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The House of Friendship

Standing a mere stone's throw from the Eternal Hearth, the edifice was supposed to be a monument to the friendship between the only two sapient species in the galaxy, and to the yinrih who built it, it was just that, but to most humans visiting the holy world of Hearthside, it was—well—a tower of human skulls.

We had offered a large supply of medical cadavers to our new galactic neighbors so that they might better understand human biology. It was thought that the yinrih, who had terraformed every suitable body in their star system dozens of millennia before we humans put plow to earth for the first time, could bestow upon our primitive species all manner of medical miracles, after, of course, dispelling their ignorance regarding our anatomy. When the human ambassador was asked what ought to be done with the bodies after they had been studied, “Treat them as you would your own dead.” seemed to be the culturally appropriate response.

What we didn't know at the time was what exactly they did to their dearly departed. Bury them? Cremate them? Nope, turns out the answer was dissolve the soft tissue with acid, then use the bones to build with. Of course, not every structure had the honor of being made from the remains of your friends and family. In more traditional corners of the system, such architecture was reserved for houses of worship. In more secular parts, this peculiar building style extended to monuments, libraries, halls of learning, and centers of political power. In the most general sense, the best way to make your building scream “this is important!” was to cover it in skulls.

The yinrih healers studying our anatomy had mountains of alien remains to deal with, and also wanted to show us weird flat-faced hairless bipeds that they saw us as friends. Building a library to house the newly acquired medical knowledge in the traditional ossuary style seemed to solve both problems neatly. So there it was, bones bleaching in the perpetual noon of a tidally locked world, containing the musings, anecdotes, theories, and observations of an intelligence that was not our own pondering the peculiarities of the human form.

Aurora sat politely at the door, ready to greet any passing visitors, human and yinrih alike. She always found it interesting how differently the two species reacted to this little library. Her fellow yinrih would hurry inside, passing the facade of grinning alien skulls without comment, but eager to peruse the shelves, learning as much as they could about these large tailless creatures. Humans would stare open-mouthed at the outer walls encrusted with the skulls and bones of their conspecifics with a mixture of disgust and fascination. Or at least that's what she gathered from their comments. The nuances of human body language still escaped her.

There was one memorable exception. He was a cleric, or at least he looked like the pictures Aurora had seen of human clergy. He approached her, teeth exposed in the way humans did to show they were not a threat, extending his arm to grasp her forepaw in a greeting gesture. After quickly remembering not to expose her own teeth, she reared up on her hind legs to better meet his gaze,

wrapping her tail around the pillar behind her for balance. She politely refused the handshake. The human was positively drenched in that pungent excretion, “sweat”, she thought they called it. The unforgiving heat of the nightless desert apparently did not agree with this alien visitor. It was just a brackish solution used to regulate body temperature, exuded by glands just under the surface of the skin, odorless on its own. It was the bacteria living on the skin that caused the smell. Whatever it was and however it smelled, she was not eager to get it on her pelt.

“Good, uh, morning?” said the human, quickly glancing up at the star perpetually frozen at the zenith. “Sure is hot today.”

«Hello,» Aurora yipped. «It's like we say, 'On Hearthside, if you don't like the weather, too bad, it's not going to change.'»

“Quite the monument you've got here. What's it for if you don't mind me asking?”

«Not at all. I'm actually a volunteer here. This is the House of Friendship. It's a little medical library, all books on human biology and medicine.»

“Ah,” the cleric responded. “And the skulls are real, then?”

«...yeah,» she hesitated. «It's considered the respectful thing to do here. You guys gave us all these cadavers to study, and we wanted to do right by you when we were done with them.»

“Fascinating.”

«You're not offended? Most humans seem to think it's morbid.»

“We build our altars on top of the bones of saints. It's really not all that different, I guess. We even have a few chapels that look just like this. We usually bury our dead first, but after a few hundred years it builds up and we need to make room. The bones get dug up and they need to go somewhere.” He gestured at the facade.

«Interesting,» said Aurora, ears tilted forward in attention.

“A lot of us humans still think that stuff is morbid, too. I don't know, I guess it can be, context is everything. But in a way I can see why you find it comforting. Being surrounded by friends and family. Being reminded of one's mortality also keeps your mind on the important things.”

«Exactly,» Aurora barked happily, glad to finally see a human recognizing her species' gesture of kindness. «You know we've been searching for other sophonts for so long. It's kind of the whole point of all this.» She waved her paw in the direction of the Eternal Hearth and surrounding religious buildings. “We're just happy we're not alone anymore.”

“Thanks,” said the human. “We're just as glad as you are.”

The Angel and the Ape

Fr. Shaheen took a drag of his cigarette as he stared up at the night sky. A few stars were just bright enough to shine through the gray haze cast by the street lights in town.

Just at the edge of the trailer's porch light sat an old foundation where a sizeable rectory once stood. It had been far too large for a single resident, so he had it torn down and was now living in a much more modest mobile home. At one point a youth center was planned to take its place, but the number of heads devoid of gray hairs that could be found in the pews of Our Lady of the Cedars could be counted on both hands.

Rare was the night where the priest couldn't be found puffing away in front of his trailer. Restful nights were few and far between. Maybe his smoking habit was to blame. His new housemate did comment frequently on his snoring, loud enough to be heard from the other end of the house.

That new housemate was awkwardly lying on the bench across from him, a haphazard jumble of limbs. He was covered wet nose to prehensile tail in black and white fur. He broke the silence with a cough. "Why you cleric breathe that smoke stick?" came a tinny robotic voice from somewhere in the tangle of legs. "That smoke make cough. Smell bad bad." While the little quadruped's English was improving by the day. The intonation was off, with stressed syllables appearing everywhere but where they should.

"We all have our vices," sighed Fr. Shaheen. "Do you mind if I ask you a personal question?"

"You cleric friend, ask ask."

"Why'd Iris insist on you staying with me?"

After a long pause, "She iris think you human maybe follow Light more good than us yinrih. Maybe again you cleric make me friend believe."

"I think Dr. Staples has been giving you guys the wrong idea about humanity."

"He doctor show us how strong human, how fast human. Show us beautiful arts. Show us human help other and not think self."

"Yeah, that's what we aspire to be," grunted Fr. Shaheen as he rose to his feet.

"Where you cleric go?" asked the creature as he oozed down from the bench and planted his hexadactyl paws on the wooden porch.

"Come on. We're going to get more cancer sticks." The priest walked to a dust-caked pickup truck parked next to the trailer. After a deep bowing stretch the alien trotted behind him.

"Turn off that synthesizer," said the priest as he turned the ignition. "I need to work on my Commonthroat comprehension."

The alien complied, slipping the small chording keyer from his wrist and placing it in a pocketed band around his right foreleg. His real voice came in quiet melodic whines and growls, as though a dog were trying to speak Mandarin in its sleep. The priest had to strain to discern the subtle shifts in volume that were just as meaningful as the underlying sound.

"When are you going to give me a human name?" the alien grunted.

"Eh? Don't you have a perfectly good Commonthroat name? ring...light, isn't it? So like moonlight, but from a ring around your home planet?"

"Yeah, but I want a name humans can pronounce."

"What's wrong with translating your name as is?"

"This planet doesn't have a ring, and none of you humans have been on a planet that does. I feel like the name falls flat. I want my name to mean something to those around me, not just to the five other yinrih who are with me."

After a long pause, "Back there before we left, you said you didn't believe anymore."

The alien hesitated, then tilted his muzzle up, a rough equivalent to an affirmative nod. "I was a devout pup. I went to liturgies daily, poured over hagiographies, could quote scripture as easy as breathing. Faith helped me back then. I was...am--?" The next few words were lost on the priest.

"Maybe rephrase that last part, Those are some new words for me."

"Well... I'm not sure if you humans experience this, but some of us have something wrong in our brains, a condition that keeps us from feeling happy. I have that condition."

"Depression," said the priest. "We've got that over here alright. I struggle with depression, too. A lot of humans do. My faith keeps me afloat. Sounds like it helped you, too. But what happened?"

"I always needed something solid I could stand on, something tangible that vindicated my faith. Through my puppyhood I thought I had that something, but I turned out to be wrong."

"What was that something?"

"Persistence," said the alien. "For a hundred thousand years the Bright Way persisted. It survived threats from without and from within. It managed to survive so long despite the often profound stupidity of its leaders. I thought only a divine mandate could keep such a mess from foundering."

"And...?"

?It was a lot of little things. I noticed other Wayfarers could be just as rude and hateful as anyone else, and that made me wonder if the Bright Way is no better than any other group of people, is it really special? Surely the organization that claims to be the bastion of truth and virtue should be BETTER, right? Not just not any worse.

?But the tipping point was when the High Hearthkeeper tried to shutter the missionaries, the whole purpose for the Bright Way's existence, you know? 'Go, dearest little ones, spread your light to the stars, and ye shall become brighter yourselves.' That's the Great Commandment. That's our most sacred precept, that we're not alone in the universe, that we should seek out the Light's other creatures among the stars. So what? We're just going to abandon it now? Than what are we? What is our reason for being?

?That's when it hit me. If our own leader doesn't care, why should I??

"You sacrificed a lot. It took you 250 years to get here, and it'll be at least that long before you see others of your kind again. If you think this mission from God, this Great Commandment, of yours is just a fairy tale, than why bother?"

?As for me,? said the alien, ?I'm not a very gregarious person. The other missionaries with me, they're all I've got. If I didn't go with them I'd likely never see them again.?

"But still... dropping everything knowing you may never return, that's a heavy choice to make, friends or not."

?Well, you can blame Iris for twisting my ear. She said if I were right, and this is all nonsense, I will have lost nothing by coming with them. It's not like we age while in suspension, and it wasn't like I was pulling up roots by leaving home. But if the Bright Way is right, I will have gained everything by obeying the Great Commandment, so--? He quickly flicked his ears back in a cynoid shrug.

The priest was beaming.

?You're showing your teeth. Is something wrong??

"Pascal!" the priest proclaimed. "That's your human name!"

?I don't follow.?

"Blaise Pascal, he lived 400 years ago. Most people today know him as a scientist, I'm pretty sure there's a unit of measure named after him, but he also talked a lot about faith. Pascal's wager. What Iris told you. We call that Pascal's wager. Lose nothing or gain everything."

Pascal looked out the window as the pickup pulled into a sprawling parking lot. At its center was an equally sprawling monolithic building.

?So why'd you bring me here, other than to get more of your foul-smelling smoking sticks??

"I told you what Dr. Staples showed you was what we humans want to be. That's all well and good, but you also need to know what we are." The priest got out of the pickup and Pascal followed.

"You're definitely going to need that synthesizer."

Pascal positioned the keyer in his left forepaw, then looked up at the large illuminated sign above the entrance and attempted to sound out the letters.

"W A L M A R T"

"Hey," the greeter stepped in front of the pair. "No shirt, no shoes, no service," he said pointing down at Pascal.

"But--" Fr. Shaheen protested.

"--Nah, just kidding, go on in. I've been wanting to say that ever since you little guys landed."

The two entered the store proper. "It'll just be a minute, My cigs are right over there--" Fr. Shaheen gestured toward one of the checkout lanes. A line of shoppers, at least 20 deep, snaked around the surrounding displays.

He swore in Arabic under his breath. "OK, it'll be longer than a few minutes."

"Short-staffed tonight," said the shopper at the end of the line. "Let me guess, Cigarettes? That's what everyone else is here for."

He glanced down at Pascal. "First time at Wally World?"

Pascal bobbed his head up and down in an exaggerated nod.

"He needs to see the other side of humanity," said Fr. Shaheen. "Those ivory tower folks at the college are showing them Olympic athletes and firefighters and renaissance masterpieces, and I want to give them the whole picture."

"Hoo boy you're in for something alright," the shopper chuckled. "Hey between you and me, if you wanna blow up the Earth after this I won't even blame you."

As they talked, a large woman in a scooter rolled up to the end of the line. "Aww!" she cooed between breaths of exertion. "So cute." She reached down and scratched Pascal behind the ears. "Whosagoodboyyesyouare!"

?!m a person and I have personal space!? Pascal barked, ducking out of her reach.

The shopper glared at the woman. "Seriously, lady? You been living under a rock the last two months? What makes you think that's OK?"

"He's got fur, ain't he? And four legs and a wet nose. If God didn't want us to pet 'em then why'd He make 'em fuzzy?"

"You must be from Austin," said the shopper. "I thought we chased all you weirdos away weeks ago."

The pair's argument gradually increased in volume. The woman rose from her scooter and began gesticulating. Fr. Shaheen stepped between them. "Let's be charitable--"

"Cram it, fish eater!" the woman snapped.

Pascal slipped down an aisle and out of sight, anxious to avoid the melee that was surely brewing.

He stared up at the shelves and scented the air as he walked. Away from his human host everything seemed intimidatingly tall. Suddenly he felt something wet under his right front paw. He looked down at the yellow puddle underfoot and sniffed, the unmistakable odor of human excreta.

An elderly human was waddling around the corner, more of the same odor wafting off of him. "Better clean that up, sonny," he said to a passing employee.

"Clean what up?" A adolescent male voice approached from the other direction. The lad came into view and looked down at the puddle. His face flashed with frustration and then to embarrassment when he noticed Pascal's paw marinading in the mess.

"I heard over the walkie that one of you guys was here." he sighed, pulling a wad of sanitizer wipes from a cleaning cart behind him. "So, ready to nuke us from orbit yet?" he handed the wipes to Pascal. "It's the only way to be sure."

Pascal shook his head as he wrung the towelettes between his forepaws, wiping under his claws and between the pads on his palms.

"No?" The boy said as he mopped up the puddle. "You will be when you get out of here."

"I'll take those," he put the spent wipes in a trash bin on the cart. "All good?"

Pascal jerked his foreleg forward and gave an unpracticed thumbs-up along with an awkward affirmative bob of the head.

"Cool," the lad said. "Name's Jeff, by the way."

"Pascal," he synthesized, patting himself on the belly in greeting.

"Pleased to meet you," Jeff said, copying the gesture. "I'm gonna say sorry on behalf of my entire species for all this." He waved an arm vaguely indicating their surroundings. "Walmart's one heck of an anthropology lesson."

Pascal flicked an ear in goodbye and turned to walk back to the front of the store. He heard more Arabic oaths in the direction of the tills, and judging by the clamor more nicotine-deprived humans had joined the fracas. He did a 180 and trotted past Jeff finishing up his cleaning.

"Wise choice," Jeff said as Pascal turned the corner and headed deeper into the bowels of the store.

He continued walking, nose to the ground making sure not to step in any more surprises, until he heard two more humans approaching.

"Honey, why did you grab so many cans of beans?"

"It's those damn monkey foxes, Dave. I'm tellin' you they're fixin' to invade. And when they do, we'll be prepared."

"With beans?" her husband sighed. "There's only six of them. They don't mean any harm. One of them's even been coming to the radio club meetings. He's been trying to teach some of us a word or two of their language."

"It's all an act, Dave." The couple emerged from around the corner.

"There's one now!" the woman shrieked. Startled, Pascal jumped backward, knocking a few items off the shelf behind him with his tail. After gathering himself, he looked up at the woman, gawking at her spray-on tan and bottle blonde hair.

"I didn't know humans could be orange," he muttered.

"What was that? Speak up, space coyote!"

Pascal reached into his wallet and pulled out his keyer, but the woman snatched it out of his paw.

"Ha! You're not brain-washing anyone tonight!" She hurled the keyer to the ground. Pascal dove after it just as the woman brought her foot down, intending to smash the keyer but catching Pascal's paw instead.

Pain shot up his foreleg. He stifled a bark and looked up at the male human as he massaged his paw, determined for this inter-species interaction to end peacefully. "Your friend smell familiar. From radio club?"

"You got me," Dave smiled.

"Don't talk to the enemy!" his wife said, moving between him and Pascal.

Dave began tugging at her arm. "I'm so sorry," he said with a frown. "She's on some new meds; we're working on the dosage."

"ARE YOU CALLING ME CRAZY?!" the woman yelled, her eyes darting around wildly. "I'M THE ONLY ONE WHO'S NOT CRAZY AROUND HERE!"

"I'm so sorry," Dave repeated, steering her down the aisle and out of sight.

Pascal cocked an ear toward the tills again. The din had only gotten louder. He limped around for a few minutes until he caught the unmistakable smell of sugars and lipids on the air.

"Ma'am, this is a bakery, but not a BAKERY bakery." Another young human, female this time, was being accosted by an older woman. "If you want a premade sheet cake, we got premade sheet cakes. You want me to put 'Happy Birthday' on it? I'd be more than happy to, but we can't bake a cake in the shape of a Stanley cup."

"The Customer is always right!" snapped the woman.

"in matters of taste," the girl muttered under her breath.

"What was that?!"

"I said 'Is there anything else I can help you with?'"

"No! You've just lost yourself a customer."

"oh no..." the girl whispered sarcastically.

The woman spun around, nearly tripping over Pascal's tail, stabbing it with a stiletto in the process.

He yelped in pain but the woman stormed off without looking back. His cry caught the attention of the girl behind the counter. She leaned over to peer down at Pascal. "You OK?"

"Honestly I've been better," he grunted, probing with a padded finger at the maroon stain spreading over the white pelage of his tail.

"This tail fine," he said via the keyer. "Not much this blood. Hurt worse before."

He stood there for a moment, nursing his tail in silence as the girl looked on.

At last he curled his tail tight against his back and put his paws up on the sneeze guard. "You friend sell what?"

"Cakes and cookies," she said.

"Those C A K E S and those C O O K I E S what?" He drew out the unfamiliar words.

"They're food, you eat them. You want to try a sample?"

"Not want," he wagged his head from side to side. "Might kill me yinrih. maybe that human food this yinrih poison."

"Oh, I hadn't thought of that," she said.

Pascal peeked over the counter. "No chair? What way you friend sit? All day that boss make stand you friend?"

"Yeah," she sighed. "They say it makes us look lazy if we sit. Such is the life of a wage slave. But I guess that's not a thing where you guys are from, huh?"

"We yinrih have," said Pascal. "some place we yinrih go buy this thing or that thing. Some place eat some food. When pup at that place me yinrih work, bring those food, take away those dirty bowl."

"You were a waiter!" The girl said.

"Me W A I T E R," Pascal nodded. He had set his HUD specs on his muzzle and was hastily skimming a poorly organized English lexicon for words he couldn't recall, occasionally jotting down new ones as the conversation unfolded.

"Where we come from, this place call--" he grunted the word in Outlander before finding the correct English translation. "Litter of moons. It call because planet big made of gas, have many moons, they follow planet like pups follow dam."

"That's sweet," said the girl.

"anyway," Pascal continued, "at moonlitter, it part of E D U C A T I O N of pups, they make pup work at store or at R E S T A U R A N T. They say it make pup E M P A T H I Z E with those worker in C U S T O M E R S E R V I C E when grow up."

"Ah, so it's part of your schooling, then? They make you hold down a job?"

"Yes," he nodded. "Teach F I N A N C I A L L I T E R A C Y too."

"I wonder what alien Karens are like," the girl said half to herself.

"K A R E N?" Pascal queried.

"That--" she pointed at the wound on Pascal's tail. "--that woman who stepped on your tail, that was a classic Karen."

"Yes yes," he bobbed his head. "Those we have."

"We call them..." here he paused while digging through the lexicon. "...It hard to say. "My language Outlander have thing English not have. English say 'you' for everyone, but Outlander have different 'you' for different people."

He uttered a few melodic grunts and whines. "That mean, 'you' but only for you sire or dam or litter mate. It called--" he rummaged for an obtuse grammatical term. "--it called F A M I L I A L form."

More growling, "and that mean 'you' but for friend only, That is A M I C A B L E form."

A chuff and some whining, "and that mean 'you' for everyone else. And that called T R A N S A C T I O N A L form."

Recognition dawned on the girl's face. "Ah! English doesn't do that but Spanish does. You say 'T' for friends and family but 'Usted' for everyone else."

Pascal flicked an ear in acknowledgement. "yes yes. Like that. When you talk to customer or when customer talk to you, It proper use transactional form. When you worker talk other worker use transactional too, maybe amicable if good good friend. But you never never use familial form at work. It considered V U L G A R."

"That bad?"

"Yes yes." Pascal geckered in amusement. "When foreigner learn Outlander they make this mistake much. Sunshine does this all the time. You see her, yes yes? Other missionary, no fur and big ears, she is from other part of Focus, planet called Hearthsider. When Hearthsider learn Outlander, they think familial form mean 'I like you, you like my family, so I call you by that'. But that not right. Well, that not only meaning. Yes it mean 'I think you like family' but it also mean 'I expect you TREAT ME like family. So obey like pup obey sire or dam, or give special treatment like between litter mates. When customer use that form, it make them sound E N T I T L E D. Like you owe them respect, like they are one of your sires or your dams.

"Anyway, These Karens, they like to use familial 'you' to workers, So we have a word, it means 'one who uses familial pronoun'. Long in English but much shorter in Outlander. So I put 'Karen' in our lexicon."

The girl smiled.

"You show your teeth. That is good, yes?"

"Oh yeah, sorry," she said. "Humans show our teeth when we're happy."

"Like this?" Pascal slid his lips back, flashing his fangs.

The girl laughed. "Yeah. You know, I didn't realize how much like us you guys were. We have all these stories about aliens, some want to kill us, some want to loot our planet, sometimes we kill them. Sometimes they're so different from us that we can't even communicate. But it rarely ends well when we meet. But here we are, two veterans of the customer service trenches trading war stories. It makes the universe feel a little less lonely."

Pascal cocked an ear toward the front of the store. "The argument has stopped. I go back."

"Nice meeting you I'm Lupe, And your name?"

"Pascal," He said, rearing up on his hind feet and patting his belly.

"Bye, Pascal, Oh, and your English is great, I think you got better just while we were talking."

"Thank you. I talk more, I get better." He started off toward the front of the store.

"Got my cigs!" Fr. Shaheen, sporting a black eye and fat lip, held the carton of carcinogens aloft like a video game protagonist after acquiring a new item. A few of the other patrons were being hauled off by cops. "The bishop's gonna have some questions for me in the morning. I'm sure this'll end up in a few YouTube videos at least."

"So," he said as they walked back to the pickup, a lit cigarette already between his lips. "You've seen Man the angel and Man the ape, what do you think about us now?"

Pascal took stock of his injuries, his smashed paw and lacerated tail, then slid back his lips and looked up at the priest.

"You're showing your teeth. Is something wrong?" Fr. Shaheen asked.

?No, not at all. I know you can't smell our pheromones, so I thought imitating you're teeth-bearing gesture would let you know I'm happy.?

?I see now that humans can be violent, greedy, disgusting animals.?

"And that makes you happy?"

?Because yinrih are also violent, greedy, disgusting animals. You think these claws are just for climbing trees? I'm not as naive as you think, and neither are the other missionaries. We didn't set out to find perfect creatures to admire on a pedestal. We want others who can walk down the hard road of life together with us. We want friends, and that's what we found.?

Category:Stories

The Ansible

“I see we’ve got a bigger crowd than usual. Welcome, everyone, to this meeting of the Erickson Amateur Radio Club. I guess word got around that one of our little visitors is going to be giving a presentation about their faster than light communication network. Since most of you here aren’t even members, I’ll just skip the preamble and invite Stormlight to start his presentation.” Bob pushed a yinrih perch in front of the podium and walked back to his chair.

Stormlight trotted up to the podium, removed his backpack and hopped onto the perch.

«OK, how many of you can understand me? Raise your left forepaw.» Stormlight swept his gaze across the crowd of humans sitting in front of him. One or two hands shot up, three or four more hovered indecisively above their owners’ heads, but the majority of the people kept their peace. «Guess it’s the keyer again,» he grunted under his breath. He rummaged through his backpack and pulled out a keyer and HUD specs, and continued addressing the people in English via the synth.

“How about now?” Vigorous nods and enthusiastic hand-raising from the assembled humans. “A reminder that Tod is here to give Commonthroat lessens after the meeting.” Stormlight motioned with his muzzle toward the corner of the room, where Tod was perched across three plastic chairs. Tod waved cheerfully in human fashion, chuffing a few times for good measure.

“That noise is their way of smiling.” Whispered a man in the back in response to his wife’s bewildered look.

“Anyway, allow me to introduce myself properly.” Stormlight wrapped his tail around the leg of the table behind him and reared up on his hind feet. He patted his belly twice with his left forepaw. “Light shine upon you, friends. rLPqqBCI,” he gave his name in Commonthroat then clarified using the keyer. “but you can call me ‘Stormlight’. I’m going to be tossing out a lot of Commonthroat words in this presentation, all the more reason for you to see Tod after the meeting. It takes a fair bit of work to speak using this keyer, and the more humans that can understand us directly, the less we’ll need to use it.” He paused, dramatically shaking out a cramp in his right rear paw before picking up the keyer again and continuing.

“My role as a missionary aboard the Dewfall is rDBSfbri, In English that literally means ‘farspeaker’, but I suppose the more appropriate term would be ‘network engineer’. I maintain the comms system that lets us keep in touch with our friends and family back home at Wayfarers’ Haven.”

He reached his tail into his backpack and pulled out a ruler. Raising his tail to show the ruler to the assembly, he continued, “Can I just say that this whole metric system is silly. You were on the right track dividing everything by twelve. Two, three, four, six—so many more factors than a decimal system.” He held up his two forepaws, counting to twelve on his digits. A few patriots in the audience applauded, and a cheer erupted from a particularly enthusiastic woman wearing a tee shirt with the phrase “°F YOU!” emblazoned across the front.

Stormlight continued. "But I'm getting off track." He held the ruler a bit higher. "It takes about a nanosecond for light to travel this far. That doesn't sound like a long time, but it starts adding up when your talking about interstellar distances. Our home is about twenty five lightyears from here. Using normal means of communication based around electromagnetic wave propagation, it would take twenty five years for a message to go between Earth and Focus. Who has time for that?"

He placed the ruler back in his backpack and drew out a tailful of other objects. He put them on the table and continued. "The problem is, you can't go any faster than the speed of light, well, in realspace, anyway, but realspace isn't the only thing out there." He went on another digression. "There was a time in our own history that we had finished exploring our homeworld but hadn't yet developed the means to truly thrive beyond our own atmosphere. Sure we had a few orbital colonies, and a few wierdoes even decided it would be a good idea to set up a homestead on the neighboring planet, but the latency imposed by radio communication made a truly interplanetary civilization impossible.

"It looks like we found you guys around the same time in your species' development. You've got a few permanent outposts in low orbit, and you're fixing to start colonizing a few nearby celestial bodies. The thing is, your imagination has vastly outstripped your technological capacity." He grabbed something from the table and held it up. It was a paperback copy of Ender's Game. "Treasure this time. If you're anything like we were, this is going to be your golden age of speculative fiction. There's something about this point in history, I think. You're too late to explore the world, but too early to explore the universe. With nowhere else to go, you make up new worlds to explore. By the way, it's nice our meeting with you went so much better than in this book." He let out a few panting chuckles.

"I've had to reach into this deep well of mythopoeia to find suitable English words for a lot of stuff that we monkey foxes take for granted." He coiled his tail around another of the objects on the table and held it aloft to show the audience. It appeared to be a blue circuit board, with gold-plated contacts along one side, and a glass plate in the center. Below the plate was a brilliant magenta wafer of crystalline material. "this, for example, is known in Commonthroat as rFCrMr. The best English equivalent would be 'ansible'.

"More specifically, this is an Underlay tunnel interface card. This one is a spare I took from the Dewfall's cargo hold. I'll pass this one around, but do be careful. We only have so much tailstone to make more if it breaks." He hopped down from his perch and trotted over to the front row, offering the card coiled in his tail to the person sitting nearest to the podium. The card made its way through the crowd as Stormlight resumed his perch and continued.

"Speaking of tailstone," he picked up a large unrefined magenta crystal from the table. "This is a raw tailstone crystal. This is what allows us to open tunnels through the underlay. How does it work? I have no idea. I'm not a natural philosopher." Stormlight flicked his ears back. "But I can tell you how it got the name tailstone. The English word I chose is a little inaccurate, since the Commonthroat word, sGKqrCg, uses the word rC, which literally means 'to flick with the tail.'" He demonstrated the gesture, swatting his side with the tip of his tail. "This obviously isn't something you humans can replicate, so I had to make due with a broader English term. I think this is the closest human equivalent." He executed a shoeing motion with his forepaw. "It means something

like 'It doesn't matter' or 'don't concern yourself with that', but it can also mean 'don't bother me' or 'go away.' The story goes that tailstone was discovered by a research monastery back home on Yih, just after the first wave of terraformers settled on Newhome, that's the planet nearest to our homeworld. When the abbot was asked how this crystal was able to access the Underlay, he simply responded with a flick of his tail. It occasionally goes by 'wonderstone', as there's a myth that the monks tried to pass off the material as having miraculous properties. This story was taken to be true for a long time. I even learned it in school as actual history, but the first mention of the event is after the War of Dissolution. That's a few dozen millennia after the fact. It's just a story concocted by polemicists seeking to discredit their ideological opponents. My best guess is that the abbot didn't want to spend hours trying to explain a very complex topic to a layman. Knowing something and knowing how to explain that thing are two different skills, and the abbot was probably lacking in the latter. In any case, it's not like the means to refine it were ever kept secret.

"While I can't tell you how it does it, I can tell you what it does. The Underlay is like what you would call subspace, although calling it 'space' is a bit misleading. Things in the underlay don't really have a location, so you can't travel from one point to another. That's why information sent via the underlay is transmitted instantly. We do use terminology that imply things 'travel' via the underlay, but that's just a handy way of visualizing a hard to understand concept. When comparing this realm to the underlay," he traced an arc with his muzzle indicating the space around him, "We use the term 'realspace.'

"We take this monocrystal and shave off thin wafers like you see embedded in that interface card. Tunnels can only form between two wafers taken from the same crystal. You can shave off multiple wafers from the same crystal, but they all have to share the same communication channel. A single interface can either send or receive information, but it's only half duplex. You must take turns talking and listening. You can get full duplex communication by, for example, taking two monocrystals, shaving off two wafers from each, and putting one wafer from each crystal into two ansibles. In practice, you only see this done on major trunk lines. Terminals like we have aboard The Dewfall only have a single tunnel endpoint because the power required to maintain multiple connections would be too much for a little womb ship.

"While there's no latency, the throughput is pretty narrow, even compared to current human communication methods. Realtime communication is limited to text, and large files are sent using a store and forward system. It's not unusual for downloads to take several days. I know a lot of your speculative fiction has things like realtime holographic video comms, but that's out of the question. We can't even push voice over an underlay tunnel in real time. Multisensory information has to be saved and sent as a file, and even text is sent this way most of the time."

Stormlight hopped down again and gave the tailstone crystal to the same person sitting in front, and it made its way through the assembled humans. "This particular chunk of tailstone is taken from a larger supply from the Dewfall's fabricator. That specimen has a counterpart back at home hewn from the same monocrystal. Like I said with the interface card, please be gentle. This stuff can shatter into very sharp pieces.

"The network topology I have set up here on Earth is pretty simple. We have our own computers connected to a terminal node aboard The Dewfall via STL microwave radio. This node is connected

to an ansible, which has a point-to-point connection with a matching ansible at Wayfarers' Haven. We get daily updates from mission control back home. It's mostly letters from parents and litter mates, and a copy of the latest Focus-wide news bulletin. I usually ignore the news, as it's either too depressing or none of my business, not really that different from how mainstream news does things here on Earth."

Stormlight produced a homemade cable from his backpack. A male HDMI connector was spliced on one end, with a nest of soldered wires and homemade yinrih circuitry located near the middle. At the other end was a tiny magnetic connector that stormlight attached to the muzzle bridge of his HUD specs. He plugged the HDMI end into the projector near the podium. "You won't believe how hard it was to make this cable. I had to dig through a dozen BBS's back home and a few human web forums to get this working. I thought it would be nice to show you some news and letters from Focus." The projector mirrored the command line interface of Stormlights HUD specs. He entered a few keystrokes, multiplexing the terminal process running the synth with a fresh terminal on the other half of the display. He shifted between the synth and the new terminal as he logged into the Dewfall's network node. Commonthroat text cascaded down the screen, displaying the node's welcome message.

"Let's see. Wow, there's still a massive download going on. Looks like mission control sent us something big, probably a schematic file judging by its size. They do that every now and then. Our tech is two and a half centuries older than what they have back home, so they sometimes push updated equipment models to us for us to print with the fabricator. It's almost done downloading, but let's check out the news we got yesterday while it finishes up, and we'll find out what that big file is together."

He opened the news bulletin and slowly scrolled through the headlines without paying attention. «What was that? Go back up! Go back up!» Tod practically barked. Startled, Stormlight dropped the keyer. The magnetic connector detached from his HUD specs as he bent down to pick it up. As he was repositioning the keyer and reattaching the video cable, he noticed the smell of excitement coming from Tod.

«What was that about?» Stormlight asked.

Tod's teeth were audibly chattering in anticipation. «It can't possibly be...»

Stormlight and Tod simultaneously read the heading plastered across the screen. "First yinrih successfully traverses mass router network."

Stormlight dropped the keyer again but didn't bother picking it back up. He dismounted his perch, the cable pulling free from his HUD specs again. He began pacing back and forth, attempting to explain their reaction to the confused assembly of humans, completely forgetting that he was no longer using the synthesizer, making his ravings utterly impenetrable to all but a few humans in the audience. Bob eventually stood up and began relaying what Stormlight was attempting to say.

«OK, OK, OK... yeah. This is big. Really really big. I forgot to mention we've been trying to transport matter over the Underlay. Been trying for who knows how long. The transporting isn't the hard part. It's the momentum. That's what's the problem, you know, or I guess you wouldn't know.

Anyway, like, if you're on a colony orbiting a planet, and want to go to the surface, you'll still have all the momentum you had while in orbit. That's a lot of momentum. If it isn't absorbed before you drop back into realspace, you'll shoot out of the mass router like a bullet. Hit the wall at Mach 20. No good. But I guess they finally figured it out. I guess mass routers are a thing now. Yeah. Big... really big.»

Stormlight eventually trailed off, but continued pacing. He was panting half out of exhaustion from his energetic explanation, half laughing with glee. He composed himself and perched again, reconnecting the HUD specs and keyer.

“Sorry about that. Thanks, Bob, for bearing with me.” Bob smiled and sat back down. Stormlight gave his head a shake, then continued speaking. “Well, that was sure something. Guess I told you we'd check out that big file. Seems a little anticlimactic now. I'm usually excited to get new schematics, but unless it's—” He stopped abruptly. For a solid minute, you could practically hear a pin drop. The message that accompanied the file was displayed on the screen.

«May the sun warm your back, Stormlight. You probably read the news yesterday. Bet you think nothing could possibly top that. Oh, but you're wrong! Here's a schema for the mass router. I got it straight from the engineers on Yih. Production hasn't even scaled up yet, but they contacted me with the schematic before I even read the headline, insisting I pass it onto you guys, and said for you to share it with our new friends. They told me you could print the parts no problem with the fabricator aboard the Dewfall. The boys over here are already setting one up. We'll be connecting it to the P2P tunnel that's already established between here and Earth. The engineers insisted it's perfectly safe, but I say we do a few dry runs before sending any sophonts through.

So yeah, guess we'll be seeing you and the humans a lot sooner than we thought.

May The Light illuminate your way.

-Lightray Lacktail, Dewfall Mission Control»

The aroma of elation coming from Tod and Stormlight was so powerful that the humans could probably smell it.

After a few more seconds, the pair of yinrih shattered the silence with a sonorous howl. They were going home, and their new friends could come with them.

Are We as Mayflies?

The hot Texas sun beat down on the two people sitting outside the root beer stand. Only one of them was a human. Bob the human looked to his right at the half wall next to his chair. There, lying on his belly, straddling the wall like a raccoon resting on a tree branch, glossy black pelt shining in the sun, prehensile tail hanging off the opposite side of the wall, was the other person. His six-fingered paw held an ice-cold root beer, which the waitress had thoughtfully poured into a bowl to accommodate this strange patron's canine muzzle.

Stormlight Blackpelt looked down from his perch at the sidewalk, where two elderly humans, who looked about Bob's age, were pushing a wheeled cart containing a human infant. Bob followed his friend's gaze. "Looks like grandma and grandpa are giving mom and dad some time off." Bob said, waving at the couple. They smiled back and continued walking.

Stormlight turned to Bob again, regarding his human friend's bald crown and wrinkled face. He grabbed his tail and began running his claws along it as though brushing out a knot. Bob looked up and noticed the alien's fidgeting. "Well go on and ask." Said Bob. "You do that whenever you're fixing to ask me an awkward question."

«Does it bother you that we live so much longer?» Stormlight asked. «I've been reading a lot of human stories and myths: Fountains that make you young again, stones that grant immortality, things like that.»

"If I'm honest, maybe sometimes," said Bob. "But Earth has trees that live for millennia and brainless jellyfish that can live pretty much forever. It's not like humans were breaking longevity records until y'all came along. Besides, we already live twice as long as our closest animal relatives. I'd say that's pretty nice. And what about you? Don't the yinrih have legends about people living for five thousand years?"

«Of course. We fear our mortality but hope in the hereafter.»

"Don't start getting preachy on me now." Bob chided.

Bob thought for a moment, then asked, "Does it bother you that we don't live nearly as long as you?"

«It'll take at least a year for the High Hearthkeeper to pick the legates who will come after us, and then another two and a half centuries for them to get here. That's a long time even for us, and several of your lifetimes. You aren't getting any younger,» said Stormlight, tilting his muzzle up slightly to point at Bob's balding scalp.

Bob reflected on his friend's concern. Stormlight and his fellow missionaries were around one hundred fifty earth years old, that is if you didn't count the centuries spent in metabolic suspension

on the way to Earth. They were already older than every human alive, but still young as the yinrih reckoned it. Bob couldn't even name a single relative of his that was born before the twentieth century. By the time the missionaries would lay eyes on their fellow yinrih, Bob would be just a name on a tombstone, forgotten even by his descendants.

After a few moments, bob said, "It hurts to say goodbye for the last time, and y'all are going to be saying a lot of last goodbyes as long as you hang around us humans. But think of it this way. You're already a big hit with my grandkids. You can help them grow up, and again with their children, and their children's children. You can tell them all about how their great great great grandpa Bob got to be the first human to shake hands with an alien. You and Iris and Tod and Sunshine and the others can be that one constant in their lives, the one thing they can count on to be there no matter what. They'll have to say goodbye to me soon enough, and by and by their parents, too, but not you. Y'all can be the one thing they'll never have to say goodbye to. And after you've said your last goodbye to me, you can pray for the repose of my soul, or speak my name among the living, or do whatever it is you critters do for as long as you feel like doing it, which will sure be longer than any human will remember me.

"Besides, I'm in good health. I've got at least twenty years left in me if my family history is anything to go by. That might not be very long for you, but it's a while yet for me. Don't go mourning me until I'm actually six feet under. It's a wonderful day out... if a little hot." Bob added as the sophont next to him noisily lapped up some soda from the bowl. "Let's just enjoy the day."

Bob looked up at his yinrih friend. Stormlight tilted his ears back, relaxed his jaw slightly, and let his tail hang loose again. «Thanks, Bob. Sometimes I worry so much about the future that I don't appreciate the present.»

The two looked back at the cars driving down the street and the people walking along the sidewalk. "It sure is a nice present," said Bob.

Art Angst

Ron sat in an overstuffed armchair hunched over an iPad, stylus in hand. The tablet's screen cast a feeble bluish-white glow over the rough popcorn ceiling of his darkened living room. The midnight silence was punctuated by the quiet ticks of a cheap wall clock, one that Ron had little use for. It was just a white circle on the wall as far as he was concerned.

The front door quietly opened and closed.

"You're not asleep," Lodestar growled, looking at the shifting glow coming from the tablet. He slipped the wallet from around his foreleg and tossed it onto the table next to the door, then flopped belly up on the loveseat opposite Ron's chair.

"Yeah," said Ron.

"What's that thing you're holding? A pen?" Lodestar asked, waving a paw at Ron's stylus.

"You might as well call it that," said Ron. "It's a drawing stylus." He offered it to Lodestar to examine. He sniffed the stylus and brushed it against his whiskers, then attempted to grip it between his writing claw and inner thumb the way he saw Ron using it.

"...For making visual art?" he asked, awkwardly tracing around the pads of his open paw with the stylus.

"Yes," said Ron, turning the iPad to face Lodestar.

The yinrih cocked his head and fluttered his bandpass membranes, trying to tune his eyes to a frequency range that matched the screen's output. "Is that supposed to be one of us? It's pretty good." Lodestar scented the air and immediately noticed a shift in Ron's emotions.

"But it looks nothing like a yinrih," Ron sighed. "Do you know how frustrating it is to be a blind member of an overwhelmingly visual species?"

Lodestar stared in silence at the random pattern of ridges on the ceiling.

"I have so many ideas in my head, ideas I want to bring to life, but my eyes get in the way."

"Have you tried an art form that's less visual? You said that statue in the library was made by a blind sculptor. It looks amazing."

"Yeah, sculpting... with expensive supplies and a big studio. Digital art has the lowest barrier to entry and it's out of my reach. Sure I'll get better, but I'll never get good."

"If you enjoy making it, does it matter if it's good?"

“But I want to enjoy making art that's also worth looking at.”

“I'm not blind,” said Lodestar, “and blind yinrih don't have it as bad as you do. Our nose and ears and paws get just as much use as our eyes, so losing vision isn't as much of a problem. All this to say I'm afraid I can't sympathize. But I'll be here for you for as long as you need me to be, bad art or good art. I hope that counts for something.”

“It does,” said Ron, rising to his feet and stretching. “that means a lot.”

Beating the Heat

“...another record-breaking afternoon, with temperatures throughout the region surpassing the 90-degree mark. A cold front is set to bring relief to central and southeast Texas later this evening but looks like there may be some severe weather along with the cooler temperatures. The Storm Prediction Center has issued a tornado watch for the region until early tomorrow morning. Now it’s time for your local forecast.” Sarah let the smooth jazz drifting out of the TV wash over her and sank deeper into the couch cushions. Her eyes stung with sweat rolling down from her forehead. Without looking, she reached over and grabbed a wrinkled shirt from the laundry basket next to the couch and wiped her brow. Her eyes were laser-focused on the wall clock, watching the seconds crawl by. “4:30,” she thought. “He was supposed to be here by 4 o’clock.” She closed her eyes and tried to relax. The maintenance guy had forsaken her. Only the sweet embrace of unconsciousness could provide respite from the heat now.

She was dragged out of her blissful slide into oblivion by the sharp click-clack of claws on the hard linoleum floor. It was the halting, rhythmless gait of one unaccustomed to walking on two feet. The clicking was replaced by the sound of a tail dragging along the living room rug, desperately trying to prevent its owner from falling backwards.

She looked up at the cause of the disturbance. Two six-toed paws were digging into the carpet, and a prehensile tail was wrapped around one of the legs of the coffee table, all in an effort to keep the creature before her upright. Its lupine maw was agape, purple tongue hanging off to the side, twitching in time with the creature’s panting breath. Its wet nose was twitching frantically, soaking up a mélange of odors that Sarah couldn’t hope to perceive. Its erect, triangular ears swiveled about, absorbing the soundscape of the room. Wrapped in its forelimbs, clutched tightly to the ruddy flesh of its chest was a ponderous tome. “Great news!” the creature growled cheerfully as it deposited the book onto the coffee table with a thud.

“You figured out how to fix the air conditioner?” Sarah sighed.

With a padded finger the creature tapped the cover, which bore the title ‘Comprehensive Introduction to Biochemistry’. «At least according to this book here our food should be safe for human consumption.»

“That’s nice, Sunshine.”

«You don’t smell very excited.»

“It’s nearly 95 degrees inside, and it’s already half an hour past the window that the leasing office gave me for the maintenance guy to come fix the AC. Forgive me for not being head-over-heels with enthusiasm.”

Sunshine flicked her ears back. «What do you want from me. I'm a healer, not a mechanic. But speaking of food, I think I may have a little something that'll help you beat the heat.» Her curiosity piqued, Sarah leaned forward as Sunshine produced a small carton from a pocketed band wrapped around her right foreleg. "This is a little snack from back home on Hearthside. From the carton she produced a small translucent strip which she placed on her pendulous tongue. She drew her tongue back into her mouth for a moment, allowing the strip to dissolve. After a few seconds, Sunshine dropped back onto all fours, shook her head vigorously, then resumed panting. Sarah caught the strong scent of menthol on her breath.

"Just a breath mint?" Sarah inquired, unsuccessfully masking her disappointment. Sunshine came from a desert of eternal noon, a planet perpetually sweltering under the gaze of an unconquerable sun. Her species had subdued their entire solar system dozens of millennia before those naked Savannah apes Sarah called ancestors had even discovered agriculture. They could bridge the yawning gulf between stars, but the best thing they could come up with to cool off was a Listerine strip.

«Oh, it's a little stronger than that. Go on, try one.» Sunshine pinched another strip between her outer thumb and writing claw, flicking the little snack with another digit in a manner Sarah assumed was supposed to be enticing. She paused, her eyes darting between the textbook on the table, the little hairless monkey fox standing in front of her, and the consumable held in her paw. A dialog played out in her mind.

"Are you really going to put that thing in your mouth?"

"It's just a breath strip, why not?"

"An alien breath strip. It could kill you for all you know, slowly and painfully, too."

Sarah regarded Sunshine again. She had been holding that snack out for a good thirty seconds. "Guess when you've got six centuries ahead of you, you can afford to be a bit more patient," She thought.

"She is a licensed medical professional..."

"A licensed alien medical professional."

A bead of sweat rolled down her cheek, reminding her that the air conditioner was still broken and that it likely wouldn't be fixed today. "Eh, YOLO!" Her curiosity had won the day. Sarah plucked the snack from the alien's claws and popped it in her mouth.

The strip quickly dissolved on her tongue, leaving behind a cooling sensation. So far, so mundane. Sarah leaned back into the couch, chuckling to herself as she contemplated how old this stuff had to be, older than the US constitution, at the very least, given how long it took Sunshine and the others to get to Earth from Focus. Maybe she could start a YouTube channel eating ancient alien junk food. Still, though, it didn't really take her mind off the heat.

Just as her disappointment began to set in, the cold feeling in her mouth began to intensify. The sensation had started as though chewing a normal piece of spearmint gum, but had progressed to chewing a particularly potent piece of spearmint gum. After a few seconds, it became chewing a particularly potent piece of spearmint gum while chugging ice water. "OK, now this is getting uncomfortable," Sarah thought. "Well, it is getting my mind off the heat. Now all I can think about is my mouth freezing." The cold feeling cascaded down her chest and into her gut, then began radiating to the rest of her body.

The roof of her mouth started throbbing in pain, which then radiated to her forehead. She tried powering through the pain by sheer force of will. "It isn't real," she thought. "I'm not really cold. It's just a chemical tricking my nerves into thinking I'm cold." Through eyes tearing up in pain she caught a glimpse of the wall clock. It had only been twenty seconds since she had put that cursed strip on her tongue. She no longer felt like she was chugging ice water, now it felt like shoveling Antarctic snow into her mouth.

«Are you OK?» Sunshine whined. Sarah caught the concern in her voice but was too busy writhing in agony to pat herself on the back for achieving this milestone in human-yinrih communication. "I'm... fine..." she gasped. Sarah swore she could see clouds of super-cooled condensation billowing out of her mouth with each syllable.

It wasn't Antarctic snow anymore, now it was liquid nitrogen. She hunched forward in her seat, then collapsed onto the floor between the couch and coffee table. Through cryogenic tears Sarah could see Sunshine's large ears and muzzle hanging over her.

The penny finally dropped. Sunshine whipped around and bolted down the hallway, her claws skittering on the slippery floor. She failed to turn in time and ran bodily into the back wall, then managed to gain enough traction to dart into the erstwhile office that now served as her quarters.

Sarah could hear her frantically barking one of the traditional healer's invocations as she rummaged through her things looking for whatever implements might prove most useful. Sunshine had demonstrated several of these little rituals to her over the time she had been lodging with her. They were remnants of a time when the office of cleric and healer were still one. The particular invocation used largely depended on how severe the situation was. The one Sunshine chose did not buoy Sarah's confidence in her outcome.

«O Creator of the universe, paws and tail hast thou none, yet wield me, wretched whelp that I am, as thy instrument here within, and wrest this least of thy little ones from the jaws of death.»

Sarah was audibly whimpering now. Her vision began to fade. It felt as though her entire digestive tract was filled top to bottom with liquid helium. The blessed embrace of oblivion finally took her, but not before she saw Sunshine scampering back down the hall toward the living room, The end of her tail coiled around the handle of a satchel that was bouncing along the floor behind her.

Manny glanced at the clock on the dashboard as he pulled into the parking space. 4:36 PM. He was over half an hour late for his last appointment of the day, and a mere 24 minutes away from the nominal end of his shift. He pulled the key out of the ignition and opened the door, the

perspiration-soaked back of his work shirt peeling away from his skin as he moved to exit the truck. The hot Texas air greeted him as he alighted the vehicle, a welcome respite from the even hotter air inside the cab. He shut the door, perhaps a bit more forcefully than necessary. He turned to look at the apartment number written atop the front door. Unit 38. He glanced down at the work order affixed to his clipboard and sighed. "Unit 38: Broken air conditioner". He definitely wasn't clocking out on time today. At least he'd get paid overtime. He tucked the clipboard under his arm and walked up to the door.

Sunshine took a deep breath, letting the sharp smell of alcohol fill her nostrils. Sarah's unconscious form was sprawled out on the floor before her, her left arm draped across her chest, rising and falling steadily with each breath. The contents of Sunshine's satchel were strewn across the coffee table: a just-used bottle of paw disinfectant, yellowed only slightly by its two and a half century stowage inside one of the Dewfall's cargo holds, and an electric healer's razor, also none the worse for wear despite its age. The remaining item she had seen fit to include in her impromptu medical bag, a human anatomy text recently borrowed from the college library, lay open on the floor at her side.

«OK, Sunshine, you can do this. Everything's going to be alright. Sarah's going to be alright, alright?» She began a cursory examination of her friend. She slid a pair of azure bandpass membranes over her eyes, shifting her visible spectrum down into the infrared. «Her temperature hasn't changed, and she's still breathing. That's good. First thing's first...» She picked up the razor, only to change her mind and place it back on the coffee table. «No no, that's not right. No fur. Why did I bring this thing anyway?» She began thumbing through the book with her right rear paw. She was greeted by incomprehensible diagrams and labels written in a dead human language she didn't understand. What little confidence she had been able to muster ebbed away with the turn of each page.

«Light blind me!» She kicked the book under the coffee table and crumpled to the ground, heedless of her now contaminated forepaws. «I can't do this by myself. My ignorance got her into this mess. I'll only make things even worse. She needs a human healer.» Just as she rose to her feet, there was a knock at the door.

Manny approached the door and knocked. "Maintenance," he declared in his best "How can I help you" voice. He could hear the sound of the tenant's dog skittering its way toward the source of the noise. Without so much as a "down, boy!" from the resident within, the door burst open. Manny braced himself for a physical encounter with yet another pet far too large to be kept in an apartment. When the assault was not forthcoming, he glanced down at the open doorway.

His mood immediately brightened. "One of our little visitors!" He thought. Manny had seen her walking around the neighborhood many times, all wrapped up in a white cloak with only her ebony paws and snout poking out. He had heard through the grape vine that she was some sort of doctor, but didn't know much else. He had always wanted to meet her, but could never find the courage to start a conversation. What do you say to an alien? The mundane happenings of a broke college student who had never even been out of state must seem terribly dull to someone who was born under a different sun. Now he found himself thrust into this little first contact, at a loss for words.

He had just settled on a simple “Good afternoon, ma'am” when she wrapped her tail around his forearm and began attempting to drag him inside, yipping and growling frantically. Attempting, but not succeeding. The only way he was getting free of her grip was if she decided to let go, but her claws scabbled uselessly across the hard floor of the entry way, failing to find purchase against the slick surface.

«By The Light! Another human! Please, sir, I need your help. My friend is in trouble.»

“Hay! Slow down. I don't speak space doggo,” Manny protested.

Sunshine stopped her fruitless attempt at pulling Manny inside and glanced down at her empty paw. She had been making her desperate supplications in Commonthroat. Without disengaging her tail from Manny's arm, she reared up and grabbed a keyer and HUD specs that were nestled along with Sarah's keys and wallet in a bowl atop the entry table. She wrapped the keyer in her right front paw and donned the HUD specs, the claws of her left rear paw clicking impatiently against the floor as she waited for the computer to boot.

“Sir,” said the keyer held in her paw, “Please, I need your help. My friend is in trouble.”

Manny stood back up and attempted to enter the apartment. Sunshine's tail was still constricting his arm like a snake. “OK, what's going on?” he asked. “And can I have my arm back?” Sunshine refused to let go until he had entered and shut the door behind him. Keyer in paw, she knuckle-walked around the breakfast bar and into the living room, Manny following behind.

As he rounded the corner he noticed Sarah lying on the floor. Sunshine kept switching her gaze between Manny and Sarah, as though expecting he would immediately know what to do.

“OK, calm down and tell me what happened,” said Manny.

More urgent yipping and huffing from Sunshine. «I... I didn't think it would be a problem. We breathe the same air, drink the same water. This book here,» she pointed at the biochemistry textbook with her muzzle, «says you humans consume proteins, carbohydrates, lipids, sugars, amino acids... all the same stuff we eat. I didn't think it would hurt to share a little snack.» she swept her tail angrily across the corner of the coffee table, knocking off the little carton of cooling bark.

“Mind repeating that in English?” said Manny as he bent down and picked up the carton, turning it over in his hand, examining the alien lettering on the label as though it would provide a solution.

Sunshine repeated her self-recrimination via the synth while Manny took the time to examine Sarah. He noticed her hand resting over her chest, gently rising and falling in regular time with her breathing.

Sunshine's ears perked up in sudden realization. “Don't you have emergency medical transport?” She grabbed Sarah's phone from the arm rest and attempted to unlock it. The gentle tick-tick of her claws on the glass failed to elicit a response from the device. «How do you use this stupid thing?» She had just figured out to touch the glass with the pad of her writing claw when Manny

rested the phone from her paws. Sunshine gave voice to a frustrated hiss like an angry goose. «Hay! I was using that!»

“Hold on there,” said Manny. “Let's not get the wee-yoo wagon involved if we don't have to.”

“What?! Why not? She needs a human doctor,” Sunshine said, desperately wishing she could inject more emotion into the tiny synthesizer.

Manny took a few seconds to respond, considering whether now was a good time to introduce Sunshine to the particulars of the American healthcare system. “Well, I'm a human, and you're a doctor. I think we can figure this out between the two of us. Besides,” he said as he bent down and checked Sarah's pulse, pressing two fingers against her other wrist sprawled on the floor, “I happen to be an Eagle Scout, and I have the First Aid merit badge.” He made this declaration as though that made him a reasonable stand-in for a paramedic. “She's breathing fine, her temperature feels good, and her pulse is normal.”

Sunshine's agitation at Manny's lack of urgency began to mount. She started thumping her tail on the floor. Her anxiety caused a momentary lapse in her English proficiency. “What reason you human do nothing? On that floor this my friend die!”

“I'm not 'do nothing',” he said. “I think I know exactly what will fix her right up.” He walked over to the kitchen, grabbed a cup from the counter, and began filling it with cold water from the fridge.

Sarah floated content in a featureless void, finally free of the extremes of hot and cold. She could stay like this forever. Snatches of English and Commonthroat bubbled up from the abyss. She didn't catch what the voices were saying, but a vague notion of concern tickled the back of her mind. She brushed it aside and continued drifting in this room-temperature sea of beautiful nothingness.

But her repose didn't last. A sudden shock of wet and cold tore her away from the lukewarm void. She came to, sputtering and swearing. The first things she saw were Sunshine's lapis lazuli bandpass membranes staring back at her. She bolted upright, her head barely missing the edge of the coffee table.

Sunshine pressed the top of her skull against Sarah's shoulder. «You're alright! Light shine upon all of us, you're alright! I thought you were dying!»

“Why did you do that? I was finally asleep!” Sarah glanced down at the water dripping onto the collar of her tee shirt.

«That wasn't me.» said Sunshine. She trotted over to Manny and repeated her cranial gesture of gratitude with the knee of his blue jeans.

“Maintenance,” Manny repeated. “Sorry I'm late. Your friend let me in. Are you OK?”

“Well, insofar as I'm not dying, yes.” She looked at the wall clock. “I wasn't even out for ten minutes.”

“Glad to hear it. Now let's see about that air conditioner.”

Manny got to work, checking the thermostat and then the compressor outside. Sunshine shadowed him all the while, peppering him with questions about everything he did and every tool he pulled out of his bag.

“I'm surprised you're so interested in what I'm doing,” Manny said. “I figured you all think we're cavemen banging rocks together.”

“You humans are so fascinating! The way you're built, the fact your forepaws are completely specialized for grasping and your rear paws are optimized for movement, how you've compensated for your lack of an innate ability to write, and how all that effects the tools you use, and how you construct your buildings and vehicles. Plus it's nice to be around people with almost as little fur as me!”

“But, like, there are others, right? Out there? We can't possibly be that interesting,” said Manny as he put away his tools.

“Nope.” said Sunshine.

“Nope? What do you mean.”

“There's nobody else out there. We Wayfarers have been looking for other sophonts for nearly one hundred thousand years. Until we found you we hadn't encountered so much as a microbe.”

Manny stood up and brushed the dirt off his pants. “So It's just you monkey foxes and us humans, all alone?”

“Seems that way.” she responded.

“That... actually makes me feel kinda lonely.”

“Believe me, we know the feeling. But now we can be lonely together!”

Thunder murmured in the distance. Manny looked toward the horizon, where storm clouds were gathering. “I need to let Sarah know I'm done and get out of here before that nasty weather hits.

He knocked on the window behind the compressor. “Is it working?” he asked. Sarah gave a thumbs up. “Awesome. Let the office know if something else happens. I gotta get going.” He picked up his bag and started making his way to the truck, with Sunshine trotting behind.

“Listen, it was great to finally meet you, I've seen you walking around in that cloak of yours but I never knew how to say hi. I didn't even know you could speak our language with that computer in your hand.”

“I'm happy you came by when you did. Come say hi when I'm out walking, and I can start teaching you Commonthroat.” She set the keyer aside and shook a cramp out of her paw. “The more humans that understand Commonthroat, the less I need to use this blasted keyer.”

Manny gave a thumbs up and pulled out of the parking space. Sunshine went back inside just as the gust front from the distant squall sighed through the trees.

Everybody Poops Together

THUMP

I stood next to the wall, shifting my weight from one foot to the other, trying to ignore the increasingly urgent churning growls coming from my gut. There were no chairs in this waiting room, none my butt could sit in, anyway. I took my phone out of my pocket to check the time. The clock was the only thing that worked, no cell towers 25 light years from Earth. I had been standing in this waiting room for nearly an hour with nothing to occupy my mind. For the sixth time I read the large poster written in English hanging on the opposite wall:

“Welcome, human visitors! Remember, our hands are also our feet. Please help keep this clinic clean by removing your footwear before entering: St. Starlight’s House of Healing. ☐☐”

THUMP

Focus hung low on the horizon, its golden rays pouring into the room through the large windows lining the entrance wall. In the hour I had been standing here the shadows cast by the doorframe hadn’t moved an inch, and they never would. On Hearthside, the time of day changed with the latitude. Golden Hour city sat comfortably on the terminator dividing day and night.

THUMP

Perched behind a counter on the opposite side of the room was a fawn-coated receptionist, her HUD specs sitting halfway down her muzzle flashing reflected sunlight back in my face.

THUMP

Despite the poster’s exhortation to cleanliness, the musty smell of a kennel hung in the air. That’s not to say the place wasn’t clean, well, as clean as a species with constantly shedding fur can make such a high traffic public area. I didn’t mind the smell, really. It reminded me of the animal shelter where I picked out my first dog when I was little. It smelled like a friend.

THUMP

It had taken a considerable amount of effort to tune out that incessant thumping. I was sharing the waiting room with a handful of monkey foxes, a family by the looks of it. Three adults—two sires and a dam, travelling with three of their pups, all girls, one of whom was the source of the noise. They had already been waiting for a bit when I came in. All three girls started yipping excitedly upon seeing this hairless ape duck through the doorway, all twelve paws scrabbling on the slick tile to be the first to interact with me.

The three pups managed to approach.

«Wow, wow,» said one, ducking behind me to stare at my backside. «Lookie, they really have no tail.»

«See,» said the second, her nose pointed at my stockings. «No thumbs on their rear paws. Is it true you stand up like that all the time, mister?»

«Just that patch of fur on top of your head?» queried the third. «Is that why you wear those covers like a healer?»

«No, look, sis» barked the first, gesturing with her muzzle up at the meager hair covering my arm, «they do have fur, just not a lot of it.»

«now now, my delights, don't bother the gentleman,» chided one of their sires. They scampered back to their parents, and I heaved a sigh of relief. It took every ounce of my willpower not to scoop them up in my arms and give them all ear scratches and snoot boops. Now robbed of their strange playmate, one of the girls began thumping the wall with her tail, and through the endurance that only youth can provide, had managed to keep it up for the past hour. I wasn't the only one annoyed by the noise. With each thump, the right ear of the receptionist flicked.

Another plaintive gurgle issued from my abdomen. I couldn't wait any longer. It was time to do what no one else could do for me. I glanced around the room, looking for any signs of where a restroom might be. I was on the verge of walking up to ask the woman behind the counter when one of the sires, the same one who had scolded the girls earlier, hopped down from his perch with a sharp clack of his claws on the tile and walked up to the counter ahead of me.

«Excuse me, ma'am,» he began, «Our appointment time was half an hour ago.»

The woman slid her HUD specs further down her muzzle. «And I told you folks when you came in that we were having network problems. My paws are tied until it gets fixed. She whipped her head to one side and barked «Calmwind, is the network back up yet?!»

Through a curtain dividing an adjoining room a dusty gray snout poked out, twitched a few times, then its owner waddled forward. The white noise of server cooling fans escaped the room as he pushed the curtain aside. He was definitely a fair ways up the chonk chart. I think this was my first time seeing a fat monkey fox. He panted a few times as though the effort of walking ten feet from his little techie cave was too much.

«And I told YOU,» said Calmwind as though he had been part of the conversation from the beginning, «It's not a network issue. The payment processor is down.»

«I don't think—» she said, but Calmwind snapped back as though venting years of pent-up frustration.

«Look, It's not the network, okay? I swear it's always the network with you people. Noisy heat pump fan? Network must be down. Light flickering in the bathroom? Better call Calmwind, it's the network again. What does he get paid for anyway?» he mocked.

I made my way up to the front of the room, ducking my head to avoid various ceiling fixtures. This building wasn't built for someone who stood over 30 inches at the shoulder. The sire gave me an unreadable look which I chose to mean "Is this seriously happening right now?" Then he shot a glance back at the other two members of his childermoot. The remaining sire and dam hopped down from their perches and herded their pups out the front door, doubtless to spare them this public display of office politics.

Meanwhile, Calmwind had plucked the HUD specs from the receptionist's muzzle. «See, I told you, you've been browsing the internetwork this whole time. It's not a problem on our end. You need to send a message to the payment processor.»

«I'm a receptionist, not an office manager, I get one paycheck but everyone expects me to do the work of two people!» she hissed.

"What can you do." I said in English, shrugging at the sire standing next to me. He flicked his ears back, returning my shrug with his species' own gesture of resignation.

A loud grumble issued from my gut, catching the attention of all three yinrih.

«Are you feeling well, human?» asked Calmwind, out of breath from arguing.

"Are YOU feeling well, big chungus?" I said under my breath in English, then pulled out my synth and continued in Commonthroat. «Pardon me, but do you know where the restroom is?»

«It's a bit down the hall and to the right,» he said, tossing his muzzle to one side indicating the hallway nearby.

I ducked into the hallway and started jogging, I heard one last snatch of conversation from the waiting room before turning the corner. The sire, in an attempt to de-escalate, changed the subject. «Amazing how fast they can run on just those two long hind legs of theirs.»

«I know, right?» answered Calmwind, «and with no tail for balance and as tall as they are, you'd think they'd be falling over all the time.»

I rounded the corner and was met with another long hallway. My gut rumbled in protest again, my jog having made my situation even more dire. I continued at a brisk walk, accumulating a few bruises from the fixtures hanging from the ceiling. Finally, I came to another doorway. I could hear running water from behind the thick curtain. I could wait no longer.

I pulled the curtain aside and stuck my head through the doorway. A washing pool sat to the left of the entrance under a flickering light. Wading amid the water laving her paws was a healer. My face reddened. Before I could make a discrete exit, she turned and noticed me.

«Ah!» she chuffed cheerfully. «Light shine upon you, friend!» She hopped out of the water and trotted up to me, leaving a trail of wet paw prints in her wake. «You must be my human volunteer. My name's Doctor Shortclaw.» She extended a dripping wet paw to initiate a human handshake.

I hesitated. This wasn't the response I expected to a man bursting into the women's bathroom.

She extended her paw further. «This is the right way to do it, yes? Right forepaw, digits extended, palm facing to the side?»

“Yes, ma'am—er doctor,” I said in English before hastily grabbing my synth and repeating my confirmation in Commonthroat. I reluctantly accepted her waterlogged handshake. «I'm so sorry,» I said, hastily drying my hand on the curtain, «I must have the wrong bathroom.»

She tilted her head in confusion. «Wrong bathroom? This is the only one on this floor.» I slipped back into the hallway. The sign over the door, overlooked in my earlier haste, simply said «WASHROOM», with no qualifiers. Was this a private bathroom? She didn't seem to object to my presence. Whatever the case, I needed to get her out of there before the chocolate factory had a meltdown.

I brought the rest of my body through the doorway. We were standing in a vestibule, the washing pool was off to the left in an alcove. The wall to the right was adorned with the sort of nick-nacks one would expect to see in a Terran bathroom: pictures, a shelf with what I took to be an air freshener. The floor was flagged with tiles of various shapes and textures, designed more to be pleasant to the touch of a yinrih's bare paws than with an eye to visual congruity. A shallow lip separated the vestibule from the rest of the bathroom, which was currently unlit. The flickering light over the washing pool failed to illuminate the area where the toilet was.

I looked down at the little alien medical professional. She was furless save for her whiskers, as expected of a healer, with gray-black skin on her snout and paws giving way to ruddy flesh over the rest of her body. Her limbs and back were dense with musculature that would normally be hidden by fur. I caught a flash of saturated blue as she slid a pair of bandpass membranes over her eyes, scrutinizing my form under light my feeble human eyes couldn't hope to see.

Another rumbling burble emanated from my gut, causing doctor Shortclaw's large hearthsider ears to perk up. «Fascinating,» she yipped, pulling a notepad from a band around her foreleg.

«Look, I really have to use the restroom,» I explained.

«Even better!» she barked. She flicked her writing claw a few times and began jotting down some notes. «Do you mind if I observe? I was fascinated by the human digestive system while studying your medical cadavers. I'm anxious to see how it operates live.»

“Yes I mind!” I burst out in English, causing her to flinch. «Sorry,» I synthesized, «If you want samples, I'll give you samples, but I didn't sign up to be stared at while I poop.»

«I see,» she mused. «That might be a problem.» She crossed the threshold separating the sink area from the rest of the bathroom. Motion-activated lights banished the darkness. For the first time I beheld a yinrih toilet, and I did not like what I saw.

For starters, I was very wrong about it being a private bathroom. Four stalls lined the left wall, though calling them “stalls” was exceedingly generous. They were mere partitions extending up

from the floor, not even tall enough to obscure a yinrih's head. None of them had doors, either. The toilets themselves were simple holes in the floor. What might have been toilet paper dispensers hung above each latrine, positioned to be manipulated by the tail. Most of the floor was lined with more of that mismatched tile, but the area immediately surrounding the latrine itself was coated in a uniform rough texture to tell the user backing into the stall not to plant a rear paw in the hole. There was a noticeable grade to the floor of each stall sloping backward into the toilet, which I assumed was to guide any errant excreta to its proper destination. Sitting in the far corner of the room was a standard yinrih perch, positioned so the user faced the stalls.

«Our bathrooms probably aren't what you're used to on Earth,» she said apologetically. «We're inclined to be chatty while doing our business. We feel vulnerable while eliminating waste, and feel more comfortable when there are other group members watching out for us.

«This is a learning experience for both of us. My partners and I want to make this a human-friendly clinic, and any input you can give will help us make this place comfortable for both species. It sounds like humans need privacy when using the washroom, is that right?»

«Yes, doctor,» I said, nodding vigorously for emphasis.

«I see, I see,» she whined softly to herself, writing down more notes. «We're planning to make major renovations to accommodate your height.» She craned her neck upward to look at my head tilted forward to avoid hitting the ceiling. «I'm sure we can install species-appropriate facilities as well.»

I shifted uncomfortably on my feet, which Shortclaw noticed immediately. «But I suppose that's not going to help you right now, is it? How's this, I'll stand outside the door and make sure nobody else comes in. Take as long as you need. Oh, and no need to worry about any samples.»

«Could you?» I answered. «Thank you very much.»

She turned and walked through the door, brushing the curtain aside with her snout. I waited for her long sinewy tail to slither out of sight, then turned to face my destiny.

I took a deep breath. Credit where credit is due, the place was immaculate. Everything from the grout between the tiles to the walls to the floors inside the stalls looked clean enough to eat from, and this room smelled by far the least canine. "OK, you can do this," I told myself. "You were in the Boy Scouts, you know how to use a latrine, and you don't even have to bury it this time."

I entered the furthest stall from the doorway, undid my belt, squatted down, and prepared to restock the pond with corn-speckled brown trout. I waited, and waited, and waited some more. My colon had gone from Mt. St. Hellen to a space station airlock. "No big deal," I thought. "I just need to relax."

I let my mind wander as I surveyed my surroundings. There was an icon hanging near the entrance to the toilets, positioned to be visible from the stalls. Not an unusual sight here on Hearthside. There was an icon of the clinic's namesake hanging in the waiting room, too. The saint himself was all white save for a dark red stain on his abdomen. He was reared up on his hind feet, an upturned

drinking bowl under his right rear paw, reaching with his foreleg to pull a pup out of what looked like a pond of green sludge. Behind the saint's head was the gilded arch which served as the Claravian answer to the halo.

I heard Dr. Shortclaw politely ward away one of her conspecifics. «Sorry, our human volunteer is in there.»

«Are you sure he's OK in there by himself?» asked the interloper.

«He's got Saint Clearwater looking after him,» she answered.

«Fair enough,» said the other. The click-clack of his claws had just faded away only to be replaced by the sound of four more paws skittering toward the bathroom from the other end of the hall.

«OUT OF MY WAY!» barked an unfamiliar voice. To my horror, the curtain was thrust aside and a scrawny sandy-furred fellow burst into the bathroom. His momentum was checked only briefly as the good doctor's paw grasped futilely at the tip of his tail, relieving it of a few hairs.

«STOP! There's a-» barked the healer, but the intruder had already vaulted over the threshold between the sink and the toilets in a stunning display of agility.

«MY TEETH ARE SWIMMING!» he shot back. He took up residence in the stall next to mine, laid his tail across his back, and started putting out a fire. After heaving a contented huff, he turned and became aware of my presence.

«Oh, a human!» He tapped the partition between us with a claw. «My name's Coolsand. I'm a junior administrator here at the clinic. I think you saw my boss back in the waiting room.»

I suddenly became very interested in that icon hanging on the wall.

«Ah, that's old Saint Clearwater. They say he watches out for folks who have to use the bathroom alone. Well, that's what my sires told me growing up, anyway.»

I moved my gaze to the perch in the corner, staring at it as though it held the secrets of the universe, desperately willing my colon to finish the job. Coolsand did not interpret my silence the way I had hoped, and launched into a monologue.

«It's kind of funny, how Saint Clearwater got associated with bathrooms. We don't know much about his puppyhood, though I'd wager it wasn't a happy one, given that the first records we have that mention him are police reports involving bar brawls and public drunkenness. He was an alcoholic, you see, that's what the drinking bowl in the picture symbolizes.»

I uttered a half-interested grunt.

«Anyway, he was a raging alcoholic, like I said, and eventually found himself in front of a judge. He was ordered to attend a recovery program hosted at a nearby lighthouse. By all accounts he put his whole gut into it, and seemed to be making progress, but eventually relapsed.

«This cycle would continue, where he'd try to get sober, fail, wander off, then show up at the lighthouse a few decades later seeking absolution. Since he wasn't getting any better, the hearthkeeper eventually kicked him out altogether, assuming he wasn't putting in the effort.

«He ended up homeless living in a local park, begging for food and getting his fix from the wild wind fruit bushes that grew in the area. This park became notorious, not just for hosting a perpetually liquored up bum, but also for stinking of raw sewage. Turns out that a sewer main had burst, filling an underground pond with, well-» he slapped the textured edge of the latrine with a rear paw.

«Anyway, one day, a bunch of pups were playing in this park. Some stories say they were a litter, others say it was a school on a field trip, and others say the pups were just local kids. Out of nowhere, this sinkhole opens up, and all the pups just fall into this massive lake of-» he slapped the latrine again.

«Now there were a ton of grownups around. These pups' childermoot, their teachers, or whoever, but every account says that a bunch of bystanders saw this happen and just stared. They usually get painted as the villains, but you know, I'm not sure what I'd do if I were standing on their paw prints. They always tell you not to dive in after a drowning person, especially when you're not trained for it, since they'll pull you down with them and two people will end up dead instead of just one. And, besides-» for a third time the claws of his rear paw clicked against the side of the latrine.

«Anyway, out of nowhere, Clearwater, who's stinking drunk mind you, runs up and starts pulling the pups out of the hole. He manages to get most of them, but there are still two struggling toward the middle. He dives in after them. Well, the pups are still panicking, so they push him under while trying to climb out. The kids are able to get out, but Clearwater ends up drowning.

«So this naturally makes the news, and Clearwater is hailed as a local hero. The hearthkeeper that kicked him out of the rehab program realizes that he genuinely tried to sober up, but just couldn't do it. He did keep coming back, after all, and he did seem to try his best, but-»

«He kept falling off the wagon,» I interjected, now invested in the story.

Coolsand executed a quizzical head tilt.

«Sorry, it's a Terran expression.» I repeated the phrase in English and then again in Commonthroat.

«Well,» Coolsand continued, «That hearthkeeper has a change of heart and starts advocating for his canonization. And not just regular canonization, but she wants him declared a martyr. That's what that blood stain on his belly means.

«So even though it's a bit controversial calling him a martyr, since he didn't die while trying to fulfill the Great Commandment, he gets the title anyway. He's got quite the portfolio, as you can imagine. I suppose it's pretty obvious, his connection with restrooms, if a little morbid. But you also see little statues of him in bars, as he's said to help drunk people get sober.»

Coolsand's hagiography finished, I quickly cleaned myself up and redid my belt, but he insisted on continuing the conversation.

«I'm really into human stuff, and so is Calmwind. We both know English. He's the one who made that poster in the waiting room. If I knew you'd be here I'd have brought my synth so I could practice. I really want to visit Earth some time.»

I walked out of the stall and made a move toward the washing pool. Coolsand quickly finished up and followed. A few seconds after we had vacated the stalls, there was a whirring noise, then a cascade of water smelling mildly of bleach rushed out of a grate spanning the entrance to the previously occupied stalls and rushed down the slope and into the latrine, simultaneously flushing it and sanitizing the floor.

"Well," I said in English as I squatted in front of the washing pool scrubbing my hands, "Nice meeting you, Coolsand. But let me give you some pointers on men's room etiquette whenever you visit Earth. Not sure how you'll negotiate our toilets; I'm sure you'll figure it out. But whatever you do, remember these words: shut up and stare straight ahead."

«Wait, humans don't chat in the restroom?» I could almost feel him blushing behind his khaki fur. «Did I offend you? I'm sorry if I did, It's just-»

"No, no we do not."

«So that's why the old bald-back was guarding the door.»

"Yes... Look, it was nice meeting you, really, don't sweat it—uh pant it—I mean don't worry about it. I think these little psychological quirks that we don't share stick out only because we have so much else in common."

«I guess that's what the Great Commandment means by 'bone not of our bone and flesh not of our flesh'.»

"Just look out for that doctor next time. By the way, my name's Greg." I attempted the yinrih's traditional greeting, patting myself on the abdomen twice with the left palm, then turned to leave.

Dr. Shortclaw was still standing outside. She looked up at me sheepishly.

«Sorry about that,» she said. «Like I said, we're talkative in there. That's why that perch is in the corner.»

«I hope you're a better doctor than a bouncer,» I said as we walked down the hall to the exam room.

The Farspeaker's Apprentice

The main core of the network stretched out before me: rack upon rack of black boxes extending into the distance, their chassis scintillating with link lights blinking softly as packets rushed in and out of each interface. Meticulously bundled cables of various colors spilled forth from the racks and ran here and there along runways above my head. A cold breeze from the heat pump rustled my whiskers. Permeating this cavernous chamber was the rushing white noise of thousands of cooling fans. I turned my muzzle up, taking in the whole scene. This chamber so huge that I couldn't see the far wall, it was all but a tiny ganglion in the vast interplanetary nervous system, the body of the noosphere.

My mind wandered back to my puppyhood, to a catechism class where I was taught about the farspeakers, the ones who labored ceaselessly to maintain this network. They said that the sophonts who dwelt among the stars, whose bone is not of our bone and whose flesh is not of our flesh, that they must have internetworks of their own. Sapience, I was told, is much more likely to arise in a social species with an intrinsic need to communicate among themselves, and so a noosphere must in time fashion a body for itself as the species spreads across its homeworld and hearth star, and these sophonts find themselves needing to cast their thoughts across far flung space and deepest time. It was the Farspeakers' duty to tend to the body of our own noosphere, so that one day they could fulfill the Great Commandment by uniting these alien internetworks with our own. And now, I suppose, it was my duty as well.

I made my way to one side of the room, where a thick curtain separated the anchorite's chamber from the data center. I pushed the curtain aside with my snout just enough to poke my rhinarium into the room. I smelled an older woman. She must have seen at least six centuries by the scent of her. Over top her musk I detected the odor of a strong perfume, the sort that barked "leave me alone!" The roar of the machines outside became muffled by the thick cloth in the doorway as the rest of my head followed my muzzle into the chamber. The anchoress's large Hearthsider ears were silhouetted against the green glow of a terminal. Her right ear flicked as my claws clicked against the raised tile floor, and I detected a slight note of annoyance in her musk.

"You're finally here," she said, not looking away from the display. "So, the hearthkeepers pressed you into their service since you could not pay your tithe to your lighthouse."

I tilted my muzzle upward, though she didn't see my affirmation.

"We bought you," she spat the words with disgust, "for a hefty price off of those witches on Yih. They wonder why so many are wandering from the path. The Outer Belt is filling with apostates scandalized by the clergy's decadence. They blot out The Light's Truth with their sins!" she barked. "Forgive my outburst," she said more softly, "On Hearthside the faith flourishes while the slothful hierarchy allows it to rot across the rest of Focus. The Missionaries who dwell past Moonlitter are the only others who keep the old traditions."

She let out a sigh, and I could smell her trying to calm herself. "If it is any comfort to you, I detest your presence here as much as you do. We anchorites prefer to keep no company. But if our holy work is to continue, we must pass down our knowledge to those whose muzzles are not silvered by age." She at last turned to face me. Her frosted snout contrasted with her sable pelage. She reared up and performed the holy greeting. "Light shine upon you, friend."

"Mistress—" I began, but she cut me off. "That's not my name! And your name isn't 'pup', or so I guess they called you on the homeworld. You will call me Seabreeze, or Breezy if you are not one for formality." I took a breath to speak, but she plucked the words from my throat. "I know, a strange name for a Hearthsider. A few of my dams were from Sweetwater. It is a tediously common name there, but quite refreshing here in the Nightless Desert. And you, sir, what is your name?"

I blinked all four pairs of bandpass membranes in astonishment at her deference. "It's Littlepaw."

She examined me nose to tail. "Littlepaw, eh?" Her earlier harshness had softened into a more maternal tone. "It suits you. The runt of your litter, were you?"

"Yes," I answered.

"Splendid!" she yipped. "A meager frame is an asset for a farspeaker. You'll be crawling through narrow conduit pulling cable in your tail."

My ears wilted. I had hoped that I could leave hard labor behind by becoming a Farspeaker's apprentice. Seabreeze saw my apprehensive expression and took pains to reassure me. "I won't ask of you more than you can give," she said gently. "We're not so mercantile here on Hearthsider as they are on Yih. We take time to do things right, and that includes making sure you feel rested and ready. Of course you're not ready yet. You need to be trained first." She reached under the table, and giving voice to a grunt, I guessed for the weight of the machine, she pulled out a black box like the ones fastened to the racks outside. "This is an internetwork node," she said patting its metal chassis with her tail as a dam would a pup she's particularly pleased with. "You need to get comfortable with this before I turn you loose on the nodes out there. I'll give you the honor of turning it on."

I reached forward and depressed the power switch with my writing claw. The machine roared to life like a shuttle taking off. I couldn't help but pin my ears back and open my eyes wide with puppyish glee. The hearthkeepers back home would never have so much as handed me a wrench, but here I was going to be in control of that network node. It was an empowering feeling.

Seabreeze matched my expression, as though she herself were just beginning to uncover the mysteries of the noosphere again. Then she cleared her throat and her face grew solemn, and she began what sounded like a long rehearsed preachment. "The impious accuse us of obscuring plain facts behind a curtain of mysticism. We do no such thing. The noosphere is a complex and many-faceted thing, and its body, which we farspeakers are charged to attend, reflects this complexity. One cannot grasp its wonder in a day, indeed, so intricate are its inner workings that no single farspeaker understands it from nose to tail."

I thought about the endless rows of nodes outside, about the arcane protocols that governed their interactions, about the impossibly complex web of cables and wireless uplinks and Underlay tunnels that connected everything together. The task before me suddenly seemed insurmountable. If no one, not even an anchoress like Seabreeze, could fully grasp the extent of the noosphere, what chance did I have?

Seabreeze smelled my apprehension. She looked at the node now humming quietly, having finished its boot sequence, then back at me. "You're a young pup climbing his first tree. You will fall many times before you reach even the lowest branch. Each time it will hurt, but don't let the pain discourage you. You stand atop my own paw prints. You won't be judged by how many times you fall, but by how many times you pick yourself up, shake the dust from your fur, and start climbing again."

First Contact

The golden rays of the westering sun soak into my fur, and I feel the warm sand under my palms erode as gentle waves lap at my paws.

«How long have I been standing here?» I wonder.

A whisper responds, «It doesn't matter. There is no before, no after. There is only now.»

«Where is this place again?» I think to myself.

«It doesn't matter. There is no elsewhere. There is only here.» says the voice again.

«Now what was my name again?» I ask myself.

«It doesn't matter. There is no one else to call you by name. There is only you, there has only ever been you, there will only ever be you, forever blissful in this little world of mine.»

A panic rises in my gut. «Shut up, damn it all! My name is Ringlight! I was hatched on Pilgrims' Rest to four... no, six sires and dams. Their names are... are...» I grasp futilely at distant memories, from another life... someone else's life.

«Are you alright?» another voice drags me out of the abyss. I snap my head around to face its source and am met with a snowy visage. I hastily glance behind me, following her paw prints back to a bonfire crackling in the sand just out of reach of the waves, the rising smoke partially obscuring a stand of trees further away.

She smells worried. «You were starting to dissociate again.»

«Dissociate?» I try to reorient my mind, focusing on her whiskers twitching with concern. «Who are you?» I ask, «You look familiar.»

«He started fading again, didn't he?» another yinrih, ruddy-pelted and black-eared, trots up to us from beside the fire.

«Come on, buddy, what's my name?» he presses.

«S-Steadfast Friend,» I mutter hesitantly.

«Good, and the big guy over there?» He points his muzzle at a massive male lounging in a tree behind the fire, his blue-gray fur blending with the smoke.

«Lodestar,» I say, a bit more confidently.

«And this scrawn-job next to you?» He says, playfully gesturing at the diminutive white-furred female who pulled me out of my haze.

«I can't help being the runt of my litter!» she retorts, but stops to await my answer.

«Iris.»

«What about ol' big-ears? What's her name?» He indicates another female walking along the beach toward the group. Her red pelage matches my interrogator's, but her ears aren't black like his.

«Sunshine.»

«Excellent, and where are we, really?» says the redpelt, tracing an arc with his muzzle indicating our surroundings.

I sit on my haunches and tug at my ear with a rear paw, trying to drag a long-forgotten memory out of the depths. «We're... We're on Sweetwater? wait... no!» I bark, causing Iris to jump. «This isn't real! We're not standing on a beach on Sweetwater. My body is floating in an amnion aboard a womb ship, hurtling through the interstellar void at relativistic speed. Every external stimulus entering my nervous system is the result of a simulacrum generated by a computer, all to prevent me from going mad from the lack of sensory input.»

«He's back!» my questioner barks toward the tree. Lodestar hops down and pads up to us. An odor of relief meets my nose ahead of his approach.

«We just finished singing vespers,» Iris says, tossing her muzzle behind her at the liturgical bonfire. «I could smell your panic. This is the second time today that you've started to dissociate. You should really be singing the liturgies with us. It helps keep your mind anchored in reality.»

«I wish I could, but-»

She interrupts. «If you can't pray, then just listen. Be present.» She pauses to choose her next words. «If we don't make contact you'll have another week of suspension, subjectively speaking, to go before we get back to Focus, and we've got to keep you with us.»

«When we don't make contact, you mean,» I think to myself, my pessimism getting the better of me.

She backs up to face the four of us. «We all hear the voice,» she says, «and we've all been trained on how to combat it. I have faith in every one of you. We've all passed the suspension screenings, yes even you, Ringlight. I never misrepresented you to my superiors.»

«Wait,» I look around. «There was someone else, right? He has black fur. Stormlight, where's Stormlight.»

«He went to check the ship's comms. We should be arriving... soon-ish,» says Sunshine. «Well, a few years realtime, anyway.» Just as she finishes, Stormlight's avatar coalesces into existence,

shuddering slightly as his time perception contracts to match our own.

Every muzzle in the group whips around to face him. The melange of emotion wafting off of him overpowers everything else, the smokey wood, warm sand, and salty sea spray are utterly eclipsed by the aroma of elation and trepidation.

«I- you- It's- OK, OK, OK,» he babbles, frantically lashing his tail in a «follow me» gesture. The beach flickers away like an extinguished flame. The warm yielding sand under my palms is replaced by what feels like cold metal. A neon purple grid stretches to infinity around us, embedded in an inky void. A teal-colored hue washes over Iris's candid pelt, emitted from an invisible light source overhead, turning the fur of the two redpelts to a muddy brown. Stormlight is barely visible, the black fur on his back highlighted with a turquoise sheen.

We've been ripped out of our contracted time perception into realtime, from a simulation of a golden beach on Sweetwater to the spartan realm of the *Dewfall's* operating system environment.

By now the rest of us have begun to stink of excitement as well. Stormlight wordlessly executes a command gesture with his tail, causing a sphere of coruscating white brilliancy to materialize before us, an output interface from the womb ship's realspace radio receiver.

At first only white noise meets our ears, the incorporeal light sphere flickering randomly to match the chaos fed through the ship's antenna array into the signal processor. The exact same scene has played out countless times over the millennia for an uncountable number of missionaries, and for every single one of them, nothing ever emerged from the noise but the random perturbations permeating the blind uncaring cosmos. And yet...

Something faint, barely discernible over the rushing static, begins tickling my ears. A pure tone, sounding jerky and random at first, materializes into a pounding cadence...

dah-di-dah-dit dah-dah-di-dah. Dah-di-dah-dit dah-dah-di-dah. Dah-di-dah-dit dah-dah-di-dah.

A SIGNAL!

Iris plunges the metal poker into the liturgical bonfire as Lodestar concludes the final hymn, and another vespers comes to a close. Ringlight is off by himself as usual, staring into the offering as Focus hangs low over the water. I wish he'd at least be with us during liturgy.

I guess he just doesn't have it in him anymore. Makes me ache a little inside. He used to be so devout. His faith was what kept the shadows at bay. Me and him, we both struggle with depression. I think that's why we got along so well as pups. I think he has it harder than me though. People get to know me and can see why I have a hole in my soul. All but two of my sires and dams dead, and the rest of my litter mates stillborn. «Of course YOU have a reason to be sad, but him? His childermoot and litter mates love him, and he doesn't want for anything. Why is he so glum all the time? Why doesn't he just cheer up?» They just don't get it...

I look over at Iris and give her a quick ear flick to let her know I'm popping out of the simulacrum to check the *Dewfall's* comms. I don't have to leave, strictly speaking, but our nervous systems are

slowed by a factor of 7600 while in sim. Decades go by back home while mere hours pass for us lounging on this ersatz beach on pseudo-Sweetwater. It's much easier to react to stuff in realtime.

Just before the sim melts away I catch a whiff of panic coming from Ringlight. Is he dissociating again? That'd be the second time today, well, subjectively speaking. That's why I wish he'd at least be with us for the liturgies. This is the whole reason the mission planners were so cagey about letting him come with us. Yeah he passed the suspension screenings, but you're not in sim for 250 years realtime for those. You're not exposed to the Voice for that long. If he can't pray, if he can't meditate, if he can't sing the liturgies, he's that much more vulnerable to the Voice. Iris swore up and down that she could keep him anchored. She's managed it so far, but it has to be exhausting to puppysit him like this. Void, it's exhausting for ME just watching.

Admittedly that's the other reason I duck out of the sim. The Voice isn't so strong in the operating system. Never goes away completely, but even Ringlight could brush it off out here. Of course hanging out in the OS environment for 250 years WILL drive you nuts, which is why the simulacrum exists in the first place. You need sensory input to stave off the insanity, but that sensory input is what causes the Voice.

The last thing I see is Iris bounding over to the waves where Ringlight is silently panicking, then my whole reality pops like a soap bubble. I fight a wave of nausea as the chemical cocktail my physical body is pickled in alters to return my time perception to normal. Part of me wishes we could just hang out here. There's something about the OS environment. Maybe it's the air, well, I'm calling it air, anyway. It's not hot, it's not cold, it's not too humid or too dry. It's just... there. I know it's because the amnion isn't stimulating my thermoreceptors, and I know I'd go bonkers eventually, but compared to that humid beach, it's a relief.

I gather myself after the queasiness passes. The neon magenta grid floor expands endlessly around me, receding into the black infinity. My whiskers and the wet part of my nose catch the cyan light streaming down from above. I always look up expecting to see a turquoise sun shining down on me, but there's nothing there but blackness. Sometimes I wonder why the OS looks like it does. Someone designed it like this. Why the grid? Why this specific color of lighting? Why do I like it so much? It's a particular aesthetic I can't put my paw on, but it scratches a very specific itch in my farspeaker brain.

I gesture with my tail to pull up the latest messages received through the ansible network. It's only been a few hours as far as my brain is concerned but years worth of missives from back home flood the featureless black around me.

«New High Hearthkeeper takes charge of the Eternal Hearth,» reads a headline from eleven years ago.

«Good riddance,» I grunt out loud to nobody. Whoever we got has to be better than that witch who tried to suppress the missionaries again. I still blame her for causing Ringlight to lapse. She was awfully chummy with the Partisans, too...

I catch myself fuming again. Why do I even look at the news? It's never anything good, and it's certainly not anything I can do anything about. Light willing we'll be among other sophonts soon

anyway and I can just forget about Focus.

Sophonts—that's right! How far along are we? I swish my tail, banishing the miserable headlines swarming around me like angry insects. We should have entered the star system by now. A star chart ripples into view, showing the *Dewfall's* course relative to our destination exoplanet. It's a little blue marble, the third planet out from its star, nestled perfectly in the habitable zone. Long range surveys from Focus detected a nitrogen-oxygen atmosphere at perfect pressure. Gravity is a bit higher than on Yih, but nothing yinrih can't handle. Oh, and liquid water, absolutely everywhere. Nearly three quarters of the world's surface is covered in it.

We've crossed the orbit of the fourth planet. By the time I jump back in sim to tell the others about what I've found, we'll be in orbit around our destination. My tail twitches as I hesitate. Do I check the realspace radio? I feel that particular flavor of dread you get when you know you have to do something, but refuse to do it because you know you won't like what you find. One hundred millennia—that's how long we yinrih have been searching for intelligent life among the stars, bone not of our bone, flesh not of our flesh, but souls like unto our own. I feel like this is the moment of truth, but can't bring myself to patch in the radio.

I flop down onto the floor. The nice thing about being in the OS while everyone else is in sim is that I can dawdle as long as I want, and they'll just think I was gone for a fraction of a second. I could just stare out into the magenta horizon for however many months we've got to go before arriving. Of course, it only takes a few days to lose your mind out here, Voice not required. I could last longer if the others were with me, but the OS wasn't designed to be lived in.

I roll over onto my back and stare up into the invisible cyan sun, thumping my tail on the virtual floor. I'm doing everything I can to avoid that blasted radio. I've—We've all been dreading this day since we climbed into our amnions aboard the *Dewfall*. Deep down, we know we won't find anything. Nobody's ever found anything. None of our long range surveys, none of our missions have ever come across so much as a microbe. We've been howling into the cosmos all this time, searching for other minds like ours, but in the end we'll always be utterly alone.

We'll limp back to Focus, our Sires and dams gone and our litter mates and friends ancient and gray-muzzled. This 24-day vacation will have cost us five hundred years. Lacrimal fluid starts dripping from my lips, the red liquid vanishing into the black fur of my cheeks. I lost all but two of my parents and the rest of my litter before I even knew them. Now I've thrown away what time I had left with my surviving sire and dam.

Maybe Ringlight is right after all. Maybe it's all nonsense. Comforting and beautiful, but nonsense all the same. An illusory bulwark against the inevitable existential dread that comes with understanding our mortality and our insignificant place in the universe, the curse of sapience.

Welp, let's get this over with. I rise to my paws. I dig my claws into the unyielding digital ground and tense up as though preparing to be struck. Eyes scrunched closed, ears pinned back, head lowered, I hastily perform the tail gesture to summon the output interface for the radio.

The high pitched whistle of a heterodyne grates at my ears. «Just internal noise,» I think, but then the tone abruptly stops. Then it comes back again, then stops again. «Something's wrong with the

digital signal processor,» I growl aloud. The sound continues.

Slowly, a rhythm emerges, and I start tapping my left writing claw in time with the beat.

long, short, long, short, pause, long, long, short, long.

«It's a pattern...»

«NO!» I bark, «It's a SIGNAL!»

I jab my tail in the air. The pulsating white sphere representing the radio output unfurls into a spectrum waterfall. The signal I've been hearing flows down the display.

dash, dot, dash, dot, pause, dash, dash, dot, dash. I increase the frequency domain to survey more of the spectrum. Dozens of these narrow-bandwidth signals cascade down the waterfall on either side of the first.

I input more gestures, sliding the frequency oscillator hither and thither across the spectrum. Different types of signals flit across the display, none as narrow as that first beeping cadence. Signals of all types, amplitude, frequency, and phase modulated signals, both discrete and continuous. Some of these are surely modulated speech. I tune to a particularly strong AM signal, tail quivering in anticipation. What do these sophonts sound like?

☐☐Roráte caéli désuper, et núbes plúant jústum ☐☐

Singing... words? They can put words to a melody! Hisses, hushes, pops, trilling growls, loose and flowing sonorous sounds all caress my ears like a cool breeze on a hot day. There are more kinds of sounds in that one snatch of song than in every yinrih language combined. I have no idea what the words mean. It could be a drunken ballad for all I care. Right now it sounds as beautiful as a hymn to the Uncreated Light.

I drift into an ecstasy, my earlier doubts forgotten. I swim in a shimmering sea of invisible light dancing to the chorus of a hundred thousand inaudible voices. My mind floats in this alien noosphere for hours uncounted.

I come out of my reverie. How long have I been standing here? My paw pads ache and my joints are stiff. I notice my muzzle, chest, and forelegs are soaked in red tears, and a crimson puddle has collected around my forepaws. I stretch my legs and flex my digits, listening to another heavenly transmission from our new friends.

“AT THE TONE, THE TIME IS: TWELVE HOURS, THIRTY THREE MINUTES, COORDINATED UNIVERSAL TIME—” *BEEEEEEEEEEEEEP*

I heave a contented sigh. «Music to my ears...»

We stand in silent awe for a moment. Sunshine is quietly weeping as the beeping continues. It seems to strain against the noise, a lonely soul crying out for someone, anyone, to respond. *Dah di*

dah dit, dah dah di dah. dah di dah dit, dah dah di dah. dah di dah dit, dah dah di dah. Dah di dit, dit.

Stormlight flicks his tail, tuning the radio to a random frequency. For a moment the static resolves into an alien voice before fading back into the noise.

“They're eating the dogs, the people that came in. They're eating the cats-”

«Is that language? It's... beautiful,» Sunshine says between deep shuddering breaths. «I don't know what those words mean, but I'm sure it's profound.»

I walk up to Ringlight and thump him across his piebald back with my tail. «How are you holding up?»

He coughs. «What, Lodestar? If you're going to ask me what I believe in now that we've found other sophonts-»

«Actually I wanted to see how you're fairing after your near dissociation earlier. Stormlight popped back in sim and gave us the news before I could ask.»

«I'm alright.» He smells like he wants to say something else but swallows his words.

«You think you've been a burden,» I say. «And you're not wrong. Iris had to drag you back from the brink of total dissociation four times.»

«Five times,» he corrects.

«Five times,» I continue. «But You're our friend, and bearing each other's burdens is what friends are for.»

Iris taps her claws on the ground to get our attention. «Alright, everyone. Before we can land we need to introduce ourselves to our new friends, and before we can do that, we need to figure out how to communicate with them.» She turns to Stormlight. «What have you gleamed from their radio comms?»

«Most of the signals are coming from the planet's surface. Looking back through the receiver logs there were a pawful of faint sources scattered around the solar system, a few on their moon and the fourth planet, and some very faint transmissions from just outside the system. Everything beyond their planet's low orbit seems to be an uncrewed drone. Most of the signals are digital, but there's still plenty of analog traffic.»

Iris tugs at her ear. «And we know from the lack of biosignatures on any of the other planets that nothing has been terraformed.»

She turns to Steadfast Friend. «How about you, soldier?»

«Uh-uh, if you're going to talk to me like I'm still in the military you gotta use my call sign.»

«But it's *disgusting*.»

He narrows his eyes and pins his ears back. «I'm waiting, my dame.»

«P-uke Paws,» she nearly gags, «What do the visuals say?»

He chuckles and looks back at Ringlight. «I ever tell you how I got that name?»

«Yes yes yes.» Iris flicks her tail to shush him. «Please, just tell us what you're getting from the vid feeds.»

Puke Paws pulls up a vid screen floating in mid-air. With each flick of his tail the screen flips between the video sensors dotted around the *Dewfall's* exterior. «We're just past their moon.» An airless crater-pocked sphere appears onscreen.

«That's no moon,» Sunshine objects. «It's way too big to be a moon of a planet this size.»

«Well lucky them, I guess,» he flicks his ears back. «Lots of real estate once they get around to terraforming it.»

«I can't even imagine the tides,» says Sunshine.

Steadfast Friend flicks his tail again, and the image changes. «This is their largest artificial satellite.»

«It's all solar panels,» says Sunshine. «Solar panels bolted to a bunch of tubes.»

«But they're pressurized tubes,» says Steadfast Friend, «at least according to the sensors. That means they've got spacers. All in all I'd say they're about where we were... 95 thousand years ago.»

Iris turns back to Stormlight. «How do you think we should make ourselves known?»

the farspeaker begins pacing excitedly. «Lucky for you I know the history of our order.» He makes another tail gesture to bring up the radio again, tuned to a rhythmic beeping signal similar to the first one we heard. «Before we broke through Yih's atmosphere, when the research monks were first dipping their paws into unpowered flight, they quickly discovered that they needed a deeper understanding of the wind and weather.»

«What does this have to do with communicating with alien sophonts?» Sunshine asks, somewhat annoyed that Stormlight isn't getting to the point. Iris gives her a stern look and motions for Stormlight to continue.

Stormlight resumes his history lesson, positively stinking with joy that his obscure interests are proving useful. «In order to understand what the weather will be in the future, you need to get the big picture. It's not enough to know what the weather is around you, you need to know what's going on upwind, downwind, all over. But learning that a squall is headed your way is only useful

before the storm hits.

«The obvious solution in an era before satellites, that is, is to have every research monastery make a note of the weather conditions in their area at the same time and send the reports to a central location to be marked on a map. Well, at that time we couldn't send a message faster than it could be carried, so the monks set to work on solving the problem of transmitting information beyond line of sight in real time.

«There were some marginal successes with signal towers, where people would stand on top of tall structures and relay tail signals to one another, but that still required line of sight, and even though it was faster than carrying a letter, it still took hours to send a message a meaningful distance.

«Plenty of attempts had been made to use an electric current to carry a message, and some of them even worked, but every one of them proved too complex to build and maintain. Multiple wires, fault-prone receiving equipment, stuff like that. That's where Saint Redclaw came in, the founder of the farspeakers. What most people don't know about him was he wasn't even a monk. He was a groundskeeper working at a monastery who took an interest in some of their research.

«He tinkered with batteries and switches and wires in his free time. Sometimes he'd present his handywork to the monks, who would dismiss them as crude toys made by the idle paws of a simpleton. But the hearthkeeper knew better. She understood that the simplest solution is usually the best one, and encouraged Redclaw to continue. Eventually, he hit upon a setup that not only worked, but was practical and cheap to implement. A battery to induce a potential in a wire, a switch to make or break the circuit, and a sounder that clicked when a current was present, simple and easy.»

Sunshine interjects again. «If it was so easy to just use one wire and a switch than why didn't the monks try that first?»

«I'm glad you asked. All you can do with one wire is turn a signal on and off. Either a current is present or it isn't. The monks couldn't figure out how to turn that into information.» He taps the ground with a paw and a small lamp appears attached to a switch. He places his forepaw on the switch, turning the light on. «It's all in the rhythm,» he says as he starts tapping the switch in time with the radio signal. *dah di dah dit, dah dah di dah.* «Redclaw figured out that you could encode meaning in the cadence of the ons and offs of the switch.

«To the monks' credit, they took him more seriously after he presented his method of encoding meaning. They wasted no time erecting telegraph lines.» He reverently touches his belly to the ground. «The body of the noosphere was born.»

«And you think that's what that signal is?» I ask.

He tilts his muzzle up. «Yup. And listen to this.» He increases the volume of the radio. «Like I said, the signal is either on or off. I can pick up on two length distinctions: short,» he gives the switch a quick tap, and the light flashes briefly, «and long.» He presses the switch again, lingering for about half a heartbeat before releasing it again. «Just assign meanings to different patterns of shorts and longs, and you've got yourself a signaling system.» He continues tapping his paw in time with the

radio.

«But there's more,» he continues. «While you were in sim I spent hours listening to these signals. Notice how perfectly timed these segments are, with no variation or hesitation? They're probably artificially generated. But,» he flicks his tail a few times before landing on another signal. «Hear the difference?» At first it sounds the same as the last one, but I start to notice subtle imperfections in timing. «Much more sloppy, clearly produced by a person and not a machine.»

Iris's ears perk up. «So you think you can contact one of the sophonts operating this... thing... manually?»

«Yes, my dame,» he says, his scent growing more serious. «By now you've probably noticed that each of these exchanges begins with a set preamble.» He tunes to another signal, which repeats the now familiar cadence. *Dah di dah dit, dah dah di dah. Dah di dah dit, dah dah di dah. Dah di dit, dit-*

«So I figure I can spit that back at them.»

Iris smells incredulous. «I'm not sure that's going to work.»

«We're already in orbit,» says Stormlight. «I guarantee they'll find us sooner rather than later and come to their own conclusions about who we are. We need to show our belly first,» He rears up and pats himself on the abdomen as though greeting a stranger.

«Fine,» Iris sighs. «I don't have a better idea. I'll send the good news back to Focus as soon as you've made a successful exchange.»

Without hesitation, Stormlight flicks his tail. The lamp vanishes but the switch remains, now connected by a cable to the shimmering white sphere representing the ship's radio.

«Alright,» he takes a few deep breaths. His initial enthusiasm falters and I can smell him trying to work up the courage to begin. «paw goes down, carrier turns on, paw goes up, carrier turns off.» He starts tapping the switch, repeating the now familiar sequence *Dah di dah dit, dah dah di dah*. After each salvo of dits and dahs, he pauses to listen for a response.

After a few moments of alternating between sending and listening, a response emerges from the noise.

“QRZ? QRZ? DE K5BOBTX”

An odor of pure panic fills the space around Stormlight. He's jumped in the murky water and gotten bit for it. He just repeats the same sequence again.

“UR CALL?”

«Just keep him talking, and I'll locate the source of the signal,» says Puke Paws.

Stormlight repeats the refrain again, and the sophont responds with more impenetrable beeping.

“U NEW HAM? IF UR USING CW DECODER, NAME BOB BOB QTH ERICKSON, TX ERICKSON, TX RIG HR IC 705. CONGRATS ON GETTING UR LICENSE BUT PSE LEARN HOW TO MAKE CW QSO. GOD BLESS 73 DE K5BOBTX SK”

The sophont ends the exchange with two rapid beeps. Utterly defeated, Stormlight halfheartedly taps the switch with his paw, echoing the same two beeps back.

«What was that? You didn't understand a bit of that, did you?» Sunshine barks.

«I'd like to see you do better, big ears,» he growls back.

I place myself between the two of them. «Calm down. Are you two going to be bickering in front of our new friends?»

Iris interrupts. «I've sent the proclamation of good news back home. Lightray should be reading it about now.» She walks over to Sunshine.

«Gentle healer, we thy patients put our very lives in thy care as we are yeaned like new kits.» A caerulium aspergillum materializes in the coils of Iris's tail, and she sprinkles Sunshine's face with blessed milk. «Oh, before you go,» Iris looks at Stormlight. «May you not depart in anger.»

The two dip their heads apologetically. «Be safe,» says Stormlight. «We're counting on you to get us safely out of suspension after we land.»

Sunshine looks down at her forepaws. «I'm going to miss my fur.»

«May the Light illuminate your way, Sunshine.» Iris motions for her to get going, and Sunshine's avatar blinks out of existence.

I'm floating down the main axis, letting the air current push me along. I'm feeling every one of my four hundred years. My left knee crunches each time I grasp a paw cable to push myself forward. I've only got four limbs, and my rear paws have had to pull a lot more weight, literally, compared to someone with his tail intact. I count my blessings that nobody can see how gray my muzzle has become thanks to my white fur.

It's been 250 years since I last saw Iris and the other missionaries, but those lucky lickers haven't aged a day. I'm so old my pups have pups of their own.

As if on cue, a knot of sires and dams floats by, a gaggle of pups in their train. I notice one of my own sons amongst the adults. «Hi, son!» I chuff.

He breaks away from the group and floats over. Two small pups are clinging to his back. A little boy is peering over his sire's shoulder at me, Blissfully licking at a juice pouch. His sister is playfully repelling off of my son's back and reeling herself in again with her tail wrapped around his waist. «Hi, dad- oof!» his greeting is cut short as the girl kicks away from him and jerks to a halt as her

tail goes taught. «Kids,» He thumps them gently with his tail, «this is one of my sires. Say hello to Mr. Lightray.»

«Hello, mister.» The boy has decided that poking the red bubble of sugar water floating at the center of the pouch is far more fun than drinking it.

«Where's your tail?» the girl yips.

«Don't be rude,» her father hisses.

«It's OK, son. You were just as inquisitive when you were her age.

«When I was a little kit, I got sick and my tail started moving on its own. A healer had to chop it off so it wouldn't cause trouble.»

The girl's eyes widen and she curls her own tail tight against her back. «Papa,» she whines, «will that happen to me?»

«Don't worry, dear.

«Say, why don't you tell Mr. Lightray what you've been up to?» he says, trying to steer the conversation away from caudal amputation.

«I've been playing with a star lantern,» she mumbles.

«She's been playing liturgy at home with some of her toys,» he clarifies.

«A little hearthkeeper, are you?» She tilts her muzzle up but hides behind her father, squeezing her tail even tighter against her back trying not to catch my taillessness.

The boy has progressed from poking the pouch with his writing claw to clapping the pouch between his forepaws, letting little red beads of juice fly out for him to snap up with his jaws.

«She can't wait to become an acolyte, only six more years.» My son wraps his tail around hers to comfort her. «She'd love to know what you've been up to.

«Mr. Lightray is the *Dewfall's* mission controller.»

«For real?» She emerges from behind her father, her ears pinned back and her eyes wide with excitement.

«What's that like, Mr. Lightray?»

«Let's see—I make sure I can still talk to the folks aboard the *Dewfall*, and I keep the ship headed in the right direction. I make sure the missionaries are safe and snug in their amnions, and sometimes I have to tell one of them to pilot a micro mech and fix something that breaks.»

«Are they there yet?» asks the girl. «I hope they find other little ones.»

«So do I,» I say, wishing I could hope like her.

As we've been talking, the boy has steadily been slapping the juice pouch between his paws harder and harder. After one last almighty smack, a great blob of crimson stickiness flies out and slimes the white fur of my chest.

The boy smells embarrassed. «Sorry, mister,» he growls.

I laugh. «Don't worry about it, little guy. I'm not doing anything important today. Just drink your juice instead of playing with it next time.

My son looks down the axis. His childermoot has floated out of sight. «We'd better get going or we'll be late for liturgy.»

«Bye, Mr. Lightray,» the two pups bark in unison. My son kicks off from the paw cable he was clinging to and the three of them go flying down the axis toward the lighthouse.

I turn and enter a tiny room behind a security door. How far have the missionaries fallen since the second golden age. There was a time when entire buildings were dedicated to full-time control teams, and here I am, a single unpaid volunteer holed up in a converted maintenance closet. With the ansible in the corner I can stretch my front legs out to either side and touch the walls. The room doesn't even have a light source. I have to make due with the thermal glow of the ansible's heat sinks.

I turn to a small safe bolted to the wall. I scrawl a key pattern onto the ink pad with my writing claw. The safe takes about half a heartbeat to confirm the pattern, absorb the ink, and verify my ink's biosignature. A subtle haptic pulse informs me that the door is unlocked. I look inside. Yup, the tailstone is still there, where it's been for the last two hundred fifty years.

I open a small access door on the ansible. The link lights on the primary underlay tunnel interface card are blinking away. There's a hot spare card below it, waiting to take over should the primary go offline.

I pull a pair of HUD specs out of my wallet and rest them on my muzzle, then connect them to a magnetic port on the ansible with an interface cable. The underlay tunnel between the *Dewfall* and Wayfarers' haven is air-gapped. We learned our lesson after Lichlord Firefly's apostasy not to connect womb ships directly to the wider network.

I relax my body and float in the middle of the room as the ansible fetches the logs from the womb ship. I examine the various sacramentals tied to the wall: a thurible made of blue caerulium metal, with bells up and down the chain. Beside it are two clear packets containing briquettes of incense, one white and the other gray. The packet of gray incense has been opened; most of the briquettes are gone. The white incense remains untouched.

Part of my job as mission controller is to issue the proclamation of good news that we've found bone not of our bone and flesh not of our flesh. But that's not going to happen. In the hundred millennia we've been looking for life all we've found is barren rock after barren rock. If they do

make contact, I use the white incense. If not, I use the gray incense. Either way I'm not looking forward to swinging that thurible. You're supposed to wrap the chain around the tail, and elegantly sweep the tail back and forth as you move. That's not an option for me, so I have to make due with frantically kicking my hind leg.

The logs are loaded, and I start flicking through automated message after automated message. I've already seen the leasemind pegging some radio emissions it thinks aren't random, but that's hardly reliable. I have to wait for confirmation from Iris. I scroll past a few dozen more log entries until I get a notification that one of the *Dewfall's* crew has sent me a message. I sigh and grab a coal of gray incense from the bag and roll it around in my paw as I prepare to read it.

It's one of my earliest memories, from a time when one recall's not so much what is heard and smelled and seen on the outside, but what is felt on the inside. Comfort, love, and safety—that's what I felt as I buried my snout into the fluff between my sire's shoulders, feeling the slow expansion and contraction of his ribs as he breathes and the gentle rumbles of his voice as he voices the responses to the liturgy. My sire's musk surrounds me, along with the musty smell of old bones and the faintest whiff of ozone from the star hearth, the unique scent of the lighthouse, a smell that says «you may be infinitesimal in scale, but you are infinitely loved.»

But this contentment is not to last. I feel a sharp tug on my tail. I'm sharing my sire's back with one of my litter mates. She's jealous of my spot and seeks to usurp it. I wrinkle my muzzle at her. An angry hiss barely has time to escape my throat when my sire thumps us both with his tail. «You two behave,» he whispers. He curls his tail around my midsection and lifts me off of his back. «You two are getting too old to be on my back anyway.» My sister sticks her tongue out at me and claws her way up to where I was lying, then snuggles into my sire's fur. Her victory is fleeting. He likewise pries her off his back and places her a good tailslength away from me on his other side next to one of our other parents.

As a consolation prize my sire coils his tail around my own as I reach down with my paws to grasp the tail bar fixed to the bulkhead. Now bereft of my warm snuggle spot, I turn my attention to the ancient hearthkeeper floating near the sanctuary. She's giving a sermon, the exact contents of which I cannot recall, but something along the lines of «Again and again we ply the yawning gulf between stars, seeking bone not of our bone and flesh not of our flesh. Again and again we return as alone as when we left. Yet may we not become discouraged. The Uncreated Light has promised us that we share this dear little Creation with other little ones, and we need only be patient and keep looking.»

As the hearthkeeper speaks, I can make out the acolyte behind the sheer sanctuary veil, preparing the star hearth for exposition. Slowly, I become aware of something swelling up from beyond the curtain separating the nave of the lighthouse from the colony's main axis. A low rumble? A dull rumor? I don't know how to describe it. Perhaps my subconscious mind is picking up on some minute ripple in the air. The acolyte notices it almost as soon as I do. She looks up from whatever little rite she's performing. Her ears perk up and she scents the air, her whiskers twitching.

The smell hits us before the sound. Gossamer strands of white smoke creep through the curtain, accompanied by the spiced aroma of white incense blown in by the axial air current. Hushed

whispers flit back and forth among the members of our childermoot. Whispers grow to murmurs that spread throughout the rest of the congregation, and murmurs swell to excited yips and growls. The acolyte has slipped out from behind the sanctuary veil and is now staring at the entrance. The multitool she had used to adjust some parameter on the hearth floats away lazily, utterly forgotten.

The hearthkeeper, perhaps going a bit deaf and anosmic after seven centuries, is the last to catch on. She continues preaching as the acolyte approaches her and politely pokes the back of her ear, then gestures with her muzzle toward the entrance. By now the din from outside has crescendo to eclipse the congregation's chatter.

Just as the hearthkeeper collects herself and focuses on the entrance, the curtain is torn away from the clips holding it to the frame and a crowd spills into the back of the nave. There, at the head of the throng, is the same middle-aged white-furred tailless fellow we saw on our way to the liturgy, his chest stained as with martyr's blood. White smoke is billowing from a thurible tied around his rear leg, bouncing around wildly as he awkwardly kicks as though trying to dislodge a nipping forest flyer from his ankle. Somehow his voice manages to rise above the clamor.

To this day I have yet to hear anything like it. Nothing I can say can describe it adequately. Pure joy condensed into an utterance, that's the best I can do, but it's still not enough. His voice bursts out in rhythmic barks, each syllable a hammer blow to shatter the great heresy.

Rejoice! Rejoice! Rejoice!

For we are alone no more!

We have found them at last!

Bone not of our bone!

Flesh not of our flesh!

Again, I say, Rejoice! Rejoice! Rejoice!

Human for a Day (part 1?)

“I got some reeeeeeeaal good stuff this time.” My dealer glances furtively to either side, then pulls a clear baggie with bright yellow powder from his wallet.

I reach for the goods, but he pulls the baggie away. “Nah-uh! You already got your first hit for free.”

I draw a polymer note from my wallet, but he slaps it out of my paw. “Get out of here with those mineral notes. It's AW tokens or nothing.”

I sigh and hand over a few coins. He sniffs them and brushes them against his whiskers. “The real deal. Fine, here you go.” he tosses the baggie at me and I catch it in my tail.

“This better be worth the price,” I growl.

“Oh trust me, you'll see some cool colors. Just get yourself a trip sitter before you snort it.”

“Yeah whatever.” I emerge from the alley into the perpetual twilight of... whatever this town is called. St. something-or-other, I'm sure. These Hearthsiders, Light-botherers, every one of 'em.

Still a bit drunk from the wind fruit I ate earlier, I stagger back to my luxurious accommodations, a run-down torpor hostel. It smells like pee, despair, and unswept fur. Home sweet home. It sure beats the back of the rail car I was in before. The receptionist is looking straight through me, her jaw lax and tongue flopped out to the side, saliva dribbling onto her forelegs. She's baked out of her mind on Light knows what. At least it doesn't smell like anything I've done before. Maybe it's whatever this stuff is.

I stumble into my little torpor alcove and shut the curtain. It smells slightly less like pee. Maybe they really do housekeeping here. I give my tail a flick, sending the baggie flying into my open paw.

“Trip sitter my cloaca. This stuff can't be that hard.” I mutter as I rip open the sealed baggie with a claw. There isn't even enough powder to cover the pad of my writing claw. I pour the contents onto the tip of my digit, lift my paw to my nostril, and inhale.

“And now we wait,” I whine to myself, flopping down onto the perch that takes up nearly the entire space. My digits start to tingle, then the tip of my tail. The sensation spreads to the rest of my body, and finally to my head. Starry scintillations obscure my vision, the wall in front of me is no longer visible. I feel the perch melt from under my belly and I start falling.

“This is it?” I think. “I'd get a better high licking live bloatfish, and I could have done that for free.”

The disappointment has barely set in when blinding pain shoots through my spine. The pain radiates from nose-tip to tail-tip. At the same time, the tingling vanishes from all four of my outer thumbs. I feel something pressing against my muzzle and pulling at my ears. I start contorting in pain. My tail feels like it's shrinking, and my outer thumbs feel like they're just gone. At the same time, I can feel my spine curving and my hind legs lengthening. The tingling turns into itching, and I start to feel cold air against my body, like someone has shaved my fur.

"Oh void, how long is this trip gonna be?" Something's wrong with my voice. My lips feel bloated and my rhinarium feels dry. My tongue feels much smaller. My words burst out in loud bellows. I slide my tongue over my teeth. Flat, not sharp. I bring my paw to my face. My muzzle is gone. My nostrils point downward from a boney lump jutting over my mouth.

"My eyes, oh Light blind me, what happened to my eyes?!" They're slimy goo-filled orbs. I can feel them sliding around in my skull.

I probe my face, then the rest of my body. My fur is gone, well most of it, anyway. There's still a patch on top of my head, and two ridges of fur above my... whatever these things are, I refuse to call them eyes. My ears can barely move. My tail... Oh Light my tail is gone! My hind legs feel like they've grown a good tailslength. I can't seem to grasp anything with my rear paws.

I fall from the perch with a thud. Has the room gotten smaller? Have I gotten bigger? My outer thumbs seem to have gone the way of my tail. My claws are flat broad plates, and I can feel thin skin across my palms and digits, no pads.

I try to rise to my paws, but something feels... wrong. No, my forepaws shouldn't be on the dirty ground. I rear up on my hind feet and bump my head against the ceiling. I have gotten taller, it seems.

My vision seems to have cleared, but everything looks off. I try to slide my bandpass membranes over my eyes. Nope, no bandpass membranes, either. I stagger out into the hall, still on my hind feet. The receptionist hears the noise and looks over at me and I suddenly feel deeply ashamed. I rip the curtain from the doorway and wrap it around my midsection. There, that's better. Don't ask me why.

I try to catch a whiff of her musk to see what she's feeling, but nothing registers. The whole world smells weaker. At least I can't smell the pee anymore. She gives her head a shake and looks back at me. I can tell she's saying something, but I can barely hear her. She snatches a keyer and slaps a pair of HUD specs on her muzzle, then starts furiously chording away, gawking at me all the while.

I turn around and try to run down the hall toward a side exit. I feel something cold and wet underfoot and look down to see a puddle of, let's hope it's water. I can see my reflection for the first time. Round face, pointy triangular nose, no fur, greasy pale skin, and... oh Light, are THOSE my eyes?! I feel my gut twist and I add the contents of my stomach to the... let's be honest, it's pee, not that I can smell the difference anymore.

I run out the side door into a dusty alley lit by harsh floodlights. I hear the heavy thud of paw gauntlets and see a town guard trotting toward the front entrance to the hostel.

In Which Greg Experiences Indigestion

This was an exercise to see how quickly I could write without obsessively rereading every sentence five times. It's just a little backstory on why Greg from Everybody Poops Together had to use the bathroom so bad.

I had to chuckle at the mundanity of it. When you think of getting medically examined by aliens, what comes to mind is ominously hovering UFOs, bright lights, and then waking up in a ditch four hours later. Yet here I was, on my way to do just that, but the atmosphere couldn't be more... suburban, for lack of a better word.

Birds, or what sounded like birds, warbled in the trees lining the market square. Food sellers could be heard on either side, barking their best sales pitch at passers-by. A group of older pups was lounging on perches off the main path.

One of them came up to me. It sounds weird calling him a pup; he was old enough to be my father. I could hear his fellows urging him on in Hearthsider. "Friend," he said in heavily accented Commonthroat. I flashed my teeth in a jovial American smile. This apparently is what the lad was looking for. "See!" he barked back at his companions, "I told you. Humans DO have fangs, they're just really small!"

"yeah sure," said one of the others, "but how can they eat meat with such small teeth?"

"Only one way to find out." My interlocutor rearing up on his hind feet and reached toward his fellows with a paw. One of them rummaged through a cloth-covered basket and grabbed a morsel of... something, then tossed it at him. He caught it and held it up to me. "Eat, friend!"

I took it before registering what it was. It was small, furry, and dead. It looked a bit like a chipmunk, if chipmunks had blue and yellow fur. I evidently was spending too much time scrutinizing it, as my interlocutor grunted in protest. "You a puppy-gut? Can't eat a raw zap rat?"

"Not with those teeth," said the one who tossed him the rodent.

"Are you trying to win a bet?" I sighed in English. He merely continued to stare at me. Do I really want to eat this thing? Raw? I had eaten a nightcrawler on a dare once when I was a kid. This couldn't be any worse. I glanced over my shoulder at the clinic that was my ultimate destination. I was already going to the doctor. If I got sick they'd probably know what to do, right? Or they better after cutting up all those human cadavers.

I popped the creature in my mouth and swallowed it whole, barely letting it touch my tongue.

“Ha!” said the pup next to me. “They are meat eaters!”

“That doesn’t count,” protested one of his fellows. “He didn’t bite down on it.”

As they argued back and forth, I felt my impromptu snack slither down my throat, then came a jolt as though I had swallowed a 9-volt rather than a dead rat.

My stomach began protesting almost immediately. I glared at the boy and cursed myself for succumbing to peer pressure. He merely flicked an ear in hasty goodbye then scampered back to his friends, where they continued to debate the finer points of human dentition. I turned and headed to the clinic, my stomach making its displeasure known through noisy gurgles. “I better not need a change of undies,” I thought as I ducked through the door to the healer’s office.

The Leasemeat Farm

It was a tower of crap. Well, OK, it wasn't exactly crap, more processed solid waste suspended in a gel matrix. And I suppose it wasn't exactly a tower either, though I'm not sure what you'd call it. There's no "up" in zero-G, so it could just as easily be long as tall. I was floating at one end of a long cylindrical shaft, the "tower" in question extending along the shaft's center for what had to be half a kilometer.

The tower consisted of black metal disks spaced about a meter apart. Sandwiched between the disks was a mass of goop that could have been gray or brown. It was hard to tell which in the dim crimson glow bathing the area. Altogether it reminded me of a stack of Oreos with cream you absolutely did not want to eat.

«Whatcha think?» It was Micah, the supervisor running the farm. Micah was his human-pronounceable name. I couldn't resist the pun given the crop he tended, Micah the mycologist. The name fit him to a tee, too, the sort of hayseed name I'd expect someone with his upbringing and hobbies to have if he were a human. Threaded throughout the goop were hairlike webs of mycelium, and his job was to ensure the leasemeat they produced was fit to eat.

"Smells like a cow pasture," I coughed.

He drank in the fetid air, then rattled off half a dozen untranslatable olfactory words. «Smells like these fellers are ready to harvest,» he yipped. He plunged a paw into the gel with a sickening slurping squelch and drew out a fleshy disk-shaped fruiting body the size of a dinner plate. He brushed off the little globs of gel clinging to the mass as well as the fur on his foreleg. They were caught in the air current and began drifting toward the air filters.

«Yessiree! This 'un's nice 'n ripe.» He growled, scoring the flesh with a claw and releasing a cloud of spores that were also caught up in the circulating air.

He tore off a chunk and popped it in his mouth. I stifled a dry heave. A gray-furred assistant floated past. «So gross,» she growled. «That's not how you're supposed to eat it,» she said turning to me. «We cook it first.» She turned her attention to a section where fruiting bodies had erupted from the gel into the open air. With her tail holding fast to a bar on the wall, she began plucking off the fleshy disks with her hind feet and placing them in a box hanging from her foreleg, daintily flicking away any flecks of gel that clung to her claws. «That IS processed fecal matter you know.» She barked, gesturing with her snout toward the gel.

«'Course I know. And whatcha think dirt is but poop 'n dead stuff thats' been ate up and spit out by fungus just like this leasemeat here. Dirt don't hurt. Makes no difference if it's natural or re-cycled by us sophonts.»

She growled in disgust again and continued her harvest in silence.

I stared down the length of the tower. There had to be metric tons of leasemeat fungus, enough to handily feed the thousands of souls in this orbital colony, on four legs or two. Given leasemeat is THE staple food of spacers, that gel had to be 90 percent, shall we say, recycled leasemeat itself. A little self-sufficient circle of life.

The Mass Router

He glanced nadirward through the observation window at the green and blue surface of the planet. A river, coruscating in Focus's rays, wound through the verdant jungle passing below. It was THE river, the measure to which all other rivers were compared. It was so old that it didn't even have a name. Every other river on Yih, and every watercourse wrought on other celestial bodies by pioneers in the intervening millennia, was, after peeling away one hundred thousand years of sound changes and semantic drift, named after this river.

But he had seen this sight countless times, and it failed to put his mind at ease. He spun the metal prayer ring on his writing claw, feeling each of the twelve teeth pass under the pad of his outer thumb. The ring had belonged to one of his sires, who had often handed the shiny trinket to him to amuse himself with when he was barely a pup. It had been years since he had prayed it, not until this morning just before being shriven. It had been years since he was last shriven, too. He'd be the first to say he wasn't the most pious Wayfarer, but there was a real possibility, however infinitesimal, that today his life would come to a messy end, and he wanted to have a clean conscience if it came to that.

He turned to face the cause of his anxiety. Attached to a bulkhead opposite the window was a cylindrical machine with a bore just large enough to fit a single yinrih, and maybe a satchel if the yinrih in question was particularly svelte. He floated over and looked inside, his rear paw nervously picking at wisps of loose fur on his tail. There was little within that seemed to warrant his apprehension. The inner wall was featureless polymerite, and there was a harness to keep the occupant from floating away. But he couldn't help thinking about the first martyrs from the golden age who shot themselves toward the starry firmament in primitive iron projectiles.

He tried to reassure himself. «You're going to be fine, Hearthfire. Nothing's going to happen. We did gross upon gross of tests, inert object tests, live tests, and all the tree-dwellers we sent came out perfect.»

«Except Moonbeam,» nagged a tiny voice in the back of his brain.

«Poor Moonbeam. I know you're not supposed to name them. Makes it harder when... That happens.» The little tree-dweller went in fine, but the impulse buffer failed on egress as she dropped back into realspace on the surface, retaining all the momentum from her point of ingress in orbit. In the span of a temporal quantum she ceased to be biology and turned into physics, flying out at 20 times the speed of sound. The barrier was built to take it, but her poor body wasn't. She ended up a maroon smear on the wall.

«Time to get strapped in.» said a sandy-furred acolyte floating next to the mass router.

He took a deep breath and floated into the bore, slipping his forelegs into the harness, then his hind legs, then his tail, and finally his head.

A voice came through the earpiece in his left ear. It was the same cleric that had given him absolution this morning. «Hearthfire, this is Morningstar. Everything's up and up down here. Just for review, you're being routed through an intermediate router on the surface before egressing at the antipodes. The impulse buffer is good on both the intermediate and the egress, in case a packet gets dropped along the way.»

«Ingress and egress buffers are synced.» Said the acolyte.

«Begin the countdown. May the Light illuminate your way, Hearthfire.»

The sandy-furred acolyte began solemnly sounding off the numbers.

«Twelve...» In a few seconds, a thin sheath of realspace containing Hearthfire's body would be shunted into the Underlay.

«Eleven...» This realspace bubble would be encapsulated into billions of discrete packets.

«Ten...» From the perspective of a hypothetical observer embedded in the Underlay, these packets would appear discontinuous, and could take separate paths to reach the same destination.

«Nine...» But from the perspective of an observer contained within one of these packets, the entire space would still be contiguous.

«Eight...» Blood would still flow, and nerve impulses would still travel uninterrupted.

«Seven...» Or they would if the traversal through the Underlay weren't instantaneous.

«Six...» Hearthfire's stream of consciousness would not be broken.

«Five...» There would be no ontological question that what emerged from the egress router was the same Hearthfire that entered the ingress router.

«Four...» These packets would hop instantaneously through an intermediate router directly below at the surface.

«Three...» This router would, in mere nanoseconds, direct the flow of packets to an egress router at the antipodes.

«Two...» The egress router would absorb all the momentum that Hearthfire had while in orbit before shunting him back into realspace.

«One...» Should the intermediate router drop a single packet, the whole flow containing Hearthfire's mass would be shunted harmlessly back into realspace at that router, provided it, too, absorbed his momentum correctly.

«Zero.» Hearthfire felt a tingling sensation, as though his whole body had gone numb. The feeling lasted but a fraction of a second, then he felt the weight of his body pulling him down. He had

made it. In less than the flick of a whisker, he had gone from a space station in low orbit over Yih to a lab on the surface on the opposite side of the planet. Hearthfire was the first yinrih to traverse a mass router network, and he had done it without a hitch.

This was going to change everything.

Mundane Utility

Ron stared up at the metal behemoth looming over him. A nagging itch scraped at some dark corner of his primate brain, a whisper echoing through his genetic memory, from a time when his tiny furtive ancestors cowered in the shadow of giants.

The fact that the mech made no sound as it moved amplified his feeling of unease. There was no whir of motors, no roar of engines, no whine of servos, no shriek of metal against metal. There was only a dull rumor, felt more than heard, as the mech planted each of its four titanic paws on the ground.

One of those paws sailed overhead as the mech strode forward, dusting Ron's upturned face with a fine shower of loose earth. The array of force projector plates on the palm and digits of the massive metal paw mirrored the arrangement of pads on a yinrih's forefeet. Other concessions to zoomorphism had been made as well. Two heat sinks were positioned like erect ears atop the mech's head, and whiskery antenna arrays framed its metal snout. What were the odds that the only two sapient species in the galaxy would independently think to themselves "Let's build a giant robot shaped like a person and stick a guy inside it!"

THUD!

The paw came to rest mere inches from where he stood.

"Watch where you're walking!" Ron yelled, shaking his fist like a disgruntled commuter up at the machine's underbelly, where a round hatch sealed away the pilot within.

"Watch where you're standing!" countered a booming synthetic voice echoing from the mech's head. Ron darted out of the way as the armored left rear leg rose to take another step.

More tremors passed under Ron's feet as the mech trotted over to a tall pine tree. "Watch out," thundered the synthetic voice. The machine positioned its aft end toward the tree and wrapped its serpentine tail around the trunk. The tree cracked in protest as the mech dug its bladed claws into the argillaceous ground and reared up on its hind feet, but the trunk managed to support the mech's weight.

A sharp electric crackle issued from the mech's now freed forepaws as claws of violet plasma erupted from its fingertips. The smell of ozone drifted to Ron's nose on the breeze. The mech swiped upward, effortlessly cleaving a massive limb from the tree, leaving a smoking black stump behind.

There were two thumps in rapid succession as the limb hit the ground and the mech resumed a quadrupedal stance.

Ron jogged across the brown grass up to the front door of a tiny house nearby. He raised his fist to knock, but the door opened preemptively and a tiny septuagenarian emerged. She leaned over to peer around Ron at the mech, which had wrapped the limb in its tail and was dragging it to the curb. "Thank you, youngsters, for getting rid of that pesky limb for me. My lawn will get much more sun now."

"You're welcome, ma'am," boomed the synthetic voice, "but I should point out you're half my age."

"Well, you're only as old as you feel, and I feel too old for that stuff," she responded.

The hatch on the mech's belly opened. Lodestar was lying on his back in the pilot's seat, gripping a keyer in all four paws, eyes hidden behind a HUD visor. He doffed the visor, uncoiled his tail from around a lever at the base of the chair, and hopped out onto the grass. He trotted up to the two humans just as the lady planted a kiss on Ron's cheek in gratitude. She repeated the gesture between Lodestar's ears. He muttered a complaint in Outlander about his personal space that went unnoticed by the elderly human.

"Thanks again," she said as the pair turned to leave.

Ron turned to Lodestar. "Aren't you supposed to be a monk?"

«*Warrior* monk,» he corrected.

"OK, granted, but what do you need a giant robot for?"

«The armies standing against justice and the legions oppressing the weak do not field only infantry.»

The Artificer's Litter

Orbiting a dwarf planet on the edge of Partisan territory are the remains of a massive megastructure. It looks like the head of a yinrih, wrought in colossal proportions. It was clearly meant to be part of an even larger mechanism, and has been left unfinished rather than having been completed and then dismantled or broken later. Strictly speaking, nobody knows why its there. No records can be found relating to the terraforming or colonization of this particular dwarf planet, but there are records of the planet's existence before the head appeared, so it had to be built by a group of yinrih colonists at some point.

The structure is simply called "the head" by local yinrih, but after First Contact it acquires the human sobriquet of "Yinrihcron".

The lack of records is fertile ground for legends to spring up surrounding the giant mechanical head and its creators. These putative creators are known collectively as The Artificer's Litter, as many of the legends have the colonists lead by a charismatic leader to whom is given the title of Artificer. One such tale serves as a cautionary parable.

It came to pass in the time of the decadence of the hearthkeepers that there was a group of colonists who sought a suitable habitation free from the onerous tithes levied by the clergy. They settled a tiny world far from Yih (These were still the days when the clergy had their seat of power on the Homeworld.) Once the people had established themselves in their new home, their leader said to them

"The hearthkeepers say that the Creator dwells outside of time and watches from afar. Why does it stand aloof, speaking only in riddles and visions to corrupt clerics? They tell us to do this and to do that, saying the fate of our immortal souls hangs upon our obedience. Perhaps the Light's Truth is being bent by those crooked hearthkeepers. Come, brethren, now that we are free of those witches and their priestcraft, Let us build a suitable vessel for The Light, that it may vouchsafe to dwell within its creation as one of us, speaking plainly and not hiding its meaning in obscure metaphors."

So they set to work building a great machine, wrought of steel and plastic and silicon, in the likeness of a yinrih. It was said to inspire fear and awe in all who looked up on it, even as it lay unfinished.

The Light saw what they set themselves to do, and said "My little ones, why do ye this? Would ye have me as your slave master? For that is what I would be to you were I to reveal myself as I am. I would say 'do this' or 'go there' and ye would obey in servile fear. I desire not fearful slaves but willing collaborators. I stand apart not out of cold indifference but so that ye might seek me willingly. Know that all that I do is for your benefit, though it may not seem so there within.

“There are yet many righteous clerics who chant the liturgies I have prescribed at the hours I have appointed, neither adding nor omitting a single syllable. They give warmth and light generously to those under their care, Indeed, they glorify me all the more by their quiet labor among this wicked generation. But those bent clerics, that den of usurers, will be laid low at a time I deem fit. As for you, little ones, I will scatter you among the other peoples of Focus, leaving no trace of your habitation. This idol ye have made shall remain as a warning to those who would stand atop your paw prints.”

And so it was as though the colonists never settled there, with only their unfinished machine standing watch over the empty world.

This is only one version of the story among many. Another popular telling gives the head the same purpose of acting as a material vessel for the Uncreated Light, but rather than being built as a mechanical messiah, the builders are Misotheist Atavists who seek to trap the Light in a physical form so it can be killed.

On the Merits of Pelage

Tod, brushing a knot out of his tail: «Sometimes I think this coat isn't worth the hassle.»

Jim: “You know there are humans who would kill to have your fur.”

Tod: «Just as long as they don't kill ME.»

Jim: “Eh, stay away from Cruella Deville and you'll be fine.”

Tod, after a moment's thought: «Really though, y'all have a much better deal, setting aside how gross your sweat smells, it really is superior to our panting.»

Jim: “I don't know... I think not having to worry about washing clothes is pretty nice. We have to do laundry on top of showering.”

Tod, looking up at Jim, having finished his grooming: «But I'm also constantly shedding.»

Jim reaches up and wipes his finger across a blade of the ceiling fan, then holds his dust-caked thumb out for Tod to inspect. “Yeah, we shed, too. All this is dead skin.”

Tod: «Dead skin, Dead fur, I'd say it's about even there.»

Jim: “I personally wouldn't mind some warm fluff during the winter.”

Tod: «You mean the few hours in the morning when it's cold enough to see your breath? What are you going to do in the afternoon when it's hot enough to swim? Shave?»

RTFM

The data center was enveloped in uncanny stillness. The hearthkeepers had cut the power to the whole region hours earlier in advance of the enemy's arrival. The backup generators had endured mere minutes before dying in their turn, leaving the anchorite's chamber alone running on a meager auxiliary battery, not that Skywatcher cared. The Preservationists had already lost, and he could only make the aftermath as unpleasant as possible for whichever faction, the Partisans or the Pious Dissolutionists, ended up taking over. The quiet darkness was punctuated by the sound of something slamming repeatedly against the fortified security door. Muffled barks could be heard between the booms, alternating between promises of leniency should the Farspeaker surrender and graphic threats of violence if he continued to resist.

"Take these and toss them in the shredder!" Skywatcher shoved a loose pile of claw-written papers into his slave's chest.

Whitepaw looked down at the notes hastily thrust at her. A light held in her tail feebly illuminated the text. Network diagrams, node tables, firewall rules. Decades, no, centuries worth of meticulous documentation poured out in the anchorite's own ink. "This... this is our entire network segment," she gasped.

"Yeah, now shred it. All of it," growled Skywatcher. "I already wiped the backup drives. If those scripture-thumping zealots want their precious noosphere they'll have to work for it."

"Body," Whitepaw yipped meekly. "The network is the body of the noosphere, not the noosphere itself."

Skywatcher wrinkled his muzzle, exposing his fangs. "I KNEW you were one of them. When I was your age, I believed in all that cloaca butter, too. Then I grew up. I swear each new slave I get is more pious than the last. If you're not going to help me, then get out of my way!" He tore the papers back from her and spun around, his tail striking her in the chest. She toppled backward. Her shoulder hit a half-empty equipment rack stacked precariously with unmounted equipment. Whitepaw landed on her back just as the rack teetered over and fell in turn, burying her in a mound of inert electronics and knocking the wind out of her.

SMASH!

The noise of the collapsing equipment rack was drowned out by the sound of the security door being torn from its hinges. Sunlight streamed through the breach. Mechanical footfalls thumped down the hall and into the office. From her spot on the floor Whitepaw saw the hulking form of a mini mech lope into the room. Its body looked like some prehistoric monster wrought in polymerite and steel. Its torso was too short, and its forelegs were too long. Its forepaws were curled into fists, the knuckles bearing the weight of the mech's front end rather than its palms. This was no scripture-thumping zealot, no Knight of the Sun. The mech's right foreleg bore the device of the

Partisans, a black paw held palm out in defiance. The Partisans' credo was scrawled in Outlander below the symbol, "The skies are empty. We are alone."

Skywatcher stared open-mouthed into the mech's visor. The pilot's mouth was half-open, his tongue protruding slightly, but his eyes were closed, and his head flopped seemingly lifeless to one side.

"An Immortal," Skywatcher stammered. The pilot couldn't have been older than Whitepaw herself, at least in body. Who knows how long he had been in metabolic suspension plugged into that mech. His fur clung in ragged wet mats to his gaunt expressionless face. It used to be white, but the neurogel he was pickled in turned it yellow. His eyes did not see. His paws did not feel. His heart did not beat. His body was dead, but his brain was frighteningly active, kept alive by the suspension capsule.

Whitepaw had heard stories of these Immortals. They started out as gel heads recruited by the disorganized secularist warlords dotted across the Outer Belt. They were usually terminally addicted teens who couldn't be unplugged without flatlining. Their suspension capsule would be integrated into a mech, and their nervous system would be connected to the mech's sensor suite and control system. They say the Partisans found a way to slow down a person's time perception while in suspension, allowing them to react with lightning speed to what was going on around them. Whether this was true or not, they were legendarily hard to dispatch. After Firefly the Apostate united the secularist warlords under the Partisan banner, he turned these Immortals into his elite shock troops. Oddly fitting given the Great Leader himself never left his own suspension capsule even after returning from his failed missionary journey. Undead soldiers for Litchlord Firefly. The dregs of society proved poorly disciplined soldiers, so he started recruiting otherwise healthy men, using suspension capsules scavenged from unlaunched womb ships abandoned by the missionaries fleeing Firefly's genocide. The device of the missionaries, two enmeshed gears symbolizing the union of two noospheres, was still visible on the side of the capsule. The Partisans deliberately left it uncovered in an act of blasphemous mockery of the faith.

The mech wordlessly strode forward and lifted Skywatcher by the neck. The anchorite let out a few choking gasps, straining with a rear paw to grab some blunt object to toss at the metal brute. He managed to grab the heavy metal head of a loose network cable and send it flying at his attacker. It bounced off the mech's free forepaw and clattered uselessly to the floor. The pilot's tongue gave a barely perceptible twitch as though he were laughing at his victim's futile struggling. The mech's writing claw and inner thumb moved to grip the sides of the Farspeaker's head, preparing to twist it off like a bottle cap. Whitepaw bit her tongue to stop herself from yelping. Skywatcher had not been a particularly kind master, but nobody deserved to die like this.

The pilot's left ear flicked lazily as he processed an unheard order from his handlers waiting outside. He loosened his grip on Skywatcher's head, then tossed him carelessly over the mech's back and caught him again in the coils of the mech's tail. The Immortal turned and plodded out of the room. Skywatcher looked helplessly at the pile of equipment Whitepaw was hiding under. The tail constricting his midsection didn't keep him from wheezing out desperate prayers, seeking refuge in the faith he had scorned not three minutes earlier.

Whitepaw lay still, forgotten for the moment, at least she prayed so. She heard harsh barking coming from outside. Two more Partisans were questioning the anchorite. Skywatcher uttered a few raspy oaths to please his lightless captors. They didn't seem impressed.

"You can either give us your network documentation willingly, or we can squeeze it out of you," one of them growled.

"Please, by the empty sky," he gasped. "Hard copies. I've got hard copies in the office where you found me."

Whitepaw shuddered. If she hadn't been seen before they'd surely find her when they came back inside. Apostasy or death, those are the choices they'd give her. It didn't matter that the Pious Dissolutionists were technically the allies of the Partisans against the corporate arm of the Bright Way. At least they used to be allies. Once the Preservationists, the ones fighting to preserve the Bright Way's stranglehold on the system's economy, were driven back to Yih, questions about the future of Focus, about the fate of the Bright Way, the real Bright Way, the faith, not the system-spanning megacorp that wore the faith like an ill-fitting mask only when it suited their needs, began fracturing the fragile alliance. She dug her claws into her palms and shut her eyes tight. "Don't focus on the pain," she told herself. "No matter how much it will hurt, at least it will be over quickly. Then I won't have to worry about the war anymore." She uttered a final prayer. "O Uncreated Light, please shine upon me, the least of thy little ones."

THUMP!

A dull tremor shook the floor underneath her.

THUMP!

And then another, and then even more. The two Partisans began shouting incoherently. "A Knight-no there's three," one of them barked. There was more yelling, then the shriek of metal on metal as the Immortal engaged the interloping mechs.

"Come on, you old rust bucket." Daybreak flicked one of the mech's controls with his outer thumb, pulling up the hull integrity monitor on his HUD visor. His complaint broke the silence otherwise accompanied only by the low thump of the mech's footfalls as it loped across the terrain.

"I don't see anything wrong," said Sunrise, tilting his head back toward the squire seated behind him in the cockpit.

"I'm telling you, you may pilot this mech, but I'm the one patching her up after every sortie. I know every joint, bolt, hose, and wire in this thing. Feel that?," he pressed his palm against the bulkhead in front of him. "That faint rattle every time one of her rear paws goes down. It's her tail. The first joint is coming loose."

Sunrise checked the hull integrity on his own visor. "Everything's at twelve-dozen per gross," he grunted. "I think I have more faith in your repairs than you do."

“Void!” Sunrise swore. He had switched his HUD visor back to the mech's forward vid sensor array. “The Partisans beat us to the data center, and they have an Immortal with them.”

“Why would they need an Immortal just to capture a data center held by an old anchorite?” asked Daybreak.

“Because they knew we were coming,” Sunrise growled. He pressed a few chords on his own keyers, bringing up a comms channel to the two knights flanking his mech on either side.

“Yeah yeah, we already see him,” one of them preempted. “I doubt he'll be much of a problem for-”

“Light blind me, where'd he go!” The other knight barked. “He was just there, and then-”

The Immortal had vanished in the flick of a whisker, leaving a dust cloud in his wake leading between the forelegs of the mech. Daybreak's nimble digits flew across his keyers with the grace of a musician playing an instrument. The mech's tail slammed into the ground, narrowly missing the Immortal as he slid just out from under the mech's chassis.

He grabbed the end of the mech's tail and dug his hind claws into the dirt, arresting the mech's forward stride.

Daybreak cringed at the metallic twang of tearing pseudosinew as the Immortal succeeded in amputating the mech's tail.

“What'd I tell you,” said Daybreak.

“Not now, Light blind it!” Sunrise growled, his digits flying across his keyers. The mech reared up on its hind feet and extended its plasma claws, then lunged forward. It slashed empty air where the Immortal had been a few milliseconds earlier.

The mini mech leapt in the path of the other knight, wielding the amputated tail like a club. He brought the hulk of dead metal down on the other mech's head with a crunch, shattering its optics and stripping off the antenna arrays on its muzzle.

The Immortal clambered onto the blinded mech's back, clawing at random spots along the spine. It straddled the mech's shoulders and punched a hole in the polymerite armor covering the umbilical sheath connecting the mech's head-mounted sensor suite to the cockpit and started tearing away cables like an animal rooting through an insect nest.

The blind mech bucked and swerved wildly, trying to dislodge the saboteur. It crashed into the data center, bringing the wall down and causing a section of roof to collapse. The mech bent its legs and leaped into the air, twisting its spine so its back pointed earthward, then slammed down, all its weight concentrated between its shoulders.

The Immortal's suspension capsule popped loose from the frame of the mini mech like a seed from a pod and went rolling until it came to rest near its Partisan handlers hiding behind a standing

section of wall.

There was an almighty crash as the outer wall and roof of the building crumbled. Sunlight flooded what was left of the office. Whitepaw opened her eyes and saw one of the Knights' mechs looming over her. It was proportioned much more like a yinrih, with recognizable head, torso, and limbs. Its head turned down to face her. It lifted one of its great metal paws and began deftly removing the debris piled on top of her.

She stood up and shook the dust from her fur. A hatch on the mech's underbelly lowered, revealing Sunrise and Daybreak within. Sunrise pulled off his HUD visor and jumped out. "Praise the Light, you're alive! Are you hurt?"

"I think I'm OK," Whitepaw muttered as she stared at the aftermath of the fight. The two Partisan handlers stood silently beside one of the mechs. All eight paws were shackled together, the mech's rear paw resting on the chain, anchoring it in place.

One of the squires approached Skywatcher, dipping his head respectfully. "My reverend anchorite, could you show us the documentation for your segment of the network?"

"Choke on it, fundy!" Skywatcher spat. "I wiped the data drives, and good luck finding what's left of my notes in that rubble."

"You know, we could have let those Partisans tear you in half," said the squire. "They would have killed you even if you gave them what they wanted."

"Found 'em!" Whitepaw and Sunrise walked up to the rest of the group. Sunrise had Skywatcher's notes wrapped in his tail. "This kind young lady showed me where they were."

"You eggless wretch!" Skywatcher barked.

Sunrise adopted an authoritative tone and addressed Whitepaw. "You are free, and your debt is forgiven."

"By whose authority?!" growled Skywatcher.

"By the decree of her radiance, high hearthkeeper Iris," Sunrise responded.

"That weak blunt-fanged pretender!" Skywatcher hissed.

"That weak blunt-fanged pretender just captured your entire network segment," said Daybreak.

"Just get over there." One of the other knights bound Skywatcher and led him to one of the mechs, far away from his former captors.

"So, what's going to happen to the Immortal?" asked Whitepaw.

“Well,” said Sunrise pointing his muzzle at the suspension capsule, “He is currently profaning a blessed instrument of our Holy Work. He’s going back to Hearthside with us, and we’ll hand him off to an order of rehabilitators. They’ll try to wean him off the gel, but by the time most of these poor lickens get plugged into those mini mechs their psyche is so integrated into the simulacrum generated by the capsule that they’ll die without it. If that’s the case they’ll get his metabolism running again and he’ll live out his natural life in sim.”

“What about me?” she asked.

“Like I said, you’re free. We can’t make you do anything. I’d suggest that you accompany us back to Hearthside as that’s the furthest away from the front. A lot of freed slaves want nothing to do with their former work, but we can set you up with the Farspeakers there if you wish. You’d be paid justly as an apprentice, depending on your experience you could be made an anchoress.” His voice caught on his next words. “A lot of slaves want nothing to do with the Faith, either. It hurts me that we pushed people away like that, but again, we can’t force you to do anything.”

“But you didn’t do any of that,” Whitepaw interjected. “You saved my life.”

“You’re right,” said Sunrise. “It may not be our fault personally, but it is our responsibility as Wayfarers to fix what the Preservationists broke. The Bright Way singing liturgies on Hearthside is the same Bright Way extorting and enslaving people on Yih.”

“I’ll come with you,” said Whitepaw. “I’ll help make things right, too.”

The Spacer Confederacy

“And you're the interim chief?” asked the federal councilman, his voice echoing throughout the cavernous main axis of the newly constructed colony.

“That's correct.” said Graypelt.

“Gentlemen, my dame,” the councilman addressed the pair of envoys from the Allied Worlds along with the hearthkeeper floating by their side. “Would you allow Graypelt and I a moment alone?” He moved toward the docking port where a shuttle was stationed, beckoning Graypelt to follow.

Graypelt started as the inside airlock door shut behind him. The federal councilman had floated across the threshold of the airlock separating the colony's hull from his docked shuttle craft.

“Why did you shut-” Graypelt began, but the councilman raised a paw to silence him.

“What did the envoys from the Allied Worlds tell you about the Spacer Confederacy?” he asked.

“The laws are few, but the penalty for transgressing them is severe.”

“So far, so good,” said the councilman, “and what are those laws?”

Graypelt thought for a moment, then began ticking off items on his claws. “Each colony gets one perch on the federal council. The council is responsible for assigning asteroids for colonies to mine. The council levies a tax of twelve per gross on all revenue earned through the sail of the minerals. Colonies may only mine the body they have been assigned. There's a six year mandatory conscription into the federal police for all eligible males upon reaching the age of majority. Any interaction between colonies within the Confederacy must be mediated by the council.”

The councilman tilted his muzzle up in affirmation. “Now let me tell you what those glossy-pelted stooges from the AW won't. We get all sorts of kooks coming here to the Inner Belt looking to set up half baked social experiments or off the wall cults.”

“We're not-” Graypelt objected, but the councilman raised his paw again and resumed his lecture.

“Everyone comes here for their own reasons. We have about as many world views, ideologies, belief systems, conceptual frameworks, religions, whatever you want to call them, as there are colonies in the Confederacy. But there's one thing we all value. What do you suppose that is?”

“Uh-” Graypelt began, but the councilman cut him off again.

“Freedom!” he barked. “You want to start a gel head parlor? Go ahead. You want to run a tree-dweller baiting ring? Be my guest. Wanna start making mind candy?” He flicked his left ear back,

leaned forward, and whispered, "I'll even give you the name of a supplier."

He slapped the inner hull of the colony with a rear paw. "Whatever you do inside these walls is your own business. But if you so much as stick a whisker outside with whatever nonsense you get up to, then that becomes our problem." he tossed his muzzle back, toward the federal shuttle behind him. "And you do not want the federal police paying you a visit."

"Is that a threat?" Graypelt stammered.

"A warning." The councilman leaned forward, running a claw across a scar on his muzzle.

"I thought this was—" Graypelt once again failed to get a word in edgewise.

"Anarchy? A free for all? A libertarian paradise? Everyone always assumes the Inner Belt is a lawless frontier where they can get away with anything, and you know what? Your roof, your rules, but out there, outside these walls, you're under OUR roof. If you mind your own business, keep your nose prints off of other peoples' windows, you'll be fine. But if you mess around, you will find out.

"Do you think we keep this confederacy together with a bunch of ink on paper?" The councilman made a show of examining the iron-red claws on his left forepaw. "Within a three-day ferry trip from here there are a bunch of Misotheists who would kill every last one of you hearth lickers, pups and all, if they thought they could get away with it. The only reason they won't is that they know exactly what will happen to them if they even try." He pantomimed an explosion with his forepaws.

"You folks wanted freedom, and you've got it, but freedom isn't free."

The councilman pulled the release for the interior airlock door with his tail. He began floating into his shuttle, adopting a cheerful tone for his parting words. "On behalf of the Federal Council, I'd like to welcome you and the citizens of Wayferers' Haven to the Spacer Confederacy."

Table Manners

For a few seconds I waver between turning right to head home or to cross the street to go to the restaurant. I look down at my guest. His snout is still angled skyward, glossy wet nose twitching frenetically as he drinks in the aroma of wood smoke. He starts licking his chops as saliva begins to drip from the corners of his black lips.

After a moment's hesitation, I march forward toward the curb cut. My intent now clear, the little asteroid miner begins excitedly prancing forward, thumping his sinewy tail on the pavement. This is definitely not normal yinrih body language. Is he mimicking canine behavior to compensate for his inability to communicate in English? He mentioned other great apes earlier, perhaps he took the initiative to do more research into Terran fauna before his trip here.

I give him a stern look. "I'd quit wagging your tail if I were you. If you don't want other humans to pet you like a dog you should stop acting like one." He says something that gets drowned out by Tejano music blaring from a passing truck, but seems to heed my admonition, hastily curling his tail around the bag on his back.

I fix my gaze ahead, reaching over to press the button for the crosswalk. My guest blows the curb and enters the intersection at the worst possible time. The light for the cross street is a solid green, and an SUV has already passed the middle of the road on a collision course with the little sophont.

"Woah!" I lunge forward and grab his tail, pulling him out of harm's way. His bag falls off his back and into the gutter, mere inches from the passing vehicle, which speeds by close enough to rustle his whiskers.

It takes some time for him to register what just happened. For a split second his cynoid face flashes with another unreadable emotion, I figure he's less than thrilled I pulled him by the tail. Then he looks to his right at the swiftly receding vehicle that nearly painted the asphalt with his innards. His expression melts and he presses the top of his head against my knee. This, it turns out, is a gesture of deep gratitude, though it's usually done against the side or chest of the receiver, which human bipedalism renders difficult.

I pluck his bag from the gutter and hand it to him. "Sorry, dude, I guess pedestrian safety isn't something they went over back home." I point at the crosswalk sign. "See that signal over there?" He gives me an affirmative upward tilt of his muzzle. "When you see the red hand, that means 'don't walk.' When it changes to the picture of a human, that means it's safe to cross. Got it?" He nods in human fashion.

The light cycle has restarted, so we wait a minute or two for our turn to come up again. I spam the button a few more times. "Sometimes you gotta make extra sure it knows you want to cross," I explain in response to his incredulous look. The signal turns and he looks up at me. "Follow me, and don't run."

I successfully shepherd the alien across the intersection without making the evening news, and we arrive at the door of Good Ol' Boys' Smokehouse. Upon entering the vestibule, I'm met with an unfamiliar sight. I've been here before, but not since I was a freshman. They definitely didn't have this water feature here last time. It's a wide, shallow basin, no more than a few inches deep. A grate lines either side of the pool, and I can tell by the agitation of the water that it's being vigorously circulated.

My guest doesn't miss a beat. He rolls onto his back and casts off the socks and mittens with relish, then flexes his now freed digits in relief. He passes his now disclad paws under a dispenser sitting at perfect monkey fox height, which deposits a beige powder onto his upturned palms. I watch astonished as he wades into the water. The powder dissolves, blossoming into a soapy slick across the surface, which quickly flows into the intake drain at one side of the pool. He submerges each paw, then draws it out and gives it a dainty shake. He repeats this cleansing ritual a few times, then exits the pool onto a coarse floor mat. He wipes his paws, palms and wrists alike, spreading his digits to remove any remaining dirt from between his paw pads and under his claws.

Bewildered, I glance around and am somewhat taken aback to see another monkey fox. The tawny-furred female is wearing an appropriately sized baseball cap which I recognize as part of the normal employee uniform, with holes to accommodate her upright ears. She notices my confusion at the pool.

"Howdy!" She's made some modifications to her own synth, affecting a surprisingly convincing Texan accent. She's even managed to inject a bit of emotion. She notices that her conspecific is incommunicado and launches into her own well-trodden introduction. "A bit confused, are ya? That's a washing pool. We yinrih need those to keep the place clean. Our hands are also our feet, ya know."

I'm obviously still perplexed at her presence in this very human establishment. "Oh, my name's Crystal, well, my human name, anyway. I've seen a lot of other yinrih coming in here lately. Some sort of exchange program at the college, right? Well, I'm here from Moonlitter. Know where that is?" My blank stare tells her that I do not. "Well, it's a big planet just outside the Inner Belt, that's where all these exchange volunteers are coming from. Anyway, we have this thing back home. It's like, you know how some places make pups join the military for a few years when they get old enough? I know they do that at some places here on Earth. Anyway, Moonlitter does a similar thing, but they make you work a customer service job, you know, waitress, cashier, that sort of thing. Force you to face the public so you'll treat 'em nice when your older because you were in their paws yourself. Gives you some humility. Anyway, This place here started taking conscripts from Moonlitter, and I jumped at the chance. If I've gotta be a wage slave, might as well serve my time somewhere new and exotic."

I'd hardly call the middle of literal nowhere Texas "new and exotic" myself, but I suppose anywhere that's twenty five light years from home would be by default.

By now my guest has finished drying his paws and has returned to my side. The hostess notices her fellow monkey fox and greets him with a chuff. He responds in kind and they exchange a few yips and growls of Commonthroat, then she looks up at me again. "Anyhow, better do what I get

paid for. Table for two? One human and one yinrih?"

I nod, but Crystal holds up a paw. "Oops, almost forgot," she says, motioning down at my sneakers with her muzzle. "Those gotta go." I follow her gaze to a shelf full of shoes just inside the entrance door. "You can keep the socks on," she adds.

I hesitate momentarily. "Remember, hygiene." My guest has re-equipped his keyer and is making grasping motions with a free paw. "I know, it's a hassle. Why do you think so many of us live in microgravity?" I remove my shoes and place them on the shelf, silently thanking my past self for putting on matching socks this morning. I look at the two quadrupeds and heave a sigh of resignation.

"Hay, I get it," Crystal says. "A lot of humans are as uncomfortable not wearing shoes as we are wearing them."

"It's OK," I say, "This is why we're having this exchange program in the first place, right? It's all a learning experience." Crystal summons a human waitress, who grabs a pair of menus and leads us inside.

I recognize our server. We had a few classes together our first few semesters. She's a student at the much larger and better-funded veterinary school. I know through the grape vine that she's the daughter of the owner. She recognizes me, too.

"Hey, don't I know you?" she says as we weave our way around tables, chairs, and other furnishings not designed for the human form. "You're a Linguistics major, right?"

"Yes," I respond, gawking at the renovations made since First Contact. The tables are lower to the ground, and yinrih perches are scattered among the chairs. The cafeteria counter and large menu display are gone. "Didn't this place used to be a cafeteria?" I ask.

"We got rid of all the self service stuff," she explains. "Quadrupeds who haven't set foot on a planet's surface their entire lives aren't exactly adept at balancing a tray full of food. Crystal's good enough at it, but she didn't grow up in zero-G. She sometimes covers my shift when I have to study. Puts the serving tray on her back and picks up the plates with her tail. It's really cute."

"Don't take this the wrong way, but from what I know of your dad, he's the last person I'd expect to bend over backwards like this to attract alien customers," I say, glancing up at the large Gadston flag hanging proudly on the wall.

"Are you kidding, the Spacers are his kind of people!" she exclaims. "He seriously wants to move to the Spacer Confederacy when he retires. Besides, do you know how much Spacers are willing to pay for real meat?"

She motions for us to sit. And it's only now that I notice the flag's "Don't tread on me" motto is written in Commonthroat.

“What are y’all looking to drink?” she asks as I awkwardly slide my legs under the table and my guest hops up onto the perch, his front end floating over the tabletop.

He looks at the menu. “I didn’t think you’d serve steadtree fruit juice. I’ll have one of those.”

“Make that two,” I add.

“Fermented or fresh?” she asks.

“Make it fresh for me,” says my guest. I nod to concur.

“So,” I begin after the waitress leaves, “What’s this about ‘real’ meat?”

“Orbital colonies aren’t exactly agricultural bread baskets,” my guest explains. “We can subsist on produce grown via hydroponics, and what passes for meat is just fungus grown in a lab and gussied up to approximate the texture of the real thing. We call it ‘lease meat’. What we can’t make we have to trade for, and real meat is the kind of thing you eat on special occasions. And this cow flesh,” he stops to lick his chops again, “it’s something else, especially smoked. Spacers will pay a day’s wage for just a plate of the stuff back home.”

“Wait, we’re exporting food to Focus now?”

“Yup,” he says, “Wayfarers’ Haven has a mass router dedicated to food imports from Earth.”

The waitress has returned. She sets a glass before me and two bowls in front of my guest. My glass and one of his bowls are filled with what I can only describe as pure liquid blue. It’s like someone found a way to liquify the screen you see when you turn on a TV with no HDMI cable plugged in. It’s so saturated that even in the dim ambiance it hurts my eyes to look at. Floating atop the surface of the liquid is a violet sheen, roiling like the iridescent interference pattern of a soap bubble.

“Don’t worry.” The waitress notices my misgivings. “The FDA just approved that stuff for human consumption... I think. You ready to order?” She asks.

“Give me a few minutes,” says my guest, licking his lips again. “It all looks delicious.”

“Take your time,” she says and walks off.

Looking for an excuse not to imbibe the blue drink, I look at the other bowl given to my guest. It’s filled with water, and a rough hand towel is folded next to it. He dips his paws in the bowl and dries them on the towel. “Hygiene again,” he says, repeating the grasping gesture.

“Is it like this everywhere you go? With those pools, I mean,” I ask.

“Nope, just restaurants and healer’s offices, anywhere health is an issue. Everywhere else you just have that rough floor mat to get the dirt off at the door, but washing pools are also in restrooms. They’re our version of the sink. But yeah, I agree that it’s a huge pain, constantly cleaning your paws. All the more reason why I’m a Spacer.”

He dips his head and noisily laps up some juice from the bowl lying on the tabletop. I suppose monkey fox table manners are all about minimizing contact between paw and food. "Go on," he urges, "try it."

I lift the glass to my lips and take a tentative sip. It's thick and mildly sweet... at first. After about half a second I nearly drop the glass in shock as my face spasms like I'm having a stroke. The most sour flavor I've ever tasted assaults my tongue. It's like an entire bag of Warheads concentrated into a single drop of liquid azure.

"So?" my guest prompts, his whiskers twitching with interest.

"It's... delicious!" I take a swig and my face contorts in ways I didn't think possible. Then I chug the rest of the glass and tap the bottom to get every last drop of this divine nectar to trickle onto my tongue. My face aches but I don't care. Satisfied, I set the glass back down.

"Just wait until you try the fermented stuff," says my guest, eyes wide and lips loose in an expression of vicarious pleasure.

The Tornado

Jim surveyed the empty trailers around him as he sat in the lawn chair in front of his mobile home. Everyone else in this little student ghetto had left for spring break. It was quiet, and he liked it that way. He raised his eyes to the object of interest, a thunderhead billowing in the distance, reflecting the golden rays of the westering sun. He took a sip of iced tea as he listened to the sounds of nature: the chirping of birds, the buzzing of insects, and the quiet clicking of claws on the wooden porch behind him. The clicking was followed by the sounds of something scrabbling its way up the tree trunk and flopping down on the large branch to the left of Jim's chair.

"Hi, Tod," said Jim, not looking away from the skyscape.

«Good evening, Jim,» grunted a voice off to Jim's left. «These alien skies are breathtaking.»

Of course, they weren't alien to Jim. He had grown up in this sleepy town in central Texas and spent many spring evenings watching storms wash over the landscape. To his roommate presently lounging in the tree above his chair, however, the chaotic vista before them was very otherworldly indeed.

Tod's real name would be unpronounceable by any human tongue. Jim gave him that name when he moved into the spare bedroom of his manufactured home. Jim had posted an ad for a roommate over Christmas break, with the only requirements being a quiet lifestyle and splitting the rent. He didn't think it necessary to specify that the candidate needed to be a member of *Homo sapiens*, and, until the Dewfall arrived on Earth, that qualifier would have been redundant.

Honestly, Jim couldn't put his finger on why everything went so smoothly when the Dewfall landed. Something always goes wrong in every story about First Contact. The aliens want to blow us up. We want to blow up the aliens. Other humans blow up the humans trying to contact the aliens. In the best case, the aliens just lecture us about how violent we are and how badly we're wrecking the environment. Maybe everything went so well precisely because we'd been rehearsing this exact scenario again and again through a hundred years worth of books and movies. But Jim figured the biggest reason was that, until the Dewfall entered Earth orbit and intercepted those radio transmissions, the yinrih were all alone, just like us. They'd been howling into the void looking for other sophonts like them for longer than we humans had been tilling the soil, and up until now they were only met with the cold, pitiless indifference of the empty cosmos.

The joy they felt upon discovering us transcended language. It transcended culture. It transcended species. It was infectious. They were so happy to see us that we couldn't help but be happy to see them, too. Sure, the media had a nice juicy headline to milk for a week or two, a few speeches were made, and some laws had to be tweaked to make sure nobody could murder one of our little guests and get off on the technicality that they weren't human. But the news cycle doesn't grind to a halt just because we found out we're not alone in the universe anymore, and ET wasn't going to pay our bills, so life went back to normal after about a fortnight.

Well, for the rest of the world, anyway. For the little Texas hamlet that the Dewfall chose as its landing site, those first two weeks were just the beginning. The first thing to do was chase away all the weirdos trying to see the aliens, pet the aliens, eat the aliens, and do whatever else you can think of with or to the aliens. That wasn't so hard. The unwanted gawkers just had to be reminded that this was Texas, so everyone old enough to write their name owned a gun and knew how to use it. After the clowns were dealt with, everyone got to work helping our little guests settle in.

First things first: communication. It was clear from the outset that humans and Yinrih were never going to speak one another's languages. Our vocal tract and theirs were just too different, but writing, writing they could do. They learned to write English surprisingly quickly. Then it was discovered that, even if they couldn't speak a human language, they could still understand it when it was spoken. Humans could also understand them, even if their little yips and growls were a little quieter than the average human tongue. So we would all just have to be Han Solo to their Chewbacca.

After surmounting the language barrier, it was time to talk lodging. The Dewfall was a tiny, single use craft designed with just enough room to carry six crew in suspension. It would remain where it was, acting as a high-tech storage shed, but our little guests would have to find accommodations somewhere else. They could have gone anywhere in the world. They could have been treated like more than royalty, but they let it be known that they wanted to grow where they were planted, so to speak. And that's how Tod ended up on Jim's porch on that cold day in January. Jim answered a knock—more of a scratch, really—at his door, and opened the door to see this monkey fox with his tail curled around a half-folded, half-rolled up copy of his ad.

Jim turned to look at his roommate lying on the branch. The orange rays of the setting sun made Tod's red pelage glow as though it were on fire. His black ears completed the vulpine impression that earned him his name. Tod was nervously tossing a translucent fluorescent green cube between his forepaws, occasionally flicking a freely rotating corner and letting it spin on its axis like a fidget toy. Just the alloy that made up that thing's chassis was probably worth enough to pay off the national debt, never mind whatever tech was inside it.

Tod, evidently aware that Jim was watching, tossed the cube across his back and caught it in his left rear paw and continued to fidget with it with as much dexterity as before. Tod turned to look at his roommate. Was Jim impressed? He couldn't tell. Jim's ears were practically immobile, and he had no muzzle to speak of. Tod was still learning the ins and outs of human body language, Jim's lack of a tail making the endeavor that much harder. Surely his little trick must seem impressive to a creature with only two prehensile extremities. Still, Tod couldn't help being a little jealous of the human's ability to both walk and manipulate objects at the same time. Tod could waddle precariously while standing on his hind legs and using his forepaws to carry an object, but if he wanted to get anywhere quickly it was four legs or nothing. His tail could grasp objects. It could even support the weight of the rest of his body, but he couldn't manipulate anything while moving at a significant speed.

"Am I supposed to be impressed by those monkey paws of yours?" said Jim.

«Oh... I was just... never mind.» Tod curled his tail around the mystery cube and turned fully to meet Jim's gaze. He studied the human's liquid eyes. In the center of each was a transparent dome-shaped membrane that reflected Tod's features. Behind the membrane was a hazel-pigmented sphincter. The sphincter relaxed slightly, increasing the diameter of the aperture at its center. Delicate muscle movements turned the two orbs upward slightly, exposing the white tissue that covered the rest of the eyes. It was all lubricated with a thin lamina of mucus. When the mucus began to dry out with exposure to air, Jim would rapidly close and open his eyelids to coat his eyes afresh.

Jim hesitated for a split second before responding. Tod's eyes, when they were fully open, appeared to be coated in vantablack. He would occasionally slide a colored reflective membrane over the eye, making it appear as though he were wearing mirrored contact lenses. Jim had noticed at least four different colors of these secondary eyelids. This was in addition to the regular eyelids covered in the same ginger fur coating the rest of his face.

“Well? Should I be impressed?” Jim persisted, raising his open palms to face Tod and making grasping motions with his fingers.

«Only five digits? And you can't even write with any of them?» Tod plucked a leaf from the branch and scribbled on it with his writing claw, mimicking the territory-marking behavior of his non sapient ancestors. He let the leaf flutter down into the cupholder of Jim's chair.

«It's just ink,» Tod clarified.

Jim sniffed the blue-black scribble on the leaf. Petrichor blended seamlessly with the cool outflow from the storm in the distance. He turned back to the skyscape. The violent convection rocketing upward from the storm's base had finally slammed against the stable air at the edge of the stratosphere, and a cloudy anvil head was pouring out across the invisible ceiling like upside-down spilled milk.

«So, what exactly are we looking at?» Tod asked.

“Never seen a thunderstorm before?”

«I was hatched and raised on a moon orbiting a gas giant. All my military assignments were either on other moons or orbital colonies. The only planet I've been on besides this one is nothing but desert.»

Jim turned back to contemplate Tod's form again. He had to be 70 pounds soaking wet. More than once Jim had tossed the little ET off his couch because he was lying on it without a slipcover. Tod could barely walk and hold onto something at the same time. How on earth did he hold a gun? Did they even have guns? What on earth did armed combat look like for a four-legged species? Humanity had barely reached out beyond our own atmosphere, but we had enough nukes to glass our whole planet nine times over. What sort of apocalypse could a species who had conquered their entire solar system bring upon themselves? ...And what if they pointed their weapons at us? Jim swallowed his questions for the moment.

“You’re a veteran?”

«Yup.»

“Hoo boy, you’re gonna be real popular round here.”

«It’s not enough that I’m one of only six sapient nonhumans on this rock? Why in the Void would people here care about my military service?»

“Son, this is Texas! We love our fightin’ men and women. It don’t matter where you served or how many legs y’all got. Hope you like hearing people say, ‘thank you for your service.’”

«Women? You let females in your military?»

“Yes.”

«Female soldiers and male clerics, you guys are full of surprises. You still haven’t explained what I’m looking at.»

Jim looked back at the storm. “That’s a thunderstorm. The sun heats the ground, and the ground heats the air. The air boils up into the atmosphere carrying water vapor with it. The water vapor condenses and falls as rain.” Thunder rumbled in the distance. “And there’s the thunder.”

«And what’s that?» Tod asked a little more urgently, pointing his writing claw at the storm’s base. The gesture was unusual for his species. Tod was accustomed to using his eyes and muzzle to indicate the direction of interest, but he felt this application of human body language would get his point across more quickly.

“That’s...” Jim scanned the area indicated by Tod’s outstretched paw. A swirling eddy of dust had developed on the ground, and a black condensation funnel was snaking its way down to the earth to meet it.

Up until this point, Tod had been mildly nervous about the storm. The sheer size of it, towering into the heavens, was a little disquieting. The flashing arcs of electricity it produced made him uneasy. He had seen similar phenomena back home, but always looking down from orbit. But that sound it made, now that was terrifying. Some of it he was sure Jim couldn’t hear. The grinding, roaring cacophony that seemed to come from the mid-section of the cloud was too deep for Jim’s ears. The loud claps of thunder that followed every flash of electricity were just icing on the cake. His playing with the cube earlier was as much a self-soothing gesture as it was an attempt to wow his human friend, but Tod kept his emotions in check thanks to a little trick he learned in the military. Look at the most experienced guy in the room. If he’s not panicking, then you’re OK, and up to now Jim had shown no signs of distress, but the object of Tod’s query set off in Jim a cascade of involuntary bodily processes, sharpened by three and a half billion years of evolution, designed to survive an approaching threat, by fighting it or by fleeing it.

Tod turned to Jim again, scenting the air as he did so. Epinephrin, cortisol, and perhaps the merest whiff of urea. «Jim, you OK, buddy? Should I be worried?»

Jim took some time to answer. The primitive simian part of his brain was screaming “Fly, you fools!” But the somewhat-misleadingly-named rational part of Jim’s brain was too busy cramming that little monkey into a closet and barricading the door shut. He quickly rehearsed his response in his head. “Oh, that little thing? It’s just a twister. We get ‘em all the time here in Texas. What’s that? It’s roaring with all the voices of the damned? Nah, that’s nothing to worry about. It’s ripping asphalt off the ground? Totally normal. The sirens? The ones we installed back when we thought the Russians would nuke us, and that we are currently sounding, thereby implying this is a proportional threat? Don’t worry your fuzzy little head.”

Jim finally responded. “We... uh... we should be fine as long as we’re south of it.” Jim looked to his right at the setting sun. To his right. At the setting sun. The sun setting in the West. The West that was currently to his right. Then ahead 90 degrees counterclockwise from the West, at the writhing column of wind and debris, appearing to stand still in the field. The field that was to their South, which, simple logic demanded, meant they were in fact North of the tornado.

The monkey burst out of the closet.

“If it’s not moving, it’s coming toward you.”

“If it’s not moving, it’s coming toward you.”

“If it’s not moving, it’s coming toward you.”

What had started as an insistent voice in Jim’s head had escaped his lips, repeating like the mantra of a madman. Tod noticed Jim’s crazed mumbling and scented the air again. Now he was sure that was urea he was smelling. He hopped off the branch onto the ground, his tail coiled a little tighter around the mystery cube.

The sound of Tod’s movement broke Jim out of his meditation. he turned down to look at the little quadruped standing beside him. They were absolutely going to die. Tod was going to go down in history as the first alien to die on Earth, and Jim was going to be the nobody who died alongside him. And they would not be going gently. Their skin would be sandblasted away by the dust, their bones shattered by larger debris, their screams drowned out by the roar of the wind.

Jim’s monkey brain finally took control. Must protect tribe! Must protect little one! He swiftly grabbed Tod by the scruff of the neck and draped him over his shoulders in a fireman’s carry.

Tod let out a trilling hiss of surprise. «What in the Blind Void are you doing?!»

“Trying to save our skins!” Jim shouted as he quickly darted hither and thither, trying to choose which of the objectively terrible sheltering options was the least terrible. Flee in his car? Nope, the twister was currently blocking the only dirt road out of this trailer park. Go back inside? Of course not. Mobile homes are a tornado’s staple food source. Where was the lowest point they could get to in time? Jim looked back at the twister. It was definitely getting closer, and was that a cow up there?

Jim's mind seized on the only option they had. "The ditch behind our trailer. That's all we've got. Not gonna lie, Tod, we're probably not going to survive." Tod squirmed his way out of Jim's grip and hopped back on the ground.

«We might have a chance, if this thing still works, that is,» said Tod flicking his tail holding the cube.

The din of the tornado was steadily getting louder, and its wind began to pull against their bodies. The two turned and ran to the drainage ditch behind the trailer, Tod gripping the cube in his tail as though their lives depended on it. Jim went prone, covering the top of his head with his hands. He turned his eye to look at Tod, but Tod wasn't there. In his place was a vulpine sorcerer, executing the verbal, somatic, and material requirements for a powerful warding spell to protect them from the wrath of a god of destruction. He stood on his hind feet, manipulating that powerful arcane focus with his outstretched forepaws, tail and ears blowing dramatically in the wind, hind claws digging into the wet ground for purchase against the gale. Jim could hear him mumbling something as he rotated the cube, twisting the freely rotating corners of the device. The mumbling stopped as Tod quickly glanced up toward their approaching demise. He hastily traced an arcane rune onto one of the cube's faces with his writing claw. The ink beaded up slightly and then was quickly absorbed into the cube without a trace. The spell's requirements met, a metal stake extended from one of the cube's corners. Tod jammed the device into the wet soil, and...

...critical failure...

The device glowed blue for a split second, then went dark again.

Tod often wondered what thoughts would be going through his mind in his last moments. Would he think of friends and family? Would a holy canticle be in his throat? Or would he utter some blasphemy against The Light that had created him? Whatever he thought would be on his mind in his final hour, it wasn't this.

Tens of thousands of years ago, on a rusty planet neighboring their homeworld, there developed among the first wave of colonists and terraformers a strange animist cult. The spirits that this cult revered did not dwell in the wind, for their world lacked an atmosphere, nor in the water, for their planet lacked a hydrosphere, nor in the trees, for their new home lacked a biosphere. The genii worshipped by these heathens dwelt not in natural things but in the artifices of mortal paws. Within every machine—the cult believed—dwelt a fickle spirit that must be appeased with various arcane rites. The most sacred of these rites was the holy sacrament of Percussive Maintenance, where a shaman would deliver a ritual knock with a blessed wrench upon the chassis of a misbehaving machine. As subsequent waves of colonists arrived on that ruddy planet, the cult was diluted and pushed out of the collective memory, but traces of their beliefs lingered on, especially among the rank and file of the military. Ask any of Tod's fellow soldiers, and they would dismiss such superstitious nonsense. But sometimes... sometimes an engine wouldn't spool up, or a fabricator leasemind would refuse to boot. All the normal troubleshooting steps would be followed: Identify the problem, Establish a theory of probable cause, Test the theory, blah blah blah. But every attempt would fail. Then, out of desperation, the frustrated tech assigned to fix the problem would utter a prayer to the heathen spirit dwelling in the machine, whack the offending mechanism with a

wrench, and it would spring to life, the spirit within evidently pleased with the ritual.

Tod looked up again. The roaring hell vortex was almost upon them. He saw a giant beast, hooved and horned, careening through the air toward them. «What've I got to lose?» Tod thought as he picked up a rock and bashed the cube with it.

The machine spirit was appeased.

In an instant, the cacophony was quieted. Jim noticed the sudden lack of noise and risked an upward glance. Just as he did so, a cow slammed into an invisible barrier above them. Bright blue scintillations blossomed from the point of impact, arcing like the flashes of a detaching retina. The light cascaded down, tracing the hemispherical outline of their ephemeral shield. The cube emitted a subtle whine as the hypercapacitor within absorbed the kinetic energy of 1800 kilograms of bovine mass traveling at 134 meters per second. The cow's trajectory halted, it slid down and landed on the leeward side of the barrier. But the twister would not be denied its quarry. The cow let out a plaintive moo as it was quickly sucked back into the swirling mass.

Other missiles collided with the forcefield, repeating the light show and increasing the pitch of the cube's whine as they did.

SLAM! A stop sign.

SLAM! A tractor tire.

SLAM! A transformer coil.

The chaos only lasted thirty seconds, but to both Jim and Tod it felt like an eternity.

Finally, the air cleared. Jim sat up and looked at Tod. Tod's claws were digging into the meat of his forepaws, rills of blue-black ink matting the fur on his front legs.

«By the palms that nursed me, what was that?!»

“What on earth was that?!”

The pair said simultaneously, Tod indicating the retreating funnel, and Jim looking at the cube, which had stopped whining and begun a quiet low-pitched beeping.

Jim spoke first. “A tornado. Never seen one before. Don't want to see one again. What... what is that thing?”

The cube's beeping increased in pitch and tempo.

«A retribution field generator. It's supposed to block relativistic kinetic weapons fire. Absorbs the kinetic energy, then you—»

The cube arrested Tod's attention as the beeping became urgent. In a single swift motion, Tod wrapped the end of his tail around the cube, spun on his heel, and slingshot the cube into the air, then lost his balance, falling backwards onto his back. The cube traced a ballistic trajectory, flying much further than Tod's mediocre strength could account for.

For an infinitesimal fraction of a second, the cube hung at the apex of its arc, then a pillar of light and concussive force burst forth from the cube and rocketed upwards, punching a large hole through the mammatus pouches glowing red in the last rays of the sunset revealing the purple twilight sky above. The pillar of light evaporated quickly, leaving no trace of the cube behind.

Jim stared open-mouthed at the hole in the clouds until he was alerted by the sound of tires on gravel, unmuffled by his now nonexistent trailer. A police cruiser and a pickup pulled up to the remains of Jim's home.

An officer exited the car and walked toward the two survivors. One of the survivors was a man in his 20s, and was that his dog?

Tod executed a formal greeting, rearing up and patting himself on the abdomen with a forepaw, leaving a blue-black stain on his belly. «Ink sacs are probably dry,» Tod thought. «It'll be a few days before I can write again.» He looked up at the uniformed human and attempted an introduction.

"Chuff! Yip, yip! Huff, bork!"

The cop's demeanor immediately changed. "Ah! One of our little visitors from out of town." He jogged past Jim and attended to the little arboreal canid. "You OK, little guy?"

"Yip, huff, wuff!" Tod responded.

"Tod, I don't think he can understand you," Said Jim.

«Well tell him I'm fine.»

"He's fine, officer."

"And you, sir?" asked the cop.

"I'm OK, I think."

"That twister was ripping up the road. How on earth did you two survive?"

Jim looked at Tod, then up at the hole punched in the sky.

The cop turned back to Tod. "That huge laser thing, that was something of yours?"

"Bork!"

The cop squatted down and looked Tod in the eyes, which were shielded by crimson bandpass membranes reflecting the flashing lights of the cruiser. "I'm very happy you were able to save yourself and your friend, but you need to be careful with your fancy little doodads in the future. I just hope you didn't hit anything with that."

«A retribution field generator isn't a 'fancy little doodad'.» Tod mimicked the stress and tone of the officer's admonition, but all his cynoid vocal tract could manage was "awAAA ohOO OOwaah"

"Anyway," said the cop, standing back up, "We need to get you two checked out by a doctor to make sure nothing's wrong." He looked at Jim. "Well, we need to get you to the doctor. I'm not sure what we can do for our little guest, but I'd hate to think we're leaving something untreated."

«I'm fine, really. But if you need someone to give me a clean bill of health, we can have Sunshine take a look at me. All her medical stuff is stored on the Dewfall.»

Jim relayed Tod's suggestion to the officer.

"OK, I'll take you to the clinic, and we'll have Mark take your friend to his ship," said the cop, gesturing toward the pickup.

Just then, the driver's side door of the pickup opened. The beeping cadence of a CW repeater ID and the smell of decade-old second-hand smoke drifted out of the cab. Tod slid back the bandpass membranes covering his eyes and tilted his ears forward in the yinrih equivalent of an excited grin. He recognized that smell. The truck belonged to one of the radio club members, the first group of non-yinrih sophonts the crew of the Dewfall set eyes on after arriving on Earth.

An older man got out of the truck and ran up to the group. He looked at Jim and the officer, then down at Tod. "Hi, little man, haven't seen you in a while. Glad to see your OK."

"*Chuff! Yip!*" said Tod.

"Ah, sorry I haven't learned the lingo yet. You need to come to the club meetings and teach me."

Mark looked back at the officer.

"You're taking him to his ship. He'll contact their medic and have her meet you there," said the cop.

"Will do." Mark looked back down at Tod. "Let's get going."

Tod slid another pair of bandpass membranes over his eyes and surveyed the remains of their trailer. It didn't take long for him to find the little trunk he was looking for. It was impossible to miss. Well, for him anyway. The humans probably thought it looked dark gray, but to Tod it was painted in the Allied Worlds standard safety color, peaking at a wavelength of around 0.186 millimeters. He scampered over and delicately opened the lid, trying not to smear ink on the contents of the box. He pulled out the two objects he needed: a paw keyer and a pair of HUD specs.

The HUD specs looked, well, like a pair of reading glasses designed by a dog: two frameless glass lenses connected by a bridge designed to sit on the muzzle. The keyer looked like the rubber grip on a bicycle handlebar. Four keys lined the length of the device, sitting in shallow grooves sculpted to fit a yinrih's four middle digits, with a fifth and sixth key capping the devices two ends, designed to be gripped by two thumbs. The HUD specs and paw keyer together filled the role of portable computer.

Tod wrapped the keyer and specs in his tail and hopped into Mark's truck. He laid down on his back in the rear seat of the cab, gripped the keyer in his left rear paw, and put the HUD specs over his muzzle. Squeezing the two thumb keys together started the boot process. The two lenses frosted over, obscuring the roof of Mark's truck. Reams of boot text, glowing a comfortable infrared, flowed down Tod's field of vision. After a few seconds, the screen cleared and the login prompt appeared, the square cursor blinking expectantly.

```
Localhost login
Username: tod
password: *****
tod@localhost:~$ omnichat

connecting...

connection successful

4 users currently online:

tod
stormlight
iris
sunshine

=====

tod> Jim and I caught in some sort of windstorm. Both OK but our friends insist I see a
healer. Currently on my way to the Dewfall.
sunshine> It's true you red-pelts really are unlucky.
tod> shut up. Your fur is just as red as mine, remember.
sunshine> What fur? I'm a healer. I was just kidding, Tod. I'll be there ASAP.
<sunshine has left>
/quit

<Leaving chat>
```

```
tod@localhost:~$ humansynth
```

```
Experimental human speech synthesizer interactive prompt
```

```
Enter phoneme string or /h for help
```

```
>>>
```

Mark looked down at his little passenger lying on his back, staring at the ceiling, left rear paw just barely twitching as he entered chords on the keyer. Little inky paw prints covered one side of the bench where Tod had pulled himself into the cab.

“Sorry I got my ink all over your vehicle,” Said a tinny bloodless voice coming from the input device Tod held in his paw.

Mark inhaled. The smell of a welcome rain after a long drought filled his nostrils. “Don’t worry about it,” Mark responded. “I believe we’ve seen each other before but I don’t think I know your name. I’m Mark.”

Tod uttered a few more opaque yips and grunts. “It means 'Steadfast Friend', but that's a mouthful in English. Just call me 'Tod'. That’s the name Jim gave me.”

“‘Tod’, that’s clever, you look like a little tod fox with your red coat and black ears.”

“Is that a good thing?”

“Sure. Foxes are sly little critters.”

“Interesting. This pelt color has some bad associations back home.”

“Is that so?”

“Having a red pelt is supposed to mean you’re unlucky, and having black ears means you’re dumb. I’ve got both, so I’m constantly the butt of jokes. Nobody actually believes that, for sure, but the teasing gets really old really quick.”

“Oh, sorry to hear that.”

The topic of conversation wandered here and there as the pair drove down the road. As they were nearing the Dewfall’s landing site, the subject of Tod’s military service came up.

“So you’re a vet, then?” Mark asked.

“Yeah. Never seen combat, but did a few peacekeeping missions. Relief supply deliveries, helping refugee camps, that sort of thing.”

The truck pulled up to the landing site. A small car pulled up shortly after, a bumper sticker proudly identifying the driver as a student at the veterinary school at the nearby college. A woman got out of the driver's seat and opened the back passenger door. Another yinrih, completely hairless with black splotches on the bare skin of her paws and muzzle, hopped out and ran to the truck.

Mark and Tod also disembarked. Sunshine looked up at Mark and executed the customary introduction, rearing up on her hind feet and patting her belly.

«Light shine upon you, friend. My name's Sunshine.»

Mark looked pleadingly at Tod, who was now incommunicado, having removed the specs and keyer.

"She's saying hi," said the woman. "I'm Sarah, by the way."

"Howdy, ma'am," said mark.

"Sunshine filled me in on the way here," said Sarah. "I'll take Tod back to Jim at the clinic when she's done with her little checkup. You can go if you want."

"OK. Thanks for your help," Mark responded. He climbed back into the cab and started the engine.

"Seventy-three, Tod. Come see us at the radio club so we can start talking for real."

"*Yip, huff!*" said Tod.

Mark closed the door, but quickly rolled down the window for a few parting words.

"Tod, Thank you for your service," Said Mark as he put the truck in gear.

Meanwhile, in an Alternate Universe

"Where's your bathroom?"

I think this was the third time any of us had heard him speak since we met. Brightstar and Moonglow had found him on the tram from the city center, his snout buried in a claw-written notebook. We needed a second sire besides myself to equal the two dams, and he smelled of age. Moonglow was never one for subtlety. She came right out and asked if he was looking to join a childermoot. "Yes" was all he said, and "OK" was his answer to her offer to join ours.

The two of us were sitting in my den, our womb-nest incubator humming quietly in the middle of the room, occasionally beeping with a routine diagnostic message. Until he spoke he had been staring out the window at the clouds below.

"Bathroom's over there." I pointed at the curtain separating the closet-sized restroom from the den. Welkinsteader houses are small by necessity, and the bathrooms smaller still.

He entered the restroom. "What do you do for fun?" he asked from behind the curtain.

"You've seen what's all over my walls; what do you think?"

"Ah, the old guns." He paused for a moment. "What's the attraction? Why do you like collecting them, I mean. You don't look like an ear-notch."

"Well if you have good firing posture you won't blow a chunk out of your ear. But no, I'm not a gun nut, well not THAT kind of gun nut. It's the craftsmanship. I like the leatherwork on the saddles, the paw-forged iron barrels, none of this all-polymerite nonsense. It's amazing what we were able to make with our own four paws before we invented fabricators."

He washed up and rejoined me next to our womb-nest.

"What about you?" I asked. "Got any hobbies?"

He looked down at that same claw-written notebook sitting on the desk under his perch. "Oh, just this and that."

"This and that?" I probed. "You seem awfully attached to that notebook."

"Oh, that. It's nothing."

“Clearly it’s not nothing. You haven’t been without it since my friends met you on the tram.”

He let out a long sigh. “Those are my worldbuilding notes.”

“Ah!” I yipped. “So you’re a writer!”

“No no no.” He began running a rear paw through his tail and I smelled nervousness in his musk. “I’m no writer, amateur or otherwise. It’s just for fun, you know. Pups make up imaginary worlds, and I just started documenting mine as I grew up.”

“Tell me about it.”

He hesitated. “Are you SURE?”

“If I’m going to raise a litter with you I want to know what’s bouncing around between those ears of yours.”

He started wringing his tail like a towel with both rear paws, and his shyness stank up the den. “So it’s about this race of star folk called.. well we can’t pronounce their language, so we call them qMqmg. That’s an onomatopoeia of their name for themselves in one of their languages.”

“What do you mean we can’t pronounce their language?”

“Well, they have a very different vocal tract from us; no muzzle, more muscular lips that can form an airtight seal, flatter more crowded teeth, a smaller and much more nimble tongue. They use their tongue to shape the sounds coming out of their mouth to speak.” He had opened his eyes wide and his ears were pinned back. He was clearly excited to have someone to share all this with. “The tongue is so important that many of their languages use the word for tongue to mean language in the same way we use the word for throat.”

“And you went to all the trouble of designing their...‘vocal tract’?”

“Yup. And some of their languages, too”

“You make up languages?”

By now he was holding his tail in a death grip like it owed him money. “Yes. Constructed languages. Honestly the languages are the main thing. The world is just there to give them more life.” He opened his notebook to what looked like a table of different word forms in an alien script written left to right. “This language is called, well, again we can’t pronounce the name. Ultimately the name comes from this tribe who lived on this island in the northern hemisphere.” He turned to a page showing an impressive world map and pointed to a large island to the northwest of a massive continent. “So this tribe invades this island after this other empire fell.” He pointed to a peninsula on the southern edge of the continent. Anyway, this tribe becomes an empire in their own right after a few centuries.”

“Centuries? Seems awfully fast.”

“Oh, yeah, they only live a tenth of our lifespan. Makes things move a bit quicker, gives me an excuse to play around with more languages.” at this point he had started wiggling on his perch.

“Anyway, the tribe becomes an empire and they spread their language as they expand. They found some colonies on this other continent.” He pointed to another landmass across an ocean to the west of the first. “And these colonies rebel and found their own country which eventually spreads all the way to the west coast. The tribe become empire is still expanding despite the loss of some territory to these rebels, but after two massive worldwide wars this empire also falls and the rebels turned country become an empire in their own right, with their own variety of that island tribe’s language spreading across the globe in its turn.

He turned back to the table of words. “So this language is spoken by two different empires and becomes a de facto lingua franca around the world. It’s their version of Commonthroat.”

“Sounds like they haven’t terraformed any other planets.”

“No, they achieve spaceflight right before we find them.”

“And besides this ‘vocal tract’ of theirs, what do they look like?”

“Well, they have no tail, and almost no fur except on top of their head, so they wear cloth coverings like a healer. They used to have fur and live in trees just like we did, but they started living in wide open grasslands. Their rear paws lost the ability to grasp.”

“That doesn’t sound like much of an advantage, not being able to grip things with their rear paws, especially given they don’t have a tail.”

“That’s because they walk exclusively on their rear paws. Their hind legs get much longer and more muscular. It’s all so they can run long distances to catch prey. That’s also why they have no fur, it’s because they excrete saline from pores on their skin that evaporates to cool them down.”

I wrinkled my muzzle. “Eww, sounds gross.”

“Oh that’s what the missionaries that find them think at first. It smells really pungent. But eventually they grow to like the odor. They say it smells like a friend.”

“And the wildest thing is they can’t write.”

“What do you mean? You showed me that alien alphabet earlier.”

“Well they can’t write naturally like we can. They don’t evolve it, they have to invent it. So they just speak for tens of thousands of years before finally inventing writing.”

“And how do they preserve information then if they can’t write?”

“Orally at first, passing it down from sires and dams to their pups.”

“Doesn’t sound very reliable.”

“Oh it’s not at all. They spread across the globe long long before inventing writing, and don’t even remember one another until they meet again thousands of years later. At that point the different groups have developed vastly different cultures and languages.”

“More languages to invent?”

“Exactly!” he yipped.

He suddenly smelled embarrassed. “You probably think I’m crazy now.”

“Crazy? No. Maybe just a bit eccentric. But you clearly have a vivid imagination. I’m sure our pups will love hearing your stories.”

An Alien Through Alien Eyes

I was sitting atop her head, an arrangement she tolerated as it was the only way I could get a good look at what she was doing without risking getting under paw. In her rear paws she was holding two strands of wire insulated with some sort of tree gum, each strand half as thick around as my thorax. In one forepaw was another length of wire, softer and uncovered, and in the other she wielded a great iron rod fiercely radiating heat. At least it seemed great to me. She likely found its size quite unremarkable. A cable, even more thickly insulated, connected the iron to a large structure--she would have called it a mere box--that I guessed provided the iron's heat.

"What are you doing, great one?" I asked.

"I have a name, remember?" she said, her voice a low rumble like distant thunder. "It's Sunbeam."

A pretty name, but one that hardly matched her appearance. "What are you doing, Sunbeam?" I repeated.

"My job," she rumbled. "I'm building an electric light tower to put at the center of town. Well, I'm assuming it's a tower from your perspective. It's just a wooden dowel not even half the length of my tail, and I'm sticking that little LED array on top." She gestured with her tail toward a flat contrivance covered in intricate little studs--the LEDs she mentioned, as I would find out later.

"Your job?" I asked.

As she spoke, she touched the exposed ends of the insulated wires and twisted them into a single braid, then touched the hot iron to the area where they met. "I'm a hearthkeeper," she said, bringing the end of the softer wire in contact with the exposed copper. "I bring light and warmth, physical and spiritual, to those around me." The soft wire liquified, coating the exposed ends of the other two wires and releasing smoke that smelled like burning tree sap.

"Yes," I said half to myself. "You did say you're a missionary. Why don't you preach, then? You don't think your faith can stand up to scrutiny?"

"I wouldn't have spent hundreds of years travelling the stars to get here if I didn't have the courage of my convictions," she said. "But, well, look at me."

"It's hard to see a building when you're standing on top of it," I said.

"Exactly. When we discovered your world we had no idea how... small you were. I'm not even that big, a runt in fact, but to you I'm a giant, a disgusting inside-out giant, if I recall what you said when we first met."

I looked behind me. From four stories up, I could see the moss farm just outside of town. The field still bore a faint indentation in the shape of one of her paws. She had trampled over half the crop in a single step. This was on her first visit to town the day after her skyship landed, before we knew what she was, before she knew what we were.

I had awoke to rumors spread by the town drunk that a star had fallen to the east, half a day's journey from town. I had dismissed them at first until a friend of mine, a fellow merchant who was up late taking inventory in his shop, confirmed that he saw it, too, a star, glowing violet, had fallen to earth. "Didn't make a sound," he had said. "You'd think something that big would make some noise when it landed."

The day went on as normal, other than a few lads trying to drum up a party of adventurers to investigate the fallen star, nobody seemed too bothered. "A great beast has returned!" one of them had said to me as he left my shop. He had purchased a water bladder, "For the adventure," he had told me. "I'm tellin' ya, there's riches beyond your wildest dreams. We just gotta slay the beast and its horde will be ours."

I clicked my mandibles dismissively. "You're chasing fairy tails. There haven't been any great beasts in centuries. We exterminated them all as soon as we figured out how to fire a cannon."

"Where's your sense of wonder?" the lad said as he walked out the door.

I had closed my shop for the afternoon and was chatting with some friends at the inn on the east edge of town, sipping a bead of honeydew. That's when we heard it, a dull, rhythmic tremor sent ripples through the drink on the table.

THUMP

We put our drinks down and looked through the open door to the street outside.

THUMP

I and a few others ventured outside to find the source of the noise.

THUMP

A crowd was gathered near the edge of town.

THUMP

We stared past the moss farm at the crest of the hill behind. That's when we saw her. She bounded over the hill, crushing the moss crop under paw along with the decoy the farmer had placed in the middle of the field to scare away the crow-flies. She turned her head down to look at us all gathered at the edge of town. Her eyes widened and she checked her momentum just before plowing through the city. She dug her iron-red claws into the dirt leaving furrows in their wake.

For a moment we stood there, this great beast and us terrified bugs, staring up at what, to us at least, was every bit the giant horror from the sky described in the old stories. It's hard for me to put into words exactly what I thought I was seeing. Some people say that you don't know what you're looking at until you know what you're looking at. I had always thought that an odd notion until I was staring up at this giant... thing. I didn't know what was paw tail or leg or snout or fang or fur, all things I would only learn much later, so it should be kept in mind that the description that follows is only possible with the benefit of quite a bit of hindsight.

She towered over us, even while sitting with her back end on the ground and all four paws resting flat. I suppose the first thing I noticed was the heat, this calid humidity that seemed to envelope her. I'm not sure what compelled me to do this, maybe it was that same heat. She had this long thick round structure, as long again as the rest of her body, protruding from her back end, a "tail" I would later learn. She had it wrapped around her forefeet. I reached out and touched it, my hand plunging through stiff guard hairs then downy undercoat before it was stopped by a pliable, oily surface, her "skin". It was not just warm, it was hot. Not painfully so. I'd compare it to a balmy summer day. Shocked, I drew my hand away.

She pulled her tail away from me and I got a good look at her paws. She had six digits to our three, dug into the earth like tree roots. Each digit was tipped with a sharp iron-red claw. The ends of her digits were furless, the "skin" grayish black. I saw something pulling taught and relaxing at intervals under the bare skin of her paws, tendons and muscles making minute adjustments to maintain her balance. Once again I reached out and touched the exposed skin. It yielded under my hand as I pressed down until I felt something hard underneath, "bone". It was bone that gave structure to her body, and the skin kept her soft viscera from spilling out. Something clicked in my brain and I staggered backward. "It's inside-out," I gasped. "soft on the outside and hard on the inside." I fought the urge to vomit.

Meanwhile, she had shrank back from my touch. When she shifted her paws back I caught a glimpse of their undersides. There were thick soft pads on each digit, with more pads arranged on her palms in the same pattern I saw pressed into the moss field. So ponderously massive was she that she needed cushions to soften the impact of her footfalls. I felt more heat, this time pulsing over me in rhythmic waves. I looked up following her forelegs covered in the same white pelage as her tail, up to her thorax, or what she would later tell me was called her "chest". It was expanding and contracting in time with the waves of humid warmth washing over me. Still further up I saw her mandibles, well, "mandible", singular. Rather than two mobile mouth parts it was fused to form a single structure that could only move up and down. It was hanging lax, revealing the red inside of her great maw. A disgusting red growth, glistening wet and twitching in time with those same heat waves, flopped out of her mouth to one side. This I would come to know was called a "tongue".

The mouth, I discovered, was the source of the hot wet gusts I was feeling. Once again only much later I learned why this was so. Just like us bugs, her body required air to live. We bugs simply took in air passively through spiracles dotted across our carapace. Because of her massive size she required organs dedicated to the purpose. These "lungs" were constantly inflating, drawing in fresh air, and deflating, exhausting spent air. This was why her chest was heaving.

Pointed white protrusions lined both sides of her mouth, "teeth" they were called. Four of these, two below and two above, were larger than the rest, erupting like stalagmites and stalactites in a cave. These were "fangs". Above the mouth were two large spiracles, the only I could detect on her body, unless, I thought at the time, more were hidden under her fur, not the case, as she would explain later. These "nostrils" were surrounded by rugose black skin covered in more clear liquid. The liquid coating the end of her snout was "mucus", that in her mouth and on her tongue "saliva".

Framing the wet tip of her nose were clusters of stiff hairs, much longer than the surrounding fur, "whiskers", tactile sense organs not unlike our antennae, though lacking the faculty of smell. That sense was furnished through the nostrils.

Then came her eyes. Those were the only things about her that didn't make me nauseous to look at. Simple, deep, black. Soulful, I'd come to say with time.

Lastly were her "ears", triangular flaps of skin jutting out from the top of her head. They had been erect when she first crested the hill, but presently were pinned against her head. They were covered in fur, black unlike the snowy pelage across the rest of her body, though she would loudly insist to anyone and everyone they were dark gray.

I must reiterate that none of these details were evident to me at the time. All I knew was horror at this thing, this star beast, mountain-high and radiating uncanny warmth, and the only thing escaping my mandibles was endless gibbering "It's inside-out, gods below it's inside out."

The last thing I saw before I regained sense enough to flee into the nearest building was her mouth, now dripping crimson fluid that dribbled down her jaw and painting her chest, still heaving like bellows with her breathing.

What I say next is still a mystery to me. Sunbeam has explained it to me a hundred times, but I still can't grasp it. I said before we were terrified, and justly so, of this giant monster looming over our town. But, and I can't believe I'm saying this, she was just as terrified of us. We little bugs that she could trample to death in an instant with barely a thought, filled her with a sharp visceral fear digging into her gut and made her want to flee. That's why she retreated from my touch. That's why she merely tolerates my sitting between her ears. "It's how you move," she would say when asked. "The way you skitter around, the way your legs move."

That red fluid dripping from her mouth, it was tears caused by fear.

"You are... quite singular," I said after my long reflection.

"Which is exactly why I have to watch what I say and exactly how I say it." She had slid a black sleeve over the two spliced wires and was applying blistering hot air from another of her seemingly endless array of cunning artifices. "A gentle exhortation could be interpreted as the command of a goddess, a warning given out of love as a threat of divine retribution. That's why I'm hesitant to preach. I'm not afraid I won't be compelling, I'm afraid I'll be too compelling. Error barks, the Truth whispers, but how can I whisper when every syllable I utter is a thunderclap? I want you to worship with me, not worship me."

The black sleeve had shrunk tight around the wires, joining them as one. Dazzling white light burst from the LED array, turning the fading evening twilight to mid-day. "You're lucky," she said, pushing the wooden pole into the earth. "Just a little light for little eyes." She tilted her muzzle skyward. I had to grab hold of her ear to keep from losing my balance. "You can still see the stars."

She rumbled a prayer under her breath. "O icons of the Light, shine upon us little ones."

"US little ones?" I asked. "You call yourself little?"

"We're all little measured against the vastness of Creation," she said. "You may be smaller than my thumb and I may be four stories tall, but we're both not even rounding errors in the grand scheme of things."

"Infinitesimal," I said.

"Yes, infinitesimal in scale, but infinitely loved." She seemed to be gazing in adoration at something beyond even the black behind the stars, and just for an instant I thought I felt someone gaze back.

category:stories