

A Galactic HRT
Book I : The Greats Explosions

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*To everyone who feels under-represented in Science Fiction,
To my professors who supported and helped me even in the darkest hours,
To my friends without whom I'd not be here,
To Ninon for their love and support,
To Claire who was here for me from the very beginning*

*And finally, to my best friend, Naïs, whose complete list of what she did for me
would deserve its own book.*

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Edito

Welcome to the PDF book of A Galactic HRT, this book was written using the ScribbleHub version of the story, on L^AT_EX's book environment.

Not so much artistic choices have been made, the chapter numbering is different from the ScribbleHub numbering because here the multi-parts chapters are joined into only one chapter.

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Prologue

Written in Union Standard

.....Neuronal Connection Established
.....Identity checked
.....Name: Ariana Luivon
.....Information: Human, female, ambassador of the Union to Earth
.....Language: Earth Standard
.....Translation: OK

written in Earth Standard

Extracts of the logs of the Union Science Spaceship AEXIII-1,
Date: 12th of December 1902, 1002h Human Standard Time (HST)

Captain is talking

Our spaceship just dropped out of FTL in the outer fairing of a stellar system, the star is a class G yellow star, with a mass of approximately 0.8 Union Standard Stellar Mass (USSM), radioactivity is normal, and particle emission seems to indicate that the star is approximately midlife.

We are currently in orbit of the 8th planet, a beautiful but useless blue gas giant, our engineer is looking the drive to see when we can resume our mission, we are more than 80 light years away from home, and we still have a few anomalies to investigate. While we're blocked into this stellar system the sensors are at full power to see if any biological activity is present.

Date: 12th of December 1902, 1130h HST

An alarm just went off, the sensors picked up life signal, and weak electromagnetic activity on the third planet of this system. The system have 4 inner planets before what seems a belt of asteroid and the outer planets, only the 3rd have biological signals.

A prob has been launched and put into orbit safely in the second Lagrange point of the planet-star system, it has a faster-than-light communication arrays and is far enough to be non-detectable from the surface of the planet.

It is designed to pick up information (and any EM signals they might send) gather data, and send it right back into the main world to be processed and analyzed, this planet and specie may be interesting to study.

Date: 14th of December 1902, 0103h HST

The engineer just called my station, they is positive the vessel is capable to safely perform an FTL jump right back to mainworld, we have to inform the chain of command of our discovery, and we have to set up the legal shenanigans to study the society of the 3rd planet, the coordinates of this system were safely put into the Union Shared Spacemap; finally we installed an FTL jump-point approximately 0.7 light years away from the star, in a circular orbit.

The central computer just approved the jump and I instantly felt the mechanical switch from our sublight fusion drive to the powerful space-bending FTL drive, after the final checklist was

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checked, the countdown was called, at T0 I feel the intense acceleration of the drive, a few broken glass later we finally were at our FTL1 speed to join mainworld in a bit over 3 months.

Chapter 1

It can't be that fast can it?

Ring ring ring

I jolted awake at the sound of my alarm going off, today was Sunday, but I have a meeting with Sylvia to draw, they said they had a new idea for a powerful new propulsion system to incorporate into our vessel, however I had to review it to see if the idea seems plausible and how to draw it.

My house automation system sensed the fact I was awake and started the morning routine, I watched by the window as the curtains opened and saw the beautiful Sunday sun creeping by it, the sky was blue and unblemished, only disturbed by the slight shadow of a delivery drone passing by or the few air cabs circulating in center New Paris.

- "Good morning Ariana" said my house AI voice
"It's 1200h, 12th of October 2040, we have an outside temperature of 19 °C in New Paris, the university sent you 3 email during the night nothing too important just a remainder your assignment is due tomorrow before 2pm, your meeting with Sylvia is scheduled for 1pm" the AI dutifully said

The temperature is a bit chilly but nothing surprising given the location of New Paris, a big city in the intersection of the once mighty European powers (France, Germany, Switzerland, Belgium, Italy) now unified in the European State "Europe", following the events of the Massacre of the International Convention in 2023, each continent started to unify themselves for the next decade, in 2028 with the Union Treaty the once European Union and the other nations of the European continent unified and formed a new nation called "Europe". Following the European example all other continents managed to mostly unionized.

Then the United Nations dissolved themselves and formed a new Federation Nation, the Federation of Continents, a few countries in the world (such as North Korea or the United Kingdom) decided to remain sovereign-nations but now almost a decade after the Declaration of Foundation of the Federation of Continents (The) (also called Federation Treaty in respect to the European treaty) this independence was mostly honorific and expert says the UK might just join Europe and the Federation in a few years to decade.

The capital was named after the most populated city of the ex-EU, Paris, capital of the province of France, but that is the end of the similarities, a new city was issued out of nowhere, and with the collaboration of all the continent high speed train became common in all of Europe, most of the once capitals of the EU are connected directly to New Paris. You can now go from New Paris to practically anywhere in Europe in a few hours. This fact alone explains how we went from new city to a 20 million enormous federation-wide hub in a few years.

- “Thanks please send a message to Sylvia to notify them I’m awake, I’m going to take a shower”

As I undressed to shower I took my HRT, nowadays, a simple injection daily was enough, I mentally passed over all things I needed to do before tomorrow and decided it was nothing important as the warm water dropped onto my breast and I marveled to the sensation of warm water on soft skin, I started HRT a couple month ago after I got kicked out of my house by my parents and I really was surprised of the speed it was going.

I dressed simply, I am tall, maybe 175 cm, but not skinny I had a bit of hips showing my breast are good enough to fill a simple B cup bra and my long blonde hair fell just short of my waist, I wear a simple blue dress with leggings to keep me warm, shoes with a slight heel to show my legs and I went to put make-up on.

Today was easy, no public appearance at all, just me and Sylvia, I decided to be conservative with make-up, a bit of eye shadow and eyeliner to show off my big green eyes and a bit of blush for my cheeks.

As I passed the door of the dorms to walk over to Sylvia’s home I thought of how everything changed in just a couple of months, a year ago I still lived at my parent’s and haven’t transitioned yet, Sylvia is the one that managed to convince me to come out at school and to open to the world, I still think they feel somewhat responsible for the fact I got kicked out, but that’s foolish, it’s my parent’s fault, whatever I started to receive basic income from the Europe State as soon as I declared my situation and my university provided me with a dorm room not too far away from where Sylvia is living.

Driiiiiiiing

I mentally laughed at the old school ringtone of Sylvia’s home, a quirk their mom loved a thing imported from last century France she once mentioned, her husband hates that thing, but as he was living in American Union to work on the International Jet Propulsion Laboratory (the successor of the JPL) she managed to stick it once again on their door, I managed to keep my composure just as Sarah, Sylvia’s mom, opened the door

- “Ariana! What a pleasure to see you again! And you look beautiful, Sylvia should look at you sometimes I’m sure she’s missing something” she added a huge knowing grin on her face
- “Thanks you Sarah! I’m here to draw with them”
- “They’re in their room I will make some tea, the one you like I’ll bring you one cup”

I almost jumped in the stairs and lightly announced myself at their door, a second later a sudden flash of flesh appeared and collapsed on me as I tried but failed to not fall on my butt as the trickster known as Sylvia smiled toothily at me with their big silly trademark smile

- “Ariana! You came! I’m soooooo happy to see you, and *OH MY GOD YOU'RE BEAUTIFUL*” they squealed at the end of the sentence

I continue to just hug them without doing or saying anything, a few minutes later I broke out of the hug and said

- “Yeah of course I came dummy you were so excited about your new idea of propulsion that Of course I became excited too! I brought my drawing case with me, we can work a bit today If you’re feeling up to it”

Sylvia and I were designing our own little (okay it’s a big one) spaceship, but we want it to be as realistic as possible, I was designing and drawing it and Sylvia, the big SF nerd they was, was

designing the propulsion system, heart of the ship, we were dreaming of FTL rated ship, even if we knew that it was impossible and against the laws of physics it was really fun to imagine, Sylvia's enthusiasm about it was not a surprise, their father is a propulsion researcher at IJPL and was the head designer of the Federation Space Program, he is responsible for the engine that powered Saturn X, the rocket that re-launched the moon program. Nowadays, he is designing a rocket powerful enough to colonize the moon and organize large and regular missions between Earth and the Moon

He once was the head scientist of a little private space company, before the collapse of the private space sector when the federation formed and the fact that private space sector was more or less public space sector anyway, just less effective because it had investors to satisfy. However, he was immediately selected to be incorporated into the new IJPL and quickly rose through the ranks.

- "Hum... nah I can't work now I have a theoretical computer science assignment due tomorrow, and you know how I love computers but hate theoretical computers so, yeah" they said, bashfully

I giggled and then just stared at their bedroom, I spent so much time here these last few years, I met them in middle school around 6 years ago, Neither them nor I were publicly out at the time, so we just enjoyed our mostly cishet lives together, without any hint of romance or other interest, we were both really into programming and created a bunch of silly apps and game for our computers and gaming devices.

As time went we were still really close and were the respective first people we came out to, they started first by coming out bisexual then pansexual, I then made mine and a couple of weeks later they came out as non-binary. That was in junior year of High School, I didn't come out to my parents until a few months ago after I turned 19 and they... yeah they didn't take it quite right, so I lived here at Sylvia's a couple of days before the state provided me with money and a room. Their parents offered me to stay and live with them, but I was too afraid to be a bother so for a few months now I live alone, just off campus.

Sylvia was beautiful, they is 170 cm tall, with bright ear-length cotton-candy pink hair (they love to change the color of their hair) barely kept, with matching pink colored eyes, I think they had that done a few months ago. They is really androgynous and loved to play with that, they alternate between a really feminine wardrobe and a masculine one, seemingly randomly, and I have to admit that it is pretty cute.

Sylvia interrupted my thoughtful glance,
- "Hum, Aria? You seem distracted and, how does HRT work that fast with you? You started a couple of months ago, and you're already more feminine than I ever was and with that cute face or yours and your height you're more and more irresistible each day" they quickly realized what they was saying and put their hand in front of their mouth.
"I mean in a Platonic way, you're beautiful, like too beautiful and hum you know me, it's... hum you know hard..." they bashfully tried to cover up.

- "Don't worry I get it, and you're really cute like that" I grinned watching their blush deepening even further into shades of pink I didn't even know existed "And yeah I get what you're saying? But I think it's okay HRT has come a long way since the start of the 21st century, so maybe it is normal? But yeah it's definitely worth to think about"

I was really really really worried right now, they noticed it was a little fast, I noticed it too and maybe everyone will notice? I started to panic a bit, it probably was normal, but anxiety

kicked in fast, and I didn't have my med right now, I tried to breathe, however it was harder and harder to think every second, a mental fog fell, and I quickly lost all semblance of grip I had on my state

Sylvia, fast to recognize the effects of an anxiety attack in their best friend, embraced tightly Ariana

- "Breath... Hold in... Breath... Hold in.... Breath, you're gonna be okay Aria, it's nothing you are alright, everything's gonna be okay, you are safe, you are gonna be safe, I'll protect you, I'll never let anything bad happen to you again okay?" they pulled their hairbrush from the desk and started to brush Ariana's hair to calm her, it was her little weak spot

A few minutes later Ariana was calm again and was breathing slowly, she tightened her embraced with Sylvia

- "Thanks Syl' it was close I don't think it's anything you're right, and I'm already on HRT for like 6 months? So it's probably to be expected" she, however, really hoped it would slow down, her brother was in school and while he was okay he would be freaking out when he'll see her, she added mentally.

She stared at Sylvia, a slight weak grin on her face, and once again analyzed their beauty, she was just shy of taking her pen to start drawing that, suddenly, she felt sick, Sylvia was not looking good too, and, a few seconds later, everything went black.

Chapter 2

Oh... Crap.

Units, times, and language has been translated from Union Standard to Earth Standard

Aarin POV, A few months before the first chapter, TW: Abusive parents, traumas

- “This mission is becoming very boring”, Aarin said to himself, Aarin was on his second year of the human observation mission, in the far Sol system, he was a xenobiologist, xenosociologist and more importantly a xenolinguist, Aarin was the first of Union (The) Science Program to fully understand the Earth Standard language and learn it enough to be fluent, so naturally he was chosen to be on the second manned observation mission after the famous discovery made a few union years ago, no more than a century ago he corrected himself, he must think in humans units.

Unfortunately the mission was really boring, the automated probes stationed in the system were excellent at their job, so he didn’t have a lot to do. The next refueling ship was expected next month, but he really was lonely. On a whim he decided to check on his latest... discovery.

See, his society does not have the concept of... gender it was a completely alien concept to them, so as a xenosociologist he was thrilled to study this specie, he knew humans were not ready for first contact yet, they only were an archaic society, a class 1 on the Union Scale, they only managed to exploit the resources of their planet, and they really were doing a bad job at it, probes and scopes calculated that the atmospheric composition was becoming toxic to the Earthen lives.

However, they outran every calculation of the union scientists when they unionized their planet in only two decades. And they were really coming from far away... In and all their society was fascinating to study. He secretly hoped they’ll correct their trajectory and one day become ready to integrate the local inter-stellar community, the rhythm of their discovery and the speed at which they develop new technologies were incredible.

Aarin snapped out of his internal monologue when the screen of the Human Subject 001 was displayed on the holographic terminal of the piloting area. After a few minutes of data-gathering the hologram was complete, her parameters were in the human expected values, but something was off with her. She seemed to be depressed, yes that was the word. Her mental parameters were completely off the charts, even when accounting for errors. He thought that was finally the time to come down and pay a little visit to earth surface.

Activating the human disguise, an average-looking, young, thin and 180 cm tall man with short black hair, sharp facial structures, brown eyes and a little of muscle definition in his abs - the disguise was designed to be healthy, but he managed to tweak it a little to his taste - he joined the shuttle bay and activated the shuttle AI.

- “Hello Professor” said the AI, “Activating piloting mode”
The smooth surface of the panel changed, morphed, transformed in a sort of liquid and settled

itself in a series of bump, spikes, edges and flat surfaces, that was the standard Union piloting area, designed for the core world physiology, but really not compatible with his current human one, so he quickly switched it to the human-adapted tactile piloting gear he designed and strapped himself in the front seat.

- “Hello, activate the cloaking device, the thermal shields, the phase device and the mental disturbance unit please” he commanded to the shuttle vocal commands, which acknowledged with a sharp beep. He adjusted himself in the seat, positioned himself in a good, comfortable piloting position and with a press of a button activated the powerful yet stealth nuclear fusion reactor powering the shuttle.

A few hours later he entered low earth orbit and planned an automatic landing in the outskirts of the “New Paris” city where his target lived, he mentally went over the goals, he needed to approach the subject and... Listen to her

After landing and setting up the cloaking mechanism to assure nobody will spot the strange object, Aarin jumped out of the cockpit and prepared to peacefully explore the human megalopolis, he chose this city because of its strangeness, it was located outside the old centers, at least the centers the probes discovered and flagged as such, and from the data gathered by the continuous surveillance it was new, a very young city, so his scientific curiosity was picked, and the city was selected to become the first direct observation site of humans by union scientists!

He marveled at the diversity of the architectures from the surrounding buildings, there was a lot of different styles, yet it was really working well together. Then he came into viewing distance of his target, the human subject, he knew how to do that, he just had to know why she felt so sad all the time.

At the same time his target walked towards her home, he quickly activated the disguise again and transformed himself into a cat, he picked this earth life form because he learned that it was considered cute by humans and noticed they always tended to react positively even if they didn’t know the said cat. He ran over and managed to sneak into the house just as his target closed the door. Crap, he scolded himself, he didn’t plan exactly how to know her, he couldn’t just stick a microphone on her as a cat...

As he was thinking, his target shuffled herself, she seemed very upset... no not upset, nervous. She was really strange, and really sad, finally she abruptly got up and nearly ran towards her parents, Aarin decided to closely listen to her and to record her and transmit it to the ship.

- “Mom, dad” she said, softly, almost like she didn’t want her parents to hear her.
- “yes Arthur? Said her mother, his father seemed not to pick up, so she said “hey, listen to Arthur he has something to tell us”

◦ “he?” thought Aarin, “but she’s a girl isn’t it obvious?” he was really puzzled and was getting more and more frustrated by the minute, he thought he finally had figured out humanity and their weird gendered society and here he studied this girl (boy?) for months now, and he never saw that she...he... they was not a girl? He was positive the computer identified her as female, he was absolutely sure he configured it to detect gender, so that didn’t make any sense.

- “I want you both to stay quiet until I have finished” her parents then nodded “..it’s something I want to tell you for a few years now, but I never have had the willpower to do so, and I’d always chicken out before I had the chance to tell you, however I can’t hold it anymore I need to change things” her mom tried to said something but Arthur, her birth name Aarin deduced, glared at her, and she kept quiet, “Syl’ finally convinced me to come out” at that word her father took a

grim face but kept listening nonetheless.

"I feel like I was meant to be a girl, deep down I am a girl, I am transgender, I am a girl." she said on the verge of crying, but neither of her parents tried to comfort her. Aarin was thinking fast, he knew enough of humans to recognize this as a bad situation, but he remained confused, what "transgender" meant, of course she was a girl if that was obvious even for him a being from another world which didn't even have the concept of gender, it should be for her parents who know her very well, all of this situation made no sense whatso-

Before Aarin could finish his thought, her father stood up, approached her slowly, and slapped her hard right in her left cheek, leaving a red stain after him as a remainder of his act, Arthur seemed shocked and couldn't even talk, he recognized the symptoms of a shutdown as he studied the autism spectrum and other neurodivergences in humans before departing Union Central.

- "No, you are not a woman Arthur, you're my son, and you will remain my son, no amount of... cosmetic nonsense can change that" yelled his father right in-front of Arthur

- "Arthur, sweetheart, you can't disfigure yourself with those procedures or these hormones you know it won't work, you know you'll never be a real girl, so you should stop thinking about that, maybe you could cut your hair? Or change your hobbies ? I'm sure it would help to pass that phase, it will be alright and forgotten in no time, it's perfectly fine at your age to be confused, it will fade with time when you'll find a lovely wife and start a family" her mother said, with an annoyingly huge grin on her face

Aarin remained still, staring at the girl, her parents were completely destroying her why can't they see that? They are her parents they should recognize their child's suffering ! Aarin was completely flabbergasted at the interaction it was so alien, so unfamiliar, that he didn't know how to react, he couldn't do anything here without his stuff and he couldn't expose the mission but it was so hard to see the girl completely shot down without being able to react or answer.

Suddenly, Arthur snapped out of her state, met her parents with her eyes and with a calm and determined tone said

- "Dad, mom, I will repeat one more time, I am a girl, I will transition with or without your help or permission, I will be happy, and you can't do anything about it, now you can choose to keep me in your lives or not, mine will continue just fine, and I will do it I swear the goddess of this world. And I'll say it only once. My. Name. Is. Ariana" carefully articulating each word at the end.

Ariana, Aarin thought, it was pleasant to know her preferred name no more Human whatever 001 thingy.

It was then that her father decided to slap her, hard and again Aarin remained still, completely dumbfounded by what just unfolded.

- "Son, ARTHUR" his father spat, "you are a member of this family, of my family, and you will abide by our rules, or you'll not be allowed to be part of this family. So I'll ask you one time son, Arthur, will you give up these lies and fallacies and come back on the right track?" His father said in a deep creepy voice.

- "No. I won't. Never." answered Ariana.

- "So be it, you're not a member of this family anymore, you have an hour to quit this house before we start pushing you out ourselves, you are by then nothing, you don't have a family to

rely on, you are by yourself, and we don't know you anymore, you'll now be wandering outside like a nobody, like nothing, like your kind is. Go thing, you have 57 more minutes to take your stuff". Her father, said calmly.

Ariana tried not to panic as she was staring at her mom who just lowered her eyes in a non-vocal answer to the non-vocal question. She quickly moved in her bedroom to pack her stuff.

* * *

She came back less than 15 minutes later, she glanced a last time at her parents, and headed to the door.

- "And take that damn cat with you! I don't know why it's here!" her father yelled.

A long, silent, walk later she finally arrived at the home of her best friend Aarin identified, their name was Sylvia, and they was fascinating too, they was non-binary which is another thing in their gender game, but his mood wasn't at research, He was really scared for the girl, she just was kicked out of her home? Is that a thing humans do? That seems really old-fashioned and just... weird, that grossed him out.

The door swung open, a woman was behind it

- "Hey Art..." then her eyes widened considerably when she saw the state of the poor girl "Oh my god come inside I will prepare you a hot tea, what happened sweetheart are you okay?"

The sound alerted Sylvia, they was running down the stairs to take Ariana in a big tight hug

- "Oh my god Ar are you okay? What happened" Sylvia shouted, completely panicked, their mom came back from the kitchen and gave Ariana a steaming hot mug of mint tea, her favourite and asked,

- "How are you hun?"

Aarin saw the thoughtful expression of Ariana, he was sure she was thinking a hundred things at the moment and didn't want to repeat the experiment, however something must have change Ariana's opinion as she began to speak softly, barely a whisper,

- "I... came out to my parents, I came out as a transgender girl, they... especially dad, really did not take it well, basically ruled me out of the family and gave me an hour to be out of the house, I'm really alone no am I not?" she chuckled at that, a sad chuckle, but Sylvia took her into their arm and gently said

- "hey, no you're not alone, you'll never be alone Ariana I am here, I'll always be there for you."

- "My child is right Ariana, you're more than welcomed here, you can stay, you know we have a spare bedroom for you, so feel free to live here." Sylvia's mom said, smiling and gently stroking Ariana's hair.

Ariana started to cry and Aarin mentally relaxed, the situation was alright, Ariana was not in immediate danger, thanks to her best friend's mom. But he couldn't even think of not helping her, she was kicked out of her home! That was a little breach of protocol, but he was positive he was gonna help her.

* * *

Aarin sighed as he remembered how it started, a few months ago with Ariana's coming out, in the following months he learned as much as he could about transgender people on the humans planet-wide information sharing system they called "internet". That was fascinating, and frightening, he never could have guessed the fact their society was so gendered could hurt so much a portion of the population.

He then made... a mistake, He realized he could accelerate how their transition methods worked and made them more complete, he spent years studying humans, their physiology and psychology, so he knew their biological default form was flawed they couldn't change it like a few species in the Union, furthermore they were really far from inventing shape-shifting technologies, so they never could obtain a comfortable body, even if he noted that the majority of the population were... okay with their body.

However, the real problem was he decided to give Ariana the powered up HRT he made and swapped out her meds last month. But he must have made an error in the calculations because the effects were far faster than he originally planed, and Ariana noticed. Then Sylvia noticed. This was terrible because if others noticed this, it might bring planet-wide panic fast and humans were not ready for first contact yet.

He finally decided to transport Ariana and Sylvia from their room directly to the mess to explain to them the conundrum, it was the best move, and maybe that will speed up his research on humans. That would not be the first times observer made local allies by accident. Or in his case almost by accident.

He carefully entered the coordinates of Sylvia's home, remembered to activate his human disguise, and powered the standard short range matter transporter up, it could be used on biological material, but it was not portable so if he beamed himself down on Earth he couldn't join his ship again so, yeah, he used shuttles, safer.

He initialized the transport sequence and prepared himself mentally for the hard talk that was coming.

* * *

Ariana's POV

When light came back I was sitting in a bench with a comfortable cushion on it and I saw Sylvia stirring beside me, so I started to explore the surrounding, and we were not in Sylvia's home anymore. I started to hyperventilate when I felt Sylvia's hug and relief washing over me, at least they was there for me, I wasn't alone.

We saw a human figure a few meters away from us, and before we could react he spoke in a foreign accent I could not place.

- "So. I think I owe you an explanation" said the voice.

Chapter 3

We Need To Talk

3rd person POV.

- “And that leads us to now...” Aarin said, finishing his hour-long explanation of who he is.

- “So... you’re telling us that you’re a benevolent alien coming from a far away union of species and planets to study our planet and specie to monitor when we will be ready to initiate first contact? But I do not understand, how? Who are you? Why are we here? How are we here? How are you talking in our language? And for god’s sake, why are you so... Human?” Ariana yelled more panicked rather than angry, as Sylvia covered their ear to protect themselves from the sheer volume of Ariana’s voice.

- “Try to calm yourself I will answer to all of your questions, but first I would not say I’m a benevolent alien, I’m only here to observe you and your specie. As I said my name is Aarin, that is in your language, you could not pronounce or even comprehend my name spoken in my language, You’re here because I made a mistake, I took pity of you when I witnessed your parents evicting you from your house and decided to boost a bit your HRT, unknowingly I boosted it too much, finally I had to introduce myself to you to avoid panic or public disclosure of the effect.” Aarin said, calmly, almost coldly.

- “So it was you! I was sure my HRT worked faster than expected, well I would not have imagined an alien boost it but thanks by the way, and you witnessed my parents kicking me out? How? I don’t remember seeing you.” Ariana cut Aarin before he could answer the next question.

- “I thought you wanted the answer to your question young lady stop cutting me when I’m talking!” Aarin said with a little smug smile on his face, “To how I witnessed it, I will say one thing, you remember the cat?” Ariana nodded “It was me, I have a shape-shifting device, it’s also the answer to your last question, our specie have had the technology to shape-shift for centuries now, so we do not even have a “normal” shape it’s very diverse you should see our mainworld with its millions of different shaped and coloured people.”

“As to how you’re here I transported you here with a short-range biological transporter that’s as simple as that, your physiology is new for it so forgive me for the rude journey here. I’m talking in your language because I spent the last decades learning and studying your society including learning Earth Standard, we also have automatic translators tuned to you, but I do prefer talking with my own mouth.”

Ariana took a few seconds digesting what.. Aarin just said, there were another worlds, shape-shifting? Transporters? All of that was really a lot to take in, but she has only one important question.

- “If you’re not benevolent and only here to observe, why were you in my house to begin with? Why did you decide to help me? That does not make sense at all!”

- “My original mission was just to monitor your civilization, but see I’m a xenosociologist, I thrive on learning how others society works, and yours have a truly unique concept, the concept of gender I had to learn more about it! When I saw that your specie did not have any shape-shifting technologies or abilities I began to understand it more, I theorized gender appeared as a consequence of the sexual dimorphism development that seemed to appear approximately 12 thousand years into your past. I learned a lot with your internet, it’s a wonderful piece of technology we definitely have to implement something similar into the Union.”

“A few weeks into my mission I decided to push to the next phase and pick a human subject to study. I took your city because of its size, the number of inhabitant, and the diversity of the population, I made the computer chose a random young human, and it was you! I was really lucky thinking back.

I was in your house because even if my computer calculated that your physical health was in the normal parameters for humans your mental parameters were completely off and my science curiosity was picked, I then tracked you, transformed into a cat and sneak into your house to stick a microphone on you.

But then you came out, and the rest is history, I learned about the concept of transgender people, of transition and as I said... I witnessed a truly shocking event I could not think objectively as a scientist studying his subject, I wanted to help you, and here we are with a big problem on our heads.”

Ariana was thoughtful, yes he sneaked on her, studied her for months, but he is a scientist after all, and more than that an alien scientist that was here just to study our society and an exterior rather objective eye is more than welcomed given the current state of human society.

Suddenly Sylvia stood up, approached Aarin looked up and said

- “We’re in space aren’t we?, I can sense the low rumble of a deuterium fusion reactor, is it powering this vessel?”

Aarin was surprised, Ariana however was shocked they were, in a spaceship, in space, the cold lifeless airless void capable of killing you in mere seconds space, that one? She thought. She collapsed in the mess bench and started to panic, a few seconds later Sylvia was embracing their best friend and was whispering calm and gentle words to try to calm her.

A minute later as Ariana was resting on the bench Sylvia turned themselves to face Aarin, he then calmly answered

- “Yes Sylvia, we’re in space, in my vessel, it’s a 20 years old long-range science exploration and planetary observation ship. Its standard equipment is indeed a large nuclear fusion reactor and a few tons of anti-matter to power fast jump. In its cruise sublight speed we can make the journey from your sun to Pluto in a week, its FTL cruise speed it’s capable of joining Union Central 80 light years from here in approximately 3 months, 2 months and a half in an emergency. Finally, in case of an emergency it can consume anti-matter and deuterium to power an instantaneous 0.1 light year jump, it however requires stopping to cool off the engine, and anti-matter is a rare substance difficult to manufacture, so it’s only in case of an emergency.

Sylvia and Ariana brushed off the mention of their names and locked themselves into a shared glare with big dilated eyes and simultaneously shot out:

- “*FTL is real!?*”

Aarin pleased to see the discussion was going well so far relaxed a little, he was really tense, he never did that before and for good reasons! He should not do that. But he had made a mistake, he mentally added to talk to Ariana about the remaining of her transition and how she wanted her future body to be, at least he could give her, her “true form”. He tried not to think about how he was going to explain that to his superior back home and to focus on the current task, that is talk to the two young humans in his vessel and try to at least have them trust him, if he could manage to become friend with them, it would be good, for his research of course.

After that rather... difficult discussion, at least on their part, they have to completely reconsider their sense of world and their place in the universe, he was sure they were gonna do it, but it understandably would take some time, he left the two friend alone in the spacious sofas of the lounge area and headed to the bridge of his ship to launch some probe, monitor data, boring scientist stuff but much needed after the shot of adrenaline he just received.

- “Please launch 2 small FTL probes outside the heliosphere one starboard side and one on the port side please. Equip them with long range wide sensors and forward the data to this computer” he commanded to the voice system which answered by the familiar beep.

The probes launched then he could finally relax, the last few days have been stressful but nothing unusual happened, he now had 2 friends he could use on the ground to explore for himself, that would be much easier to take a shuttle and waste a few hours. He took his student last tests he received via the long range communication arrays placed not far from Pluto, the first planet of this system discovered. Surprisingly enough he also learned on the human internet that Pluto has been withdrawn from the planets and lost its planet status due to the official definition of planet. Well it makes sense to him, so he didn’t think about it too much.

* * *

Ariana’s POV

I sat here dumbfounded, waiting for the dream to end.

But it never did.

I somewhat knew deep down “we are not alone”, but I never expected to see a bacterium coming from another planet, and he is much more than a simple bacterium! Sylvia seemed thoughtful, I decided not to bother them and simply thinking about the matter at hand. Even if he said he was just an observer, he intervened and sped up my HRT! I was really excited about the sheer possibilities of such a technology, I mentally noted to talk to him about this technology later, I’m sure he can help correct the deficiencies of my birth body, I squealed at that thought, and at that moment Sylvia came out of her trance.

- “Ariana, are you okay? I mean an alien coming from nearly 100 light years away from us just randomly decided to change your treatment with something more advanced based on his specie technology? And what if it was dangerous? What if he was dangerous? A lot of questions remains unanswered, and I admit it creep me out”

- “I am not okay-okay, but I try to see the good things, really Syl, you saw what he can do, imagine what this technology could do? I understand we can’t bring this back home, but you know, at least I could be closer to my true self” Ariana said, with her tone lowering at the end of her sentence.

Sylvia did not answer with words, they just sat near me and side-hugged me, “she really needs that...” Sylvia thought. Syl, themselves, in their head at least, was also squealing about this ship’s technologies.

- “Hey Ariana you know this morning we thought FTL was a science fiction concept that was impossible to achieve. You know like in these old shows, Star Trek I think it was called, they warped space if I recall correctly? You think this ship works like that? Or is it another kind of FTL? It may be jumps? Or wormholes ? Or some future physics concept we did not even begin to imagine let alone study!”

I smiled as I recognized my friend’s nerd-mode. To be honest I was incredibly curious about the kind of FTL this ship was equipped with, running some calculation in my head, I deduced it was equivalent to about 1 light years per day, assuming the engine was designed to work all day long.

- “Yeah, I agree, this looks awesome, also I am really curious too, maybe now we are in the secret they’ll let us learn a bit about their tech? I would like to have my own FTL ship.” I smiled fondly at that thought

- “Oh! Yes! Maybe we could even learn their tech and design our own ship and engine layout! Or maybe we could even improve their design!” Sylvia audibly squealed and launched themselves into their best friend’s arms.

° “Oh this is really nice cuddling like that”, I thought.

A few minutes, or dozens of minutes, I don’t really know at that point Sylvia was way too comfy, later the door opened and Aarin entered our lounge.

* * *

3rd person POV

After about an hour he decided to check on his guest, he had a proposition to offer them, in part to excuse himself from the rude journey here, but mostly because he saw Ariana and Sylvia’s scientific interest and couldn’t wait to nurture it. He saw potential on these two, maybe Sylvia could absorb the Union knowledge and become a good union scientist, and probably the best human engineer ever seen on this history of their civilization. But that was an idea to think about later, now he was in front of the door of the lounge and entered.

- “Hello, sorry for keeping you waiting, I hope you had time to think about what I just said, I have an offer for you. I would like you to gather me some intel on how your society works, I am a xenosociologist after all. But before asking you to do some job and to answer endless bizarre questions by dozens, would you like a tour of the ship? I think you also would like a tour of the sol system I can limit the power of the FTL engine to lower the travel time between planets, it’s not recommended, but your system is quite empty, no offense by the way, I think we would depart between one and two weeks what’s your thought?”

Sylvia and Ariana exchanged a non-verbal conversation with only movement of their eyebrows and shoulders, this really confused Aarin, and he realized he still had a lot to learn about humans, good thing he “met” these two they also were essentials for his research as they were the best examples of the human gendered society, before he could finish his thought Ariana began talking,

- “We would love visiting the ship! We still have a few hours ahead of ourselves, unfortunately, for the tour of the solar system, we would be on board of course, but we don’t have one to two

weeks free now, however November's break is in two weeks, so we will have at least three weeks of freedom what are your thought about that?"

Aarin was pleased his guest were excited about the tour, to be honest he would be too! They had the only-in-a-lifetime opportunity to see every corner of the solar system, far beyond the moon which was still the farthest human settlement to this day, as Mars was not excepted to be man-visited for about a decade in his estimation.

He agreed to show them the ship now and to arrange the system touring three weeks from now.

He started by the cabin, - "So this ship is a small science exploration it does not have a lot of cabins, you will live in the co-pilot cabin just beside mine," just as he continued he was sure he saw Ariana sneakily take a peek of the cabin, but it also could be his imagination. They then stopped by the main engine room which housed the big nuclear reactor and the small yet sturdy anti-matter reaction chamber for the jump, he explained to the young humans behind him.

- "We cannot enter directly the engine room itself because of the residual radiation and the temperature of the room, as you know dissipating heat in space is hard and the thermal radiators made to emit heat as infra-red radiation outside in space are not enough to lower enough the temperature of this room to allow most of known sentient life, this room is thermally-isolated and have powerful anti-radiations active and passive shields to prevent the radiation to damage living tissues" He explained, grinning at the two young humans completely absorbed by the view of the several dozen meters tall and hundreds of meters wide nuclear reactor stored behind the "glass"

- "How big is this ship!? How can you stay stealth and isolated from earth sensors?" said Sylvia, still self-absorbed by the view.

- "This, young enby, is one of the marvel of engineering of the union, and a secret we keep very secret to avoid... problem" Aarin told Sylvia, with a distinct university professor tone in his voice. "But as how we're stealth, this ship is equipped with an electromagnetic deflector, it's similar to the effect of a gravitational lens from black holes but at a much lower scale, all electromagnetic waves are deviated, so we're basically invisible in all frequencies, we call that technology a cloaking device. To which is added a phase modifier, to the whole ship is vibrating at a very high frequency allowing the outside matter to pass right through it, so detecting us reliably is really hard, and dare I say, impossible with your level of technology."

The visit now ended in the bridge, he did show the trick of switching from union-layout to human layout which prompted a really satisfying "ooooooh" from his two guest, and then he guided them to the transporter room in one of the bay.

- "I hope you liked your tour, here is two short range communication devices, modified to your parameters and liking, I think you call them mobile phone, they are connected to the mainframe in the computer room and allow us to communicate easily, call me if you have a problem, I will warn you the next time I transport you" he added with a wink.

At that Ariana shuddered and was visibly shaking, seeing that he added

- "Don't worry the transporter adapted to your physiology, it will be as light as if you're jumping out of bed" he smiled before pushing the transport button.

* * *

Back on earth, the two friends were a bit shaken but seemed okay, they glanced at each others, smiled, and then hugged tightly.

Just before Sylvia broke the hug, a thought came to Ariana, "There was only one bed...".

Chapter 4

Where no tourists have gone before!

TW: mention of blood, mention of dead animals. Ariana's POV

The next few weeks flew by, by the moment it was time for school break I had managed to finish the work for the next weeks, I know Syl' did it too, it was not hard to tell we were both really excited to be the first humans to visit the entire solar system!

We also participated in Aarin's studies, we gathered data about the wildlife for a few of his friend for their study back in his mainworld, and we told him some of our best stories, supposedly for his studies, but he seemed to had had fun listening to them!

A few weeks earlier

We were in Aarin's ship for the second time since that day, he was making some of his preferred meal from his home-world that was supposed to be compatible with human physiology

- "Hmmm, Aarin, that, is supposed to be edible?" I looked as the disgusting "food" that was in front of me.

- "Yes! Of course! In your language it can be translated as animal-mashup stew with a blood-gravy and its Union vegetables, the vegetables seems to be compatible with your digestive physiology!" Aarin was really excited, and I was guilty about not trying it but to be honest, an animal-mashup stew with blood gravy? Ewww.

I was surprised when I saw Sylvia taking a big spoon of the strange food directly into their mouth like it was some regular stew from earth! They then looked at me and said

- "It's quite good Aria! You should definitely try it!"

With the encouragement of my best friend I tentatively took a spoon of this... thing into my mouth and swallowed.

The only thing I could think of is "we should give them an Oscar, because that thing is disgusting" I just manage to swallow it turned to stare at Sylvia and just spat, Sylvia was just grinning at their trap, it was hard not to show anything but Ariana had to try it!

- "Next time we're cooking."

* * *

The “meal” finished we decided to chill out a little in the lounge, I was becoming really familiar with this lounge, it was really cosy. I don’t know how we came to it, but I realized what was happening when Aarin was in the middle of his first story, Syl and I engrossed by his story-telling skills.

- “And then my crew and I were swallowed by the big scary plant! It was awful but while I was inside it, I was able to take a lot of measurement and samples to analyze on the ship! It was brilliant!”

At that, Syl and I lost ourselves laughing to death and that completely dumb story, he managed to be swallowed by a plant on some ancient abandoned planet far away in the corner of the Union territory? His life was weirdly wholesome.

We then told our life stories, how we met, how we came out in a world still hard for lgbti-people and especially trans people such as Syl and me. He was particularly interested in the history of trans people and how society treated us in the past, I think he really is a xenosociologist after all. We cooked a lot of earth dishes from our favourites, he already had programmed earth wildlife DNA into the main computer, so we had the automatic food replicator crafting us some basic ingredients. This technology was fascinating, after transportation they manage to transform energy into matter while following a complex pre-registered matrix and some DNA to replicate raw ingredient. It can also cook it but according to Aarin it’s even worse than his dishes...

So we made him some hamburgers with fries, fried chicken, veggies from earth (he loved zucchinis and spinach, weird but who am I to judge, I love snails).

One day he surprised us and take ourselves on a world tour on his invisible shuttle! I swear this thing looks bigger on the inside but also not? It’s a really weird feeling and when I brought this to him, he brushed it off as nothing but a quirk of human psychology. We board the shuttle and in a few minutes we were high above the Atlantic Ocean! We visited the American Union, some old important cities like New York, Boston, Toronto, Rio.

He even managed to sneak into the restricted UK territory and for the first time for more than a decade a European sat foot in London! The city was really different from the old photos in the time when the UK were in the EU. The streets are dark and empty. Only shaggy persons looks upon you to decide whether trying to muggle you was worth it, others were here to deal you some illegal drugs. The experience was scary, and we decided to climb up and rest at my dorm for the remaining of this day.

The world tour lasted two days, we visited all the continents on the planet, I never thought I was gonna visit the whole world! And I can’t imagine that in about a week I’ll visit the whole solar system! Sylvia beside me was squealing I’m sure it will be our lifetime experience!

Back to the present

I was with Sylvia in my dorm room, we were waiting for the ping from Aarin preceding the transportation, when it came we took our backpacks and readied ourselves for the biggest adventure of our lives!

* * *

We were installed into the co-pilot cabin, it was pretty huge, also bigger than it seemed when I peeked a look in it? I wonder if it’s only related to my psychology like Aarin said? Well I brushed this thought aside. Like I thought there is only one bed in this cabin. I was really nervous sharing

a bed with Sylvia, a part of myself, surely a part of old-me and my dysphoria, said to me that I was “a man” and therefore I couldn’t share a bed with another person if this person wasn’t my partner.

Stupid parental bullshit and manipulation, when will I ever be able to break you ?

I already did offer to Sylvia to sleep on the floor if they felt more comfortable without me on the bed, but they called bullshit and hugged me tight. They really was the best friend I could ever imagine having.

We unpacked our stuff into the admittedly luxurious closet for a small military ship, even if that was a ship detached to the science navy, and just basked into the warm soft bed and hugged tight. Life was beautiful sometimes.

In the last few weeks super-alien-HRT (yes I gave it that name) worked like a charm, I lost about 5 centimeters, and I am now a few millimeters short of Sylvia (which she used to tease me on how I am the shorty now, even if I’m still almost 170 cm!). I lost about 10 kg, not that I was overweight, but I was packing a bit more muscle and I lost 5 cm to be honest. My waist pitched in, and I gained a lot of hips and a lot of muscles in my thighs. I think my voice was a bit higher and softer too, I never would have imagined I’ll get a science fiction super-advance transition.

I talked about that to Aarin during the last weeks, and he said that this technology would normally give me what he defined “true form” I guess it’s close to “my female form if I were assigned female at birth” ? Maybe I could get pregnant one day! You imagine the first trans girl to ever give birth to a baby! The possibilities were endless, and it feels like magic, everything in this superfast transition feels like magic, getting that shorter? Magic. Voice? Magic. These thighs? Definitely magic! I can’t wait for the results of the end. It should take at least a year according to Aarin, but external changes are okay in a few months he said.

I guess Clarke was right with his famous quote “Any sufficiently advanced technology is indistinguishable from magic”.

Whatever, we boarded a few hours ago, and I was really fatigued about this day and the emotion that followed, we were still in very high orbit of earth and decided to stay the night here, Aarin was finishing the calculation to make short-outburst of the FTL drives, we would also use the sublight engines to finish the orbits. So I decided to snuggle a bit more in the comforter and tries to sleep.

- “Hey Aria are-you okay? You seem down, why were you trying to sleep on the ground? You don’t want to sleep beside me?” Syl’ said softly, almost whining, they may be pleading? I don’t know it sounds like they wanted me to sleep with them? They should be embarrassed no?

- “Yeah, don’t worry Syl I am okay, I’m not down I’m thoughtful this whole thing is bizarre you know? One moment we were in your room drawing a science fiction FTL ship and the next we were on an SF FTL ship, so my brain haven’t really adapted I think? We do need to abandon all of our previously-conceived ideas about the nature of universe and alien life to accommodate the fact that we’re not only not alone but the closest one are a multi-stellar organize union with technology similar to magic. See my transition for god’s sake it seems like magic!” I yelled, I panicked, It was too much in so little time!

- “Hey, hey, hey don’t worry it’ll be okay, everything gonna be fine trust me” softly said Sylvia, enveloping me in their signature big hugs, accented by the fact that we were approximately the same size now, I wonder if I’ll become even smaller, being in their arm like that seems really comfy, nothing like sleeping enveloped by the arms of your best friend.

“And you know what you were already cute but now, you’re adorable” Sylvia smugly smiled, sawing my scarlet-red blush on my cheeks, I know they was saying this only as a between friend compliment, but it was making me really blushy.

After a few minutes I relaxed into their arms, waiting for them to break the hug, but they never did, when sleeps was winning against my anxiety I was thinking that I would like to sleep like that, it must be so comfy being comforted like that, so I took my chance,

- “Syl’, can we... like... you know... sleep like that? Your arms are very comfy” I was furiously blushing

- “Of course Ariana, good night baby” she kissed me on the forehead, and we were asleep in no time.

* * *

A few hours later, correction, not enough hours later, I awoke to a low rumble through the ship, I recognized it well at the rumble of an on-ship fusion nuclear-reactor, we must be leaving orbit, I still was in the arms of Sylvia who was still asleep, accustomed to the rumble of a nuclear reactor, they lived in a ship for a few months when his dad was working on a mission.

I basked in the beautiful innocent smile of my best friend still asleep, and managed to extract myself from their arm, get dressed quickly and came back with a replicated breakfast (cookies and a coffee) I preferred mine black, but they was the type of coffee person drinking it with more cream and sugar than actual coffee.

I decided to pass by the bridge to see what Aarin was up to, one more times I felt a strange feeling passing the door of our cabin like a tug on my whole being that last less than a fraction of a second. I really should talk about this with Aarin.

Before I even arrived in the bridge I heard a rather heated argument between Aarin and another voice I can’t really state. They were likely talking in their home language but Aarin never mentioned another passenger?

The door opened, and I was in front of Aarin yelling at the holographic representation of... a blob ? Talking?

- “What is going on here professor?”

- “Oh Ariana, hello! Sorry I was arguing pretty loudly with the ship, she is quite angry at me” He said, quickly dismissing the holographic blob in favor of a holographic representation of earth and our current trajectory. “We are currently leaving the orbit in low sublight speed, we will make a short FTL burst after passing the level of your Moon and stabilize ourselves in an orbit around Mars, I understand Mars is a destination your kind wanted to set foot on for a long time now?” Ariana nodded “Well you’ll be the first human to do so!”

A few minutes later Sylvia emerged from the door, fully clothed into their “standard work uniform” which is a fancy word for a pair of sweatpants and a large t shirt, smiled at me and sat in the engineering station of the bridge and were staring at the screen displaying our current parameters, sipping their creamy coffee

- “Aria that’s incredible we have real time data about our orbit right now on this screen!” Sylvia was excited that’s for sure, she tilted her head and added “it’s human-readable?” at this Aarin indicated he took the liberty of translating the ship operating system to simplify our usage.

About an hour later Aarin mentioned we were doing a little flyby of the moon, it took us only an hour to be here! The moon was beautiful this close, the little (or big) craters were really detailed, and it took all my willpower not to take photos and just marvel at the show! Sylvia on another hand was far more impressed, they already did a flyby or two of the moon with their dad, he was working on the development of permanent settlement on it to be honest.

Just an hour later we were passing the Lagrange point L2 of the earth-sun system, the first place where a probe was placed by, a union scientist according to Aarin. The probes were moved in the early 2000s when the Union picked up encrypted signal from NASA and the ESA that the James Webb Space Telescope would be in, a halo orbit in the L2 point, the chances were small, but they couldn't risk detection.

- "Please sit, Sylvia sit here in the engineering station, Ariana please take the co-pilot seat, we are gonna make our FTL outburst" calmly said our host, we complied and were really excited, we were on the verge of becoming the first humans to travel faster than the speed of light. That was something, sorry Einstein, you're wrong!

Aarin's POV

I smiled softly as my two guests strapped themselves into their seats, they will be participating in that jump, and they will never forget it!

- "Ok begin checklist, Ariana please check the coordinates in the navigation panels we should be around twenty thousand kilometers above the surface of Mars, in the standard direction, Sylvia please verify the integrity of the FTL drive"

- "Aye captain" giggled the two young humans beside me, they were dying to role-play it was obvious, a few seconds later the two officers signaled the go

- "Ok, Sylvia please turn off the main sublight drive, Ariana when it will be done please disengage the drive and turn on the FTL drive" the two nodded

About a minute later the rumble died down, but another one resounded in all the ship, the signal that the FTL drive has been engaged, I signaled to Ariana the GO to power on the drive and a few seconds later the rumble intensified and died down.

- "Ok final call, engineering?"

- "Go" confidently said Sylvia

- "Navigation?"

- "Go" said Ariana, with a bit less of an enthusiasm, I noted with a smile

- "Ok initiating final countdown"

The computer began counting, 5...4...3...2...1 "jump engaged"

Ariana's POV

And I thought the engaging of the FTL was something! This was another! When the computer signaled the engagement of the jump I felt like the entire space was twisting, collapsing onto itself and then like it never happened we were in orbit of Mars.

- "Now, this jump seemed instantaneous because it was, I used the jump drive to arrive here, when we'll finish with Mars we'll use the standard FTL travel to go visit Jupiter, now, gear up little ones we're going on a walk!"

* * *

Aria's POV

After a long and tedious phase where we replicated suits at our size and constructed the oxygen tanks, a part which Sylvia loved, we were ready to strap ourselves into the shuttle and make our approach of Mars. We were going to walk on Mars how awesome is that?

Aarin surprised me when he offered me to pilot the shuttle down,

- "Are you sure? I never drove a car back home, how could I drive a spaceship?"
- "These shuttles are designed to be easy to use, just strap yourself in the main piloting chair and let your instinct do the trick! It's highly human-customized everything should be coming natural to you and if you manage to screw up the shuttle's AI will take over and landing us softly on the ground!"

Agreeing, but nervous, I took place in front of the customized piloting area, I was pleasantly surprised when I saw it, it's not like in science fictions where you have a thousand buttons and five different sticks and if you press them in the wrong order you accidentally launch a nuclear missile on Russia instead of playing your favourite music. No, this is... simple? There was an on/off switch with a little pictogram of the engine - I guess it is the engine turn on button ? - a thrust slider, an array of simple labeled buttons, and a simple controller. I took the controller in my hands and decided to role-play a bit, you're not piloting a highly advance alien spaceship every day.

- "Stations, do I have the go"
- "Yes ma'am" simultaneously said Aarin and Sylvia with a smirk on their face
- "Ok, disengaging docking port" with that I pressed the... docking port button on the panel and with a loud *thud* we were now in free space, this thing was way too easy.
- "Engaging RCS thrusters" after engaging them I slowly used the RCS to be a little farther away from the mainship until the light indicator went green and the engine button unlocked. I smiled
- "Turning on main engine" I pressed the button and immediately the entire shuttles rumbled for a few seconds before everything went back to normal and the basic data about fuel, engine situation, orbit and radar - I guessed it was a little more advanced than our radar, but the name did fit pretty well - I managed to see a glimpse of our vessel by the shuttle's windows.

And what I saw really surprised me. Due to the unknown distance and lack of reference point I could not guess the size of it, but the shape was... off. The vessel was not specially designed or with a futuristic shape or anything like that.

No it was a sphere. A simple sphere. As a designer and art student saying that I was disappointed was an understatement, here we were the first humans to be in an alien spaceship and instead of a beautiful or weird or whatever shaped ship it was a sphere? I was frustrated and Aarin noticed it

- "What? You know spheres are the best shape on the universe no? We are not some character of your science fictions stories we prefer practicality to showing off weird frames, and sphere are easy to manufacture in space too."

- "Yeah, sure, but you know I'm kinda disappointed ? Designing is fun, and I'm spending my entire free time designing cool spaceship, so a shapeless gray flying ball in no fun" I pouted, Aarin smirked and pointed the commands, oh right I needed to pilot...

* * *

A few hours later I was still piloting into the free space around Mars when the “radar” thingy pinged I was intrigued, so I went to click on it, but the information bubble manifested in a hologram in front of my eyes before I clicked on it, weird it must have read my brain wave or something like that?

I read it, and was somewhere between surprise and awful laughter,

- “Hey Aarin the radar here is signaling the presence of a probe declared lost by the union, and its name is. . . Major Tom?”

- Aarin nearly spit out his drink and said “You found major tom???” ”We lost that probe ages ago, and we happened to fly near it by pure chance, god they’ll be happy in the science team”

At this point I was definitely laughing out loud,

- “You called a probe Major Tom and you lost it, it’s impossibly ironic it’s not possible, clearly you’re joking I refuse to believe it”

- “I know, I know, this probe was a prototype of a super-stealth technology we were developing, the end of this program is the cloaking device you saw, but this prototype was equipped with electromagnetic cloaking in all frequencies, FTL communications cloaking in all frequencies, and thermal cloaking, it’s practically non-detectable

And we really did a good job! Because the cloaking computer thought its own FTL communications arrays were a malfunction and corrected it, that is, it dismantled the array and used its base material to create a communication deflector, and it became undetectable with our own technology, the only way to find it was to fly within a hundred kilometers of it, the ship computer then would lock onto its signal and track it. But 100 km in space is ridiculously small

As for the name, our tracking probes picked up and sent all of your emission, including the non-scientific one. Well whatever I sent the coordinate to the ship’s AI she will pick up the probe we can continue our little mission, enough time spent flying and fooling around, we are going on a walk”

* * *

An hour later we were landing on Olympus Mons. I was thinking of the famous pictures of the NASA’s and later FSP’s rovers on Mars, with rocks, red powder, a red sky and everything super-red. Well it’s not that red, it’s more of an orange weird maroon rusty colour but yeah I guess it can be considered red if you’re half blind.

We were walking, a lot, but it was kind of cool, we carefully picked the landing location of being far enough of any rover, I think the FSP’s controllers would freak out if suddenly they detected three humans casually walking on Mars like we were on the Sierra Nevada. It was a bit sad, I’d love to say hi to our robot friends on Mars, they explored this planet for us since the first Cold War. But yeah safety first. Still I’d love to see the face of Syl’s father seeing them on Mars waving to opportunity two. I pouted.

Sylvia must have been thinking the same thing because when they saw me pouting they giggled into the shared radio (same I guess it’s not radio, I’ll call it super-radio) and tried to hug me. It was then that we discovered these EV suits are not meant to hug. Weird.

* * *

A few hours of walking later, I noticed that this body was so much better, I was not only happier, but I was visibly fitter and more athletic, I had a lot more stamina than I used to and was visibly stronger, I guess Aarin included some bonus with the alien-HRT because there's no way my "true-form" would be so strong.

We decided to stop to eat, I was going to take off my helmet when I caught Sylvia looking at me with big eyes, almost as spherical as the ship, and I remembered that Mars' atmosphere was not breathable, I think my blush of embarrassment was visible through the helmet because Sylvia approached me and lightly tapped the top of it, with a sound I imagined as being a bonk.

Instead, Aarin used a little capsule that expanded into a little shelter with atmospheric pressurization and a built-in airlock. The Union technology was wonderful, and also confusing, how can they have invented conjuring buildings out of little capsules but not the internet ?

As soon as we entered the shelter and took off our equipment Sylvia's jumped in my harm and hugged me, they really loved to hug me and to be honest I was not complaining, it was so good to have a cuddly best friend, and she was more and more cuddly nowadays with my transition I wonder if there's an explanation to that.

- "Ariana! THATWASSOCOOLWASNTIT?" Sylvia shoot, yelling and talking so rapidly that my brain could not comprehend what just happened.

- "Yeah Syl' it was incredible, we were trekking on another planet it's not something I thought I would do in my twenties, and I'm 19 !" I laughed, trying to sort myself out of them, I was becoming shorter than them, and it was more and more difficult to do so by the days. Help I'm soon going to be a prisoner of my best friend embrace.

Eventually I pulled out, or they let me out I don't really know, and we began eating, earth food again, prepared by Syl and me again, we were not letting Aarin cook anytime soon, the memory of the stuff he tried to pass up as food was engraved in my memory, so vividly I could live again the situation, not that I wanted to.

The meal finished and the shelter safely back onto its capsules we wrapped up our Mars tour and came back to the shuttle.

* * *

A few hours later I was chilling in the lounge with Sylvia snuggled to me reading the manual and theory papers describing the FTL ship when Aarin called us up to the bridge, we were gonna activate the FTL drive to travel to Jupiter, Sylvia requested to access the command room of the engine and was granted access, so they were there.

* * *

About a day later we arrived in orbit of Jupiter, we were to visit its moon, it's not like we could safely walk on Jupiter to be honest, and having a bit of fun.

Once again we took the shuttle, but Sylvia did not come without us this time, they said they still wanted to read the theory about FTL travel and how it works, Aarin agreed so here we were landing on Europa's ground with a few hours to spare before going to another interesting moon.

- "Isn't Europa supposed to have a liquid water ocean deep?" I said, the hype of being in space quickly faded, and it was like any other walk. Just with a helmet to void to suffocate into

the endless void of the universe. But I was indeed really interested about this stuff, liquid water practically says “life” isn’t it? This was exciting, unknowingly to me, all my hopes will be crushed in an instant.

- “Yes this was confirmed by a team of our scientist, but no I know what you’re thinking, our technology is advanced enough to detect life signs this deep and there isn’t. None. Not a single spark of life. Just endless water and ice, so deep that even our equipment have trouble accessing it without destroying the entire moon. This water could solve one of your current issue, you know with climate change and the fact that you’re not trying to do anything world-wide to address it”

I cringed at that, he was right, even if we formed a planetary federation and society we were still based on a form of capitalism, and capitalism always prefer profits to saving our climate, and according to every earth scientist, our specie.

- “Yeah I know, but you know what, the planet will survive, the biodiversity will regenerate, only our civilization will disappear, and at this point, don’t we kinda deserve it? The early twenty-first century attempt to stop climate change did not work because nobody followed it, and now it’s nearly too late. Climatic anxiety gained all of my generation, we feel completely useless about what is happening to our civilization.”

Aarin’s POV

Wow I thought, I knew that she had a mind on climate change but not that climatic anxiety was so deep down attached to children in earth’s society. Even if that’s something to add to my research I could not help to feel sad for the poor girl, she felt powerless, useless, and to be fair she was, governments needs to change not her she can’t really do anything.

I tried to do as I often observed human do when one of their acquaintance was feeling down I tried to envelop her with my body and arms and tightened my grip without choking her. If I recall correctly humans call that “hugging” and it’s supposed to be a sign of affection, it really seems to calm her as she tightened me too, I knew it was known as “hugging back” and a sign she accepted the gesture and was happy. Humans are weird how nearly choking to death one of your member is considered a sign of affection ?

Anyway, I needed to calm and comfort her, to be honest I think I gained a liking for this human, she was kind and likable, her friend was really smart and was already figuring out the in and outs of FTL travel I could see it in her eyes, the flame of passion for a subject, I was like that when I discovered humans in my xenosociologist degree, their society is so, so weird. They developed highly advanced technology such as the internet that allowed their people to access up-to-date information and science in all of their world, and to post silly cat videos I added, chuckling mentally. Yet they were still at the age of bigotry, climate disaster and capitalism.

The Union members had all abandoned capitalism ages before developing any kind of technologies, it simply wasn’t a viable model to continue, capitalism cause the “economy” to collapse onto itself regularly; records also indicate it actually happened on Earth, many times, yet they keep this way of living. Many Union philosopher and economist argue that it’s because they kept capitalism for so long that their technology is developing so fast. War were still a thing on Earth just 10 years ago.

In and all Earth society was intriguing, and I was obsessed with the concept of gender, this seems pointless and open the door for so much bigotry. I decided to voice some of my concern to her and finished with,

- “You know Ariana if I am a xenosociologist and pushed for that degree after my original degree of xenobiology it is because of your specie, your society is so bizarre it doesn’t fit with our models and predictions, the discovery of your planet revolutionized xenosociology in The Union. Your rhythm of technological advancement is so fast in certain category but so slow in others, how come your medical researcher did not cure human cancer yet, or developed better solutions for trans people? I really don’t understand how your society works and that’s why I volunteered for this mission, nobody really wanted it to be honest. The concept of gender is really weird too.”

- “Oh I don’t really know about it, I mean some cancers are treatable? But the cures are really expensive and unfortunately with the formation of Europe and the Federation of Continents free healthcare kinda disappeared ? This and other social structure, yes all the world is working together now but the Federation is so economically liberal that practically every social protection concerning citizens disappeared. Yes in Europe we have a bit of chance there is a free basic income and my University provide orphan or abandoned children with a place to live, but it’s not generalized, and it’s not enough if you fall seriously sick. A lot is left to do on Earth I’m afraid.”

“About the gender I agree, gender is confusing, but I’m enjoying gender right now, because of you so thanks you by the way.”

I had a lot to think about what she just said, Earth society has a long way to go indeed but some of their ideas are wonderful, and they just think differently, the word science community is well-formed and ideas, theories, and data can safely be shared and accessed everywhere on the planet, for free, it was a start, I think it is all they need to evolve their society to something more fair for the citizens of Earth.

Ariana’s POV

Talking about our society with Aarin is really refreshing, he has scientific outsider ideas and comments about it to make, and it’s exactly what we need to hear, he also clarified a lot about how he thinks society morphed into what it is now, and how it changed over time. Having a literal scientist of societies that studied yours for decades now and can identify what went wrong helps to be honest. Where and when, which to be fair his answers looks like “everything”, “everywhere”, “at any point in time” things went wrong. He said that our society is mild and can be changed with little to no help, just readjusting itself, he was really optimistic about it, it reassured me a bit.

He also said that humans were not ready for first contact with The Union, but when the time come, The Union would help humans to be more considerate about their citizens and with the cultural mix both our societies would mix into a better society for all of us, they were really interested into how we developed technologies so fast, and it was a point of intensive sociological research in The Union.

3rd person POV

Unknowingly to Aarin and Ariana, a team of Union scientist were on Europa when they landed, they sensed the Union shuttle and came to salute Aarin as he was the only scientist they knew of that was on the system, but when they arrived they were surprised and a bit mad about the presence of a human with him, not knowing what to do they decided not to confront him here and there but took evidence, rejoined their ship and went full-speed in direction of Union Central to report him.

Glossary

Declaration of Foundation of the Federation of Continents (The) The treaty that formed the word government known as the Federation of Continents, a federation of all the continents nations. also called Federation Treaty as a reference to the Union Treaty. 9

disguise a shape-shifting technology invented by the union mimicking the ability of one of their specie.. 13

Earth Standard The language spoken on Earth (a dialect of English). 7

Europe The nation created by the fusion of the ex-nation of the EU and other nation on the european continent. 9

Federation of Continents The world federation of all continents nations on earth.. 9

Federation Space Program The space program of the Federation of Continents. 11

Federation Treaty see Declaration of Foundation of the Federation of Continents. 9

FTL Faster Than Light. 7

International Jet Propulsion Laboratory The successor of the NASA's Jet Propulsion Laboratory, attached to the Federation Space Program. 10

Massacre of the International Convention The event which happened in the first International Convention of the United Nation in 2023 (a big reunion of all representative from the 200+ nations on earth), a series of terrorist attacks from North Korea killed 2000 people, more than half of all the heads of states of the earth died in this attack. This attack directly caused the international efforts to unionize.. 9

New Paris The capital of Europe, its exact geographic position is purposely not stated, somewhere between Belgium, France, Germany, Italy and Switzerland. Named after the former capital of France and most populated city of the UE, Paris. 9

Union (The) The group of highly advanced alien species that formed an alliance spanning across 80 to 120 LY.. 13

Union Central The central political capital of The Union.. 15

Union Standard The language spoken in the Union. 7

Union Treaty The treaty which formed Europe out of the then European Union, following the events of the Massacre of the International Convention.. 9