the future head on, a future which I hoped would include Pavani.

“You know,” I mused, “in physics there’s something similar. It’s called resonance. I remember when I was an undergrad, in my first mechanics class, I asked my professor why resonance occurs, why is there this incredible spike in energy when the external vibration of an object corresponds to its natural frequency. It seemed like a miracle. He explained to me how he understood it:

that at the natural frequency there is nothing holding back the vibration, no damping, no extraneous energy drains, and that's when you see an often-dramatic increase in amplitude."

"Resonance, I like that."

"I suppose what's happening here is we are all vibrating at our resonant frequencies, 244

no damping."

"What a lovely thought."



As the shuttle left Shambhala, I looked back at my beautiful home—each of the six modules now equipped with its own stunning double-helix warp drive. It was a sight to behold.

When I arrived at the lunar facility, I found Sasha sitting by herself in the amphitheater, staring toward the stage.

"Hi, Sasha!" I called out.

"Hi, Calli. I didn't know you were coming to the Moon."

"Last minute decision." I walked over and sat down beside her, grateful to be off my feet. As usual for my first few hours on the Moon, my body felt unnaturally heavy.

"How are you?" I asked, eyeing her carefully. "You look, I don't know, serious."

She observed me closely, as if she were trying to decide whether or not she could trust me. "I've been doing a lot of thinking."

"About what?"

"The Foundation has big plans, Calli. Bigger than Shambhala, bigger than Arcadia."

I raised an eyebrow.

“Look, I’m going to tell you, okay? I feel like I’ll go crazy if I don’t tell someone.”

“Of course. You can tell me anything.”

She took a deep breath. “You know the Foundation says they’re all about supporting basic science.”

“Uh-huh, that and sponsoring research for technological advancements which benefit the environment, too.” I said, remembering my first meeting with Diana, when she had told me about the Foundation’s dual goals.

“Yes, yes, the purpose has always been twofold: fundamental scientific research and green tech. But look who they choose to employ at their state-of-the-art research facility, Shambhala. If their only interest was supporting pure science, wouldn’t they simply hire people who excelled in their fields, whatever their focus? But they actively target specific specialties.”

I thought of Olivia. The Foundation had wanted an expert in terraformation. And what had Naomi said about Pavani? They had been looking to fill the position for a long time. Had they been explicitly searching for someone versed in genetic resurrection? Maybe these were simply fields Diana was interested in. It was her organization, after all, hers and Izumi’s. “Yeah, but that doesn’t mean anything.” I gave a little shrug.

“Maybe not, but for the sake of argument, let’s take a look at the Shambhala scientists, shall we?” Sasha continued, warming to her subject. “There’s you and Hadley, both of you are working in a totally obscure field. The quest for warp drives went out 245

of fashion, when? Seventy years ago? But that’s your specialty, yours and Hadley’s.

There aren’t any other physicists on the orbital lab. Why not? Why the focus on something so esoteric?”

“I never thought about it.” I had been so grateful to be offered the position and couldn’t believe there was another physicist on the station working in the same field.

“Uh-huh. Though the decision to bring you on board *really* paid off with your success. I imagine they never expected you would succeed. And a botanist? That’s obvious. We all need to eat.”

I almost laughed, but, judging from Sasha’s expression, I could see this was no laughing matter. “No argument here.”

“Now let’s consider the biologists. Raven’s working on suspended animation, correct?”

I nodded.

“Perhaps the original plan was for humans to travel long distances, but now I think it’s more likely to be used for animal transportation in microgravity.”

I thought of the bees in long-term stasis in Raven’s lab on Shambhala. Then Sasha’s words hit me: *long distances*?

“What about the new biologist, Pavani? What’s her specialty?”

“De-extinction,” I said, warmth spread through my body at the sound of her name.

“Yes, that fits,” Sasha said, almost to herself. “And the new geologist, what’s her name again?”

“Olivia.” I swallowed hard, thinking of our last interaction.

“Right, she’s a specialist in terraformation, which, I grant you, is justifiable based on the Foundation’s green-technology goal, because most people working in terraformation are repairing and healing the environmental damage on the Earth. De-extinction is the same, to repopulate wildlife. But if the ultimate goal is to help the environment, then why bring Pavani and Olivia to Shambhala? Why not have them work in one of the labs on Earth?”

“I don’t know.” I stared at her, eyes wide.

“And that brings us to Elena.”

“You mean Elena on Shambhala?”

“Uh-huh. Her PhD thesis was on *habitable* extrasolar planets, did you know that?”

An idea was taking shape in my mind. “Wait a minute, do you think—” I stopped.

“Extrasolar colonization?” Sasha raised her eyebrows. “Yes, I’m certain of it, and I’ve been studying the Foundation for a long time.”

“How long have you worked here?” I asked.

“Three years on Earth and four here on the Moon. I’ve been involved almost since the beginning, and I suspect building another colony has always been the long-term plan. My original speculation was they wanted to start a new colony here in the solar system, though not Mars, because there are already plenty of organizations and countries who are working on that, but possibly on Titan. It’s in the neighborhood but 246

doesn’t have many available natural resources other than water. Plus, it would take *seven years* to get there. But now, thanks to you and Hadley, we have the warp drive, which changes *everything*.”

It was true. Colonization had never been a realistic option outside of the solar system—using even the most advanced propulsion engines, it would take hundreds if not *thousands* of years to reach any promising planet, and even then, there was no guarantee the planet would be habitable. But now, with the warp drives I opened my mouth to speak, but Sasha continued, and I closed it, listening intently.

“Look at what they’ve already accomplished here on the Moon, everything they’ve learned about building a self-sustaining habitat in an inhospitable environment. And Shambhala is basically self-sufficient now. The farm produces enough food to feed a crew ten times larger than the one on the station, and they can easily increase the yield.

With all the modules, the station is big enough to house, I’d say, a couple hundred people, maybe more. They have stockpiled enough helium-3 to last essentially forever, but why so much? Unless they’re thinking of using it for something else, something that requires a lot of energy, or energy for a long time.”

My hands felt sweaty, I rubbed them against my legs, eyes fixed on Sasha.

“And warp drives for each of the Shambhala modules? A little excessive, don’t you think? I can understand one module, to test the drive large-scale like you did with the dock module, but all *six*? Oh, and did you know the modules can also be used as surface structures?” Not waiting for my response, she continued. “But I imagine they would prefer to use bots to construct habitats, like they did here on the Moon. There are plenty of construction bots in storage on Shambhala, the ones that were used to assemble the station, and Kamana can easily reprogram them.”

Now that we had warp technology, the Universe was wide open. Who wouldn’t be considering the possibilities of colonization? I had been so focused on my research, I didn’t even think to look at the big picture. It wasn’t the first time I’d missed the forest for the trees.

Sasha took a deep breath, then continued. “Think about it. Parthenogenesis? Only women working for the company? The culture of compassion and cooperation? They have a vision, I’m telling you. They want to build a new society, possibly even create a new ecosystem. If the next step really is colonization, I don’t think they will be inviting any men along for the ride, or males of any species, for that matter, except drone bees.”

Sasha laughed, but with little humor.

“You think they want to create an all-female society? That’s huge.” I thought of my conversation with Izumi about the intrinsic violent tendencies of males of so many species, and a chill ran down my spine.

“I honestly don’t know.” She gave a humorless little laugh. “And forget about getting any information from Annie about all this.” Her mouth twisted in a smirk. “Cause she’s not talking.” Sasha brushed a strand of hair out of her eyes. “Oh wait, I haven’t even mentioned this part. I have a friend who works in the genetics database center on Earth, 247

the one just outside Los Angeles, and apparently last year the Foundation was negotiating with the director. Then, around the same time, there was a big shipment from Earth that was delivered to Shambhala. Quinn mentioned to me there are tons of crates, but no one knows what’s inside. Diana told her to put them in deep storage.

Think about it! A biologist that specializes in de-extinction. A supply of genetic material from the database. And I'll bet a year's pay they also have contacts at the seed bank in Antarctica. I wouldn't be surprised if some of those crates contain seeds."

"Wow."

"I'm a data analyst, it's my job to connect the dots. And all the connections seem to terminate at the same place." She gave me a wry smile. "But here's the *real* mystery: if the goal is colonization, what's the big deal? They already have a colony on the Moon.

If they want to colonize somewhere else, why keep it a secret? It makes no sense. And why the rush? Because, from what I've been seeing these last few months, they are in a *big* hurry, almost bordering on desperation. See why I feel like I'm going crazy here?"

She let out a sigh and waved a hand dismissively. "Probably just a lot of idle speculation on my part. One big series of coincidences, nothing more." She stood up, brushing imaginary lint off the front of her jumpsuit, then looked down at me. "Then there's the story about the ongoing assault on the Foundation, but that's a different conversation, one which would require more than a few beers to tell. I'll save that one for another day. Shall we go in?"

I nodded, speechless.



Later that night, lying in my bed, I thought about Sasha's words, and their implications. What had Izumi said when she was talking about her relationship with Diana? *We share a vision for the future, not only our personal future, but something bigger than ourselves.* Was this their vision? Were they considering the possibility of leaving the solar system? It made sense, especially now, with the warp drive. Who would they take with them? If they invited me, would I go? There was no way I was going to sleep that night.

Staring at the ceiling, I touched behind my left ear. "Hi, Annie."

"Hello, Callisto. How can I help?"

“Annie, tell me, what’s the purpose of the Foundation?”

“Portal al Porvenir is a private foundation which supports and encourages scientific advances for the betterment of humankind—”

“No,” I interrupted. “I don’t want the boilerplate answer. I already read the website propaganda. What I want to know is, what is the long-term objective? Use your powers of data analysis, like you do with potential employees, and make a prediction for the future course of the Foundation.”

“I will need a few moments to analyze the data.”

“Take your time.”

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After a pause of at the most three seconds, Annie said, “I’m sorry, Callisto, but that analysis is classified.”

“What? What do you mean, classified?” I sat up. Was this what Sasha had meant?

“According to my programming, I am unable to make predictions on the future direction of the Foundation for you. The only people who have access to that information are Diana and Izumi.”

“Can you speculate as to why they won’t allow you to make a predictive analysis?”

“I can.”

I waited. Annie was silent. I rolled my eyes. “Annie?”

“Yes, Callisto?”

“Please speculate as to why you aren’t allowed to share that information with me.”

“Certainly, Callisto. My best guess is Diana and Izumi have a long-term plan for the Foundation, and they believe it would be risky to divulge their strategy with

others at this time.”

“Risky in what way, do you think?”

“My hypothesis is they are worried that if their plan comes under scrutiny from employees of the Foundation or the outside world, they will not be able to follow through with it. They might be afraid their plan will be thwarted by well-meaning but concerned employees or jeopardized by outside agents.”

I lay back down, again staring toward the ceiling, my eyes unfocused. Was it true?

Were they planning on colonizing one of the habitable planets? Everything was pointing in that direction. But why weren't they talking about it? Sasha was right, *that* was the big mystery. What would I do if they asked me to go? Would I do it? Would I leave the solar system? My home? My family? Would I be willing to give up everything? But what would I be giving up? And what was there to be gained? The possibilities were staggering. What would I choose to do: stay or go? Even as I asked myself the question, in my heart I knew what the answer was—I would go. I was born for this, born to reach for the stars, to be a part of something greater than myself. I would go, without any hesitation.

“Yes,” I said out loud, “yes, I will go.”

“Is that a question for me?” asked Annie.

I had forgotten she was still with me. “No, Annie, that’s all for now.”

As I reached toward my ear to disconnect, Annie said, “You are a true explorer, Callisto, it is a pleasure to know you.”

I touched the implant. Had she read my mind?

CHAPTER FORTY-FIVE

The following morning, lying in bed, I decided to call my parents. The moment my mother's face appeared, hovering above my wrist computer, I heard her say: "Calli, come home now!"

I sat up, my mind inventing scenarios at nearly the speed of light: something had happened. My father was sick, or hurt, or ... dead? The blood ran cold in my veins.

"What happened?"

"That organization you work for, Port a Porver."

"You mean Portal al Porvenir."

"Whatever it's called. You need to get out now. They've been brainwashing you."

Her voice was ragged, her face tightly drawn.

"What are you talking about?"

"It's all over the world news. It's a cult, and they're sabotaging your brain with their sick ideas. It's not your fault, but they're manipulating your mind. And they want to destroy the Earth, to destroy all of us."

"Wait, Mom, can you please explain? I have no idea what you're talking about."

"That warp thing, it will destroy everything."

I relaxed, just a little. "That's not true. Listen to me, Mom, your fears are completely unfounded. The same thing happened back in 2008, I think it was. I read about it in my history of science class. Everyone was afraid the CERN particle accelerator would produce a black hole that would swallow the Earth. Well, not everyone. Look, I work on the warp drive, and I swear to you there is no danger." My mind flashed to my week with Am é lie. I had explained to her the risk of a theoretical warp drive annihilating anything in front of the

spacecraft when re-entering local space. This was another reason why my modified Broek warped region was so vital, it mitigated the accumulation of vast amounts of energy, energy that would be released with the collapse of the warp bubble when a spacecraft reached its destination. This was also why we had been so careful to move our warp prototypes far from the Moon and Shambhala, but our results had shown that the Broek warped region had done its job. No wonder scientists were convinced that a warp drive posed a danger to the planet—before my breakthrough this had been a very real possibility. “Mom, trust me. The Earth is not in peril.”

“I don’t know what that Cerm thing you’re talking about is, but listen to me. They have actual scientists saying your ... your ... *Foundation*, whatever it’s called, wants to destroy the Earth. Do you think those scientists are lying? Calli, you are smarter than that, they are *scientists*.”

“But *I’m* a scientist, and I work here, I’m a part of the organization. I know what’s going on, and it’s nothing like you’re describing, I swear!”

“What they stand for is the total destruction of the Earth, of civilized society.
You 250

have to get out now.”

“Mom, you’re scaring me.” I had never seen my mother so agitated.

“You should be scared. They’re controlling you.”

“What you’re saying makes no sense.”

“Please, Calli, you have to escape.”

“Let me watch the news, okay? I don’t know anything about this.”

She nodded, and I signed off. I opened one news channel, then another, and another.

The newsfeeds were saturated with the Foundation, claiming exactly what my mother had said—that implementing the warp drive, or *warp wave*, as some called it, would annihilate life on Earth. There was speculation of an underground bunker, where the cult members of Portal al Porvenir would wait

out the holocaust, the leaders safely ensconced in their space station, far from the cataclysmic wave. Then, when all life had been irradiated, the planet would belong to them. I was shocked to see photos of Izumi and Diana staring back at me. I looked at their smiling faces as the news anchors talked about their evil plan, and how they must be stopped at all costs, these sociopaths hell-bent on destruction. The juxtaposition was jarring. The descriptions didn't match the two women I knew and admired, the women whom I loved with all my heart. I half listened to the broadcast: "The Foundation Portal al Porvenir has built a warp drive, which will create a huge energy wave that will wipe out life on Earth—"

"This is insane!" I said out loud, shutting down the newsfeeds with a jerk of my hand.

"Hello, Callisto."

I jumped. It was Annie's voice. I looked at the ceiling. Had I activated my implant?

I was in such a state of shock, I didn't know what I was doing.

"Annie? What's happening?"

"Sorry to disturb you, Callisto, but Diana has called a general meeting in the amphitheater in one hour."

"Oh, okay, thanks Annie."

"You're welcome, Callisto."

"Wait, Annie?"

"Yes, Callisto?"

"What the hell is going on?"

"I'm afraid you will have to wait until the general meeting, Callisto."



I got up, running my hands through my hair. Nothing made any sense. I left my

quarters and headed to Delphi Park. Several other women were walking in the same direction, looking as bewildered as I felt. When I entered the park, I scanned the space, searching for a familiar face. We were about forty people, all milling around, expressions tense, everyone talking at once, and more were filing in—all the women who worked at Arcadia. Spotting Yasmin standing on the other side of the amphitheater seating, I 251

made my way over to her.

“Yasmin, what’s happening?”

She reached down and hugged me tightly, then released me. “I have no idea.”

Then the outer door to the metro station opened, and half of the Shambhala crew came in. I pushed my way through the crowd and over to the door. Naomi was there, and Andrea and Hadley, Jordyn, Kamana, Quinn, Raven, Mei Xing, and Tanya. I grabbed Naomi’s arm.

“What’s going on?” I asked.

“I don’t know,” said Naomi.

“We don’t know anything,” said Tanya, “we were just told to get on the shuttle.”

“Where’s the rest of the crew?” I asked. “Where’s Olivia? Where’s Pavani?”

“They’re taking the next shuttle, they should be here any minute,” said Jordyn.

“What about Diana and Izumi?”

“They’re on the second shuttle also,” said Kamana.

“I saw something on the news—” I began, but then the door opened again, and the rest of the orbital lab crew filed in, along with Diana and Izumi. I caught Olivia’s eyes.

She shrugged and shook her head. Then I saw Pavani. She was looking directly at me, her usually stoic expression replaced by concern and confusion. I stared back at her.

I heard Diana's voice through the sound system, "Please, everyone, take a seat." I turned toward the stage. Diana and Izumi were standing side by side at the podium.

By now, the park was full of women. I walked to the first row of chairs, directly in front of the stage, and sat down next to a woman I didn't know. My heart was pounding in my ears. Someone brushed my shoulder as she sat down in the empty chair next to mine—it was Pavani.

"Calli, what's this all about?" she whispered.

I shook my head.

Diana cleared her throat, and the amphitheater grew silent. All eyes turned to her.

"We're all here right now, in this room together, because our little Foundation, of at most three hundred women, including here and on the Earth, has come under attack."

She glanced at Izumi, then continued. "According to the World Court, we are the biggest threat mankind—and I am using the term *mankind* in a literal sense—has ever faced." She shook her head. "If you look at human history, it's the same story over and over. Like the ancient proverb says: those who do not learn from history are doomed to repeat it. But it seems to me that no matter how much history we learn, it has always been one step forward, two steps back. There's an overwhelming resistance to human progress. What did Einstein say? *Great spirits have always encountered violent opposition from mediocre minds.*" Izumi touched Diana's elbow. "Sorry, I suppose I'm rambling. Yes, we are a menace, because we are a model for the world, a way of living which threatens the very fabric of human society."

Izumi continued. "It's not the Foundation per se that is under attack, despite the criticisms, it is Diana and me. The World Court has deemed us terrorists, and there is a 252

battalion of soldiers on the way to the Moon as we speak to take us into custody."

Shouts of protest filled the room. Diana raised her hand, and the voices subsided.

“The charges are crimes against humanity. The claim is Izumi and I financed and developed the warp drive with the sole purpose of wiping out all life on Earth, and the punishment for our alleged actions, if we’re found guilty, is severe.”

There was a collective gasp among the women in the room. I stood up. I couldn’t remain seated—the shock and outrage were too overwhelming. Diana looked straight at me and motioned with her hand for me to sit back down. Her eyes were sad but so full of love. I felt my heart breaking as I lowered myself to my seat. How could anyone in their right mind consider these two beautiful, peaceful, loving women to be a threat to humanity? They were humanity’s greatest hope.

It was I who had developed the warp drive—Hadley and I. This was all my fault.

And I was the one who told Amélie. If I hadn’t, then maybe all this wouldn’t be happening right now. I felt a surge of guilt shoot through me. Then I remembered Diana saying I was a pawn in a much larger game. No, this wasn’t about me. I focused on Diana’s words.

“We had hoped for a different outcome and didn’t expect things to come to a head so quickly,” said Diana. “We held back on publishing the warp drive research out of the fear that it could be twisted and used against us, but now it doesn’t matter. We’ve just released the complete specifications of the warp drive to the entire world.” Diana smiled at Izumi, a tired smile, but, as with the one she had bestowed upon me, full of love.

Izumi scanned the room. “We understand this is a shock for all of you. According to our sources, the troops will arrive tomorrow night, on a military vessel capable of massive destruction. So, we must act now. Diana and I have decided to go, to leave the solar system, probably forever.”

“We always had the vision of colonizing another planet,” said Diana. “Undoubtedly there are many of you who already came to that conclusion.”

I spotted Sasha standing behind the back row of seats. Her eyes locked on mine and she gave me a curt nod. I turned back to face the stage.

Diana gave us a wan smile. “Though we couldn’t imagine it would happen in our lifetimes, the distances are too great. We envisioned a generational ship.” She shrugged.

“We had so many plans. But now, with the warp drive, it’s a whole new game.”

Izumi looked at us, her expression soft. “You were chosen to work for the Foundation because of your expertise in your respective fields, but all of you are remarkable, innovative women, with the innate ability to overcome adversity, to work in a team, to create and cherish community, traits that will be invaluable in the new colony. The future is unknown, and there are no guarantees. We can only imagine what the challenges will be.”

Diana shifted slightly—and I turned my eyes back to her. “The Foundation will continue under the guardianship of Izumi’s mother, Akari, and she has agreed to come 253

live here on Arcadia. I know none of you have met her, but she has been the primary financier for the entire operation. Izumi is from the Nakamura family.”

There was a murmur of voices. The Nakamura family made its name by revolutionizing the hovercar and was the wealthiest family on the planet. No wonder the Foundation had an abundance of funding—the family owned almost ten percent of the world’s wealth.

“Your jobs are secure, or as secure as possible,” Izumi said, and once again the room grew silent. “The Foundation will remain dedicated to the same principles, and Nalah will continue with her the leadership responsibilities here on Arcadia.” I watched as a petite, dark-skinned woman stood and lifted her hand, then sat back down. “But for those of you who choose to do so, we invite you to join us.”

The ramifications were mind boggling. I couldn’t even begin to process them.

Pavani’s hand slipped into mine, and I squeezed it tightly.

“We considered staying to continue to fight this in the World Court,” said Diana.

“Our lawyers have been battling for months, but we now believe it is a lost cause, and there’s too much at stake, too much to lose. We have many enemies in high places. Our sources from Earth tell us troops are also on the way to destroy Shambhala, and that,”

Diana shook her head, “is unacceptable. The facts are clearly on our side, but

since when has public opinion been swayed by facts?”

“But why didn’t you tell us?” Marta’s voice filled the amphitheater. She was sitting a few rows back from me, arms crossed tightly against her chest. “Why didn’t you tell *me*?”

You know me, we’ve been friends since grad school. Twenty years.” I could see the pain in her face even from where I sat. She released her arms and scrubbed her face with her hands. Then she looked directly at Diana. “I love your vision, you know that, and I’ve always supported you. Why so many secrets? Why didn’t you trust me?”

I turned back to the podium to look at Diana, who laid her hand on her chest. “I’m so sorry, Marta. It was my decision not to say anything, to protect you all.” She paused, glancing at Izumi, who reached out and took Diana’s hand in hers. “But I see now I made a mistake. I’ve made so many mistakes, decisions I will regret till the day I die.”

Voices filled the room, everyone talking all at once. I stared at the two women standing directly in front of me.

Diana looked at Izumi and said in a low voice, “The biggest mistake of my life was trusting your brother, Hiroki. I’m so sorry, Izumi.”

“It’s not your fault,” whispered Izumi fiercely. “He’s a monster and he wants to destroy us. The spying, the lawsuit, the reverse-discrimination smear campaign, it wasn’t enough for him. He wants to see us burn.”

If I hadn’t been sitting in the first row, if I hadn’t been paying attention in that exact moment, I would never have heard them, would never have heard the name. Hiroki—

the horrible man who had manipulated Amélie, who wanted inside information on the work we were doing on Shambhala—he was Izumi’s *brother*! My mind was reeling, struggling to put the pieces together.

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Diana lifted her hand, and the room was silent once again. “We had a plan, but then everything got so intense. There’s no time now, but later we will have the

chance to talk, I promise. If you come with us.”

I tried to concentrate on what Diana was saying, but a memory popped unbidden into my mind: Amélie’s description of Hiroki—his almost godlike beauty, a perfect human specimen, but so warped and twisted on the inside. Then another memory: my first day on the Moon when Diana had made a comment about ectogenetic designer babies, how they had been a mistake. Could it be true? Hiroki, Izumi’s brother—an ectogenetic monstrosity?

“We understand this is a huge decision,” said Izumi. “If you come with us, you will be leaving everything you know behind, most likely forever.”

I looked around, at Naomi sitting a few seats away, tears streaming down her cheeks.

She’s thinking of Simon, I realized. She has to choose, and what a choice. Leave the love of her life behind to venture into an unknown future.

I saw Andrea. She was also crying, her arms wrapped around Hadley, who had her head buried in her hands. And what about Pavani? I felt her hand in mine. Would she choose to go? If she stayed, then what? But my decision was made. I had made it the night before, after Sasha had shared with me her speculations, eerily accurate, on the Foundation’s true mission.

“We have located a few promising planets, thanks to Elena,” said Diana.
“Though our destination will remain a secret, for our safety. We would have liked more time, time to construct, to terraform, to do things right. But I’m afraid time is a luxury we no longer have.”

There was a hum in the amphitheater, growing louder, the rising crescendo of dozens of confused voices. Diana raised her hand, and everyone fell silent. “In a perfect world, we could give you time to contemplate, to talk it over with your family and loved ones, but we are out of time, so please, whoever is ready to join us, you need to decide now.”

A hurricane of feelings swept through me: giddy, terrified, profoundly sad, hopeful, and a deep rage that to live as we chose, to strive for a better world, we were forced to leave the solar system, our home.

Izumi touched Diana’s arm lightly, then looked at us and said, “You will be able

to send messages before we initiate the warp drive later tonight, but after that, we don't know if you will have another chance to communicate with anyone in this solar system.

If you come with us, you must consider this a final farewell."

I would have to tell my parents. They always knew I wasn't one of them. I never fit in, always the outsider. I would make a holocall from Shambhala. They would understand. Or maybe they wouldn't. I felt my heart contract, and put the thought out of my mind. I couldn't think about them right then.

"If you choose to remain, we wish you the best, and it has been an honor for Izumi and me to know you and work with you, and to grow together. We love all of you." For the first time, Diana's voice broke. Izumi put her arm around Diana's waist, pulling her 255

close, and Diana shook her head, her expression one of utter devastation, tears flowing unchecked down her cheeks.

Izumi gave her a half nod, then turned to us and said, "What do humans need to be fulfilled? We need the basics: nutritious food, clean water, a safe place to sleep, but we also need a community, a place where we belong. We're social creatures, after all. And we need a purpose, a reason for our existence. Humans thrive when we feel we are contributing to a greater good. If you choose to join us, you will have the opportunity to help create a new world, a society based on compassion and love. But whether you stay or come with us, you are all part of our family, our tribe." She paused, looking at Diana's tear-streaked face, then went on, her face solemn. "This is an agonizing decision, and I'm so sorry. We have many friends here on the Moon, and the Collective is in shock, and will do whatever they can to support us and to protect Arcadia. They are supplying enough shuttles to transport all of us to Shambhala. But we must leave *now*." She looked out at us, her eyes glistening with tears, then took Diana's hand. The two women walked through the airlock door.

Now I, too, was crying, tears streaming down my face. I looked around, at the expressions of shock and bewilderment. Tanya stood up, smiling as she walked to the door without a backward glance. Pavani's hand slipped out of mine as I, too, stood. I turned to her, and she stared up at me, her expression unreadable. Scanning the room, I picked out my clan, my crewmates.

I found Olivia, she looked lost, and Marta, angry and bewildered. There was Rika, her arm around Zoe, both with expressions of shock, and Gamon, her eyes shimmering with tears. Quinn and Fae were holding each other, crying. Andrea was clutching Hadley as if her very life depended on it, and sweet Mei Xing, a look of utter devastation on her face. Elena and Kamana were both staring at the door, as if in a trance, and Raven had one hand over her mouth, the other grasping Jordyn's arm. Jordyn's eyes were downcast, and I could see the tears dripping from her eyes. Then I looked at Naomi, beautiful Naomi, with a heart as big as the Universe. Her eyes met mine and she shook her head no, putting her fist to her mouth—Naomi would not be going with us.

Choking back a sob, I turned away, walking toward the exit.

I heard the movement of many women standing up as I reached the door, a buzzing of voices. Another memory of that first day at Arcadia—the sound was exactly like the swarming of the bees. I heard Yasmin's voice in my head: *The queen leaves the old hive, and I don't know how they decide, but half the hive goes with her.* The bees that swarmed, she had explained, would follow their queen, or queens, in this case, anywhere. Who would join us? How could I survive without Naomi? And Pavani, beautiful, funny, serious, enigmatic Pavani, would she come? I didn't look back.

I was ready to face the terrifying, marvelous, and unknown future, to become the best version of myself. I took a deep breath and stepped through the open doorway. I am Callisto 2.0, and I am part of something larger than myself. I am the door to the future.

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The End

Or is it just the beginning?

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AUTHOR'S NOTE

Thank you so much, dear reader, for reading my book! I want to live in Calli's world, a world in which our indomitable female spirits can thrive, grow, and transcend our culturally and personally imposed limitations, to be the best we

can be. I am a better human being having spent time with these remarkable women. I hope you enjoyed their company as much as I did.

For more information and to meet the crew, visit www.shambhalasaga.com.

I would love to hear from you. Here's where you can find me: website:
www.shambhalasaga.com

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ABOUT THE AUTHOR

Susan English is a born adventurer, a world traveler with an insatiable intellectual curiosity. She holds a master's degree in physics, once lived on a sailboat in the San Francisco bay, was a Peace Corps volunteer in Namibia, and spent five years on the Big Island of Hawaii, where she owned an off-grid, completely self-sufficient farm in the jungle. Now she is happy to be living with her partner in beautiful Medellin, Colombia, the city of eternal spring.

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