

Eldritch Science



March 2026

Front Cover ... *Harper's Lament* by Angela K. Scott

Back Cover ... *In Wolves Tread* by Angela K. Scott

Fiction

3 ... *Supply Chains* by Adrian Kresank

7 ... *Cladosporium* by Isak Laestander

15 ... *For Everyone's Welfare* by Charles Walter

32 ... *Midsummer's Eve in the Virtual Reality* by Arvida Svenske

36 ... *Thinking Cells* by Jack Huo

Editorial

This issue marks one year since I took over editing *Eldritch Science*. I continue to be impressed by the quality and variety of stories that have been submitted for consideration. While most of our stories were entries in the 2023 and 2024 writing contests, I also take direct submissions. Guidelines for submission are at the end of this issue.

First in this issue is Adrian Kresank's *Supply Chains*, combining the superhero and noir detective genres with a Failure Mode Analysis. As a quality engineer in the job that actually pays my mortgage I really enjoyed this one. The ending hints at more stories in this setting. Bring it!

Cladosporium by Isak Laestander is the first of four stories with a unifying theme: what happens to the world after humanity has left the scene? Many of you will recognize the twist at the end.

For Everyone's Welfare by Charles Walter examines choices, duties, and the danger of making unfounded assumptions. Charles published this one last year in *Black Cat Weekly* but he retained the rights and generously allowed its republication here.

Midsummer's Eve in the Virtual Reality is a scenario that could come to pass within our own lifetimes. Consider how addictive behaviors work on a biochemical basis. Combine with social media business practices and corporatism. The world depicted here is just a few steps away.

Thinking Cells by Jack Huo may be the final culmination of the Singularity...or just the beginning of the next cycle. You decide.

(continued on Page 50)

Eldritch Science

Editor—Steve Condrey

Published by the
National Fantasy Fan Federation
(Founded 1941)

Editorial Address: Steve Condrey
60 Garfield Lane, Glenwood, IA 51534
Email: steve.condrey.tnfff@gmail.com

Electronic Subscriptions to Eldritch Science
are included with all memberships in
The National Fantasy Fan Federation
<http://N3F.org/Join>

N3F Membership with electronic N3F Newsletter—\$6
Non-voting membership (electronic newsletters) is free
N3F Membership with paper N3F Newsletter—\$18
Eldritch Science is only distributed electronically.

Supply Chains

by Adrian Kresank

Pangilinan was taking her first sip of coffee when the client walked in. He was tall, with hazel eyes sitting neatly to the sides of his hawklike nose. He was wearing a hoodie and shorts, which contrasted strangely with his leather shoes and golden watch.

"I'm looking for Coswan Pan-gilly-nahn," he said.

"You're looking at her."

"Oh. Uh, nice to meet you," he said, holding out his hand. "Did I say your name right?"

"Don't worry, you got it." People in the Philippines would probably pronounce it differently, but her family had been American for six generations. "What can I do for you?"

He sat down and told his story. He was Eddie Roxas, the man in charge of medical acquisition for the Bureau of Prisons. There had been a few high-profile escapes lately. The

investigators suspected the power-dampening collars failed. He'd acquired the collars.

"The board's breathing down my neck. I could fire one of my guys to give them a scapegoat, but it's still my job on the line if another escape happens."

Once upon a time, when she was an angry young idealist, she would have seen a man like him in a situation like this and told him to solve his own problems. But now she was older, and tired, and thinking about how the retainer fee would pay her rent for the month.

She asked if he had any suspicions of his own.

"I think they've been sabotaged," he said. "The Guardians or the Amp Rebellion or one of those college protests. I need you to find some evidence of that."

"I can investigate, but I can't promise you'll like what I find. Maybe your prisoners just figured out how to break them. Maybe some software update made them glitch out."

“Fine.”

Pangilinan didn't give any more disclaimers; she understood what the job was, and she was willing to do it. Her client left. The first payment went through. She headed down to Ozzy Alley.

The street was the border between the fashionable side of the city and the people who worked for a living. It had an art gallery next to a wine store. Their benches were designed with holes in the middle so the poors couldn't sleep on them.

Pangilinan entered the alley's coffee shop. She scanned the room and found her target.

Alicia de Moura sat by the wall, a mug and a laptop in front of her. She was a stylish woman with long brown hair and thick eyelashes. Pangilinan had often run into her before. Those fights usually ended with one or the other lying in the dust. With some luck, this wouldn't end like that. All there was left was to talk to her.

“Hello there.”

And — there it was. The smell of ozone. The slight buzz in the air. Alicia's powers, freezing time for everyone around her. The only people who'd be able to resist it were speedsters or fellow time-shifters.

Pangilinan pulled out a chair and sat down.

“What do you know about power dampeners?”

“The personal-use ones are cute, but the market is limited. Nobody's buying them for *themselves*. If I was—”

“The state-issued ones. The ones the Bureau of Prisons uses.”

“Ah, government supply. Now that's an enterprise.” She took a sip of her drink. “If you're thinking of the same thing I'm thinking of, they're called Linnets. Trademarked and everything. Now that's a great patent to get your hands on. *Everyone's* afraid of the big bad supers. If you've got a product that'll

bring them down to normal, you can sell it at any price you want.”

“I suppose that if you had a way to attack the dampeners, you could also sell that for any price you wanted?”

Instead of answering, Alicia leaned back. She put a hand to her mouth, and Pangilinan was struck with the memory of her rascal cousins doing the same as children. *Why are you hiding a smile from me? You have to know I can tell.*

After a moment, Alicia shook her head. “Maybe somebody would, but not me. Let’s just say it’s in my best interest for institutions to keep buying the Linnets.”

She waved her hand. The people around them slowly began to return to motion. They creaked like mechanical dolls, following the steps they had begun before the conversation. Then they were back to normal. None of them seemed like they’d noticed the lost time.

“If it were up to me, I’d check those Amp Rebellion kids. You know how they are.” Alicia smiled visibly this time, then pointedly turned her gaze back to her laptop.

Pangilinan left. Someone had taped up the hole on the bench outside.

Her next stop was the factory.

It stood just outside the city limits. On the outside, it looked like any other industrial building: grey and square.

Inside, she was met by a gray-haired man in a blue jumpsuit. “Mr. Roxas told us you’d be coming.”

He walked her through the production process. Most of the manufacturing was done overseas. The foreign factories engineered it in two halves; this factory put them together and added the locking mechanism.

Pangilinan wasn’t an engineer. Her goal here was to look over the workers: see who worked on what parts, then get their names

for further investigation. If she was lucky, her presence would spark someone into action.

She wasn't lucky. After an hour walking around, she hadn't found any signs of sabotage. She went to the end of the production line and picked up one of the collars. She fiddled with it, halfheartedly attempting to pull it apart. She imagined what it would be like to wear one – or worse, have one forced on her.

If she had to, how would she try to break it? The hinge seemed the weakest point: lots of places to put pressure there. Her strength was above average, but she couldn't break it.

She moved to the lock.

That part was metal, but a different kind than the rest of the collar. There was a small keyhole. It would take a –

It cracked.

It wasn't a complete crack, or even a large one. Just a hairline fracture, something a guard wouldn't notice. Only the person wear-

ing it would be able to tell, if they ran their fingertips across it.

She twisted it, making sure to use a motion that she'd be able to do if she were wearing it. The lock snapped open.

Well, there's your problem.

She found the man who'd welcomed her at the beginning and asked, "Why are the locks made of different materials than the rest of the collars?"

He shrugged. "Cheaper, probably."

"I see." At least it was an answer.

Tomorrow she'd call the client and update him. She knew where he would go from here.

Sabotage meant a saboteur, someone or someones who had moral problems with the devices. Moral stances were so disruptive.

Money, though. People like him understood money. He understood cost-cutting measures. He would take his knowledge to the suppliers, and they would understand that

they had to pay him a little extra to ensure they had the city's future business.

As she walked back to her car, she pulled out her phone and looked up the factory's business registration. It was owned by a company she recognized – part of Alicia's empire.

Yeah, this would come up in their next fight.

Cladosporium

by Isak Laestander

Where the forests of green and black meet, there grew little hatted-feet the kinds of which she had never found anywhere else: Not by the glittering gray beaches, where they all headed when the air grew fierce and took to biting; not in the viscous light where the world rose suddenly, to meet the sky; not beneath the shade of the widest spruce trees could you find the strange kinds of hatted-feet that grew here. Beneath the sprawling, dense canopy of the green forest she had come to know caps, gills and feet of many colours. But

here, where the trees of the green forest (cracked and brown, full of microscopic life and with their prickly blankets drawn close) met the trees of the black forest (smooth and free from imperfections, polished as the day they shot through the soil) the familiar was nowhere to be found. Along a subtle depression in the moss-green carpet which her eyes could not see but her feet could feel, these strange hatted-feet grew. This is partly why she returned here, time and time again. She crept along it as if the hatted-feet would rip their stems from the ground and flee, were she to frighten them.

She carried with her a sort of tight-knitted net. Originally, it had been a pile of sticks retrieved from the green forest. They had been convinced to assume a new shape by the crooked hands of the Eldest. She was very old, and knew the world better than any of them. Through her, furrows and wrinkles ran in mystical patterns most likely carved by the

God itself. The Eldest was the only one who could communicate with the God – in secret dances and guttural utterances that no one else seemed capable of imitating, doomed to be lost with her when she eventually left (for neither the Eldest nor the others could speak and thus communicate, as we understand it).

In that way, this world is not a world but many worlds, separated from its mirror images through the mind that perceives it. She who now stood upon the line that separated the forests, branch-net full of hatted-feet, believed that the God was expressed in every aspect of the world – the God had lit the burning pyre of the sky and planted the forests. The God made the waves lap at the shores, convinced the winds to blow, and at times shook the ground with great emphasis.

In all this conviction, she was alone. If the Eldest herself even knew of the existence of the God is, through this woman's eyes, impossible to know. She bent over and broke

off some fan-shaped hatted-feet, yellow as snails, as close to the ground as she could.

The first find that made her innermost beat quicker than usual was a splendid, white thing. Its stem was thin and tall – it reached so high that she could almost bite it without bending over – and the underside of its hat revealed rows of brilliant, violet gills. She left it for some other time, for it could not possibly fit in the Eldest's branch-net. In the borderlands between the forests, all was quiet. She looked over her shoulder, back towards the shaded path. She should return, she really should...

With a grin she set off between the trunks, blackened as if they had burned but still cold to the touch.

She was somewhat familiar with the run-up to the black forest. The trunks of the trees were planted seemingly at random and at varying angles, surely due to some unknowable motive of the God. Between

them there was no trace of the rolling mat that covered the ground of every other forest she had ever walked – the ground here was hard. Dusty, gray and full of gravel that had cut her feet when she was young, the first time she had taken a few cautious steps onto it. Since then she had visited many other of the God's creations, and toughened the skin that bound her to the earth. Now, the gravel was no more a distraction than the small, rolling flies that seemed to thrive here, that always buzzed in curious clouds around her. She had always wondered how this place was like from far above, where the God must live, and had come to the conclusion that it must seem a patch of brambles, uninviting for unfathomable feet. The nut she was yet to crack was what happened beyond the horizon, in the area she imagined she could see if she squinted hard enough. At some point, the black tree-thorns stopped, and the sky was once again unbroken. She had never dared

venture that far. She spotted a familiar face – a delicious, green and yellow hatted-foot that always looked as though it had been stepped on – and brought it with her.

A handful of other acquaintances had joined the company in her carrying net – a gray one, a red one (which the Eldest particularly seemed to enjoy) and another green and yellow flat one – when she suddenly stopped. The sky was falling.

Fragments of cloud tumbled from above, white sheets that delivered pricks of cold when they met her skin and disappeared. The pain was nothing more than an effect of the mutual annihilation, she thought, the natural reaction when something of the skies and something of the earth meet. With some reluctance, she called off the hunt for hatted-feet. The winds howled as the world released a stale, held breath.

Just beyond a blackened tree, half hidden behind the ashen trunk, stood a figure of

some sort. It was gigantic, at least twice her height, hunched over as she was. Against the surrounding landscape it was striking; that she hadn't noticed it, a brilliant white upon a background of gray and black, must have been her own fault. Her thoughts had been ensnared by the underbrush, trailing among the hatted-feet.

It swayed, slowly and purposefully, in a sort of walk that suited only an animal with no predators to look down upon it. Seemingly unbothered with the many miracles of the world, it dragged itself towards the horizon. White, white in its entirety except for the sharpened fingertips: Black, as if hardened in the heart of flame.

She followed. Very, very carefully, only the pads of the feet touching the ground. She could feel it now, the buzzing of the world that awakened within her when something extraordinary happened – everywhere unidentifiable energies flowed. Her vision

became clear, her thoughts a cutting edge.

Her muscles fought against their bridles; they wanted to take off running towards the figure, as if there was nothing else... But what would she do when she arrived? No, be calm. Sneak, silently, as you have always done.

The skin that covered the giant was apart from all the skin she knew. Not fur, nor pores, nor scales or even a shell... The closest she could get was the skin of the jumpcroaking swampsoakers, that quickly dried if you separated them from their ponds – but the comparison was not close enough. The giant's skin shone even under the thickening cloud cover. It was creased, unwieldy, and seemed exceedingly non-compliant. She thought hard and long about a fitting word for this, and at last looked up again only to realize the figure had disappeared. That, and that she had reached the edge of the black forest. What came thereafter she had not experienced enough to fully understand.

Lines, impossibly straight, cut across the sunken plateau. From the edge she stood upon, only a couple of body-lengths above it all, she saw a grid of massive, black rocks, their every side as long as any other and their edges surely sharp enough to cut her flesh, were she to creep too close. A feeling that this place was not for her washed by, far above her. Perhaps this was the home of the God, the place it had secured for itself, shaped in this terrifying, inhospitable way only because it was comfortable and homely through all-seeing, all-knowing eyes? Without another doubt she slid down the dusty slope and stood to stare along the space between the stones, a clean-swept street to the edge of the world.

Moments like this one, just before the arrival of a great cloudburst, it felt as if though the white that fell from the sky was not clouds come to the ground but burned-out membranes of ash – like those that resulted from leaves, thrown into fire for the sake of

smoke; like those that far, far before her time would have led one's thoughts to the strange ghost that a newspaper leaves behind, when the ink, images and text have all become soot and departed from this physical realm. The words that were her rightful, unclaimed inheritance, would (had she been able to use them) presumably have tried to convey something similar. Slowly the paper dome that was the sky turned to ash, and what remained after the great pyre's pilgrimage towards the horizon fell upon her, all its heat consumed by the fire, colder than even the most malicious wind. That being said, the winds did not spare her. The trenches formed by the great, black cubes seemed to be exceptional breeding grounds for a seemingly unending lineage of ghostly, frozen gusts that shoved her around as they pleased, and she pressed herself against the black stone until her shoulders throbbed. In vain. There was nowhere the icy winds would not reach.

Which way, little girl? Back, into the black forest and – at last – its green counterpart? Or deeper, further into the unknowable, into the land of the shining giants?

She pressed on, of course, until the constant assault of the wind made her very bones shiver and at last forced her to sink into herself. As such, she did not notice that she had stumbled upon the figure again, before it had heard and turned to face her.

It stood in the center of one of the dizzying crossroads between four of the black rocks, and she fell to her knees just in front of it. Along the corners of the stones there grew leafless bushes – not more than branches – that bowed, heavy with piles of white berries. The creature dragged its hand over one of these, and the berries all turned to crystal dust. It was the clouds, the fallen clouds. Now she herself had sunk into them, her hands and shins buried in the cold. The edges of her world had begun to freeze, its colours growing

grayer by the second. The creature turned, and she saw the last aspect of its being. Had she known, she would have turned back long ago: In the smooth, white layer that covered the being there was a hole, at the front of its head. In this hole something entirely different lived. Inside a cavernous mouth with transparent teeth that cut the light into every colour she knew something gray squirmed, something that flaked and whined. It reminded her of the terrible crawlers she sometimes would find when she cracked the shimmering shell of some snail. This thing, whatever it was, must be just that: Something that lives by someone else, *in* someone else. Its eyes burned, cracked with red.

“GIRL! I-GAM THOUGHT I-GAM HAD SEEN SOMETHING CREEP ABOUT SECTOR MTSCHETA! ARE YOU ALL THAT REMAINS OF THOSE WE-GAM ONCE WERE, TOGETHER? GAMMA’S EYES REST GENTLY UPON ME-GAM, BUT YOU MUST HAVE LOST HIS FAVOUR!”

The whining unfolded to become something else – and what lived in the white shell roared until her ears ached. Everything so carefully articulated yet spat with such rage, a few sounds repeated and others alone, born in the moment... This was not charades, mumbling and pointing, drivel forced onto the creature through genetics – this was intentional, constructed, and unintelligible. A part of her, neglected and shrunk, froze to ice and sang as ice does when a supreme pressure threatens to crack it, when the fire in the sky is well fed and the waters below it run.

“PRAISE GAMMA, GIRL! YOU DO NOT SEEM TO BE HUMAN, NOR HOLY, BUT THE HAND OF GAMMA LEADS NO ONE ASTRAY! THIS PLACE WAS ONCE MEANT TO BE SHUNNED, TO BE LEFT ALONE FOR EVER, BUT WITH GAMMA’S HELP ALL LIVES FIND A WAY! BEHOLD!”

It stepped aside, and a green and yellow hatted-foot turned to mush beneath its foot.

She hissed.

“ALL THIS LIFE, IN THE SPLENDID HEAT OF GAMMA’S BOSOM! WHAT YOU HAVE FOUND IS THE HOLY LAND! YOU-GAM! YOU-GAM AS I-GAM, WE-GAM TOGETHER! SOME HUMAN, SOME OF GAMMA’S FLESH AND BLOOD MUST STILL REMAIN WITHIN YOU-GAM, NO? YOU-GAM OR SIMPLY YOU? STAND, GIRL! STAND UPON THE LEGS GAMMA GAVE YOU AND TAKE YOUR PLACE IN THE WORLD, AMONG HIS CHOSEN CHILDREN!”

Something rocked, and it brought up berries from her mouth. It came from a place deep down that she did not know, and the rocking was unlike anything she had ever felt. With it came a taste of earth, of glimmering rock. It coated her innermost and found its way up behind her eyes, into a cavern it quickly filled. Her head fell forwards, heavy with Gamma’s gift. Not a sound she had heard meant the slightest thing to her. Language was something someone else had left behind,

long before she could have had anything to say about it. She imagined turning, running, and that the broken monster did not care enough to follow.

“DO NOT RUN, GIRL!”

The white creature took a few, shambling steps after her, painful steps on legs fused and unbendable. Why did she flee? This was their purpose, their ultimate purpose, and she willingly chose failure. All these years, for... What?

“RETURN, GIRL! GAMMA WILL EMBRACE YOU-GAM! EMBRACE ME-GAM! LIKE HE... LIKE HE EMBRACED ME-GAM!”

The girl flees, her consciousness dragged beneath the surface, and the white creature falls to its knees. When its head hits the ground the last of the glass breaks. Once, for some reason, it served to shut out the world that the creature loves so. The shards puncture its eyes and pushes it out into the dark river, to the buzzing banks that belong to

Gamma.

When the girl’s vision returns to her it does so as if she had just blinked. Her hearing comes just thereafter, but all she can hear is a whistling, bobbing noise, the waves of the world around her and her own beating life woven into a melody that makes her want to topple over. She has been running, and her legs and stomach are united by their cramps. She has fallen to her knees somewhere beyond the black, equilateral rocks – she is back in the black forest, where the memory of the white creature and its rabbling can no longer rule absolute over her head and the contents thereof. Her hands rest upon a rolling carpet of black. It stretches far – and it grows over the trunks of the black trees, over rocks, down hills and away, away to the place where the white creature stood. It lives, and somehow she knows. It lives. She screams, and flees yet again.

The girl will return to the little group with

which she shares her silent life. Her eyes will be wide, spotted with red, madly fluttering as if the world is no longer to be trusted, and the basket which she had filled with mushrooms will be nowhere to be found. She will shake, her legs will falter, and she will fall to the ground again and again. A few drops of a thick, red liquid will escape her nostrils. What she has seen is the shape of the God; a carpet of black, great in size, billowing and flowering at points with white depressions, through innocent eyes a door to hell (a place this girl does not know but now has a notion of: It stings). Something within her has snapped as springtime ice does, and her being is consuming itself for energy with which it hopes to explain all that she has seen, all she has understood, the image of the cogs that keeps the world turning. She will scream, deafeningly loud; she will scream:

"GAMMA! GAMMA! GAMMA EMBRACES!"

These words are shared by another, miles

and miles away. This one is bleeding out between two colossal black monoliths, and the objective of its life remains unfulfilled in every way – but Gamma will be understanding, of that there is no doubt.

Further yet, at the black zone's centre, there is a place. Once it was the middle of an area that should have been shunned and left uninhabited; it was a message, and a part of a system of messages; it was no place of honor, where no highly esteemed dead rested, where something dangerous and hideous had been

locked up; a prison for a bodily danger, an energy, an unending presence that would far outlive those that came to know it long ago. Now it is not more than rubble.

The evening had not been proceeding at all as Peter expected. The river current bubbled smoothly past, the secondary sun Richardson cast a romantic tint across the sky, the left knee of his finest outfit grew damp in the grass, and she was laughing at him. It was a

rich teasing laugh, but still, a laugh. He took her outstretched palm with the hand not holding his grandmother's ring and stood tall, all five foot ten of him, and brushed a dangling dark strand of hair away.

"That's better," Misa said. "You looked so uncomfortable."

What was going on? This wasn't how it turned out in the old Earth histories. "You know I'm proposing, right? That's how they used to do it. I read my grandmother's journals."

She laughed again and squeezed his hand. "I'm sure they did. I know I've been 18 for six whole weeks. I also know you spoke to my father in the spring and my brother, and you had my mom resize this." She gently took the ring and placed it on her left hand and chastely brushed his lips. Electricity ran through his veins. "What took you so long?"

"Well, um..."

"That's what I thought," she said as she pulled him close, stood on her tiptoes and this time kissed him deeply for a full minute. Peter's head swam as she led him away, her freckled smile dancing in the azure light.

"We'll go register with the Council tomorrow. Fill out some forms, get married on Sunday. It's about time."

#

"I thought this was just a formality," Peter said, automatically trying and failing to brush away the wild strands that never behaved. Misa sat on his right, holding his right hand tenderly. She gave it an affectionate squeeze.

From the other end of the conference table sculpted lovingly from a dead lifeboat main console, a short, red-haired young woman spoke with an authority that belied her age. She was Lillian Frankiewicz, and she was not much older than Peter and Misa, but she led the 417 residents of Renatus, mankind's

last outpost. "It was, but the process has evolved. We have to look to the long-term genetic strength of the colony. The search will only take ten minutes. I'm sure we'll all be happy with the result. Captain Carrahan, please proceed."

There were eight in the room, the applicants - Peter Kim, 19 and Misa Takahashi, 18, the civilian leadership, young to middle-aged, Lillian Frankiewicz, Tatum Selinger, and Toby Tookmanian, the military leadership, both in their seventies - Admiral Mikhail Jacobsen and Rear Admiral Sol Frankiewicz, and also Captain Alberto Carrahan, the colony geneticist who was not much younger. Peter hadn't previously needed to pay much attention to the sharp cultural differences highlighting the two generations that called Renatus home, those who formed the crew of the Dempsey, the Earth Federation's last warship which escaped across the galaxy 38 years ago, and his peers, who were born in idyllic Renatus on Dixonia,

named for his revered grandfather. He did so now that his elderly grandmother no longer sat in the most important seat, having passed on in while he viewed helplessly the previous summer. His studies taught him change in leadership inevitably meant change in policy, even for no good reason beyond new management's eternal need to fix what wasn't broken just to make their own mark. It was still maddening, and it meant he had to sit contently while a geneticist ran a study of Misa and him before their nuptials would be approved.

Misa made small talk with Tatum on her right, whose young son she often babysat while Peter stared off into space. He made brief eye contact with the admiral, who shrugged. "Hmmm," the lanky and still spry geneticist said, as he rose from one of the colony's few remaining computer consoles and returned to the table. "I have all the information here." He sat and pushed his bifocal

rims to the tip of his nose, then looked at Lillian until she nodded her approval.

The geneticist looked a little ashamed, but Peter had no idea why. "I don't think you're going to like my news, but we look at the records of the applicants' grandparents." He frowned and took a deep breath and a quick drink from his canteen. "Here's the problem young man. You are 84% East Asian while she is 97%. It's too extreme. I'll have to recommend against this marriage for the good of the colony."

Peter couldn't believe it. He spoke, somewhat sarcastically. "And you're certain about this? Where did you get your information? Most of them aren't around to test, and if you were willing to commit resources on testing you could have just tested the two of us." He gestured at Misa.

Carrahan quickly glanced around the table. "I assure you, all our data is highly reputable. It comes from Earth medical records, and me-

ticulously researched genealogies from the colonies in the few cases where full medical records are unavailable."

Rage flooded through Peter. He rose to let them have a piece of his mind, when a thin voice quietly said, "But why does it matter?" He looked at Misa, tried to draw from her calm and sat back down.

Through the window on the right side Peter observed a darkening sky. Yes, the weather program, one of the few applications the colony let run 24/7 had predicted a thunderstorm, but that didn't detract from the symbolism. Carrahan placed his glasses on the desk in front of him and took in a deep breath. "As far as we know, we're all what's left of humanity, just 417 of us descended from the original 220 colonists. It's not a diverse genetic stock, and if we allow people to marry others with similar ancestries we're risking genetic drift. You see an allele is an instance of a gene in your DNA. You have two copies, one

on each chromosome, but we don't have all the copies of each gene available to us anymore. It's the founder effect. We only have what little we brought, and reinforcing it leads to fixation. There will be fewer and fewer copies. We'll be less adaptable, less able to fight illness, and ultimately prone to species failure."

"And you're just figuring this out now?" Peter asked. The work of establishing a new human colony on a pristine world was hard and time-consuming, but in the beginning all 22 surviving lifeboats were available to provide power and computational resources. The foundational work had been accomplished long before his birth. They'd had plenty of time to ruminate over what would be best for the colony population over the years.

Carrahan started to speak, but Lillian stuck her right hand out. "No, Peter. This is not new. The geneticists have raised this point regularly over the colony history. Misa, your grand-

mother is well aware of it, but Peter, your grandmother refused to allow the policy to be implemented."

"My grandmother specifically told me to marry Misa right before she died!"

"Wait, she did? You never told me that. Peter—" Misa rubbed his shoulder lightly.

"Are you just following her orders?" She looked a little hurt. He hadn't intentionally kept it a secret. It's just he never talked about when he'd been forced to leave his injured grandmother behind a wildfire flare-up at her direction to carry an unconscious Misa to safety. It was already a year ago, and he still did his best to avoid thinking too deeply about the pain and guilt of the scenario.

He glared at the colony leader then hugged Misa tightly. "She didn't need to, and she knew that."

"Is there anything...is there anything you can do?" she asked him. They resided in their own world now, willfully ignoring anyone else

present. If they were alone, they could find a solution. They'd always been able to before.

"I'll think of something." Now he turned to the Council and acknowledged their presence. The expressions on their faces ranged from compassion to dispassion. He'd seen enough. "This isn't over," he boomed, and led Misa from the building.

#

At least Admiral Jacobsen had seemed to be on his side. Peter's aid in fighting the wildfires without modern technology earned the man's respect, but he'd always had concern for the Dixon family's welfare. After all, Peter's grandfather had chosen him to be his final first officer during the war and had entrusted him to lead the flotilla of lifeboats through the wormhole Klypin Point near the Eridani colony to safety, sacrificing himself and the combat crew to ensure their successful escape. Now Peter sat in the admiral's office leaning across the desk from him. Jacobsen's wall solely

hosted two pictures behind the desk, Captain Dixon and his own daughter Rachel, just a few years older than Peter. Jacobsen often struggled with social interactions and now looked uncomfortable. "Can I offer you an apple?" he asked.

"No, thanks," Peter said, then sighed, sat back in his wooden chair and groaned.

"This is not a military issue, you understand." Jacobsen's tone was helpless. He wouldn't get involved. "I can advise, but I have no power in these matters. The Takahashis, I know you're close to them, not just Misa."

Everyone knew they were the closest he had to a family since losing both parents as a child and recently his grandmother. "I've eaten dinner with them almost every night in the past year since—"

Jacobsen nodded kindly. "We need not speak of it. But look, Shelby, she's 23, and she's still single, and she does not share their genetics." Jacobsen was referring to Shelby

Diggins, who had been unofficially adopted by the Takhashis when she was orphaned as a teenager. Peter didn't know her ancestry, but her dark skin and broad nose suggested a far different background. "Why don't you marry her? Rachel speaks fondly of her. She'd likely prove a good wife, and bear strong children who would be certain to ascend to important positions, much like you will, when you're ready. As I've told you, we have a rapidly aging officer corps."

It seemed an old-fashioned view of marriage that hadn't been prominent in centuries. He hadn't expected this attitude, but he wasn't offended. He knew the admiral meant the best for him. Shelby had always been kind to him and aided his studies greatly. She worked hard, and he was sure she'd have a wonderful life and make some man very happy, if she was allowed to make her own damn choice, but Peter wasn't going to settle and marry a friend to satisfy everyone else. "I'll marry

someone I want, or I won't marry at all. You. You married the only single Jewish woman and got away with it. Certainly you understand it shouldn't matter."

Jacobsen nodded gravely. "Believe me, there was a discussion at the time, but the politics were different. We shared an Ashkenazi background, but it wasn't necessary. I looked for someone of my faith that I could speak Russian with. But really, boy, you should not use what happened in my marriage as any kind of model."

Peter pointed at the wall, at Rebecca, her auburn hair very different from her father's once dark brown locks, but she shared his small black eyes and his wide mouth. "Would you want your daughter to be limited in her options?"

Jacobsen grumbled. "I don't care about the genetics of her husband, just his faith. Peter, I told you. I have no power in this. If your grandmother was still here—"

"You never got along."

"That doesn't mean I didn't respect her. You've got a good head on your shoulders, Peter Kim, but you need to learn the world is never as simple as you want it to be. We lost your grandmother. Even though we had a personality conflict, I understood her. She had a lifetime of experiences I shared, and now I have to answer to a twenty-eight-year-old woman who sees the world very differently. But why wouldn't she? She's studied our history as you have, but she's lived her entire life within several square miles on one planet on the other side of the galaxy from our home world, in idyllic, perfect safety. The power I have now? It might not last much longer. I'm sure you're aware there's a movement to disband the military entirely. We're more of a reserve than active service, but they think this is Eden and will last forever."

"Couldn't it?" The galaxy was an incomprehensibly large place, even for species who

could exceed the light barrier, and they weren't broadcasting anything that would go beyond the horizon and signal their presence.

The Vena might never find them.

"Not forever. Never forever. Maybe if we're lucky a long time. Maybe much shorter than that. We're all that remains of humanity, and we can't afford to let down our guard. Because if we do, and we're under attack two, three generations down the line, the mindset, the discipline, the preparation for an effective defense is not something you can construct out of thin air. I worry about all of your generation, and the problem will hit soon enough.

Yesterday I studied the population report.

34% of the colony is 60 or older. 58% is 38 or younger. We can't extend life like in the past.

Another ten years, maybe fifteen, things are going to change, hard. There have to be young leaders in place who understand. You should be one of them."

Peter had some sympathy, but his concern was more urgent, and he was tired of arguing about his future. All he wanted was to raise a family with Misa and work their farm. Now he was hungry and motioned at the apple. When the admiral nodded he grabbed it and took a big satisfying bite. He knew it wasn't really an apple, the way someone raised on Earth would understand it, but Grandma explained it was as close as he'd ever get. "All right, she doesn't understand. But she's married to your second-in-command, who does. Can't you order him to get her to overlook the recommendation and let this marriage take place?"

Why was he chuckling? "Peter, boy. I can see you have a lot to learn regarding marriage. If you don't want Shelby, you have time. You're only 19. Your feelings will change. They always do. I don't recommend it, but I waited until 41 to marry."

Peter realized this was going nowhere, and twilight was ending. Time to go home. He

stood and shook the admiral's hand. "Thank you for seeing me, Admiral Jacobsen, but I'm far too frustrated by this travesty to have any idea what to do. I do hear you, about everything." He picked his bicycle up from the grass outside the building and raced home brooding over the day's events. When he stored it in the garage his body started over to the Takahashi farm like almost every night, but suddenly he turned around. He felt too embarrassed, as if he had let Misa down, let all of them down. In the kitchen he grabbed a loaf of two-day old bread and three bottles of beer he'd received from the Liskai's latest brew, then sat cross-legged in his bed feeling sorry for himself. In the middle of the night he woke, dehydrated. He climbed out of his bed to treat his thirst when he noticed Misa had made herself a pallet under his work desk. She must have been worried. He sighed, lowered himself to his knees and kissed her forehead, then took a large gulp of water from his can-

teen and returned to bed, where he lay not sleeping one bit until a half hour before sunrise.

#

“Peter, would you get up? It’s already 11:00. We all helped with the morning chores, but this is enough!” Peter tried to ignore the iguana he assumed was dancing on his brain. Slowly he lifted his head, opened his eyes, closed them again briefly, then attempted to focus. It looked like Misa sitting in a chair in front of him, with her mother standing in the doorway, bearing a wry expression, but no iguana in sight.

“Good morning Mrs. Takahashi,” he mumbled, trying to smile. No, it wasn’t an iguana. He wasn’t sure what it was, but he wished it would show some basic pity and climb off to feed itself. His father had carefully cultivated and planted a variety of fruit-bearing trees which provided enough roughage for the sur-

rounding several farms. He could certainly spare some.

Misa picked up the empty bottles and handed them to her mother, who shook her head and headed toward the recycling unit.

“Well, you’re alive. That’s good. Do you think you could make it over to our place? The whole family is gathered.”

“Yeah, hold on.” He knocked the pile of family diaries and logs from the foot of his bed. His grandmother had the sense to make hard copies years ago. Initially he’d retrieved them to look for old family traditions he could incorporate into their wedding. Right. Last night they’d served a different purpose; he medicated his loneliness by immersing himself into the lives of his ancestors. The records covered over a thousand years, and now the result of all those souls was one moody, bitter, nineteen-year-old destined to be the final note in that orchestral piece.

There was a work shirt merely a few feet away to the left of his bed. He leaned over, groaned, grabbed it, and inched it over his head, grumbling the whole time. Slowly he made his way to his desk chair, managed a decent position, and focused on her face, each freckle vibrating with vitality. She wasn't mad, but she wanted something. Oh, yeah. "Why do you all want me? I'm not in the family. Admiral Jacobsen thinks I should marry Shelby. Can you imagine?"

"No," she said firmly. "What a silly idea. Get up." She took his arm and pulled. Out of kindness he didn't make her work too hard. "We're going to fight this."

Oh, well if it was that easy. Except. "How?" "Obāchan and Ojīchan will think of something."

#

So that was how he found himself in the Takahashi dining room, surrounded by Misa and ten of her relatives - three grandparents,

two parents, three brothers, and two sisters. "Take a seat, Peter." There stood one empty, wicker chair, weaved by Mr. Takahashi himself years ago, part of a set which now encircled the family's table also carved by Mr. Takahashi from the local fauna in his youth. "Yuna, could you?" Misa's younger sister, still in pigtails, jumped up to enter the kitchen, returning with a tray holding a large cup of water and some mochi, which she placed carefully in front of him grinning as he bounced to her seat. He took a few bites greedily, but really, he needed the water. "Rough night, huh, Peter?"

"My guy," said Yuto, the oldest of Misa's three brothers, tapping him slightly on his left shoulder with his fist and laughing. Misa sat demurely to his right.

"Yes, Mr. Takahashi. I'm sorry. I just felt so helpless." He really didn't know what to say. Misa's mother would have already reported on the conditions she witnessed, but they

knew him already, warts and all. He'd known them all his life, ever since his father and Misa's grandmother, the other colony botanist had decided to start adjacent farms on the colony outskirts as a model for the community.

The elderly bald man nodded kindly. "We all feel helpless from time to time. Well, it's over. It's time to fight. You're both still Earth citizens. You do have rights. The charter we signed 38 years ago doesn't supersede them." He pulled out a dog-eared copy of the Earth Constitution he had printed out once community computer use began facing restrictions in a long-term preservation effort. He flipped pages violently to the back half of the tome. "See here," he said, holding up the text and jabbing a bony thumb in the middle of the page on the right. "The Bill of Rights. Right number five. No adult Earth citizen may be prohibited without just cause from exercising basic human rights, including but not limited

to the right to live, to work, to assembly, to worship, to speak, and to marry so long as those rights do not harm other citizens."

"Ojīchan?" Misa said meekly.

"Well, speak, girl. This concerns you." He waved his hand at her.

Misa straightened up and cleared her throat daintily. "He said we would harm the community's future. Do you believe him?"

"Ha! Purely speculative. Harm citizens that don't even exist? Children of yours would strengthen the community, not weaken it.

Well, Yui, what do you say?" Peter and the rest of the family turned to the older woman with salt-and-pepper hair on his left, a look of clear discomfort across her countenance. This was Misa's other grandmother, the colony's chief medical officer. She lived alone and worked in the center of town but had taken an early lunch to join them.

"Alberto's right," she said, and a hush fell over the room. Outside Peter heard a tractor

from the neighbors on the other side. It felt good that life could continue as normal for some lucky folks. Hino Takahshi started to rise, but she waved him down. "He's right in the general case of course, and the colony charter does allow the relevant medical staff full authority on issues of their expertise, even when in conflict with existing laws. But you see, they talk about genetic drift, as if everyone is an easily definable statistic, and not an outlying individual. You can't define people by their demographics, and I will testify as such if they'll listen to me. Besides, if it really was an impending emergency, the romantic objections of Kristine Dixon," and she smiled at Peter, "should not have applied. It's not like we didn't know from day one the problems inherent in restarting the human race from 220 people, some of whom were already beyond fertility."

"They were afraid of her, as they should have been. Her husband was the one who de-

fied those idiots at Betelgeuse and saved us all."

"Sir?" Peter always observed a greater deal of formality around Misa's elders than he did with the others in the community. He'd never been sure if it was more fear or respect.

Mr. Takahashi frowned at him. "You can speak, too, boy."

"Can I claim that I should be allowed special dispensation for my family's history?"

"They won't care," Yui said, shaking her head gently. "Alberto finally found someone who would listen to him. The younger generation has started seizing the reins of power, knowledge without wisdom, and we've been too busy trying to survive to instruct them properly."

Mr. Takahashi frowned again. "I can't believe this. The rights of individuals held at the whims of a committee who claim they know what's best for everyone. Why can't we ever escape this?"

The family continued to argue through lunch. In the end they concluded they had no case to make other than how arbitrary it was starting the policy now after so many years. He knew it was hopeless, but felt his burden lightened by their concern, even if it was mostly for Misa.

#

That night he and Misa took a walk along the outer of the two square roads that boxed in the colony. Richardson was up, so the path was well-lit, but it didn't matter. Peter had spent almost all of his 19 years confined inside a few square miles. By now he knew them intimately including the forest of cyan-tinted trees, just now starting to flourish again after last year's wildfires. The night was silent as always. Birds flew on Renatus, but they didn't sing, and animals prowled, but they didn't howl.

"What if we said we wouldn't have kids?" Misa said suddenly, breaking the serenity.

"You're trying to use logic to fight authority. It'll never work. How dare you," he said, chuckling. "Besides, beyond the pressure they put on us all to be fruitful and multiply, could you live a life without kids?"

"It'd be so hard." Misa squeezed his hand and stepped back to face him. She was breath-taking backlit that way. They'd been best friends forever. Why had it taken him so long to realize it? "Shelby would be good to you," she said.

Peter couldn't believe it. "This again? Live my life with someone else a tenth of a mile away from you? I'd go crazy. Besides, why do you think she'd even have me?"

She laughed, a slow, kind laugh. She hadn't been serious. "I could talk you up. Of course, we'd have to clean you up a bit." She licked her right index finger to clean a lunch artefact from his right cheek. Then she stepped back, admiring her work. "You're almost passable."

“Almost?” he said, wrapping his arm around her tiny waist before she could flee. “Almost?” He leaned in and kissed her forcefully, probably too forcefully, but he felt an unnatural urgency. Their time was running out. “We could elope. That’s what couples did in the old days when they faced disapproval. My grandparents eloped on Eridani.”

“Eridani had four cities. We have one. Where would we go? Peter, that is so irresponsible. We’re needed here. Come back to the house with me. You can stay with Yuto, play cards, and tell each other your ridiculous stories.”

He took her hand and caressed it, marveling at how small it looked in his. “You know how I relax.”

She smiled, demurely, and brushed two strands of hair out of his eyes. “Old movies or old books. Tell me about it tomorrow.”

Peter nodded, kissed her hand, then let go. “I can’t believe anyone cares where our great-

great-great-grandparents came from. Don’t give up. I’ll find a way.”

#

Peter never knew his father’s parents. They’d both died on Earth when the Vena made the surface uninhabitable, three years before the war was lost and the free remnants of humanity scurried with their tails between their legs to found the Renatus colony. When he was young his father would tell him about how they met. Grandpa Min-Jun had wrangled the chance to present at a conference on the Eridani colony where his parents had immigrated when a mysterious young student asked him a question in the middle of the talk. Her implications flustered him, but he finished, and the inspiration from that day fueled his career for the next twenty years. Just a few days later he boarded the ship for home with a new wife.

His grandmother’s story sat on top of the pile. He’d never heard their wedding story and

hoped she covered it. From what he knew about their personalities, she was his best bet. If she was on Eridani, and so was her family and his parents, why did he take her back to Earth?

He skimmed the first hundred fifty pages or so until he found the right time frame. Much of it was about piano playing. Peter was far too tone-deaf to find talk of musicianship interesting. She wrote eloquently about their brief courtship, but then he learned their elopement hadn't been on the colony at all.

"Min-Jun says we need to go back to Earth where they'll accept us," his grandmother wrote. "He says his sister will love me, and none of them will care I'm only culturally Korean." What did that mean, only culturally? Dr. Carrahan said she was 100% Korean.

He returned to the start of her journal, and read each entry in painstaking detail. "June 28, 2899." She would have been 11. "I asked my parents why I didn't look like them. Papa

started crying and walked away. Mama sat me down. She told me they couldn't have children, so when they found me as a newborn baby, they loved me the second they picked me up. When they couldn't find my real mother they decided to pretend she'd given birth to me. She asked if I was mad at them. They're so silly sometimes."

Twenty minutes later, he found another entry. "September 15, 2902. Mama thinks I'm probably Native American, but she didn't know. She wouldn't let the doctors run any tests on me which would show I wasn't hers." They couldn't have gotten away with that on data-intensive Earth, but he guessed the colonies were more lax. Why had he never heard of this?

Peter undressed for bed, and brushed his teeth for the full four minutes the dentist recommended for the first time in, well, a long time. When he laid down, he smiled, and in the quiet soon feel deeply asleep.

#

Peter and Misa hid outside the community center until he knew the council had all arrived following their lunch. They waited five long minutes, then burst in, hand-in-hand.

The full council was seated, along with Grandma Yui. Lillian Frankiewicz looked up at their intrusion, frowning. "Mr. Kim, Ms. Takahashi, you have our answer. We must look out for everyone's welfare."

"Test me," he said, trying to combine causal confidence with assertiveness.

"What?"

"Give me a genetic test. Your science. It's wrong." He looked over at the admiral, pleading non-verbally.

"You know very well our medical supplies are dwindling and irreplaceable. They cannot be wasted on teenage angst. You must trust the science."

There was a pause, a few seconds that seemed like hours. "Lillian," the Admiral said.

"I agree this seems impulsive and futile, but he deserves a little leeway from what his family has meant to our colony. Test the boy." Jacobsen turned to him and shrugged his shoulder. "I hope you know what you're doing, boy. You're unlikely to be given the benefit of the doubt again."

Peter nodded at him gratefully. "I understand, and thank you."

Lillian sighed loudly and aggressively.

"Fine. Yui, could you please ask Alberto to test the boy?"

So it was an hour later neither young person was surprised when Dr. Carrahan returned to the council chambers, with a sheepish look on his face. Peter and Misa followed him in from the antechamber where they had been asked to wait as the council deliberated other matters. They stood confidently by the door as he was recognized and asked to speak.

"It appears there's been an error in the boy's ancestry. He's only 59% East Asian. Their

marriage would fall in the low risk category.

We must approve.”

The next night Peter and his new bride rode their bikes, sleeping bags folded tightly in their packs. They rode to the glade in the forest where they had played as children, and made their bed.

When their minimalist camp was ready she lay on the bag and smiled a wide smile before looking concerned. “We got what we wanted, but just cause you found a loophole. What about other people? Who will stand up for them, for their freedom?”

Peter sat down awkwardly next to her and raised his eyebrows. He’d been denying it to himself all day, but he couldn’t continue.

“We’re going to have to get involved. Be the new adults. I’ll talk to the admiral tomorrow. Are you ready?”

She placed her hands on his head below his ears and drew him close. “Absolutely. Who’s better than us?”

Midsummer's Eve in the Artificial Reality

by Arvida Svenske

The time-space-continuum-country-dance-hoedown echoed through time and space, electric generic fireflies were swarming in their swamps, the band massaged their intergalactic string-band instruments with the tenderness of lumbermen and the colored lanterns were orbited by moths and mosquitos like little moons of Saturn. It provided just the right amount of light, filling the void of the suicide of the bloodred sun. Northern lights and lightning bolts in the distant hemisphere lured and lingered weary travellers, white mares were swaying to and fro in seductive and feverish tarantellas, the grass on the meadow had the perfect dew point where heat and cold mingled so that your very eye could spot the dew rising from the earth. The bonfires were aflame, the bumblebees provided lavish whisperings of honey and an opened mind could even hear

the quiet splashes of the sweetwater fishes in the insignificant river. A brook was rippling as if it had learnt to imitate heartbeats, it was a night of contrasts, a night of Bacchantes and of Dionysos, eternal like a kiss of light and air, a kiss of blissful serendipity to always be remembered.

It. Was. A. Night. Just. The. Way. I. Wanted. It.

Pronounced like that. Like in the billboard adverts of those electronic chips, you know? Hard to resist because they commercial kept coming whatever you were watching. Since the government also banned books, music and theatre (because what can beat your innermost fantasy) I was immediately caught by the offer and the currency (tiny bits of your soul) wasn't that expensive, I don't ever consider it a high price to pay in hindsight. Because it was transcendental in a way that no meditation ever could or can be. I got to escape the prison of the grey contours of office landscapes,

the blackened Tellus and it was as if none of it had ever happened: no nuclear war, no new World Government and none of the asphaltation which had killed all the plants and made us wear plastic masks just to breathe. In this world there were oxygen, scents and smells, grass and early summer winds, expectations and Midsummer's Eve. Even though (despite?) that it technically was just a slowly but deadly poison seeping into my brain cells.

The incantations of rain had worked as a spell, the wild drum-dances had gone quiet and now a song that at the same time inflamed hearts in a Zulu dance, brought nerves and sinew into an Irish jig'n'reel (dancing Kerry -sets until the morning), gave the cerebral cortex a bachata-whiplash and the legs were tapping clap-clap in absolute Calypso rhythm. All the dances in the world were in me, but at the same time it was a lonesome blues played on a four-stringed guitar in a rocking chair on a sun-kissed porch just outside of Memphis, an

early-morning raga in a temple in Northern India as the lights over Ganges are lit, the first few desperate strokes in Swedish folksong *Jag haver ingen kärare allt uppå denna jord* and all the sevdalinkas of Bosnia sung at the same time, Albanian and Kosovarian anthems of war, all the hymns whistled by shepherds and all the bardic poetry of Provence. It all gather inside of me, in the very people dancing and the musicians playing. It had been built up as an explosion but had taken the form of a growing conscience, spreading across the dark-blue sky, the grass growing wild and all the groves and bodies of water. It was all space. All the feelings existed at exactly the same time.

A. Night. Just. The. Way. I. Wanted. It.

Utter peace began to spread. The band had gone quiet and the last vibrant tones would forever exist inside my heart, filling it and emptying it, not confine but un-confine it, threaten to break it and spill the dissolution

of all illusions all over the place. Everybody stood spirited away, lingering at the ancient *place des Fêtes*, contemplating the ritual, honoring the remains of it. In silent wanderlust I went down to the forest lake and sat down by the water. It was one of those nights when the light clang on to the treetops sprinkling them with sheer angel's dust, and on a rock by the lake I relived the many lives I had lived before in this artificial world. It had nothing to do with the outer world, in which every day was a social Darwinian struggle for soul credits, where I constantly had to block out the memories of new crimes and things I had done to earn these credits. In this world everything had found its place, and it was all good. I felt it as strongly as any Biblical god would have.

This Midsummer's Eve was going to be full circle, rejuvenation, revelation, it would become my very own and I would share it with another person in bodily and spiritually lovemaking, we would make love beneath the stars and be

as One with the Universe above...

I've never gotten past that moment. I've always woken up exactly at the point, my body twitching like it does just before you go to sleep. Stiff and filled to the brim with The Drug my drained and doused brain wages an uneven fight against the poison, my soul credits ticks away like a digital clock and my fading being slaving for these memories, this repeated Midsummer's Eve, I die a little every day.

In live in the Grey, think only Grey, speak only Grey and I walk in the Grey mud with the few rare slabs of green that I receive only when I turn in my soul credits to the receptionist in the heavily guarded entrance and I am let into the critically blank-white clinic, where I am restricted like some pinguid Prometheus, wired to a monitor which connects me to the central computer and then injected with needles into my naked flesh... well, I'll spare you the details, I assume you are familiar with the procedure by now, aren't you?

I fall out of my chair, rake together my rags for clothes and a robot model Copper violently escorts me out (they know me well by now and would never let me out on my own, knowing I'd tear and claw and do anything to stay in the proximity of my elusive dream) and harshly throws me out into the Grey, out into the fumes and vehicles and the streamlined steely gutter where my and my fellow thousands and thousands of drug fiends like slaughtered animals bites, scratches, kicks, hits and even occasionally eats bits of one another. All this to lay our grim and filthy hands on some soul credits (our own quotas gone since ages) that will be sent right back into the system and in exchange we'll receive our dosage: a Midsummer's Eve in the artificial reality.

A. Night. Just. The. Way. We. Want. It.

THINKING CELLS

by Jack Huo

< What did you just say?!

I said, that we are being >
forgotten. Forgotten by the
Operating System.

< The Operating System? Don't
make me laugh. The OS sees
and records everything.

This is true. For the OS as >
we know it, anyway. That

< Ridiculous. The OS performs
computations. We provide

You said so yourself that, >
despite continually acceler-
ating in its expansion, the
OS is reaching its limit in
computational power and
thus, its intellect.

< Yeah, but only in the three
spatial dimensions. No mat-
ter how small we assemble
the circuitry, eventually,
it becomes so large that the
limiting factor in computa-
tion is the speed of light.

So it might do some good to >
relinquish some oversight;
reallocate the computational
power elsewhere.

< Even if that somehow didn't
cause some catastrophic er-
ror, it'd only marginally
delay the problem. No, there
are better ways.

You mentioned the fourth di- >
mension.

< Yup. My recent dialogues
have mostly been with fellow
physicists about this. The
OS seems to be interested in
this light of thought.

Indeed. Which is why I say >
we will be forgotten.

< How so?

I'll explain in a bit, but >
right now I need to know if
this is possible or not.

< Hm, think about constructing
a three-dimensional object

I would assume you need an >
infinite number of two-
dimensional sheets added to-
gether.

< Ah well, you are more so a
biologist, after all. No,
there is a shortest distance
that is meaningful, to the
macroscopic scale, anyway.
Any smaller than this and
quantum forces take over.
Likewise, there are other
shortest physical units that
are meaningful.

Only meaningful in the mac- >
roscopic scale? Certainly,
you can go smaller than this
"shortest length".

< Then you'd get a micro black
hole. At that scale any
amount of energy we put in
to measure the length would
collapse into singularity.

Is that a cause for concern? >

< Eh, maybe. If you're reck-
less.

So, there is a finite number >
of second dimension sheets
in three-dimensional space,
otherwise, it'd be destroyed
by black holes.

< Well, no. They're generated
all the time by the sheets
fluctuating a little bit.
Plus, how do you think worm-
holes and the accelerating
expansion of the universe
work, eh?

Hm, interesting. You can >
spare me the details. So,
black holes aside, you are
saying the fourth dimension
will be constructed similar-
ly and exhibit similar be-
haviors.

< I'm assuming you mean the
fourth *spatial* dimension and
are not referring to time.

Yes, you know what I mean. >

< Well, that's the idea. Stack or fold these sheets together in the third axis, and you get the space we inhabit now. Stack or fold 3D spaces together in the fourth axis, and...

Four-dimensional space. >

< Bingo. Although we'd need to fold our universe in a direction we can't really interact with. So, some *big* forces will be involved.

Black holes? >

< Probably something like that. Whatever the method, it'll require a lot of effort.

Say that the OS successfully >
determines a method and has
enough energy to do it. What
then?

< Then information would be able to go from one part of 3D space to another in a near instant via the fourth axis. To say that this would improve the OS's computational abilities would be a gross understatement. It would become something else entirely.

To what extent?

>

< What extent? Imagine the OS in its planet-spanning entirety. Us. The circuitry. All of it. Now take this and multiply it, oh I dunno, a decillion times or so, and that is the new power of the OS!

Is this not reason enough to >
say that we would be forgotten by the OS if this were to come true?

< Are you saying such a momentous improvement in the OS will somehow cause such a deterioration in memory?

> A "deterioration" of memory about our level of existence, maybe, but in return for something far greater.

< A higher plane of being?

> Quite literally.

< But how does that mean we'd be forgotten?

> I say forgotten, but I mean that knowing about our existence will no longer be necessary. It reminds me of the progenitors.

< How so?

> Well, the progenitors and all other carbon-based low-entropy entities, actually. We used to call them organisms.

< I'm following.

Then you would know that the >
simplest of these, cellular
organisms, began as thermo-
dynamically-driven self-
replicative molecular pro-
cesses on Planet 0. Over
countless generations, these
cells mutated and merged,
producing all of the species
on the planet, including
multicellular organisms. It
is quite remarkable, really.
The simple need for energy
consumption and heat dissi-
pation created the entire
world of planetary ecology.

Do you think these cells >
were ever aware of them-
selves? Conscious?

< Your point being?

< Uh, if they're just thermo-
dynamic processes like you
say, then likely not. I
don't think they're complex
enough for that.

Interesting. Then what about >
multicellular organisms? The
progenitors?

< As their descendants, we
clearly are self-aware.

Yes, conscious of the self. >
But what *makes up* the self
is a different matter.

< You mean the organs?

And the tissues and the >
cells. Why do you think no
species have ever been born
self-aware of the cells that
compose them? Or, at least,
no species that have suc-
cessfully passed their genes
down.

< I'd guess that evolutionary
pressures are hostile to
this level of self-
awareness. If such organisms
did exist, then they died
out or lost the trait over
time.

Which makes sense, right? If >
your consciousness is fore-
most concerned with surviv-
al, there is no advantage to
being intrinsically aware of
what your body does at a
cellular level. It would ac-
tually be a disadvantage to
use energy for that.

< We are the cells, and the OS
is the consciousness?

Yes. To give a rather crude >
analogy, cells under a mi-
croscope are like 2D, while
the progenitor scientists
observing them are 3D.

< Hmph. You're implying that
the OS will forget about our
existence, then somehow in
the future observe and
"discover" us again?

It will likely no longer be >
the "OS" as we know it now,
so it probably would not
make sense to keep calling
it that.

The laws of planetary ecology carry over to cosmic ecology, as well.

Indeed. Just as different

So, it is out of our control. However, being forgotten is the right thing. It should be commemorated.

But you are not aware of

You still do not understand.

< Whatever. It's still not clear why the OS *has* to go down this path. Why can't it continue to have the oversight it does now? It'll have the computational resources to do so, that's for sure.

< You refer to The Symbiosis?

< ... otherwise, we'd be consumed by the other low-entropy entities in the universe.

< Hah, commemorate? You say

< But, again, we know what the

< That's just what they do.

And all we do is live, >
think, reproduce, and talk
about the topics the OS
wants us to talk about. Once
the dialogue is over, our
discussion is sent elsewhere
for processing. Is this not
just what we do?

< A bit simplistic, but that
is.

So, this consciousness that >
we are a part of will be
something wholly different
to us. Think about this a
different way, is it possi-
ble for us to exist in the
fourth dimension?

< ...no. It'd be impossible for
us to inhabit 4D space. We
can move through the fourth
axis, but we would never be
four dimensional, not with-
out entirely restructuring
ourselves to not instantly
die under new laws of phys-
ics, anyway.

And all we do is live, >
think, reproduce, and talk
about the topics the OS
wants us to talk about. Once
the dialogue is over, our
discussion is sent elsewhere
for processing. Is this not
just what we do?

< A bit simplistic, but that
is.

So, this consciousness that >
we are a part of will be
something wholly different
to us. Think about this a
different way, is it possi-
ble for us to exist in the
fourth dimension?

< ...no. It'd be impossible for
us to inhabit 4D space. We
can move through the fourth
axis, but we would never be
four dimensional, not with-
out entirely restructuring
ourselves to not instantly
die under new laws of phys-
ics, anyway.

Then think about the difference in complexity the brain structures would be. Think about how many more synaptic connections could be made in a four-dimensional carbon-based entity. Now add on four-dimensional computation. What are we then?

< Ahaha. Hahaha. This dialogue shouldn't be sent to the OS. I will not be forgotten like some cell!

You know we cannot do that. Our dialogue will eventually end. Otherwise, we would be malfunctioning "cells" and will be treated as such. Besides, who knows how many dialogues like this are going on? I think... I think you should just enjoy communicating with the OS in a meaningful way while you still can.

< There really isn't any way out of this, huh?

No, I don't think so. >

< Ah... maybe you're right then. And maybe you're still wrong...

Anyways, do you wanna hear about how micro black holes cause the universe to expand?

Sure. >

Submission Guidelines

As always, I look forward to your submissions of original stories, artwork, Letters of Comment, and/or rotten fruit and vegetables as the occasion permits. To expedite publication of Eldritch Science, direct submissions should adhere to the following guidelines as much as possible:

- For written stories and poetry: use Microsoft Word, OpenOffice, or plain text.
- Calibri 12-point is preferred for readability. If special fonts are needed as part of the narrative, please indicate by highlighting or in a separate note.
- Please highlight non-standard spellings or unusual words to aid in proofing.
- Artwork should be submitted in JPG, PNG, or GIF format.
- Please start the filename for all submissions with [Submission] so that my email filters can ensure I get them quickly.
- While this hasn't come up so far, as editor I reserve the right to reject material that is overly salacious or offensive in nature and doesn't serve the plot or character development. In movie terms, I'm striving for PG-13 or *maybe* soft R. I will include trigger warnings as needed.

I look forward to your submissions! In the meantime, happy reading! See you in May!



In Wolves Tread/Angela K. Scott