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Capitalism, Writers, and the Tangled Web

Editorial by Cat McDonald

Web publishing is a hell of a thing. You probably knew this already; you've probably already read fiction online, maybe read a comic or watched a web series. Maybe a family member or coworker has emailed you a cute picture or an interesting article. You might even follow a blog, a comic, a YouTube channel, or some other web product. Even if you're not a regular internet user, you're probably pretty used to being told that the internet is the wave of the future and that books are going out of style any day now. Well, that may or may not be true. But, whatever happens to books, web publishing is changing the face of literature in a lot of exciting, terrifying, unexpected ways.

Let's start out by saying that there's stigma against web publishing, especially in the literary world. Many people see web publishing as a cop-out. Why is this?

Well, frankly, because there's a lot of crap. If you've waded into online fiction at all, you've almost certainly seen some of the crap, because it's not hard to find. But, you've probably also seen something really brilliant, too, and all of it for free. Not only that, but the internet is capable of all kinds of new and exciting multimedia projects, comics with animated frames, stories that come with embedded background tracks, fictional information websites that have created their own elaborate worlds, stuff that can really take entertainment to some new and exciting places. I've rolled the dice a fair number of times by now, but to those of us familiar with books and magazines, rolling the dice is an awkward way to go about our search for a great story.

Here's how it is. It all comes down to capitalism. Most things do, if you're accustomed to overthinking. This time, it's all on account of the fact that paper costs money.

When a publisher chooses a story, it's a gamble. The stakes are the cost of author payments, preparation, printing, and promotion, and the game is sales. Any publisher's goal, no matter how much she loves literature, is to sell enough copies to make back all the costs associated with production, and enough profit to keep rolling. If a book doesn't sell, she's still got to pay the author, the printers, the marketing team, and if a book undersells by enough, that leaves her with less money than she started with, and publishing is a business. So, of course, she's going to choose stories with good odds—stories with well-known authors, with interesting angles, with a niche in the market at the time.

The result of all this is a barrier to entry; a lot of stories get passed over for traditional publication for a variety of reasons. As a matter of fact, the vast majority of submissions to any publishing house or magazine are going to be rejected. The figure you'll hear kicking around is about 90%, and whether it's quality of writing, the market, or any other reason it always comes down to a gamble the publisher hasn't got any faith in. The same thing applies to music, to games, to just about any part of the entertainment industry you'd care to name. If it's not paper distribution, it's discs, or TV broadcasts, or a studio full of dedicated digital artists that need salaries.

Now, that brings us to the internet. Obviously, the internet is not made of paper. Internet publishing costs far less than traditional publishing methods. The bare minimum is server space, which many sites are willing to give away for free. A dedicated internet publisher will want to buy banner ads here and there for the product, or hire people to format an ebook, but it's still less expensive than everything involved in the creation of a paper book, which means a web publisher has a lot less riding on any given story.

In fact, these days pretty much anyone can publish for free, which means a writer can go ahead and post a story somewhere just for the sake of readership, no need to make any bets on making back paper costs. An amateur can just format the story as a .txt file or an HTML page, tell some friends and hope for good word of mouth, and have a story up and ready for the world to read without having spent a dime. So, more and more writers are becoming publishers, and third-party

publishers no longer need that barrier to entry. Sites like Blogspot and Tumblr can publish anyone with an account, no need to vet or edit anything.

That there is the sticky bit. No need to vet or edit anything. Because there's no need for an editor to make sure the story's got enough quality to increase those odds, many stories you'll find on the internet haven't been edited. And, because there's no risk involved, there's no need for anyone to say what is and isn't going to be published except the authors themselves.

Long story short? Everything gets published on the web. With no one sitting behind a desk (or in my case, usually on a couch) saying what will and won't sell, absolutely everything makes the cut, for better or for worse. Brilliant stuff that's too experimental for a publisher to feel confident about, terrible stuff that no one would want to read, average stories that never stood out and got the chance. Everything makes the cut. It's all out there, and the best you can hope for is for word of mouth to point you to the good stuff. Actually, web publishing is a lot like a traditional publisher's slush pile; there's a lot of material there, and no guarantees.

So, yes, the internet is changing the face of publishing. Consumers can find free entertainment online as long as they're willing to sift for it—and a lot of us are. More importantly, though, web publishing is giving people the freedom to prove themselves; authors who many publishers would be too scared to publish can get their start for free online, prove they've got what it takes to build an audience, and then move into more conventional methods. Publishers and producers are gaining new talent, talent they can be confident about knowing that they've already got an audience. Video game designers these days get their start online, and even major companies are looking to downloadable formats rather than more overhead-intensive physical distribution, just like a lot of traditional publishers (including On Spec, of course) have started producing ebooks of their hard-copy products.

Is the internet going to render books completely obsolete? From here, it's hard to say. Maybe. But, more important than changing the format, the internet is changing the way people interact with and search for entertainment, and changing the way the publishing industry works. That's what happens when an established economic model gets a sudden rush of low-cost alternatives. Everyone involved, producers,

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distributors, and customers, suddenly has a completely new way to interact with the product.

But, rest assured, as long as people want to be entertained, the internet can't destroy the entertainment industry no matter how much it changes. That, too, is how the market works. No matter how much the face of the publishing industry changes, its heart isn't going anywhere. •



The Speculative Literature Foundation Small Press Co-operative is an organization designed to help small presses within the science fiction, fantasy, and horror genres cooperate on projects and exchange useful information.

Membership in the Co-op will give members access to our private discussion boards, where members may exchange information on finances, logistics, advertising, editing, and more. Members will also have the opportunity to join such group ventures as the Co-op convention parties, sharing costs and space. We hope that further discussion will also open possibilities for other cost sharing ventures (as with printers, advertising, convention dealer room tables, etc.)

Membership in the SLF Co-op is currently open to any self-identifying small press and its representatives (publishers, editors, copyeditors, etc.) -- both online and print presses are welcome to join.

To apply for membership in the SLF Small Press Co-operative, please visit: http://www.speculativeliterature.org/Programs/SLF_coop.php "They don't eat people, they eat algae and the occasional sulphurous rock," the Captain said.

A Little Space Music

Edward Willett

Dripping viscous green slime onto the brushed-steel plates of the recreation room floor, the pulsating blue slug reared until it towered a full metre above my head.

Its mouth peeled open like a gaping wound. Strings of mucus like pus-coloured rubber bands stretched between the upper and lower palates, stretched, *stretched*—then snapped and fell toward the already fouled floor like slow-motion bungee jumpers.

Three eyes the colour of old blood reared up on black stalks, somehow remaining focused on me even as they weaved and dodged like demented cobras in thrall to acid jazz played by a drunken snake charmer.

Then..... then came the ultimate horror. The monstrosity made a noise like a sabre-toothed tiger coughing up a hairball... and began to sing.

"Midnight... not a sound from the pavement..."

Oh, no. No!

"Touch me, it's so easy to leave me..."

That which does not kill me makes me stronger, I reminded myself. I felt very strong indeed by the time Lloyd Webber's oft-abused "classic" ground to its inevitable conclusion.

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"Thank you, Mr.... Urkh(cough)lisssss(choke). That was very... interesting. We'll be letting... people... know in about a ship's day."

The slug grunted something that might have been "Thank you," or might have just been a correction of my pronunciation of his—I checked the information sheet—oops, its—name, and slithered out, leaving a trail of green goop a metre wide in its wake.

Groaning, I rested my aching head in my hands, twitched my jaw sideways to activate my implanted commbug, and croaked out, "Next!"

This nightmare had begun the moment I boarded the XX Mendel, rushing down the loading ramp as though the hounds of hell were after me—which wasn't too far from the truth, considering Governor Feldercarb's minions sported long black fur, long blue teeth, and bioluminescent eyes that radiated heavily in the longer wavelengths of visible light.

One thing neither of the two possessed, however, was a boarding pass for the XX Mendel. The security tanglefield stopped them in their tracks at the top of the ramp. My elation evaporated two seconds later when, at the bottom of the ramp, the tanglefield likewise wrapped me in molasses and hardened to amber. Immobilized, I watched the ship's security hatch open, revealing a stocky, auburn-haired-and-bearded man in a bright-red uniform liberally adorned with gold buttons and braid. He looked like he'd just stepped offstage from playing the Major General in *The Pirates of Penzance*. "Professor Peak, I presume?" he said.

I found myself rather breathless, though probably due more to the tanglefield's compression of my lungs than the sudden outbreak of alliteration. "You have... the advantage... of me... sir."

"Forgive me. Robert Robespierre Robinson, Captain of the multispecies-capable luxury liner XX Mendel, pride of the Blue Nebula Line, at your service." The captain inclined his head slightly. "My friends call me Redbeard. You can call me Captain. Or 'sir.'" He looked over his shoulder and made an abrupt cutting-his-own-throat gesture, which alarmed me until the tanglefield suddenly shut off and I realized it hadn't been a signal for summary execution. I staggered. The captain caught me and straightened me up, then released me.

I took a couple of deep breaths. "I'm honoured you felt it necessary to greet me in person... sir."

"I'm sure." The Captain looked up the ramp. Feldercarb's hellhounds snarled at him. He turned on his heel. "Come with me, 'Professor.' We have matters to discuss."

Relieved and alarmed at the same time, I followed the Captain through corridors panelled with pearl and carpeted in plush pale pink to his spacious stateroom. From the platinum-floored foyer he led me into an office, and pointed me to a grey blob of pseudo-leather facing a desk of black metal, topped with glass. He eased himself down on an identical grey blob on the other side of the desk; it swelled and puffed into a comfortable-looking armchair. I sat down on my grey blob, and it instantly sprang into a rigid, straight-backed shape with all the give of a block of steel. *Okay, then*, I thought. *At least I know where I stand... er, sit.*

The Captain steepled his fingers under his chin and looked at me. "You're a wanted man, Professor. And not just by your friends on the loading dock." He tapped the desktop, and the faint glow of a holodisplay, illegible from where I sat, sprang into existence above the desk. "There are outstanding warrants for your apprehension on a half-dozen different planets."

I cleared my throat. "Cultural misunderstandings. I'm a businessman trying to make an honest living, that's all..."

Captain Robinson barked. It took me a moment to recognize the sound as a laugh. "You're a con man. 'Professor Peter Peak' is not your real name. Too alliterative, for one thing."

Despite myself, I felt my left eyebrow lift. The captain didn't miss it. "I never said Robert Robespierre "Redbeard" Robinson was my real name either, did I? But we're discussing your past, not mine."

"With all due respect, I'd rather talk about my future."

"In good time." The Captain tapped the desktop again. "Before you became Professor Peter Peak, purveyor of programmable paramours, you went by the name Aristotle Atkinson, and sold subscriptions to Encyclopedia Galactic... until someone realized there's no such thing. Before that, you were Dr. Schroeder Petering, sole authorized human

sales agent for life-extension nanomachines from Tofuni Secundus... quite a feat, since the Tofuni system has no planets."

"An unfortunate accident involving a planet-eating nanoswarm," I said. "Hardly *my* fault. As I explained."

"And yet your customers tried to lynch you just the same," the Captain said. "People can be *so* unreasonable." He tapped again. "But never mind. The version of you *I'm* interested in is the original."

I stiffened. No!

"Jerry Smith," he said (and the sound of my birth name made my heart skip a beat), "this is your life." He tapped, and the holodisplay suddenly became visible to me too. It revealed all the sordid details of my past, including birthplace (Moose Jaw, Saskatchewan, United States of Alberta), birth date (much longer ago than I liked to admit), parents, education—and, most tellingly, something I had thought long-since lost in the mists of decaying data storage: a head-and-shoulders shot of a much-younger me, attached to a press release from Persephone Theatre in Saskatoon, announcing I would be playing the role of Bobby in the upcoming production of Stephen Sondheim's *Company*.

"You're not just a con man," Captain Robinson said. "You're an actor, singer—and dancer. You are, in short, a musical theatre performer." He made it sound like a sentence of execution... and I knew it very well could be.

But I couldn't argue with the evidence. "Was. For about five years. You know what the difference is between a stage actor and a pizza?"

"A pizza can feed a family of four. Yes, I know the joke." He leaned forward, reminding me of a predator about to strike. "But that was on Earth, 'Professor.' You're not in Kansas anymore."

"Actually, I've never been to—"

"Here on the *XX Mendel*, you can make more than enough money to feed a family of four. Not as an actor, perhaps, but certainly as—" He actually had the nerve to smile. "A director."

I suddenly had a very bad feeling the destination of our little chat. "Contrary to cliché, all I've ever really wanted to do is *avoid* directing."

The Captain pointed at the holodisplay. "You've directed at least five shows."

"That résumé is twenty years out of date."

"It's like riding a bicycle."

"I can't ride a bike."

The Captain frowned. "Professor Peak, I really don't have time for this. You've been in space a long time. You know as well as I do that of all the culture Earth has produced, all the artwork, all the novels, all the symphonies, only one thing holds the slightest interest for any of our alien neighbours."

I did know. But I still hoped...

"Musical theatre, Professor." The Captain tapped the desktop, and every wall lit up, as previously opaque screens suddenly displayed... theatre posters. Oklahoma. Oliver! The Sound of Music. Sweeney Todd. My Fair Lady. The Most Happy Fella. Candide. West Side Story. Chicago. Cats. Starlight Express, for God's sake. Wicked. The Light in the Piazza. Avenue Q. Passion. Mary Had A Little Lamb. Thunder in the Night. Jimi! Apollo 13: The Musical. The posters kept changing; by the time I'd looked through them once, there was a new batch on display.

"I collect them," said the Captain. "I have a poster from almost every musical that ran on Broadway from *Show Boat* in 1927 to *The Singularity* in 2024, the last new Broadway musical produced..."

"Because a Squill spaceship the size of Yankee Stadium suddenly appeared over Times Square and mysteriously transported the casts of every show then on stage... somewhere," I snarled, suddenly furious. "And over the next week, any actor who dared to step out on stage and burst into song anywhere on the planet followed them. Which is why Jerry Smith disappeared, too—into a different line of work."

"A criminal line of work."

"I was an actor. I wasn't suited for honest work."

"My Squill passengers are hungry for musical theatre, Professor Peak." He gestured at the walls. "As am I."

"Squill!" I stared at him. "You have Squill on board?"

Again, he had the nerve to smile. "Didn't you know? Most of the vessel is currently occupied by Squill on a... pilgrimage, I suppose you'd call it... to their home world."

Worse and worse. "We're going to the Squill home world?" I hadn't had time, what with hellhounds after me and all, to check

exactly *where* the only ship in port would take me. "And you want me to direct *musical theatre*?"

"I told you, my passengers are hungry for it."

"Maybe literally! We still don't know where all those actors went. Maybe the Squill are serving up ham sandwiches—with bits of real ham—on their home world right now."

"They don't eat people, they eat algae and the occasional sulphurous rock," the Captain said. "And anyway, they said they were sorry. *And* they gave us the spacetime drive by way of reparation. If not for Broadway, we'd still be stuck puttering around the Earth and Moon, Professor. We owe musical theatre a huge debt of gratitude."

"You're welcome," I said, and stood up. "Now, if that's all you wanted—"

"I want you to direct a musical, Professor," the Captain said. "The first live musical to hit the boards since the sad but profitable demise of Broadway. And I want you to cast my passengers."

I sat down again heavily. It was worse than I thought. "Oh, God. You want me to direct Squill." No, it was even worse than that. "Amateur Squill!"

"Squill this time," the Captain said. "But next time, who knows? It could be Hellhounds. Skitterings. Even humans. And as for being amateurs... remember Professor, amateurs are those who do something because they love it. Presumably you first went into theatre because you loved it. Reach down deep into your heart, if you still have one, and..." His grin widened. "Feel the love."

"Scripts... orchestra... stagehands..." Like a drowning man, I grasped at straws.

"Scripts are in the ship database. The computer will provide the accompaniment. And I'm sure that, in time-honoured community theatre tradition, those not cast for roles will be happy to serve as stagehands."

"I'm not the only former musical theatre actor in hiding," I said. "And there must be others with more directing experience. Why me?"

"You're here. And you..." He waved at the holodisplay. "...have an incentive they do not."

"This is blackmail."

"Of course it is! Feel free to complain to the local constabulary." He flicked a finger, and the holodisplay showed a sudden close-up of

the red-eyed, slavering visage of one of Feldercarb's hellhounds. "Oh, look! There's a peace officer now."

I looked. I knew when I was beaten. "How long do I have?"

"It's four weeks to Squill Prime. I'm looking forward to seeing your production on the penultimate evening of our voyage. It will be a wonderful treat for our passengers on the eve of their big festival."

"Festival?" I couldn't imagine Squill partying. "What kind of festival do giant slugs gather for?"

"It's a religious festival, Professor. I told you they were on pilgrimage."

I groaned. Not just Squill, but *religious* Squill. "We apologize for the action of our religionists," had been the message from the second giant spaceship, which had entered Earth orbit shortly after the Broadway-eating one had departed. "We offer reparations."

For a moment I seriously considered taking my chances with the hellhounds... but only a moment. I doubted I'd still be in one piece two minutes after they had me out of sight.

I glared at the Captain. "I hope, when I'm spirited away by Squill fanatics, you at least have the grace to feel guilty."

"Should that happen, I'll do my best."

I sighed. "When do we start auditions?"

• • •

At once, it turned out. Captain Robinson had been very sure of himself, I thought sourly, as I read the in-ship newsfeed, *The Mendellian Factor*, in my cabin an hour later. Even before I'd run down the ramp into the tanglefield, early arrivals on the ship had been reading, "Auditions for *The Sound of Music*, the premiere production of the *Mendel* Amateur Musical Entertainment Society (MAMES), will be held in Multipurpose Recreation Space 7 tonight beginning at 1900 ship's time. MAMES is pleased to announce that Professor Peter Peak, a genuine surviving musical theatre professional from Earth itself, will direct. Bring a song that shows off your voice; computer accompaniment will be provided."

Auditions were every bit as horrifying as I'd anticipated. The "Memory"-warbler was perhaps the worst... but perhaps not. "I'm Just A Girl Who Cain't Say No" sung by an elderly female Squill with

bladder—or something—control problems stuck in my mind as well. And the less said about "On the Good Ship Lollipop," the better.

Unable to cast by appearance, I could only go by vocal skills. Fortunately, some of the Squill actually had some. I chose the best of the bunch as my leads, relegated most of the rest to chorus, and suggested a few hopeless cases join the stage crew—which they seemed thrilled to do.

In fact, everyone in my cast seemed thrilled about every single thing we did. As the *XX Mendel* left orbit on its four-week-subjective journey to the Squill home world, I was feeling pretty good about the show's prospects—assuming the cast didn't eat the director, a possibility which, despite the Captain's assurances, I thought the jury was still out on.

Staging was simplified by the complete absence of dancing ability—or legs—among the cast, and by the fact that humans are quite incapable of reading the emotional content of a Squill's "face." (Indeed, the ship's computer informed me, "...some scientists believe the colour of the mucus they exude is a better indicator of emotional state. When asked, the Squill change the subject.") With choreography neither possible nor desirable, I only had to come up with simple blocking. And my being unable to read their expressions just meant that if they were acting badly, I couldn't tell—so I just pretended they were acting well.

Their memories were prodigious; most of them had their music and dialogue note- and word-perfect at the first rehearsal. The movement, limited though it was, was more challenging for them, and the set I'd programmed the ship's fabricators to make had to be modified after the first on-set rehearsal of "So Long, Farewell," when my entire group of "children" ended up in sickbay with nasty fluorescent bruises. Squill don't do stairs, apparently. Who knew?

Squill don't wear clothes, either, so our only costumes were hats: wimples, Nazi caps, sailor hats—and a couple of wigs. Maria looked terrifying in a long brown one; Gretl looked cute, in a nightmarish sort of way, in blonde pigtails.

After the first few days, my fear that I would be summarily transported to wherever the rest of my ex-profession had gone began to fade. No Squill ever threatened me or was anything but friendly... more than I could say of most of the human actors I'd worked with.

And I began to learn more about my cast. The Squill playing the Mother Superior turned out to be an elderly "it" (the Squill have three sexes—that we know of), but it didn't seem to mind. The "children" were, in most cases, twice as old as me (three times, in the case of Gretl) but again, no one complained.

They were all very curious about my acting past, and as the rehearsals proceeded and my risk of evaporation seemed to be receding, I relaxed and told them the usual stories actors tell—tales of forgotten lines, collapsing sets, drunks, hecklers, and the occasional wardrobe malfunction...

We were a week shy of Squill Prime, and hence still four days from our opening (and closing) performance, when the one matter I'd been very careful not to mention suddenly came up.

I was sitting in the ship's main lounge with "Captain Von Trapp," "Maria," "Liesl" and "Rolf," and had just told an entirely apocryphal story about a producer, a director, a writer and an actor walking into a bar when Rolf, probably the youngest member of the cast at 65 Earth years (only recently released from his mandatory adolescent confinement), put down his third glass of what I privately called Smoking Green Goo, burped, and slurred, "Prophet Matthew Broderick tellsh that shtory better, Professhor."

Sudden and absolute silence. I stared around; the voices of the rest of the Squill and humans in the lounge were no longer audible. I glanced down and saw that Von Trapp had suddenly slapped down on the table a little golden egg (exactly where he had had it hidden, in the absence of clothes, I preferred not to think about). A sound-dampener, obviously.

My heart jumped, then raced, but Rolf, gulping the last of his Goo, blundered on. "Hish lecture at the sheminary lasht year was the besht thing I ever..." his voice trailed off. The trio of googling eyes suddenly widened, and his slobbering mouth slapped shut so suddenly that gobs of mucus spattered across the table.

The slime oozing from his flanks suddenly took on a pinkish hue. I looked around at the others. They were all staring at Rolf; but then, one by one, they looked at me.

My blood ran cold. But I couldn't pretend I hadn't heard. And we knew that Squill "religionists" had been behind the theft of Broadway. It wasn't really a secret...

What had happened to all the actors, though, had been.

Until now?

Heart still pounding, I said, as casually as I could, "Matthew Broderick is still alive? Wasn't he playing Henry in *Old Fool*, that awful musical version of *On Golden Pond*, back when... um..."

I couldn't keep talking. My mouth was too dry.

I winced as high-pitched squealing erupted around me. Squill speaking their own language sound like seagulls on helium being tortured in an echo chamber.

The sound cut off as suddenly as it had begun. "We would like to tell you something," Von Trapp said. "We had discussed doing so earlier, but had not made up our minds. Now, however..." Two of his eyes swivelled toward Rolf, whose eye stalks drooped in response, "... the matter has been settled for us."

"Don't tell me anything I shouldn't know!" I said. "Much as I'd like to meet some of the great old Broadway performers in the flesh, I'm not that keen..."

"Only a Rapturer—a priest of the Order of Religious Insight Collection—would or could transport you," Maria said. "It is unlikely any of them are aboard."

"How unlikely?"

"Reasonably," Liesl said. "They do sometimes travel incognito."

"Knowing the truth does not make it any more likely you will be raptured," said Von Trapp. "If a Rapturer is on board, you are already marked simply for being a prophet."

"A prophet?"

"Of Musical Theatre."

A prophet of Musical Theatre? Musical-theatre actors had been called many things over the decades, but rarely that... and I didn't like the sound of it.

I drained my beer and called for another... to no effect. *Damn sound-dampener*. For a moment I eyed the remnants of Rolf's Smoking Green Goo, but I wasn't that desperate... yet. I sighed, and met Von Trapp's disconcerting gaze. "Fire away," I said. "I'm all ears..."

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Two hours later I staggered back to my cabin (having made up for the initial lack of drink several times over once the Squill departed). I fell into my bed, looked up at the slowly spinning ceiling, and didn't know whether to laugh or cry or throw up.

The decision was suddenly made for me, I staggered into the bathroom and vomited up everything I had eaten for the last twenty-four hours or so—but not, alas, everything I had drunk.

Discretion being the better part of valour, I decided to spend the next hour or so on the bathroom floor. I had little else to do in that position but reflect on what I had heard.

The Squill religionists, it seemed, had "raptured" Broadway in order to get closer to God.

Considering how far from God, in my experience, most people in the acting profession considered themselves, the irony was rich. But if you wrapped your head around the Squill point of view, it almost made sense.

The Squill Church, unlike its human counterparts, did not pretend to know the truth... about God, or how to best please/serve/placate/worship He/She/Them/It. Instead, the Church's purpose was to seek for the Truth. It did so by conducting a cosmic opinion poll: it gathered various takes on the truth from all over the galaxy, then learned everything it could from them.

Along the way, it had spawned innumerable sub-cults, as various factions of religious Squill decided that the latest "truth" was THE TRUTH, and stopped searching. However, the Great Church Fluorescent (really, that's how Von Trapp translated it) carried on, collecting bits of alien cultures from all over the galaxy.

The secular government of the Squill, while officially against the practice, made no move to stop it. Instead, its ships trailed the Church's Rapture ships at a respectable distance, apologizing and reimbursing... and, in the process, opening up lucrative trade routes. It seemed a recipe for disaster if the Squill ever came up against a culture that could match their technological capabilities—but so far, they hadn't, and probably the Church had enough sense of self-preservation not to attempt rapturing part of such a culture if one did turn up.

Because the Church was essentially conducting a poll, the Rapturers collected religious insights at random and used a very broad definition of "religious." In each culture it simply identified activities that drew crowds, then picked one to collect. On Earth, the "winner" had been musical theatre (with professional hockey apparently a close second).

But something had happened with musical theatre that had never happened before: the Great Church Fluorescent *as a whole* had declared, after much study, that there was no longer need for collection—musical theatre provided THE TRUTH.

And so, Von Trapp had told me, the musical theatre performers who had been raptured from Earth, though forbidden from leaving Squill or contacting their human counterparts, now formed a thriving, pampered human colony, a kind of Vatican City, on Squill. Not only did they produce incredible musicals—the special effects alone, thanks to Squill technology, were literally out of this world—but they sent "missionaries" around the planet, instructing everyone in the newly discovered Way.

Which meant that *The Sound of Music—my* Sound of Music—was, for the Squill, a worship service.

It made a strange sort of sense, I thought as the bathroom's spinning started to slow. Like religions, musicals present neat little packages of supposed insight, wrapped up in pleasing tunes and eyecandy. To coin a phrase, they're the "spoonful of sugar to help the medicine go down."

Nothing had come up for a while. I staggered back to my bed and collapsed on it, and as darkness descended, I felt a faint *frisson* of fear as I recalled being told it was "unlikely" I would be raptured.

"How unlikely?" I asked again, but got no answer.

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I was not at my best for dress rehearsal the next day. But the Squill were, and if you closed your eyes and ignored the multicoloured trails of slime all over the stage, you had to admit that the show really was in solid shape. Maybe not Broadway-caliber, but as good as many regional productions, amateur *or* professional.

The next day we entered orbit around Squill Prime. After a one-Squill-day (29-hour) quarantine, the pilgrims would disembark to worship at the feet of the Broadway Prophets, Original Cast. And that meant it was showtime.

I gave the traditional Pep Talk Before Opening. "You're ready," I told them. "You're good. I admit I had my doubts going in, especially with such a short rehearsal time, but you've all done a terrific job, and I'm proud of you all. And if Rogers and Hammerstein were here—" And not busy spinning in their graves— "they'd be proud of you, too. Break a..." I hesitated, looking at the sea of slugs before me. "...um, good luck."

The stage manager's voice squealed over the monitor. I still couldn't understand Squill, but I knew what he had just said: "Places."

The audience of humans, non-performing Squill and one or two non-Squill aliens watched raptly, completely caught up in a tale that should have been incomprehensible to them. Squill don't applaud; if they see something they like, they pay it the honour of being silent, while their slime turns bright blue. Our audience paid us the greatest compliment of all: a Silent Blue Departure.

Like they're leaving church, I thought, watching from the wings.

The ear-splitting cast party more than made up for the audience's silence. Enormous quantities of Smoking Green Goo disappeared down gaping maws, and even larger quantities of squirming blobs of shapeless protoplasm, the Squill equivalent of potato chips.

Still feeling alcohol-shy, I confined myself to a glass of the champagne sent to my dressing room by Captain Robinson. I was sipping the second of those when "Redbeard" himself appeared. He seized my hand and pumped it. "Fabulous! Bravo! I admit I had my doubts about you when you first came aboard, but you've proven them groundless."

I looked around. The Squill had congregated in the furthest corner of the large banquet room, watching a holorecording of Liesl warbling "I Am Sixteen Going on Seventeen."

"Thank you for the champagne, Captain," I said. "Can I pour you a glass?"

"I'd be honoured."

I filled one for him, and a second one for myself. "Tell me, Captain," I said casually as I handed it to him, "have you ever heard of the Rapturers?"

Did his glass hesitate, ever-so-slightly, on its way to his mouth? "What an... odd question. Why do you ask?"

I looked around again; the Squill were still engrossed in watching their own performances, but I lowered my voice anyway. "Someone in the cast let it slip... Captain, I know what happened to Broadway!"

"Really?" He sipped his champagne, sharp blue eyes focused on me over the rim of the flute. "What?"

I told him what I'd heard. He said nothing until I was finished, then drained his glass and set it down. "Interesting," he said. "Well, Professor, I must prepare for disembarkation..."

"Interesting!" I grabbed his arm. "Didn't you hear what I said, Captain? There are humans being held prisoner on Squill! Shouldn't you... tell someone? Shouldn't there be government protests? A rescue, even?"

The Captain removed my hand from his arm as though lifting damp garbage from a pristine floor. "Professor, I run a liner, not a battleship. If you are truly concerned, I suggest you report to the human authorities at our next port of call after Squill Prime." He gave me a cold smile. "For now, enjoy your success."

I poured a third glass of champagne. I seemed to be losing my brief distaste for alcohol.

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In the morning, not *quite* hung over, I went to the shuttle bay to watch the disembarkation and say goodbye to my cast. Captain Robinson was already there; he nodded to me, then stood at ease, watching the line of departing slugs.

Von Trapp was the last of my performers to board the shuttle. "Farewell, Professor," he said. "We are most grateful for the insights you have shared with us. The cast has asked me to give you a token of our appreciation."

He extruded a manipulator tentacle. It held an egg-shaped, multifaceted crystal, fiery as a diamond, but with a pulsing spark of blue fire somewhere deep within. Bits of green slime clinging to it couldn't dim its beauty... well, not much.

"Thank you," I said...

...and Captain Robinson's hand suddenly snaked out and seized Captain von Trapp's manipulator. I stared at him; I'd never seen a human willingly touch a Squill before. Von Trapp seemed just as shocked: all three of his eyes had whipped around to focus on Robinson's hand. Now they lifted and focused intently on his face. "Explain yourself!" he barked.

"You explain yourself," Robinson said. "On what authority do you do this?"

Authority? I looked back and forth from Von Trapp to Robinson like a spectator at a tennis match—except I had the distinct feeling I was the ball.

Von Trapp hissed, spattering mucus. "The Director commanded—"

"The Director?" Robinson let go of Von Trapp's tentacle and straightened. "Don't speak to me of the Director. *I am the Producer!*"

Von Trapp goggled at him, his eyes forming the points of an equilateral triangle, every stalk stiff. "The Producer? Himself?"

"The same."

Von Trapp's slime went grey. "There are theological disagreements over the role of the Producer. The Director claims—"

Robinson pointed at me. "He is a Director. A Director. One of several possible Directors. But I am the Producer. I choose Directors. I have the power of life and death over Directors. Would you challenge my authority?"

Von Trapp's maw opened and shut a couple of times slowly, strings of mucus looping from it. "The Director must decide this," he said finally. "It is beyond me. But for the moment—for the moment—we will leave matters as they are." His mouth snapped shut and he slithered aboard the shuttle, his slime trail now an inky black. Captain Robinson made a chopping motion at a crewman standing by the door controls and the door slid shut, clunking and hissing as it sealed. A moment later the ship shuddered as the shuttle disconnected and began its descent to the planet.

Captain Robinson turned to me. "Perhaps we should talk, Professor," he said.

I couldn't speak... again. I just nodded.

"Let's adjourn to my office."

The office looked exactly the same as it had when he had first dragooned me into directing The Sound of Music. Robinson tapped his desktop to light up his collection of Broadway posters, then tapped it again; a panel slid open beneath a poster from the original production of *Gigi*, revealing a wet bar. "Drink?"

"Scotch." Beer just didn't seem up to the task of whatever might be coming... though I already had my suspicions. "I have some information related to your... suspicions," Robinson said, pouring me a double of... I squinted. Oban? Nice! "Ice?"

"No thanks."

Robinson handed me the drink, then sat down at his desk. "I believe the time has come to tell you the truth," he said.

"You were a Broadway producer," I said.

"Myron Summerfeld, at your service," he said.

I gaped at him. "You produced *The Singularity*. I almost auditioned for that show..."

"I made the mistake of hanging around backstage during that... final performance. When the rapture came, right in the middle of the big 'Exponential Existentialism' dance number, there was a flash of light, but that was all we noticed until the bows—which is when the illusory theatre vanished and we discovered we were actually on an alien spaceship populated by giant slugs... and the cast of every other musical theatre production then running on Broadway.

"Some people reacted badly, but I've always prided myself on being a quick thinker. Somebody needed to take charge, and who better than a producer? The actors were happy to let me do the talking to the Squill priests. So..."

"...so when the Church Fluorescent decided it had finally found Ultimate Truth in musical theatre, you were the Pope."

"Something like that." Robinson shrugged. "The Squill have been very good to us. First-class digs. Fabulous food. And Squill Prime is heaven for actors and directors: no budget constraints, literally out-of-this-world special effects, freedom to perform any musical ever written, and audiences that love everything because they see the actors as preachers, priests and teachers. Matthew Broderick is head of the new seminary, you know. And if the insights on offer seem banal to us—'Always leave them wanting more,' 'Never act with children or animals,' 'Dying is easy, comedy is hard,'—that doesn't matter to them.

"But for a producer... well, once the Church Fluorescent signed on to the whole 'Musical Theatre is the Ultimate Truth' thing, there wasn't much for me to do. The Church's hierarchy takes care of the sorts of things producers usually do. And there's no chance of producing anything new: the Musical Canon has hardened into dogma, and woe betide he who shall alter a jot or a tittle of it." Captain Robinson sipped his Scotch, then set it down on the desk. "So I made a proposal.

I pointed out that now that the Church has discovered Ultimate Truth, it needed to share that truth with other races."

I took a largish gulp of Scotch, and had to overcome a fit of coughing before I could choke out, "You made them evangelical!"

He shrugged. "Proselytizing had never occurred to them before, but they quite liked the idea. So... they gave me this ship, and sent me out into the galaxy. I told them the first thing I needed to find was a director." He pointed at me. "They already knew about you, Professor. If I hadn't made sure Governor Feldercarb herded you—"

"Herded me!"

"—to my ship, the Rapturers would have taken you. But I did get you on my ship. Von Trapp had no business—" Robinson bit off what he was going to say. "Never mind. I'll take that up with the Church hierarchy.

"It's now up to you to make a decision, Professor. Will you stay on this ship and continue directing for the Mendel Amateur Musical Entertainment Society, or..." he reached out of my sight behind the desk, and pulled out an egg-shaped, blue-pulsing crystal identical to the one Von Trapp had offered me. "...will you join your counterparts on Squill Prime?"

"You want me to be a missionary!"

Robinson shrugged. "Why not? You've been everything else. What better way to make your living than by spreading the joy of musical theatre around the galaxy? And remember, Professor, I don't just transport Squill. You'll get to work with all kinds of aliens... maybe even humans."

I looked deep into my Scotch glass, thinking. A life spent directing musicals featuring amateur casts with uncertain vocal abilities and a varying array of body parts... or a life spent surrounded by ageing Broadway actors whose egos were constantly fed by vast seas of worshipping slugs.

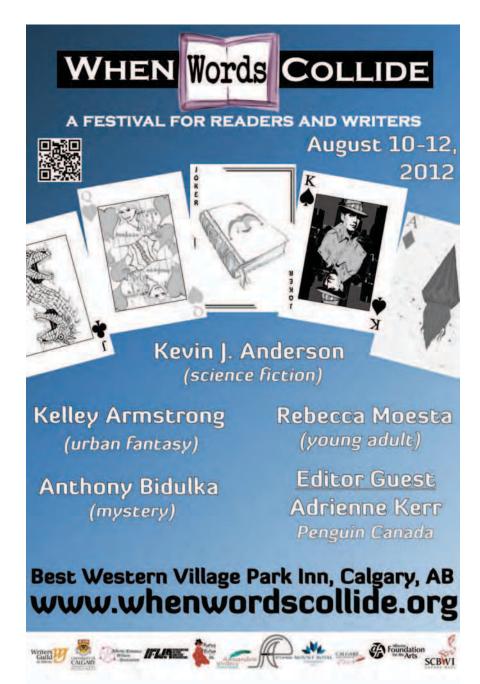
Put that way, it was no decision at all.

I looked up at Robinson. "What's our next show, Mr. Producer?" I said.

So here I am, halfway between Squill Prime and Arbus, trying to teach six-legged felinoids the finer points of choreography.

The show? Cats, of course.

We're saving a fortune on makeup. •



He pressed his cheek against the smooth bamboo, listening to the screams and crying of his neighbours while his heartbeat slowed.

Long Leap

Derek Künsken

Robert stared between the bars at the cylindrical town of Long Leap with impartial, clinical longing. Houses of plastic, brick and wood dotted the curving floor. Amphitheatres, swimming pools and even scattered stands of bamboo filled the spaces between stacked hydroponic gardens, rubber sports fields and walkways. A steel wall capped the bow of the town eight hundred meters away. Ladders radiated from a hub at the axis of Long Leap. Beyond the bow yawned interstellar space, centuries' worth, and somewhere in the inky emptiness, their destination.

The town slowly darkened. Pedestrians dwindled, a handful of evening strollers moving like ants far away. Robert didn't think he wanted to kill any of them, but he wasn't sure. His disassociative condition was not a psychopathy or sociopathy, but doctors couldn't treat it. He'd had eight years in the cage to obsess over parole board questions about feelings and regret. He'd learned nothing from the directed soul-digging. Sometimes he suspected that answers had never been there, that he was hollow.

He earned his keep as the town astronomer, a job no one wanted. Two centuries of travel had exhausted curiosity in interstellar space. Optical telescopic study of their new home would be impossible for another two centuries. Then, expert systems would train astronomers, geologists and chemists. For now, the day-to-day operations of the town were mostly automated. Its citizens were artists, with a few technicians and a handful of geneticists and bored pilots.

Robert extinguished the lights around his little hut and lay on the gently curved bamboo floor. For a while, he looked four hundred meters away, to the opposite side of the cylindrical town and the houses there. He'd barely closed his eyes when the wave hit.

Everything shifted. Queasiness and animal panic clenched his stomach. Bile rose. He floated off the worn bamboo floor, tumbling in the half-light. A cup and a wooden chair bounced off his flailing arms. Someone screamed. He drifted into the side of his cage. He gripped the bars for long minutes until weight returned and he slipped to the floor. He pressed his cheek against the smooth bamboo, listening to the screams and crying of his neighbours while his heartbeat slowed.

He crawled to his workstation, pulled his chair back into place, and toggled to the feed from the telescopes. The infrared telescope was online first. Two disks shone in its field. One was small and cool. The other was a warm, planet-sized body. He'd never seen them before. And all the star references were gone. They were off course!

He stared in shock. The event was too big. They'd left Earth two hundred and fifty years in the past, launched by decades of in-system accelerations and gravity assists. They would reach Tau Ceti in another two hundred. These were unshakable truths. Until now.

The optical telescope came online. No disks showed. The muscles around his eyes tightened in confusion. He set the computer to plotting their new course while struggling with a sharp dread.

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As the only astronomer, Robert was invited to an emergency town meeting. The town hall rarely hosted anything of significance. Its polished inner walls of melted regolith hosted art displays, science fairs and small weddings. A commune of four thousand had few administrative needs. After two hundred and fifty years and nine generations, eveyone knew what to do.

The mayor was a playwright who'd built his success on comedies in his youth before aging into an affable politician. His loose rice paper skin formed easy smiles as he inaugurated poetry festivals and presided over award ceremonies. Also attending were the Head of the Genetics Department, the Head of the Maintenance Unit, and four members of the Artists' Union: theatre, music, literature and plastic arts.

One of his parole board members, Sarah Salers, brought him there. She was a brittle, attractive bacterial geneticist with the unfortunate habit of appearing insincere. She left him fidgetting at the big table where eveyone avoided his eyes. He looked at his note pad, conscious of the four thousand people watching the proceedings through home monitors.

"Earlier today we passed by a black hole," he said. "We didn't detect it because it approached from sternward at a high angle to our flight path. Our course has changed and we're not going to Tau Ceti anymore. In thirty-three thousand years, Long Leap will reach a red dwarf star about four hundred light years away."

Despite the fact that the mayor had already heard the news, his expression melted and twisted as if he struggled with a fishbone in his throat. Robert tried, but couldn't summon the hope that the mayor would work that fishbone through.

"Almost directly along our flight path is a pulsar companion to the black hole," Robert continued. "It has one planet. This is our only hope. We can use it either for a gravity assist to adjust our course for a new destination or, if we use almost all our volatile reserves as reaction mass for the nuclear engines, we can enter orbit around the planet."

"I can understand not seeing the black hole," the Head of the Genetics Department said, "but how could previous astronomers also miss the pulsar?"

She was a tall woman of an age with the mayor. Robert looked at her, observed her tension, but didn't feel it. "The radio waves spray off pulsars in jets," he said. "If we aren't in the plane of the jets, we won't see them. Its emissions outside the plane of the jets can be quite faint. We all missed it."

"What do you think is best, Robert?" the mayor asked.

"Both options are risky," he responded after a pause. "I've begun some simulations, but won't know the answers for a few hours."

Frantic preparations consumed the eleven taut weeks they needed to reach the pulsar. They ran thousands of simulations, looking for any habitable star they might aim for using the pulsar as a gravitational assist instead of stopping at the planet. There was none. They started decelerating when they were nine weeks out from the pulsar, but they were afraid they might still be travelling too fast for gravitational capture.

The black hole was quiescent, starving, betrayed only by its gravity. Its companion, the pulsar, was ancient. Pulsars began their lives rotating thousands of times per second and blooming enormous magnetic fields far into space. But magnetic fields braked the rotation of pulsars while the spin of the pulsars wore down the strengths of the magnetic fields. This pulsar was so old that it spun only twice a second, while its magnetic field had faded to less than ten thousand gauss.

While Robert muddled at scientific questions with prickly numbness, he watched insecurity play against anger and frustration among the others. Eventless lives were poor preparation for cataclysm. His neighbours betrayed loss in abbreviated gestures, pinched phrases, and furtive looks. Their discomfort soaked him as they washed close in daily meetings about simulations, telescopic observations, possible flight paths, and any other physics questions that arose.

If the disaster had one bright point, it was being out of his cage, even though it smacked of pretense. He'd not been rehabilitated. The knowledge that he could pick up something heavy and crush somebody's skull was ambiguously uncomfortable. Without his cage he was exposed not only to the abrasions of the outside, but to whispering temptations gnawing from the inside. He pretended he was fine and people pretended to like him.

As they neared the point of orbital capture, the thrust redoubled and the entire town of Long Leap shuddered constantly. Walkers stumbled in the odd accelerations and babies cried. The mayor invited Robert to the town hall with the rest of the crisis team to watch the orbital capture. Big screens showed the disk of the pulsar in radio, infrared, optical and ultraviolet. The video feed from the hall hypnotized the town. They'd named the pulsar Hope.

No one noticed Robert unbuckling his straps and creeping away after an hour of watching the feed. He snuck through darkened,

bricked streets, between houses, moving along paths he'd used as a child to avoid being seen. Only the dim light of computer monitors shone through windows and doorways, lighting hydroponics tables and fish tanks.

He stopped in the dark beyond the monitor's glow from Marie Langres' house, leaning into the acceleration. The tilting of the world fit his aesthetic sense. She was strapped in, back to Robert, door open, watching the feed as the deck rumbled beneath them. He imagined how easy it would be to enter the house and kill again. There was nothing between his potential victim and death except will. His. Did he have it? If he killed again, they'd surely recycle his body. Did he care? What kept others from killing? Who flipped the switch in him to the wrong position?

He had nothing inside. No tension, no anticipation, no fear. Only clotted options. A belt would make a clumsy garrote. Bare hands were enough to strangle an old lady. He could just as easily open a cupboard while she watched, find a pot, and brain her until she stopped screaming. People would come. They would end the pointless questions. He crept closer. Her long gray hair lay flat on her head, tilting off her shoulders with the acceleration of the engines. She was two steps away and still hadn't seen him.

He breathed deeply, and then slid back. Two houses turnward was his house and his cage. Entering, he turned and panted hollowly. His hand rested self-consciously on the unlocked gate. He didn't have the key to lock it. The tightening in his chest rose, even in his home. Nothing protected Long Leap from him.

Embarrassment also stared him in the face. He'd been given de facto parole. To lock himself in again was not only an overt admission, but a public exposure of his doubts. He'd had enough false pleasantries and practiced smiles. He wedged the cage door open with a pair of shorts and collapsed onto the bed. He strapped himself down and tried to sleep.

Orbital capture by the pulsar only bought them time. It didn't position them near volatile-rich asteroids. There were none. And the tidal forces at their closest approaches to the pulsar were dangerous. The only option was to use the last of the volatile reserves in fifty-four days to enter a highly elliptical orbit around the dead planet they'd named Stepping Stone. This would leave only their atmosphere, soil,

water and a reserve tank for the landers as volatiles. If they failed to find more, they would die.

Robert and the geneticists spent ten to twelve hours a day with the expert systems, learning as much as they could about planetology. geology and rocket science. Classes in engineering, material science and chemistry for the artists were equally frenetic. Long Leap was converting from a society of artists two hundred years from a terraforming effort to a society of untried scientists, weeks from their last hope.

Robert observed Stepping Stone. Optical telescopes were nearly useless, but against background stars, he detected an atmosphere of carbon dioxide, carbon monoxide, nitrogen, and traces of nickel carbonyl. Stepping Stone raced around the pulsar once every eleven days, tidally locked so that one face was constantly flooded with radio waves. The planet was small, but so heavy that most of it had to be iron. Its intense magnetic field supported this idea. Like Mercury, perhaps Stepping Stone had once been a larger terrestrial planet. In the supernova that formed the pulsar and destroyed its natural solar system, the crust and mantle of Stepping Stone must have been blown off. It orbited its parent still, long after their murder-suicide. Its temperature surprised him. With only radio and microwaves from the pulsar, it should have been colder than Pluto or Ouaoar. Yet it was well above zero celsius in some places. The four flashes per second of the pulsar's radio jet blinded the radio telescope and filled the entire radio spectrum with noise. The planet hummed in the radio band, ringing forever like a bell just struck. And inexplicably, every few weeks, the static in the radio band burst in a drowning, deafening jumble lasting about twenty minutes.

The cheering of the crowd echoed through the hollow cylinder. Robert smiled, feeling briefly like he belonged. It was strange. They should all be at home or work. He stepped up the ladder leading towards the axis of the town, followed by two others. In the microgravity of the axis, they clung to railings that lead to the airlock as the town rotated around them. He led them to the waiting lander and sat in the co-pilot's chair. After all their training, no one had matched his facility in the physical sciences, so he was leading the team. Sarah Salers the bacteriologist was there, cool, clinical and slim. Georgi St-Paulin, the unassuming engineering technician, was their pilot and engineer.

The rotating edges of the launch bay framed the yawning, starry emptiness of space. The pulsar was invisible on the left edge of their window. He thought he saw a black disk, but that was impossible. It was only twenty-five kilometers in diameter, eleven million kilometers away, and dark.

Then they dropped out of Long Leap, the first people to do so in over two hundred years. Thrusters nudged them planetwards. They began to fall. Stepping Stone was inky black. Its silhouette eclipsed stars, blotting out a large disk of sky.

They'd already sent down a robot lander with an automated gas refinery system. It had landed safely, but the intense radio and microwave static drowned communications and they needed to bring its cargo of volatiles back. Georgi used lasers to find his way and settled a few kilometers from the automated lander, blowing heavy dust in the half gravity.

They echoed in an airlock designed to unload dozens of colonists and their equipment at a time. Beyond the window, stars showed above a pitch horizon. External lights lit thick snow. It fell in discrete, regimented lines, each flake following another, none deviating from their vertical paths. Fuzzy gray snow began clotting the glass. As the lock opened, surges of radio static buzzed in their ears and the thick carbon dioxide atmosphere rushed in, ripping snow from its fine lines of descent.

"What is it?" Robert asked. Sarah caught some of the snow with a swab and touched it to the mobile analyzer on her wrist.

"Iron tetracarbonyl," she said, "with traces of cobalt and nickel carbonyls."

"Those compounds are magnetic," Robert said. "They're following magnetic field lines as they fall." He shone his light upward where hundreds of lines of falling gray flakes disappeared into the overwhelming blackness. "How toxic is it?"

"Very," Georgi answered, "but our suits will protect us for now."

Sarah descended the ladder. Spotlights lit the silvered ground that had been scoured to a dark, lumpy polish by their landing thrusters. Robert joined her in the shiny hollow where metal carbonyl snow slicked the surface. Wherever he shone his spotlight, Stepping Stone mirrored back. The relentless radio static in their headsets was eerie.

Sarah scratched at the crater floor and put it in her analyzer. It was iron, with small amounts of nickel, cobalt, copper, gold, iridium and platinum. All the sorts of elements found in the core of the Earth, Mars or Mercury. They moved to the rise. Their lamps pierced a dark world of shallow, oddly-textured hills. Underfoot and as far as they could see, a carpet of shining needles stabbed starward. Some rose only millimeters. Others stood taller than they did, with perpendicular branchings shooting straight out from thick central poles.

"Weird," Georgi whispered, distant and drowned in the blizzard of radio static. Robert kicked at the ground and pulled away a handful of sticky, grainy muck.

"It feels like dirt," he said, dripping a bit into his analyzer. "A mixture of iron particles, metal carbonyls, and some metals compounded with nitrogen and carbon," he said through the moaning static. "Maybe this is the equivalent of dirt for a planet with no mantle and no crust."

Bits of the reddish-gray snow smeared the outside of their visors and resisted wiping, leaving distracting opaque streaks. Films of iron and nickel carbonyl formed on their suits too, as the snow melted with the faint leaking heat.

"Why all the little spikes?" Georgi asked. "Is it some kind of growth?"

"What could live here?" Sarah asked. "There's no water, no light and everything is toxic."

Robert knelt, watching the snow with his analyzer. "Maybe they're mineral deposits," he said. "The snow follows magnetic field lines and sediments onto the spines." He moved his analyzer up and down, showing the magnetic readings. "Stepping Stone has a magnetic field of almost a hundred gauss. The pulsar has a field of over ten thousand gauss. Their magnetic fields probably merge somewhere between them."

"I don't know." Sarah said over the static. "If iron and nickel carbonyl rain down, where do they get the energy to evaporate in the first place? They're too heavy. Also," she said, brushing the tops of Georgi's shoulders, knocking a graving powder into the air where it fell in neat descending lines, "it's collecting on us too. We're not magnetized." The tiny shining flakes seemed to be falling slower.

"Our biggest worry right now is making sure that the spines don't puncture our suits," Robert said. "We'd better get moving."

They crunched their way down the hill, snapping or bending metal filaments and rods, thick as grass in some places. They stepped around tall, shining formations where perpendicular branchings speared outward. Robert shuffled his feet over the granular soil, breaking the low-lying spines. Puffs of grayish dust bumped from the tips of the rods and floated upward. Robert shook a spine.

"Shouldn't that be falling down?" he asked. The rising dust disappeared high past their light, surrounded by falling iron carbonyl snow.

Sarah lifted her analyzer to catch a sample, but the dust moved aside, continuing its slow float upwards. No matter what they did, the powder avoided their gloved hands, analyzers and swabs. Finally, they put the analyzer over the end of a branch and shook it, catching some dust.

"It's too cold for iron carbonyl to evaporate," Sarah said.

"It avoids our hands like it has a charge."

"Why would just the tips of the rods have a static charge?" Sarah pressed. "If anything, they should have the same charge as the rest of the rod."

Robert shrugged in his bulky suit and they forced on through the rolling fields of iron spines. They reached the automated lander thirty minutes later. Like their own lander, it was a twenty-eight meter wedge. Before launch from the Long Leap, both had been fitted with atmospheric compression equipment and storage tanks, to bring back reaction mass for the nuclear engines on Long Leap. The equipment showed no signs of activity.

The ladder attached to one of the landing struts was overgrown with vertical spines. Robert scanned them, looking at the magnetic field. Field lines traced nickel carbonyl snow down to needle tips where the fine powder stacked itself into improbable towers.

Robert climbed to the intake valve, where the atmosphere was sucked in for condensation and storage. A panel showed that the tanks were only fifteen percent full. Iron brambles overran the filters. Sarah and Georgi returned similar news from the other intakes, as well as from the electrical panels and the insides of the plumbing.

"Can we clear the spines by hand?" Georgi asked through the clashing static. "It's a lot of work, but we need that fuel."

Robert didn't answer. He didn't know how to answer. It didn't feel fair that this had been placed on him. What did he know? He was a glorified amateur parading as a scientist. Not all stories had good endings, and sometimes it was time for everybody to die. Fine metal carbonyl snow fell in slowing, regimented lines onto the spines blocking their machines.

"I know what to do," he said suddenly.

They had hoses for transporting liquified gases and a large inflatable dome, like the ones the early settlers had used as temporary shelters on the moon and Mars. They connected the hoses to an oxygen tank in the lander. At close range, they sprayed the iron spines. In pure oxygen, the fine iron needles combusted, scouring out the deposits, igniting other shining brambles. Within half an hour, the lander was mostly clean, covered in some places by a fine powder of rust. Magnetic fields disappeared from crumbling, brittle columns of rust.

Then they put the inflatable shelter over the lander. They had to cut and reseal the shelter to fit the lander inside. After an hour they had inflated the dome and passed Stepping Stone's atmosphere through filters to begin processing again.

They entered the lander and rested in the crew quarters. They stank of sweat, stale air and iron carbonyl. The crew quarters fit ten, so they washed and ate with space to spare. Robert watched Sarah and Georgi. As far as he could tell, they'd barely known each other before this mission. Now his companions were euphoric, with breathless, joking smiles, friendly head-canting and back-slapping. Through nervous, tight laughter, they struggled to outdo one another in renaming the planet. Don't Step. Pin Cushion. Anemone.

They'd landed on a hostile world, managed to cross several dangerous kilometers of it, and restarted the machinery that would take them away from the dark pulsar and its prickly companion. Of course they felt like celebrating. He thought he did too. These two people, by shared trials, felt suddenly closer than any he'd ever known, though he felt a long way from back-slapping. He couldn't smile. Something bothered him.

The mystery of the spiny iron deposits demanded explanation. The static-charged rise of the dusty ends had to mean something. And

so did the planet's temperature. It felt so important that the mission and the lives of everyone on Long Leap must be in the balance.

A conspiratorial thought chilled him. He'd not thought of killing anyone lately. He hadn't catalogued all the ways to kill those around him. He'd had neither urge, nor counter-urge. He was oddly blank. His insides were laying low. Why? Placed as he was in this mission he could kill everybody. Not just here. The whole town. How did he know his subconscious wasn't planning it at this moment? If he really wasn't reformed, if he wanted to destroy Long Leap, there was no better place than here from which to sabotage the mission. They needed him. He was the only one who knew what to do. If his true self wanted to kill, it need only withold the intuition that had gotten them this far, refuse to answer a critical problem.

His idea to burn the iron filings with oxygen was not a real test. Any chemist or engineer would have eventually thought of it. The true test would be figuring out the spines, the static charge and the dusty ends of the branches. If he found the answer and saved everyone, he would know he had changed. He wouldn't be a killer anymore.

Georgi startled him with a clap on the back. "Good work, Robert! Made it this far. Looks like we'll make it the whole way."

Robert stared stonily, blankly, into Georgi's warm smile, terrified. "There are other questions," he said loudly, much too loudly for the size of the compartment, Georgi's nearness or the occasion. His forehead felt suddenly hot. "I can't...you can't sit down. We have to figure out this planet. Something is making it tick, and we don't know what. We have to study the spines and the static, find out what they mean."

Their eyes questionned. Sarah pressed her lips into a thin line. She always said she knew him. He always thought she got him wrong.

"If we get the fuel tanks filled quickly," she said, "we can be out of here soon. We can study the planet from a safe distance."

Robert nodded. They all looked at him, the joviality gone, the brittle closeness fissuring.

"We should get back to our lander and get it working," Sarah offered.

"Yes," he admitted after some delay, "but I'd like you to help me here, studying the iron deposits. I also need detailed readings of electrical potential and magnetic fields around the deposits and off the ground." "I can get the other lander set up," Georgi said.

They finished eating and Georgi got into his suit. Sarah retrieved the samples they'd taken on the march and began her studies. Robert stood dumbly, mourning the brief bond they'd offered him. He joined Sarah at the work bench. She probably thought her life was in danger. He preferred that to her realizing he might be planning to kill the whole town.

"What if these are alive?" Robert asked, looking at the screen. The tips of the iron spines they'd collected were magnified two hundred thousand times in the electron microscope. The rods were porous, riddled with atomic-sized channels, looking more like abstract sculptures than columns. The tips ended in depressions containing prickly bits of metal.

"What if they're a kind of plant?"

"Life needs to carry information, copy it and make mistakes," Sarah said. "This is complex, but it's not complex enough. And there are no cell membranes to hold in resources."

"There is regular structure here," Robert said, but not knowing where to take his argument. He pointed at the tips. A layer of nickel carbonyl held prickly star-shapes on. "If the nickel and iron carbonyl snow follow the same magnetic field lines, why does the nickel carbonyl concentrate at the tips?"

She didn't answer, but not because he'd made a solid point.

"These gold nanocrystals bother me too," he said. "They shouldn't be part of this chemistry." Dark, blunt structures were regularly spaced along the edge of the spine. "Gold is pretty inert. The funny thing is, they're just the right size to absorb radio waves and convert the energy into heat."

"Are you using heat generation as proof of life?" she asked.

"I'm saying that the size, regularity and radio-absorbtion characteristics of these crystals under a pulsar seem beyond coincidence."

"What do you think they do then?" she asked.

"I don't know." He looked along the edge of the spines in the display. A fuzz of iron carbonyl clung to the surface of the spines. "Radio waves from the pulsar excite the gold crystals, generating heat. Iron carbonyl deposits pure iron when heated. Is that growth?"

Sarah pursed her lips. "Iron carbonyl deposits iron at well over a hundred degrees. The temperature isn't near that."

"Lots of reactions in our bodies occur at far below the required temperatures," Robert said. "Enzymes reduce the required energy. What if the equivalent of enzymes were coupled to the gold nanocrystals, the energy source?"

"Enzymes make useful products that stay within the cell, where they're needed," she said. "Without cell membranes, all your energy and building materials diffuse away. Life has to hold onto its resources and get rid of waste. These rods are probably great at getting rid of waste, but have no way of holding onto what they might need for living."

Robert stared at the screen.

"What if this lifeform attached all its essential materials and chemical energy to the spine itself?" he asked.

"What would stop a parasite or a predator from eating this buffet?" she asked.

"Charge?"

Sarah rolled her eyes.

"Each of the spines has a magnetic field and a charge," Robert said. "On a planet where everything has a charge, a magnetic field is as good a cell membrane as any."

"Where's the energy source? Heat isn't useful. Life needs chemical or photosynthetic."

"This is their photosynthesis!" Robert said suddenly. "Radio waves can heat gold crystals or generate electricity! The rods are all antenna! They make electricity. And I just thought of how to get away from the pulsar!"

Four days later, Robert sat in their lander. Sarah and Georgi were deep afield getting samples of the spines to determine if they were really alive. He'd sent Long Leap his idea for a new invention: the radio sail. Just as a solar sail reflected light for propulsion, the radio sail reflected radio waves. It would not only help them leave the system, but would accelerate them as long as they remained within the plane of the pulsar's radio jets. The computers would have to run many simulations to help them choose a new target system, but they might actually get there faster than they would have with their original plan. Kilometers of steel mesh had been deployed around the Long Leap to capture the microwaves from the pulsar and convert them into electricity. His successes should have buoyed him more, but doubts nipped at him. Something major eluded them.

No more snow fell. The sky was hazy with tiny, rising iron flakes. Reverse snow. If they rose on electrical charge alone, then the static charge of the entire area must be creeping up. And the temperature continued to drop. Long Leap's telescopes had measured a planetwide cooling of almost two degrees since they'd arrived. The planet shouldn't have been warm, but it was, and they still had no plausible candidate source of heating. Without one, the atmosphere should not have been geologically stable. At this rate, the whole carbon dioxide atmosphere would snow onto the ground within months.

Stepping Stone's claustrophobically tight orbit of the pulsar showed on the monitor. Long Leap orbited against the stylized icons. He did the math. Even if every scrap of radio and microwave energy was converted into electricity and heat, it wasn't enough to balance the amount of heat radiating into space. They'd extended their astronomical searches, looking for a third companion to the black holepulsar system, something that radiated heat or passed close enough to melt a planet by gravitational squeezing. Nothing.

The seeds in the micrograph lay in microscopic depressions, cushioned and glued by layers of nickel carbonyl. At the current temperature of the planet, nickel carbonyl was liquid or solid, but at sixty degrees celsius, it exploded. Robert had tested it, having placed a tiny clipping of a spine, including the end, in a small box containing the heavy carbon dioxide atmosphere. At sixty-three degrees, the seed shot off the end of the spine, driven by a popping explosion of nickel carbonyl. While not a definitive sign of life, few things could more convincingly show that these spines were the plant life of this world. But how did the planet get hot enough to trigger the shooting seeds?

The magnetic fields curved in delicate lines on the screen. More than the answer to the mission, he was sure that he would find the unambiguous answer to himself in this mystery. Anything capable of heating a whole planet had the potential to destroy Long Leap. Their only hope lay in knowing how and when it happened and not being in the way. Although his companions were learning fast, the breadth and depth of his knowledge outstripped theirs. He was the town's best chance of survival, unless the parole committee, years of psychologists and his aimless efforts at resocialization had failed. If so, four thousand people and nine generations of sacrifice would be wiped out. The churning magnetic fields held his attention, tempting him, teasing him.

Then he saw it. The answer made his face and hands go cold.

The magnetic fields were the heating source. The liquid iron core of Stepping Stone was a conductor and the whole planet, as it orbited through the prodigious magnetic field of the pulsar, generated a potential difference with the pulsar itself. At some point, the potential difference would become so great, it would discharge.

Lightning. Not a little bit. A lot. A planet's worth of electrical energy, shot at its star, eleven million kilometers away. The movement of even a fraction of that energy through an imperfect conductor like Stepping Stone would be enough to heat the planet well past sixty degrees. And make all the mysterious radio noise they'd heard on their way here.

The surface, the spines, the antenna plants, and the iron-compound soils would survive a thousand degrees or more. Humans would not. And any sustained exposure of several hundred degrees would also cook the two landers and leave Long Leap stranded without volatiles. The sky was already filled with heavy iron carbonyl dust, rising straight into the air on the growing static charge of the planet itself. If the charge was that high, the lightning couldn't be far off. Long Leap was at the distant part of its elliptical orbit and was probably safe, but time was running out for the three on the surface.

"Sarah! Georgi! Get back to the landers!!" Robert yelled into the radio. "I'm preparing them for immediate take-off!"

Robert started warming the nuclear engines and filling the fuel tanks with raw atmosphere. Carbon dioxide was a heavy reaction mass, but when the engine was hot enough, it would lift them off the planet. He remotely began the same procedure on the other lander.

Sarah and Georgi called in, asking for confirmation. He yelled for them to get to the landers. They were far, an hour away. The discharge could happen any time. An indicator showed that the nuclear engine would be ready in less than four minutes. Rising iron spores filled the sky. Maybe they reached all the way to the pulsar. Nothing fell from the sky in return. He might already be too late. Even if the landers tried to take off, they might be destroyed in the discharge. In that case, he'd know he'd killed four thousand people, although the knowledge wouldn't last long.

Two minutes to full engine heat. At least fifty-eight minutes to Sarah and Georgi reaching a lander. Could he wait?

Maybe this was his answer. An ambivalent answer, just like him. He'd solved the planetary puzzle, and maybe he'd solved it in time to save the Long Leap, but certainly not in time to save his teammates.

One minute to ignition. At least fifty-seven minutes to Sarah and Georgi.

He put on his environmental suit and completed the safety checks as the lander nuclear engines showed they were ready. Out the airlock, he crunched over the small field of rusty ground. He passed through the door of the tent and onto a field of flattened spines where their boots and rovers had trampled plantlife. Fifty minutes to his teammates. He hesitated, feeling the slow wind press at him.

Blood was indelible.

He trudged in the cone of his flashlight and sheltered behind a low hill. He keyed the pad on his wrist. Superheated carbon dioxide glowed within the tent before the shelter blew to pieces. The lander rose into the air, taking its cargo of fuel to Long Leap. Robert watched the glow of the other shoot into the sky three kilometers away.

If the two landers made it to the Long Leap, they could send one back to retrieve them. He doubted that much time remained. All he cared about was that the discharge didn't happen in the thirty or forty seconds it took the landers to leave the atmosphere.

He did care.

He wanted the landers to get away safely. He and the others on the surface were probably dead, but Robert had sent the landers back. An ambivalent answer, but he smiled nonetheless.

He stood on the open hill in a field of spines fifteen minutes later when the sky began to glow. It wasn't like lightning he'd read about or seen in movies. The glow began far off in the sky and approached for long minutes, creeping larger and larger to fill the whole sky with bright red and purple. The air rumbled. Spines shook. The ground trembled. Then the surface of Stepping Stone exploded with incandescent light and shattering sound. •

"You are not like them, Sveinn. They are blinded by their beliefs, and desperate to appease their jealous god. To them I am the reason for the plagues of cold winters and vicious skraelings."

The Hill Where Thorvald Slew Ten Skraelings

Regan Wolfrom

Young Sveinn entered the cold turf house cradling dried meat in his hands. It looked like a long strip of walrus, and Thialfarr smiled, knowing that his efforts had paid off. The meat was raw, but old Thialfarr did not worry; Sveinn would cook it, as that was part of the deal they had made. And despite the weakness of the seidrman and the impatience of his student, their arrangement had lasted for close to a year. That was quite the accomplishment, especially since the old man should have been killed long ago.

Sveinn immediately set to work preparing the meal, while Thialfarr closed his eyes to rest a little more. Even with his nephew's help, he was getting weaker with every spell he cast. He was too weak even to go outside, and had missed most of the early days of autumn, as the final splash of white and purple and yellow flowers lived out their lives in the rolling grasslands that ran along the fjords of Greenland.

"My father gave half of the meat away," Sveinn said in annoyance as he put a pot on the fire to boil. "I won't be able to bring over much more than this."

Thialfarr did not reply; nothing he said would remove the boy's irritation. There was not enough food for the Norse of Vestribyggo anymore, even now in autumn, which had always been a time of plenty, before. It had once been a season of dried seal meat, left over from the spring, of cheese from the goats and cows, and of the berries from late summer. And it had been the time of the reindeer hunt, when the Norse would go by boat to the hunting grounds of Nordseta, three weeks by sea, where they would hunt enough meat to last the winter.

But the boats of the Norse were no longer fit to make the journey, with no wood or tools to fix them, while access to the seals near their settlement was blocked by the savage skraelings, who let no white man near the nesting sites. And there was hardly any feed for the goats and cows, leaving little meat or milk.

"We won't make it through the winter," Thialfarr said, more to himself than to his student.

"Maybe you could cast a spell to bring the reindeer further south?" Sveinn said.

"No seidrman has the power to move an entire herd, and one or two animals alone would not survive such a journey." He opened his eyes, and then worked to sit up. The exhaustion was too much, however; Sveinn would need to feed the old man as he lay in bed.

Neither Thialfarr nor Sveinn spoke further as the meat boiled. Once it was ready, Sveinn brought the meal to the bed and sat on the floor, feeding it to Thialfarr. "I have become a better cook than my mother," Sveinn said, frowning. "Should I be proud or ashamed of that?"

Thialfarr did not take the boy's words lightly. "There is no shame in caring for others. Even your Christian god asks you to care for your fellow man."

"I did not mean to offend," Sveinn said. But he most likely did. He was his father's son, and Thialfarr knew that he could not fully trust in the boy's motives.

"You should be more careful in choosing your words." Thialfarr tried to soften his voice; he did not want to stir the boy's temper. "If you plan to follow in the ways of seidr, it will be your words alone that decide if you live or die. This weakened body would stand no chance in a duel... but I was once as strong a warrior as your father."

"My father may be a warrior," Sveinn said, "but he is not strong. He only kills the game that you have brought to him."

"Do not speak ill of your father. Every man who still lives in this land is strong. Your father has kept you and your family alive, and has done as well for his withered cousin. Even as he no longer considers me a friend he still keeps the Christians from taking my life."

"I am a Christian, old man. Remember that."

"You are not like them, Sveinn. They are blinded by their beliefs, and desperate to appease their jealous god. To them I am the reason for the plagues of cold winters and vicious skraelings. But you understand my magic, and even though your father Biorn does not, he still protects me with sword and shield."

"But he curses you still. You are still a devil to him."

Thialfarr shook his head. "He curses me because I am no longer a man in his eyes. To your father, the practice of seidr is unmanly."

"I think you are mistaken," Sveinn said. The young man stood up and sighed. "Will you be able to teach me today?" he asked, obviously aware of the answer.

"Not today," Thialfarr replied. "I need to rest."

"Then rest, old man. But I will not wait forever." Sveinn turned his back and left the house.

Thialfarr closed his eyes again. It had once taken him two days to rest after each fetch for game had been cast, but now he felt he would need three. That would leave three or four days to teach the boy before the food ran out and Thialfarr would need to cast anew. He did not know if Sveinn would be willing to lose another day of instruction. There was a strong chance that he would leave Thialfarr to starve. And with his death would come the end of the Western settlement, even if the starving Norse of Vestribyggo were too foolish to see the way of things.

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Thialfarr dreamt of his mother that night, and of the fire that had consumed her. As he saw her burn in agony he could hear the words of her accusers and the unmanly sobs of his father, who never returned from the burning and never sent word of where he had fled.

She had been strong, much stronger than he, with years of training under the greatest of seidrwomen, the ageless Thorbjorg, so powerful that death could not claim her. But her teachings had not saved his mother from her fate.

But the death in the flames was not the end of his dream, and he soon found himself in the presence of his mother, floating above the settlement. She did not speak to him, but he could understand her thoughts as she tried her best to comfort him. He would join her soon; he would be free of the hunger and the pain. But she could not bring him hope for the future of his people. She could see only sadness and death for the Christian Norse from her place above the dying land. Thialfarr awoke long after the sun had risen, but felt as though he had never slept.

Sveinn did not come that morning, nor did he arrive at midday. Thialfarr fed himself from the leftover meat and his last remaining crowberries. He tried to rest, but felt a dizziness that seemed to keep him from sleep or relaxation. He was unsettled, feeling as though the world was slipping from his grasp.

Sveinn arrived at the door after sunset. He carried no food.

"My sister is dying," Sveinn said. "You need to help her."

"I don't have the strength," Thialfarr said.

"She is dying... does she not mean anything to you?"

Thialfarr held back his anger. "She does mean something to me. She is the foolish girl who brought the flames to my mother."

"She is your kin."

"I cannot save her... I must rest."

Sveinn began to reach for his sword. He was much like his father, and Thialfarr had always expected that it would be his own family who would slay him.

"I will see her tomorrow," Thialfarr said.

Sveinn dropped his hands by his side. Then he left the house without saying a word.

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Thialfarr went to the home of his cousin at first light, bringing his medicine pouch and a spirit trap made from hollowed walrus bone. He also brought his axe: he knew that he could not defend himself, but if his cousin chose to slay him, he would die like the warrior he had once been. The trip to Biorn's home was a short one, as their farms shared the grassy plain between the Hill-Where-Thorvald-Slew-Ten-Skraelings and the south branch of the fjord. Their fathers had not

only been brothers, but also good friends; that may have been the only reason Biorn still acknowledged his heathen kin.

Biorn was not there when he arrived; Sveinn explained that he had gone to the camp of the skraelings in the hope of finding food to steal. It was a bad idea, as Thialfarr had said several times before, but Biorn was never one to listen to anyone.

Biorn's wife Amma was not unhappy to see him; like most of the Norse of Greenland, her view of seidr seemed to change depending on whether she felt it could help or harm at that moment. Sveinn's sister Sefa was lying on the sleep benches. Her skin was pale, and she was caught in a restless sleep.

"Can you chant the rune song?" Thialfarr asked Amma as he drew a wide circle in red around himself and Sveinn's sister.

"If you teach it to me," she replied.

Once he had finished drawing the runes to protect the circle, Thialfarr relayed the rune song to Amma. It was a collection of sounds, not words, and it was meant to bring on the healing trance for the seidrman. Amma learned it quickly, and began to chant. She had a strong voice despite being a Christian.

Thialfarr closed his eyes as Amma chanted, and there he met his fylgja, a mighty white bear that awaited him just outside the circle. He knew that Sefa's guide was a fox, but he did not see it. This was a sign of deep illness, made worse by a lack of belief from the young woman. Around the circle the room had disappeared, leaving only Thialfarr and the sleeping Sefa, who floated where she lay. The deep forests from the home of his ancestors now appeared beyond the circle, tall pine and spruce; he had only seen these woods in trance, having never traveled beyond the grass and bogs of Greenland.

The white bear stepped into the circle as warmth flowed upwards through Thialfarr's body. He touched Sefa's forehead, sending out thoughts of healing and well-being.

"Spirits of illness," he said, "show yourselves." He looked around the circle, but saw no one. "Spirits, come forward."

Two brown hares appeared under the body of Sefa, plump, as though they had had plenty to feed on. Thialfarr spoke a protection chant to strengthen the circle, and the two hares scurried outside the red line.

"What spirits are you?" he asked.

"Spirits of well-being," one of the hares replied.

Thialfarr held the spirit trap in the air. "You are spirits of sickness," he said. "Go into the trap."

"We will not."

"Then be consumed by the fylgja of Sefa." He spoke the chant of reunion, to summon the young woman's missing spirit guide. No fox appeared, so he spoke the chant again.

"The fox is dead," the hare said. "We ate the fox."

"Good," Thialfarr said, "then you should eat the bear as well." Once he had spoken the words, his white bear began to stalk towards the hares. The white hares transformed into a brown mist, rising upwards. Thialfarr gave the chant of the spirit trap, and the mist was blown into the walrus bone. A final chant sealed the trap. With the spirits in bondage, a little fox appeared and sniffed the feet of Sefa as she floated above. He could feel the flow of strength rushing into her body.

Thialfarr opened his eyes, bringing the trance to an end. The forest had disappeared into the turf house of Biorn and Amma. He saw that Sefa was already waking, and he felt relief and even joy for the girl he had come to despise. He hadn't expected that. As he wondered how he had come to feel that way, Thialfarr fell to the ground and passed out.

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He awoke three days later, according to Sveinn, who was at his side when he first opened his eyes.

"What of the girl?" Thialfarr asked. He was surprised by the weakness in his voice. He had never known it to sound so old.

"You have made her well," Sveinn replied.

"Then I have paid back your father for his protection." He tried to summon his arms to lift himself up, but could not find feeling past his chin. He could see his arms, and he could see his body and his legs, but he could feel none of them. "I cannot move."

"Then rest," Sveinn said.

"I will rest a while." But Thialfarr knew that rest would not be enough. He wondered if he would join his mother before the snow arrived.

• • •

Thialfarr could feel the wind on his face as Sveinn pulled him along on the family's cart. The feet he could not feel were folded and bound to the cart along with the arms he no longer knew. They weren't his limbs anymore. He was only an old man's head resting on a wooden cart.

The ride was rough, with Thialfarr's head bobbing as if it were being knocked about in a game of ball catch. The trail they traveled to the outlet had once been well-used, before the skraelings had arrived to claim the mouth of the fjord; now any Norse who wished to get to the outlet would scurry along like a frightened hare, far off the path where the waterfront trail gave way to the endless cotton grass.

"There are two skraelings on that hillside," Sveinn said nervously. He wore his helmet and carried both sword and axe, with his shield sitting in the cart beside Thialfarr. Like many of the young of Vestribyggo, the boy seemed terrified of the strange men from the North. Thialfarr wondered if that was better than the blind hatred of the previous generations. Perhaps fear could give way to acceptance in time.

"They will let us pass," Thialfarr said. "Any Norseman who is willing to walk on the path will be treated as a guest."

"I do not believe you."

"I have done this before. The Kalaallit are not my enemies, and they are not the eternal enemies of the Norse."

"Those words are more dangerous than your witchcraft," Sveinn said.

"We will see."

The two men on the hillside watched the Norsemen and the cart, but did not call out or come down to the waterfront. As they continued along the trail, Thialfarr could see the tents of the skraeling village in the distance. There were at least fifteen tents from his count, and every tent was accompanied by lines of drying meat. The skraelings were eating well; he did not know if it was magic or better sense that allowed the strange people to flourish in what was now a land of cold and death.

His mother had told him stories of the arrival of the small and powerful men of the ice, how they had come down from the north along with the cold weather, as though the people and the frigid winds had always traveled together. The sorcerer of the Kalaallit was obviously more powerful than Thialfarr if he had power over the weather itself. He was probably greater than Thialfarr's mother had ever been, and even greater than the seidrwoman Thorbjorg, who had fled to Vinland as the land had begun to grow colder. Even she had not been able to stop the snow and ice of the Kalaallit sorcerers.

A group of skraelings met them at the edge of the village; the sorcerer stood first among them. He was taller than the others, who were all as dwarves compared to the Norse.

The sorcerer walked boldly towards the cart and looked directly at Thialfarr; his eyes seemed to be filled with sympathy for the broken body of the seidrman. He wondered if the sorcerer's magic could lead to the same weakness that Thialfarr now felt so often.

"Give us space," Thialfarr whispered to Sveinn. The young man stepped back several paces.

The sorcerer held his arms up in the air and chanted in his strange tongue. Thialfarr also chanted, the runesong of communication, but he knew that the magic would need to come mainly from the skraeling, as he had little power left.

Thialfarr closed his eyes and saw the trance circle of the skraeling sorcerer appear before him. The sorcerer had not drawn on the ground, but the circle was still there, ringed with fire and surrounded by ice. Thialfarr's white bear was also there, just outside the circle, as was a white owl. Within the flames of the circle Thialfarr could feel every part of his body as he floated above the ground; he carefully dropped his feet and stood.

"Friend," the sorcerer said in the language of the Norse, "you are not well."

"I am dying," Thialfarr replied. "I have weakened myself from a trance of healing and I will not recover."

"I have had a vision of this. Your people cannot survive much longer in this changed land. Arnarquagssaq has decided to clean the world, and she does not want you to live."

"Is that why the weather is changed? Did your goddess command it?"

"I do not know. I believe that other angekok have commanded this weather, to make the world right for our people. But I have not done so. I want there to always be land for your people to live. But Arnarquagssaq has locked away the animals of the sea, and releases them only to the Kalaallit."

"But I have been able to release some for my people."

"Yes, but it has weakened you. You will not be able to release another animal before you die."

"That is true," Thialfarr said. "And my people will die soon after I do. Is there nothing you can do to help us?"

"But why should I help you? It will hurt my people to anger Arnarquagssaq. She will not want us to care for those who do not respect her power."

"Then I will make sure that my people honour the power of Arnarquagssaq. I will convince them to live the life of the Kalaallit."

"You are a good man," the sorcerer said. "But if empty stomachs and cold beds have not yet shown your people that they must change, I cannot believe that you will do it from your wooden sled."

"But I will try. I will do all that I can to save my people."

The sorcerer looked at him a moment before smiling. "Then I will help." The sorcerer began to chant again. Thialfarr could feel increasing warmth in his spirit body, not a comforting feeling as in a seidr trance, but a burning, as though he were being consumed by flame. As the heat grew, the pain became unbearable. Thialfarr screamed in agony and opened his eyes.

He was still bound to the cart, and Sveinn was again at his side. Thialfarr flexed his arms against the bindings, not aware at first of the meaning of that act or the extent of the sorcerer's gift.

"Untie me," he said to Sveinn. Sveinn undid the knots by hand; it was a wise decision, considering what the outcome would have been had he pulled out his sword in front of the gathered warriors. Thialfarr sat up and climbed off the cart. The sorcerer smiled at him.

"I will go to my people now," Thialfarr said. The sorcerer did not respond, and Thialfarr quickly realized that the skraeling no longer understood his words. Thialfarr nodded his head and turned away. He took hold of the cart, and he and Sveinn pulled it together as they made their way back to the farms of Vestribyggo.

As Thialfarr returned with his student along the faded trail, he could see that the young man was avoiding his gaze. Was he terrified of the sorcerer of the Kalaallit, or of the once-withered seidrman who was young and strong again?

"This settlement is dying," Thialfarr said. "It is too cold for us to live in the ways of the Norse. We must either leave for Vinland or adopt the ways of the skraelings."

"Then you should summon us a ship, old man," Sveinn said. "I will not live like those wretched people. I will not worship the devil to save my life." He had the look of his father now, unyielding and hateful. If Thialfarr could not convince him, what chance did he have with the other men of the settlement?

As they approached the westernmost farm, a voice called out: "The filth has returned!" It was Litli, an older man from the far side of the settlement who was known more for his wealth than for his courage. He was gathered with the other men of Vestribyggo, and all were standing ready to fight.

"You should flee," Sveinn said.

"I will not flee," Thialfarr said. "This time I will tell them the truth."

"They will not listen. They will kill you." Sveinn grabbed Thialfarr by the shoulders. "Run away, old man!"

Thialfarr shoved the young man aside with more strength than he had known in years. He walked to the farmyard where the men were waiting. While not as strong as in times of plenty, they were still Norse warriors armed with swords and axes, each of the nineteen before them having been in battle before, against skraelings or pirates, and often against one another. They would have no trouble against one man and a frightened boy.

"You've come back to us, seidrwoman?" Litli said. "You should have stayed with your skraeling friends." There was an unexpected resolve in the man's voice. There would be no persuasion.

Thialfarr saw his cousin standing to the left of the group of men, holding his sword and shield. Whether Biorn stood with or against the villagers was not clear; Thialfarr had saved his daughter's life, but he did not know if that had been enough.

"We are a Christian people," Litli said. "We will not accept your witchcraft."

"You are a collection of fools," Thialfarr said. "I am the only reason you still live. It is my witchcraft that brings the meat that feeds you."

"You are godless and unmanly, Thialfarr. I can see that we did not complete our work... we should have burnt you along with your heathen mother."

Thialfarr's heart, newly strong, filled with anger. The fools and cowards of Vestribyggo had turned their backs on the rites of their ancestors. They were simpletons, cursing Odin while worshipping milk and cheese. He would not give himself over to them, to be killed in the names of Jesus and Joseph. He was a seidrman, but he was also a warrior. He would not yield.

"You have insulted me," Thialfarr said to Litli. "Are you challenging me to holmgang? You say that I am not a man, but you are the one who is not a man at heart. You have sat by as your people starve, praying to your false god, while I have protected this settlement with the ways of seidr."

"Do not be foolish, Thialfarr!" Biorn said from his place beside the crowd. "You cannot fight. You could not even walk yesterday!"

But Thialfarr was filled with new strength, and he was whole again, and well again, by the gift of the Kalaallit sorcerer. And he would show these fools what the magic of a true Norseman could do.

"I challenge you, Litli!" Thialfarr said. "Let my words be heard, that you are not a man!"

Litli pulled his sword and grinned. "There will be no duel... you are of the devil, and deserve nothing more than to be killed on this very spot." He charged towards Thialfarr and swung out with his sword, but the seidrman had time enough to dodge the attack.

Sveinn stepped in front of Thialfarr, brandishing his sword and shield. "You would strike an unarmed man?" he said. Litli struck at the young man, who blocked the blow with his shield. Sveinn kicked Litli's knee, sending the older man to the ground. Rather than strike again, Sveinn stepped back and lowered his sword. The other men of the settlement raised their swords and gripped their shields, and began to walk towards Thialfarr and the boy.

"Leave them be!" Biorn called out. "I am not eager for battle today, but I will strike down every one of you chattering mares if I must."

The men took notice of Biorn's insult and began to circle around him, calling for his blood. One of the younger men was first to strike, and the other men followed, taking quick swings and jabs. Biorn blocked almost every blow that came to him, but was struck in the left arm by an axe from behind. He dropped his shield, and the men continued their attack. Thialfarr saw his cousin fall, and watched as the blows continued. The cowards of Vestribyggo continued to hack away long after there was any hope that Biorn the Hunter was still alive.

Thialfarr looked over to Sveinn. The young man had not moved, and had not even cried out as his father was killed. Sveinn would now be left to take his father's place and to wait honourably for the moment when he would take his revenge, assuming that the cowards did not kill him next. He knew that they would try.

Thialfarr felt a madness within him, a torrent of rage taking control of his entire body. All he saw before him was covered in a haze of red. He tore his shirt and pulled it off, throwing it to the ground. The rage grew, his face swelling and burning, his body convulsing. His chest exploded into a coat of thick white hair, and his hands began to bleed. He could feel his fingertips burst as sharp claws grew to take their place, as his body assumed the form of his ferocious fylgia to take his revenge on the simple-minded cowards. He was still on two legs, but he now had the body of a bear, with strength and power to match his anger. He ran down towards the men, sweat and froth spilling from his face. He would destroy them all.

The false Norse of Vestribyggo turned to flee, but Thialfarr did not stop his attack. He would not stop; he could not stop. His claws dug into the flesh of the first man he reached, and he pulled his victim to the ground and clawed open the man's stomach.

A second man turned to fight, but his sword could not harm the great white bear. Thialfarr dug a claw into the man's side before continuing his pursuit.

The rest of the men made it to the fjord, where they jumped into the cold water in their struggle to escape. Thialfarr watched the men as they swam to the far shore, but he could feel the energy begin to drain away as his rage slowed. He felt old again. As quickly as his form of the bear had come, it went away, leaving only a weakened seidrman.

Sveinn came to him, sword in hand. "You are the reason my father is dead," he said.

"I am," Thialfarr said, "just as I am the reason your sister lives. And just as she is the reason my mother was burned as a witch."

"I could kill you, old man. I am not afraid of you."

"You do not need to fear me. I do not matter. I cannot save you. The Norse will die if they continue to live as Norsemen."

"Then I will die a Norseman. As will you."

The thrust of Sveinn's sword forced Thialfarr to bend forward. As the young man pulled his blade away, the seidrman fell on his knees. He did not feel pain, at least not yet; all he felt was the grief of losing his cousin and protector, and of losing the soul of the student he loved.

"What have you done?" a woman called out. It was Amma, the widow of the fallen Biorn, at the head of a procession of women and children that had arrived.

"They killed my father," Sveinn said.

"They have... and we will take our revenge when the time is right. But you have taken your anger out on the man your father died to defend." Amma drew close to Thialfarr, inspecting him as though he were a reindeer carcass. "And now this seidrman is dying, and we will no longer have his magic to protect us. You have dishonoured your family."

Thialfarr watched the young man's face turn from rage to regret before he felt his dying body fall beneath him. Thialfarr was no longer with that body; he found that he was in the air above it. He could feel the cold wind of the coming winter as it blew against his new being. He could feel his spirit body drift above the turf houses, upwards to the top of the Hill-Where-Thorvald-Slew-Ten-Skraelings. There he joined his mother, and those in their family who had practiced the seidr in the days before, as they watched life continue below them.

From there he could hear the remorseful words of Litli, who still lay where Sveinn had kicked him, sprawled on the ground like an old dog. And he could hear the words of the other cowards, as they slowly began to realize the shame of what they had done.

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