

Lightspeed Magazine Issue 31, December 2012

Table of Contents

Editorial, December 2012

"Story of Your Life"—Ted Chiang (ebook-exclusive)

Cold Days—Jim Butcher (novel excerpt)

Interview: Junot Diaz

Interview: Tad Williams

Artist Gallery: Luis Lasahido

Artist Spotlight: Luis Lasahido

The Perfect Match—Ken Liu (SF)

Swanwatch—Yoon Ha Lee (SF)

Dreams in Dust—D. Thomas Minton (SF)

Lazaro y Antonio—Marta Randall (SF)

An Accounting—Brian Evenson (fantasy)

Family Teeth (Part 5): American Jackal—J.T. Petty (fantasy)

Catskin—Kelly Link (fantasy)

Family Teeth (Part 6): St. Polycarp's Home For Happy Wanderers—Sarah Langan (fantasy)

Author Spotlight: Ted Chiang (ebook-exclusive)

Author Spotlight: Ken Liu

Author Spotlight: Yoon Ha Lee

Author Spotlight: D. Thomas Minton

Author Spotlight: Marta Randall

Author Spotlight: Brian Evenson

Author Spotlight: J.T. Petty

Author Spotlight: Kelly Link

Author Spotlight: Sarah Langan

Coming Attractions

© 2012, *Lightspeed Magazine*Cover Art and artist gallery images by Luis Lasahido.
Ebook design by Neil Clarke.

www.lightspeedmagazine.com

Editorial, December 2012 John Joseph Adams

Welcome to issue thirty-one of *Lightspeed*!

As I write this editorial, I'm just back from the World Fantasy Convention, which was held in Toronto this year. As always, it was a wonderful time, catching up with old friends and colleagues and meeting new ones. We held some promotional events at the convention for *Lightspeed* and *Nightmare*, which were well attended, and we had three hundred copies of a *Lightspeed/Nightmare* sampler distributed amongst the membership, none of which seemed to end up on the "freebie/unwanted books" table afterward, which we took as a good sign. Alas, I did once again manage to not win the World Fantasy Award, but it really is truly an honor to be nominated.

Last month I told you about my new anthology, *Epic: Legends of Fantasy*. In case you missed that editorial, briefly: *Epic* is an anthology reprinting the best epic fantasy short fiction, featuring authors such as George R. R. Martin, Brandon Sanderson, Patrick Rothfuss, Robin Hobb, and more. Learn more at johnjosephadams.com/epic.

This month, I have another new book out, or rather a

new edition of one of my already published books. Night Shade Books has just released a new revised and expanded edition of my dystopian fiction anthology *Brave New Worlds*. This new edition contains three stories not included in the first edition, including "The Perfect Match" by Ken Liu, which appears as an original in this month's issue of *Lightspeed*. To learn more about *Brave New Worlds*, visit johnjosephadams.com/brave-new-worlds.

And, finally—have you checked out our new sistermagazine Nightmare yet? If you enjoy horror and dark fantasy, we hope you'll do so if you haven't already. Our first issue featured four all-new stories by Laird Barron, Sarah Langan, Jonathan Maberry, and Genevieve Valentine; the November issue included original fiction by horror legend Ramsey Campbell and up-and-coming writer Desirina Boskovich, along with classic reprints by Joe Haldeman and Poppy Z. Brite. And the December issue has original fiction by bestselling author Daniel H. Wilson and new writer J.B. Park, along with reprints by Sarah Pinborough and Tananarive Due. Just visit www.nightmare-magazine.com, and either read it for free online, or buy one of our ebook editions—or subscribe!

Speaking of subscriptions You may have noticed

that *Lightspeed*'s subscription price went up recently, from \$1.99 an issue to \$2.99 an issue (e.g., from \$23.88 to \$35.88 annually). We just wanted to briefly explain why.

As many of you know, *Lightspeed* has been available as a subscription via Amazon.com's Periodicals program since late 2011. What you may not have known is that Amazon actually sets the price on those subscriptions. When *Lightspeed* first launched as an Amazon subscription, it was before the *Lightspeed-Fantasy* merger, at which point the issues were about 30,000-35,000 words long. At that time, we sold individual issues for \$2.99 and Amazon priced *Lightspeed* at \$1.99 a month for subscribers.

Post-merger, we doubled our amount of fiction content by merging *Fantasy Magazine* into *Lightspeed*, and then also added in the novella reprints to each ebook issue as well, taking each ebook issue to around 80,000-85,000 words total. We raised our cover price to \$3.99, but Amazon kept our subscription price at \$1.99 per issue; Amazon reviews periodicals pricing on their own schedule—regardless of what the publisher may prefer—so it wasn't until the past couple of weeks that they reviewed the pricing for *Lightspeed*. After their review, they adjusted the subscription price up to \$2.99, due, we

assume, to the fact that each issue of the magazine is now much longer. Our individual issue price remains at \$3.99 an issue, so subscribers will still be saving a dollar an issue by subscribing (or about 25% off the cover price).

So, the price increase is not something that was under our control, but we feel like it is a fair price for the magazine, and we hope you'll agree and continue to subscribe. Rest assured, we're not going to take this newfound income and spend it frivolously; indeed, we plan to take it and invest it back into *Lightspeed*, to make it the best magazine it can be.

With all that out of the way, here's what we've got on tap this month:

We have a pair of connected fantasy stories by husband-and-wife creative duo J.T. Petty and Sarah Langan ("Family Teeth, Part 5: American Jackal" and "Family Teeth, Part 6: St. Polycarp's Home for Happy Wanderers"), along with fantasy reprints by Brian Evenson ("An Accounting") and Kelly Link ("Catskin").

Plus, we have original science fiction by D. Thomas Minton ("Dreams in Dust") and Ken Liu ("The Perfect Match"), and SF reprints by Yoon Ha Lee ("Swanwatch") and Marta Randall ("Lazaro y Antonio").

For our ebook readers, our ebook-exclusive novella is

"Story of Your Life" by Ted Chiang, and of course we have our usual assortment of author and artist spotlights, along with feature interviews with bestseller Tad Williams and Pulitzer Prize-winning author Junot Diaz. Plus, we have an excerpt of the new Dresden Files novel, *Cold Days*, by Jim Butcher.

Our issue this month is again sponsored by our friends at Orbit Books. This month, look for the Culture Box Set, which celebrates the 25th anniversary of Iain M. Banks's legendary Culture series and includes the first three novels in the series (*Consider Phlebas, The Player of Games*, and *Use of Weapons*). You can find more from Orbit—including digital short fiction and monthly ebook deals—at www.orbitbooks.net.

It's another great issue, so be sure to check it out. And remember, there are several ways you can sign up to be notified of new *Lightspeed* content:

- Newsletter: lightspeedmagazine.com/newsletter
- RSS Feed: lightspeedmagazine.com/rss-2
- Podcast Feed: lightspeedmagazine.com/itunes-rss
- Twitter: @lightspeedmag
- Facebook: facebook.com/lightspeedmagazine
- Google+: plus.google.com/100415462108153087624
- Subscribe: lightspeedmagazine.com/subscribe

Well, that's all there is to report this month. Thanks for reading!

John Joseph Adams, in addition to serving as publisher and editor of Lightspeed, is the bestselling editor of many anthologies, such as Epic, Other Worlds Than These, Armored, Under the Moons of Mars: New Adventures on Barsoom, Brave New Worlds, Wastelands, The Living Dead, The Living Dead 2, By Blood We Live, Federations, The Improbable Adventures of Sherlock Holmes, and The Way of the Wizard. He is a four-time finalist for the Hugo Award and a four-time finalist for the World Fantasy Award. Forthcoming anthologies include The Mad Scientist's Guide to World Domination (2013, Tor), Wastelands 2 (2013, Night Shade), and Robot Uprisings (2013, Doubleday). He is also the editor of Nightmare Magazine and is the co-host of Wired.com's The Geek's Guide to the Galaxy podcast. Find him on Twitter @johnjosephadams.

Story of Your Life Ted Chiang

Your father is about to ask me the question. This is the most important moment in our lives, and I want to pay attention, note every detail. Your dad and I have just come back from an evening out, dinner and a show; it's after midnight. We came out onto the patio to look at the full moon; then I told your dad I wanted to dance, so he humors me and now we're slow-dancing, a pair of thirtysomethings swaying back and forth in the moonlight like kids. I don't feel the night chill at all. And then your dad says, "Do you want to make a baby?"

Right now your dad and I have been married for about two years, living on Ellis Avenue; when we move out you'll still be too young to remember the house, but we'll show you pictures of it, tell you stories about it. I'd love to tell you the story of this evening, the night you're conceived, but the right time to do that would be when you're ready to have children of your own, and we'll never get that chance.

Telling it to you any earlier wouldn't do any good; for most of your life you won't sit still to hear such a romantic—you'd say sappy—story. I remember the

scenario of your origin you'll suggest when you're twelve.

"The only reason you had me was so you could get a maid you wouldn't have to pay," you'll say bitterly, dragging the vacuum cleaner out of the closet.

"That's right," I'll say. "Thirteen years ago I knew the carpets would need vacuuming around now, and having a baby seemed to be the cheapest and easiest way to get the job done. Now kindly get on with it."

"If you weren't my mother, this would be illegal," you'll say, seething as you unwind the power cord and plug it into the wall outlet.

That will be in the house on Belmont Street. I'll live to see strangers occupy both houses: the one you're conceived in and the one you grow up in. Your dad and I will sell the first a couple years after your arrival. I'll sell the second shortly after your departure. By then Nelson and I will have moved into our farmhouse, and your dad will be living with what's-her-name.

I know how this story ends; I think about it a lot. I also think a lot about how it began, just a few years ago, when ships appeared in orbit and artifacts appeared in meadows. The government said next to nothing about them, while the tabloids said every possible thing.

And then I got a phone call, a request for a meeting.

I spotted them waiting in the hallway, outside my office. They made an odd couple; one wore a military uniform and a crewcut, and carried an aluminum briefcase. He seemed to be assessing his surroundings with a critical eye. The other one was easily identifiable as an academic: full beard and mustache, wearing corduroy. He was browsing through the overlapping sheets stapled to a bulletin board nearby.

"Colonel Weber, I presume?" I shook hands with the soldier. "Louise Banks."

"Dr. Banks. Thank you for taking the time to speak with us," he said.

"Not at all; any excuse to avoid the faculty meeting."

Colonel Weber indicated his companion. "This is Dr. Gary Donnelly, the physicist I mentioned when we spoke on the phone."

"Call me Gary," he said as we shook hands. "I'm anxious to hear what you have to say."

We entered my office. I moved a couple of stacks of books off the second guest chair, and we all sat down.

"You said you wanted me to listen to a recording. I presume this has something to do with the aliens?"

"All I can offer is the recording," said Colonel Weber.

"Okay, let's hear it."

Colonel Weber took a tape machine out of his

briefcase and pressed play. The recording sounded vaguely like that of a wet dog shaking the water out of its fur.

"What do you make of that?" he asked.

I withheld my comparison to a wet dog. "What was the context in which this recording was made?"

"I'm not at liberty to say."

"It would help me interpret those sounds. Could you see the alien while it was speaking? Was it doing anything at the time?"

"The recording is all I can offer."

"You won't be giving anything away if you tell me that you've seen the aliens; the public's assumed you have."

Colonel Weber wasn't budging. "Do you have any opinion about its linguistic properties?" he asked.

"Well, it's clear that their vocal tract is substantially different from a human vocal tract. I assume that these aliens don't look like humans?"

The colonel was about to say something noncommittal when Gary Donelly asked, "Can you make any guesses based on the tape?"

"Not really. It doesn't sound like they're using a larynx to make those sounds, but that doesn't tell me what they look like."

"Anything—is there anything else you can tell us?" asked Colonel Weber.

I could see he wasn't accustomed to consulting a civilian. "Only that establishing communications is going to be really difficult because of the difference in anatomy. They're almost certainly using sounds that the human vocal tract can't reproduce, and maybe sounds that the human ear can't distinguish."

"You mean infra- or ultrasonic frequencies?" asked Gary Donelly.

"Not specifically. I just mean that the human auditory system isn't an absolute acoustic instrument; it's optimized to recognize the sounds that a human larynx makes. With an alien vocal system, all bets are off." I shrugged. "Maybe we'll be able to hear the difference between alien phonemes, given enough practice, but it's possible our ears simply can't recognize the distinctions they consider meaningful. In that case, we'd need a sound spectrograph to know what an alien is saying."

Colonel Weber asked, "Suppose I gave you an hour's worth of recordings; how long would it take you to determine if we need this sound spectrograph or not?"

"I couldn't determine that with just a recording no matter how much time I had. I'd need to talk with the aliens directly." The colonel shook his head. "Not possible."

I tried to break it to him gently. "That's your call, of course. But the only way to learn an unknown language is to interact with a native speaker, and by that I mean asking questions, holding a conversation, that sort of thing. Without that, it's simply not possible. So if you want to learn the aliens' language, someone with training in field linguistics—whether it's me or someone elsewill have to talk with an alien. Recordings alone aren't sufficient."

Colonel Weber frowned. "You seem to be implying that no alien could have learned human languages by monitoring our broadcasts."

"I doubt it. They'd need instructional material specifically designed to teach human languages to nonhumans. Either that, or interaction with a human. If they had either of those, they could learn a lot from TV, but otherwise, they wouldn't have a starting point."

The colonel clearly found this interesting; evidently his philosophy was, the less the aliens knew, the better. Gary Donnelly read the colonel's expression too and rolled his eyes. I suppressed a smile.

Then Colonel Weber asked, "Suppose you were learning a new language by talking to its speakers; could you do it without teaching them English?"

"That would depend on how cooperative the native speakers were. They'd almost certainly pick up bits and pieces while I'm learning their language, but it wouldn't have to be much if they're willing to teach. On the other hand, if they'd rather learn English than teach us their language, that would make things far more difficult."

The colonel nodded. "I'll get back to you on this matter."

The request for that meeting was perhaps the second most momentous phone call in my life. The first, of course, will be the one from Mountain Rescue. At that point your dad and I will be speaking to each other maybe once a year, tops. After I get that phone call, though, the first thing I'll do will be to call your father.

He and I will drive out together to perform the identification, a long silent car ride. I remember the morgue, all tile and stainless steel, the hum of refrigeration and smell of antiseptic. An orderly will pull the sheet back to reveal your face. Your face will look wrong somehow, but I'll know it's you.

"Yes, that's her," I'll say. "She's mine." You'll be twenty-five then.

The MP checked my badge, made a notation on his

clipboard, and opened the gate; I drove the off-road vehicle into the encampment, a small village of tents pitched by the Army in a farmer's sun-scorched pasture. At the center of the encampment was one of the alien devices, nicknamed "looking glasses."

According to the briefings I'd attended, there were nine of these in the United States, one hundred and twelve in the world. The looking glasses acted as two-way communication devices, presumably with the ships in orbit. No one knew why the aliens wouldn't talk to us in person; fear of cooties, maybe. A team of scientists, including a physicist and a linguist, was assigned to each looking glass; Gary Donnelly and I were on this one.

Gary was waiting for me in the parking area. We navigated a circular maze of concrete barricades until we reached the large tent that covered the looking glass itself. In front of the tent was an equipment cart loaded with goodies borrowed from the school's phonology lab; I had sent it ahead for inspection by the Army.

Also outside the tent were three tripod-mounted video cameras whose lenses peered, through windows in the fabric wall, into the main room. Everything Gary and I did would be reviewed by countless others, including military intelligence. In addition, we would each send daily reports, of which mine had to include estimates on

how much English I thought the aliens could understand.

Gary held open the tent flap and gestured for me to enter. "Step right up," he said, circus barker-style. "Marvel at creatures the likes of which have never been seen on God's green earth."

"And all for one slim dime," I murmured, walking through the door. At the moment the looking glass was inactive, resembling a semicircular mirror over ten feet high and twenty feet across. On the brown grass in front of the looking glass, an arc of white spray paint outlined the activation area. Currently the area contained only a table, two folding chairs, and a power strip with a cord leading to a generator outside. The buzz of fluorescent lamps, hung from poles along the edge of the room, commingled with the buzz of flies in the sweltering heat.

Gary and I looked at each other, and then began pushing the cart of equipment up to the table. As we crossed the paint line, the looking glass appeared to grow transparent; it was as if someone was slowly raising the illumination behind tinted glass. The illusion of depth was uncanny; I felt I could walk right into it. Once the looking glass was fully lit, it resembled a life-size diorama of a semicircular room. The room contained a few large objects that might have been furniture, but no aliens. There was a door in the curved rear wall.

We busied ourselves connecting everything together: microphone, sound spectrograph, portable computer, and speaker. As we worked, I frequently glanced at the looking glass, anticipating the aliens' arrival. Even so I jumped when one of them entered.

It looked like a barrel suspended at the intersection of seven limbs. It was radially symmetric, and any of its limbs could serve as an arm or a leg. The one in front of me was walking around on four legs, three non-adjacent arms curled up at its sides. Gary called them "heptapods."

I'd been shown videotapes, but I still gawked. Its limbs had no distinct joints; anatomists guessed they might be supported by vertebral columns. Whatever their underlying structure, the heptapod's limbs conspired to move it in a disconcertingly fluid manner. Its "torso" rode atop the rippling limbs as smoothly as a hovercraft.

Seven lidless eyes ringed the top of the heptapod's body. It walked back to the doorway from which it entered, made a brief sputtering sound, and returned to the center of the room followed by another heptapod; at no point did it ever turn around. Eerie, but logical; with eyes on all sides, any direction might as well be "forward."

Gary had been watching my reaction. "Ready?" he asked.

I took a deep breath. "Ready enough." I'd done plenty of fieldwork before, in the Amazon, but it had always been a bilingual procedure: either my informants knew some Portuguese, which I could use, or I'd previously gotten an intro to their language from the local missionaries. This would be my first attempt at conducting a true monolingual discovery procedure. It was straightforward enough in theory, though.

I walked up to the looking glass and a heptapod on the other side did the same. The image was so real that my skin crawled. I could see the texture of its gray skin, like corduroy ridges arranged in whorls and loops. There was no smell at all from the looking glass, which somehow made the situation stranger.

I pointed to myself and said slowly, "Human." Then I pointed to Gary. "Human." Then I pointed at each heptapod and said, "What are you?"

No reaction. I tried again, and then again.

One of the heptapods pointed to itself with one limb, the four terminal digits pressed together. That was lucky. In some cultures a person pointed with his chin; if the heptapod hadn't used one of its limbs, I wouldn't have known what gesture to look for. I heard a brief fluttering sound, and saw a puckered orifice at the top of its body vibrate; it was talking. Then it pointed to its companion

and fluttered again.

I went back to my computer; on its screen were two virtually identical spectrographs representing the fluttering sounds. I marked a sample for playback. I pointed to myself and said "Human" again, and did the same with Gary. Then I pointed to the heptapod, and played back the flutter on the speaker.

The heptapod fluttered some more. The second half of the spectrograph for this utterance looked like a repetition: Call the previous utterances [flutter1], then this one was [flutter2flutter1].

I pointed at something that might have been a heptapod chair. "What is that?"

The heptapod paused, and then pointed at the "chair" and talked some more. The spectrograph for this differed distinctly from that of the earlier sounds: [flutter3]. Once again, I pointed to the "chair" while playing back [flutter3].

The heptapod replied; judging by the spectrograph, it looked like [flutter3flutter2]. Optimistic interpretation: the heptapod was confirming my utterances as correct, which implied compatibility between heptapod and human patterns of discourse. Pessimistic interpretation: it had a nagging cough.

At my computer I delimited certain sections of the

spectrograph and typed in a tentative gloss for each: "heptapod" for [flutter1], "yes" for [flutter2], and "chair" for [flutter3]. Then I typed "Language: Heptapod A" as a heading for all the utterances.

Gary watched what I was typing. "What's the 'A' for?"

"It just distinguishes this language from any other ones the heptapods might use," I said.

He nodded.

"Now let's try something, just for laughs." I pointed at each heptapod and tried to mimic the sound of [flutter1], "heptapod." After a long pause, the first heptapod said something and then the second one said something else, neither of whose spectrographs resembled anything said before. I couldn't tell if they were speaking to each other or to me since they had no faces to turn. I tried pronouncing [flutter1] again, but there was no reaction.

"Not even close," I grumbled.

"I'm impressed you can make sounds like that at all," said Gary.

"You should hear my moose call. Sends them running."

I tried again a few more times, but neither heptapod responded with anything I could recognize. Only when I

replayed the recording of the heptapod's pronunciation did I get a confirmation; the heptapod replied with [flutter2], "yes."

"So we're stuck with using recordings?" asked Gary. I nodded. "At least temporarily."

"So now what?"

"Now we make sure it hasn't actually been saying 'aren't they cute' or 'look what they're doing now.' Then we see if we can identify any of these words when that other heptapod pronounces them." I gestured for him to have a seat. "Get comfortable; this'll take a while."

In 1770, Captain Cook's ship *Endeavor* ran aground on the coast of Queensland, Australia. While some of his men made repairs, Cook led an exploration party and met the aboriginal people. One of the sailors pointed to the animals that hopped around with their young riding in pouches, and asked an aborigine what they were called. The aborigine replied, "Kanguru." From then on Cook and his sailors referred to the animals by this word. It wasn't until later that they learned it meant, "What did you say?"

I tell that story in my introductory course every year. It's almost certainly untrue, and I explain that afterwards, but it's a classic anecdote. Of course, the anecdotes my undergraduates will really want to hear are ones featuring the heptapods; for the rest of my teaching career, that'll be the reason many of them sign up for my courses. So I'll show them the old videotapes of my sessions at the looking glass, and the sessions that the other linguists conducted; the tapes are instructive, and they'll be useful if we're ever visited by aliens again, but they don't generate many good anecdotes.

When it comes to language-learning anecdotes, my favorite source is child language acquisition. I remember one afternoon when you are five years old, after you have come home from kindergarten. You'll be coloring with your crayons while I grade papers.

"Mom," you'll say, using the carefully casual tone reserved for requesting a favor, "can I ask you something?"

"Sure, sweetie. Go ahead."

"Can I be, um, honored?"

I'll look up from the paper I'm grading. "What do you mean?"

"At school Sharon said she got to be honored."

"Really? Did she tell you what for?"

"It was when her big sister got married. She said only one person could be, um, honored, and she was it."

"Ah, I see. You mean Sharon was maid of honor?"

"Yeah, that's it. Can I be made of honor?"

Gary and I entered the prefab building containing the center of operations for the looking-glass site. Inside it looked like they were planning an invasion, or perhaps an evacuation: Crewcut soldiers worked around a large map of the area, or sat in front of burly electronic gear while speaking into headsets. We were shown into Colonel Weber's office, a room in the back that was cool from air conditioning.

We briefed the colonel on our first day's results. "Doesn't sound like you got very far," he said.

"I have an idea as to how we can make faster progress," I said. "But you'll have to approve the use of more equipment."

"What more do you need?"

"A digital camera, and a big video screen." I showed him a drawing of the setup I imagined. "I want to try conducting the discovery procedure using writing; I'd display words on the screen, and use the camera to record the words they write. I'm hoping the heptapods will do the same."

Weber looked at the drawing dubiously. "What would be the advantage of that?"

"So far I've been proceeding the way I would with

speakers of an unwritten language. Then it occurred to me that the heptapods must have writing, too."

"So?"

"If the heptapods have a mechanical way of producing writing, then their writing ought to be very regular, very consistent. That would make it easier for us to identify graphemes instead of phonemes. It's like picking out the letters in a printed sentence instead of trying to hear them when the sentence is spoken aloud."

"I take your point," he admitted. "And how would you respond to them? Show them the words they displayed to you?"

"Basically. And if they put spaces between words, any sentences we write would be a lot more intelligible than any spoken sentence we might splice together from recordings."

He leaned back in his chair. "You know we want to show as little of our technology as possible."

"I understand, but we're using machines as intermediaries already. If we can get them to use writing, I believe progress will go much faster than if we're restricted to the sound spectrographs."

The colonel turned to Gary. "Your opinion?"

"It sounds like a good idea to me. I'm curious whether the heptapods might have difficulty reading our

monitors. Their looking glasses are based on a completely different technology than our video screens. As far as we can tell, they don't use pixels or scan lines, and they don't refresh on a frame-by-frame basis."

"You think the scan lines on our video screens might render them unreadable to the heptapods?"

"It's possible," said Gary. "We'll just have to try it and see."

Weber considered it. For me it wasn't even a question, but from his point of view it was a difficult decision; like a soldier, though, he made it quickly. "Request granted. Talk to the sergeant outside about bringing in what you need. Have it ready for tomorrow."

I remember one day during the summer when you're sixteen. For once, the person waiting for her date to arrive is me. Of course, you'll be waiting around too, curious to see what he looks like. You'll have a friend of yours, a blond girl with the unlikely name of Roxie, hanging out with you, giggling.

"You may feel the urge to make comments about him," I'll say, checking myself in the hallway mirror. "Just restrain yourselves until we leave."

"Don't worry, Mom," you'll say. "We'll do it so that he won't know. Roxie, you ask me what I think the weather will be like tonight. Then I'll say what I think of Mom's date."

"Right," Roxie will say.

"No, you most definitely will not," I'll say.

"Relax, Mom. He'll never know; we do this all the time."

"What a comfort that is."

A little later on, Nelson will arrive to pick me up. I'll do the introductions, and we'll all engage in a little small talk on the front porch. Nelson is ruggedly handsome, to your evident approval. Just as we're about to leave, Roxie will say to you casually, "So what do you think the weather will be like tonight?"

"I think it's going to be really hot," you'll answer.

Roxie will nod in agreement. Nelson will say, "Really? I thought they said it was going to be cool."

"I have a sixth sense about these things," you'll say. Your face will give nothing away. "I get the feeling it's going to be a scorcher. Good thing you're dressed for it, Mom."

I'll glare at you, and say good night.

As I lead Nelson toward his car, he'll ask me, amused, "I'm missing something here, aren't I?"

"A private joke," I'll mutter. "Don't ask me to explain it."

At our next session at the looking glass, we repeated the procedure we had performed before, this time displaying a printed word on our computer screen at the same time we spoke: showing human while saying "Human," and so forth. Eventually, the heptapods understood what we wanted, and set up a flat circular screen mounted on a small pedestal. One heptapod spoke, and then inserted a limb into a large socket in the pedestal; a doodle of script, vaguely cursive, popped onto the screen.

We soon settled into a routine, and I compiled two parallel corpora: one of spoken utterances, one of writing samples. Based on first impressions, their writing appeared to be logographic, which was disappointing; I'd been hoping for an alphabetic script to help us learn their speech. Their logograms might include some phonetic information, but finding it would be a lot harder than with an alphabetic script.

By getting up close to the looking glass, I was able to point to various heptapod body parts, such as limbs, digits, and eyes, and elicit terms for each. It turned out that they had an orifice on the underside of their body, lined with articulated bony ridges: probably used for eating, while the one at the top was for respiration and speech. There were no other conspicuous orifices; perhaps their mouth was their anus too. Those sorts of questions

would have to wait.

I also tried asking our two informants for terms for addressing each individually; personal names, if they had such things. Their answers were of course unpronounceable, so for Gary's and my purposes, I dubbed them Flapper and Raspberry. I hoped I'd be able to tell them apart.

The next day I conferred with Gary before we entered the looking-glass tent. "I'll need your help with this session," I told him.

"Sure. What do you want me to do?"

"We need to elicit some verbs, and it's easiest with third-person forms. Would you act out a few verbs while I type the written form on the computer? If we're lucky, the heptapods will figure out what we're doing and do the same. I've brought a bunch of props for you to use."

"No problem," said Gary, cracking his knuckles. "Ready when you are."

We began with some simple intransitive verbs: walking, jumping, speaking, writing. Gary demonstrated each one with a charming lack of self-consciousness; the presence of the video cameras didn't inhibit him at all. For the first few actions he performed, I asked the heptapods, "What do you call that?" Before long, the

heptapods caught on to what we were trying to do. Raspberry began mimicking Gary, or at least performing the equivalent heptapod action, while Flapper worked their computer, displaying a written description and pronouncing it aloud.

In the spectrographs of their spoken utterances, I could recognize their word I had glossed as "heptapod." The rest of each utterance was presumably the verb phrase; it looked like they had analogs of nouns and verbs, thank goodness.

In their writing, however, things weren't as clear-cut. For each action, they had displayed a single logogram instead of two separate ones. At first I thought they had written something like "walks," with the subject implied. But why would Flapper say "the heptapod walks" while writing "walks," instead of maintaining parallelism? Then I noticed that some of the logograms looked like the logogram for "heptapod" with some extra strokes added to one side or another. Perhaps their verbs could be written as affixes to a noun. If so, why was Flapper writing the noun in some instances but not in others?

I decided to try a transitive verb; substituting object words might clarify things. Among the props I'd brought were an apple and a slice of bread. "Okay," I said to Gary, "show them the food, and then eat some. First the

apple, then the bread."

Gary pointed at the Golden Delicious and then he took a bite out of it, while I displayed the "what do you call that?" expression. Then we repeated it with the slice of whole wheat.

Raspberry left the room and returned with some kind of giant nut or gourd and a gelatinous ellipsoid. Raspberry pointed at the gourd while Flapper said a word and displayed a logogram. Then Raspberry brought the gourd down between its legs, a crunching sound resulted, and the gourd reemerged minus a bite; there were cornlike kernels beneath the shell. Flapper talked and displayed a large logogram on their screen. The sound spectrograph for "gourd" changed when it was used in the sentence; possibly a case marker. The logogram was odd: after some study, I could identify graphic elements that resembled the individual logograms for "heptapod" and "gourd." They looked as if they had been melted together, with several extra strokes in the mix that presumably meant "eat." Was it a multi-word ligature?

Next we got spoken and written names for the gelatin egg, and descriptions of the act of eating it. The sound spectrograph for "heptapod eats gelatin egg" was analyzable; "gelatin egg" bore a case marker, as expected, though the sentence's word order differed from last time.

The written form, another large logogram, was another matter. This time it took much longer for me to recognize anything in it; not only were the individual logograms melted together again, it looked as if the one for "heptapod" was laid on its back, while on top of it the logogram for "gelatin egg" was standing on its head.

"Uh-oh." I took another look at the writing for the simple noun-verb examples, the ones that had seemed inconsistent before. Now I realized all of them actually did contain the logogram for "heptapod"; some were rotated and distorted by being combined with the various verbs, so I hadn't recognized them at first. "You guys have got to be kidding," I muttered.

"What's wrong?" asked Gary.

"Their script isn't word divided; a sentence is written by joining the logograms for the constituent words. They join the logograms by rotating and modifying them. Take a look." I showed him how the logograms were rotated.

"So they can read a word with equal ease no matter how it's rotated," Gary said. He turned to look at the heptapods, impressed. "I wonder if it's a consequence of their bodies' radial symmetry: their bodies have no 'forward' direction, so maybe their writing doesn't either. Highly neat."

I couldn't believe it; I was working with someone

who modified the word "neat" with "highly."

"It certainly is interesting," I said, "but it also means there's no easy way for us to write our own sentences in their language. We can't simply cut their sentences into individual words and recombine them; we'll have to learn the rules of their script before we can write anything legible. It's the same continuity problem we'd have had splicing together speech fragments, except applied to writing."

I looked at Flapper and Raspberry in the looking glass, who were waiting for us to continue, and sighed. "You aren't going to make this easy for us, are you?"

To be fair, the heptapods were completely cooperative. In the days that followed, they readily taught us their language without requiring us to teach them any more English. Colonel Weber and his cohorts pondered the implications of that, while I and the linguists at the other looking glasses met via videoconferencing to share what we had learned about the heptapod language. The videoconferencing made for an incongruous working environment: our video screens were primitive compared to the heptapods' looking glasses, so that my colleagues seemed more remote than the aliens. The familiar was far away, while the bizarre was close at hand.

It would be a while before we'd be ready to ask the heptapods why they had come, or to discuss physics well enough to ask them about their technology. For the time being, we worked on the basics: phonemics/graphemics, vocabulary, syntax. The heptapods at every looking glass were using the same language, so we were able to pool our data and coordinate our efforts.

Our biggest source of confusion was the heptapods' "writing." It didn't appear to be writing at all; it looked more like a bunch of intricate graphic designs. The logograms weren't arranged in rows, or a spiral, or any linear fashion. Instead, Flapper or Raspberry would write a sentence by sticking together as many logograms as needed into a giant conglomeration.

This form of writing was reminiscent of primitive sign systems, which required a reader to know a message's context in order to understand it. Such systems were considered too limited for systematic recording of information. Yet it was unlikely that the heptapods developed their level of technology with only an oral tradition. That implied one of three possibilities: the first was that the heptapods had a true writing system, but they didn't want to use it in front of us; Colonel Weber would identify with that one. The second was that the heptapods hadn't originated the technology they were using; they

were illiterates using someone else's technology. The third, and most interesting to me, was that the heptapods were using a nonlinear system of orthography that qualified as true writing.

I remember a conversation we'll have when you're in your junior year of high school. It'll be Sunday morning, and I'll be scrambling some eggs while you set the table for brunch. You'll laugh as you tell me about the party you went to last night.

"Oh man," you'll say, "they're not kidding when they say that body weight makes a difference. I didn't drink any more than the guys did, but I got so much *drunker*."

I'll try to maintain a neutral, pleasant expression. I'll really try. Then you'll say, "Oh, come on, Mom."

"What?"

"You know you did the exact same things when you were my age."

I did nothing of the sort, but I know that if I were to admit that, you'd lose respect for me completely. "You know never to drive, or get into a car if—"

"God, of course I know that. Do you think I'm an idiot?"

"No, of course not."

What I'll think is that you are clearly, maddeningly

not me. It will remind me, again, that you won't be a clone of me; you can be wonderful, a daily delight, but you won't be someone I could have created by myself.

The military had set up a trailer containing our offices at the looking-glass site. I saw Gary walking toward the trailer, and ran to catch up with him. "It's a semasiographic writing system," I said when I reached him.

"Excuse me?" said Gary.

"Here, let me show you." I directed Gary into my office. Once we were inside, I went to the chalkboard and drew a circle with a diagonal line bisecting it. "What does this mean?"

"Not allowed?"

"Right." Next I printed the words *Not Allowed* on the chalkboard. "And so does this. But only one is a representation of speech."

Gary nodded. "Okay."

"Linguists describe writing like this—" I indicated the printed words "—as 'glottographic,' because it represents speech. Every human written language is in this category. However, this symbol—" I indicated the circle and diagonal line "—is 'semasiographic' writing, because it conveys meaning without reference to speech.

There's no correspondence between its components and any particular sounds."

"And you think all of heptapod writing is like this?"

"From what I've seen so far, yes. It's not picture writing, it's far more complex. It has its own system of rules for constructing sentences, like a visual syntax that's unrelated to the syntax for their spoken language."

"A visual syntax? Can you show me an example?"

"Coming right up." I sat down at my desk and, using the computer, pulled up a frame from the recording of yesterday's conversation with Raspberry. I turned the monitor so he could see it. "In their spoken language, a noun has a case marker indicating whether it's a subject or object. In their written language, however, a noun is identified as subject or object based on the orientation of its logogram relative to that of the verb. Here, take a look." I pointed at one of the figures. "For instance, when 'heptapod' is integrated with 'hears' this way, with these strokes parallel, it means that the heptapod is doing the hearing." I showed him a different one. "When they're combined this way, with the strokes perpendicular, it means that the heptapod is being heard. This morphology applies to several verbs.

"Another example is the inflection system." I called up another frame from the recording. "In their written language, this logogram means roughly 'hear easily' or 'hear clearly.' See the elements it has in common with the logogram for 'hear'? You can still combine it with 'heptapod' in the same ways as before, to indicate that the heptapod can hear something clearly or that the heptapod is clearly heard. But what's really interesting is that the modulation of 'hear' into 'hear clearly' isn't a special case; you see the transformation they applied?"

Gary nodded, pointing. "It's like they express the idea of 'clearly' by changing the curve of those strokes in the middle."

"Right. That modulation is applicable to lots of verbs. The logogram for 'see' can be modulated in the same way to form 'see clearly,' and so can the logogram for 'read' and others. And changing the curve of those strokes has no parallel in their speech; with the spoken version of these verbs, they add a prefix to the verb to express ease of manner, and the prefixes for 'see' and 'hear' are different.

"There are other examples, but you get the idea. It's essentially a grammar in two dimensions."

He began pacing thoughtfully. "Is there anything like this in human writing systems?"

"Mathematical equations, notations for music and dance. But those are all very specialized; we couldn't record this conversation using them. But I suspect, if we knew it well enough, we could record this conversation in the heptapod writing system. I think it's a full-fledged, general-purpose graphical language."

Gary frowned. "So their writing constitutes a completely separate language from their speech, right?"

"Right. In fact, it'd be more accurate to refer to the writing system as 'Heptapod B,' and use 'Heptapod A' strictly for referring to the spoken language."

"Hold on a second. Why use two languages when one would suffice? That seems unnecessarily hard to learn."

"Like English spelling?" I said. "Ease of learning isn't the primary force in language evolution. For the heptapods, writing and speech may play such different cultural or cognitive roles that using separate languages makes more sense than using different forms of the same one."

He considered it. "I see what you mean. Maybe they think our form of writing is redundant, like we're wasting a second communications channel."

"That's entirely possible. Finding out why they use a second language for writing will tell us a lot about them."

"So I take it this means we won't be able to use their writing to help us learn their spoken language."

I sighed. "Yeah, that's the most immediate

implication. But I don't think we should ignore either Heptapod A or B; we need a two-pronged approach." I pointed at the screen. "I'll bet you that learning their two-dimensional grammar will help you when it comes time to learn their mathematical notation."

"You've got a point there. So are we ready to start asking about their mathematics?"

"Not yet. We need a better grasp on this writing system before we begin anything else," I said, and then smiled when he mimed frustration. "Patience, good sir. Patience is a virtue."

You'll be six when your father has a conference to attend in Hawaii, and we'll accompany him. You'll be so excited that you'll make preparations for weeks beforehand. You'll ask me about coconuts and volcanoes and surfing, and practice hula dancing in the mirror. You'll pack a suitcase with the clothes and toys you want to bring, and you'll drag it around the house to see how long you can carry it. You'll ask me if I can carry your Etch-a-Sketch in my bag, since there won't be any more room for it in yours and you simply can't leave without it.

"You won't need all of these," I'll say. "There'll be so many fun things to do there, you won't have time to play with so many toys." You'll consider that; dimples will appear above your eyebrows when you think hard. Eventually you'll agree to pack fewer toys, but your expectations will, if anything, increase.

"I wanna be in Hawaii now," you'll whine.

"Sometimes it's good to wait," I'll say. "The anticipation makes it more fun when you get there." You'll just pout.

In the next report I submitted, I suggested that the term "logogram" was a misnomer because it implied that each graph represented a spoken word, when in fact the graphs didn't correspond to our notion of spoken words at all. I didn't want to use the term "ideogram" either because of how it had been used in the past; I suggested the term "semagram" instead.

It appeared that a semagram corresponded roughly to a written word in human languages: it was meaningful on its own, and in combination with other semagrams could form endless statements. We couldn't define it precisely, but then no one had ever satisfactorily defined "word" for human languages either. When it came to sentences in Heptapod B, though, things became much more confusing. The language had no written punctuation: its syntax was indicated in the way the semagrams were combined, and there was no need to indicate the cadence of speech. There was certainly no way to slice out subject-predicate pairings neatly to make sentences. A "sentence" seemed to be whatever number of semagrams a heptapod wanted to join together; the only difference between a sentence and a paragraph, or a page, was size.

When a Heptapod B sentence grew fairly sizable, its visual impact was remarkable. If I wasn't trying to decipher it, the writing looked like fanciful praying mantids drawn in a cursive style, all clinging to each other to form an Escheresque lattice, each slightly different in its stance. And the biggest sentences had an effect similar to that of psychedelic posters: sometimes eye-watering, sometimes hypnotic.

I remember a picture of you taken at your college graduation. In the photo you're striking a pose for the camera, mortarboard stylishly tilted on your head, one hand touching your sunglasses, the other hand on your hip, holding open your gown to reveal the tank top and shorts you're wearing underneath.

I remember your graduation. There will be the distraction of having Nelson and your father and what's-her-name there all at the same time, but that will be minor. That entire weekend, while you're introducing me

to your classmates and hugging everyone incessantly, I'll be all but mute with amazement. I can't believe that you, a grown woman taller than me and beautiful enough to make my heart ache, will be the same girl I used to lift off the ground so you could reach the drinking fountain, the same girl who used to trundle out of my bedroom draped in a dress and hat and four scarves from my closet.

And after graduation, you'll be heading for a job as a financial analyst. I won't understand what you do there, I won't even understand your fascination with money, the preeminence you gave to salary when negotiating job offers. I would prefer it if you'd pursue something without regard for its monetary rewards, but I'll have no complaints. My own mother could never understand why I couldn't just be a high school English teacher. You'll do what makes you happy, and that'll be all I ask for.

As time went on, the teams at each looking glass began working in earnest on learning heptapod terminology for elementary mathematics and physics. We worked together on presentations, with the linguists focusing on procedure and the physicists focusing on subject matter. The physicists showed us previously devised systems for communicating with aliens, based on mathematics, but those were intended for use over a radio telescope. We

reworked them for face-to-face communication.

Our teams were successful with basic arithmetic, but we hit a roadblock with geometry and algebra. We tried using a spherical coordinate system instead of a rectangular one, thinking it might be more natural to the heptapods given their anatomy, but that approach wasn't any more fruitful. The heptapods didn't seem to understand what we were getting at.

Likewise, the physics discussions went poorly. Only with the most concrete terms, like the names of the elements, did we have any success; after several attempts at representing the periodic table, the heptapods got the idea. For anything remotely abstract, we might as well have been gibbering. We tried to demonstrate basic physical attributes like mass and acceleration so we could elicit their terms for them, but the heptapods simply responded with requests for clarification. To avoid perceptual problems that might be associated with any particular medium, we tried physical demonstrations as well as line drawings, photos, and animations; none were effective. Days with no progress became weeks, and the physicists were becoming disillusioned.

By contrast, the linguists were having much more success. We made steady progress decoding the grammar of the spoken language, Heptapod A. It didn't follow the

pattern of human languages, as expected, but it was comprehensible so far: free word order, even to the extent that there was no preferred order for the clauses in a conditional statement, in defiance of a human language "universal." It also appeared that the heptapods had no objection to many levels of center-embedding of clauses, something that quickly defeated humans. Peculiar, but not impenetrable.

Much more interesting were the newly discovered morphological and grammatical processes in Heptapod B that were uniquely two-dimensional. Depending on a semagram's declension, inflections could be indicated by varying a certain stroke's curvature, or its thickness, or its manner of undulation; or by varying the relative sizes of two radicals, or their relative distance to another radical, or their orientations; or various other means. These were non-segmental graphemes; they couldn't be isolated from the rest of a semagram. And despite how such traits behaved in human writing, these had nothing to do with calligraphic style; their meanings were defined according to a consistent and unambiguous grammar.

We regularly asked the heptapods why they had come. Each time, they answered "to see," or "to observe." Indeed, sometimes they preferred to watch us silently rather than answer our questions. Perhaps they were

scientists, perhaps they were tourists. The State Department instructed us to reveal as little as possible about humanity, in case that information could be used as a bargaining chip in subsequent negotiations. We obliged, though it didn't require much effort: The heptapods never asked questions about anything. Whether scientists or tourists, they were an awfully incurious bunch.

I remember once when we'll be driving to the mall to buy some new clothes for you. You'll be thirteen. One moment you'll be sprawled in your seat, completely unself-conscious, all child; the next, you'll toss your hair with a practiced casualness, like a fashion model in training.

You'll give me some instructions as I'm parking the car. "Okay, Mom, give me one of the credit cards, and we can meet back at the entrance here in two hours."

I'll laugh. "Not a chance. All the credit cards stay with me."

"You're kidding." You'll become the embodiment of exasperation. We'll get out of the car and I will start walking to the mall entrance. After seeing that I won't budge on the matter, you'll quickly reformulate your plans.

"Okay Mom, okay. You can come with me, just walk a little ways behind me, so it doesn't look like we're together. If I see any friends of mine, I'm gonna stop and talk to them, but you just keep walking, okay? I'll come find you later."

I'll stop in my tracks. "Excuse me? I am not the hired help, nor am I some mutant relative for you to be ashamed of."

"But Mom, I can't let anyone see you with me."

"What are you talking about? I've already met your friends; they've been to the house."

"That was different," you'll say, incredulous that you have to explain it. "This is shopping."

"Too bad."

Then the explosion: "You won't do the least thing to make me happy! You don't care about me at all!"

It won't have been that long since you enjoyed going shopping with me; it will forever astonish me how quickly you grow out of one phase and enter another. Living with you will be like aiming for a moving target; you'll always be further along than I expect.

I looked at the sentence in Heptapod B that I had just written, using simple pen and paper. Like all the sentences I generated myself, this one looked misshapen,

like a heptapod-written sentence that had been smashed with a hammer and then inexpertly taped back together. I had sheets of such inelegant semagrams covering my desk, fluttering occasionally when the oscillating fan swung past.

It was strange trying to learn a language that had no spoken form. Instead of practicing my pronunciation, I had taken to squeezing my eyes shut and trying to paint semagrams on the insides of my eyelids.

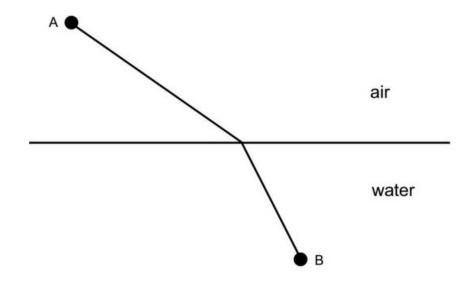
There was a knock at the door and before I could answer Gary came in looking jubilant. "Illinois got a repetition in physics."

"Really? That's great; when did it happen?"

"It happened a few hours ago; we just had the videoconference. Let me show you what it is." He started erasing my blackboard.

"Don't worry, I didn't need any of that."

"Good." He picked up a nub of chalk and drew a diagram:



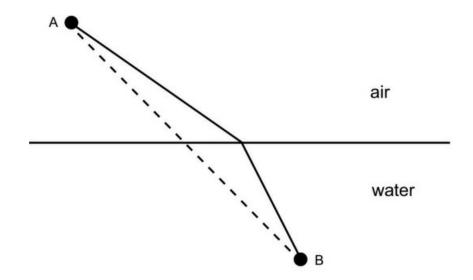
"Okay, here's the path a ray of light takes when crossing from air to water. The light ray travels in a straight line until it hits the water; the water has a different index of refraction, so the light changes direction. You've heard of this before, right?"

I nodded. "Sure."

"Now here's an interesting property about the path the light takes. The path is the fastest possible route between these two points."

"Come again?"

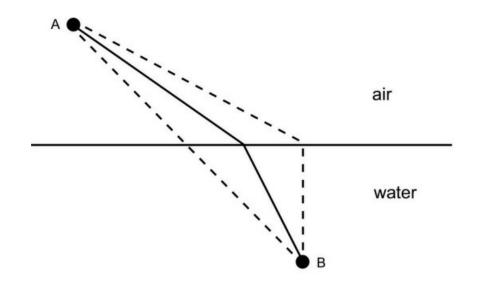
"Imagine, just for grins, that the ray of light traveled along this path." He added a dotted line to his diagram:



"This hypothetical path is shorter than the path the light actually takes. But light travels more slowly in water than it does in air, and a greater percentage of this path is underwater. So it would take longer for light to travel along this path than it does along the real path."

"Okay, I get it."

"Now imagine if light were to travel along this other path." He drew a second dotted path:



"This path reduces the percentage that's underwater,

but the total length is larger. It would also take longer for light to travel along this path than along the actual one."

Gary put down the chalk and gestured at the diagram on the chalkboard with white-tipped fingers. "Any hypothetical path would require more time to traverse than the one actually taken. In other words, the route that the light ray takes is always the fastest possible one. That's Fermat's principle of least time."

"Hmm, interesting. And this is what the heptapods responded to?"

"Exactly. Moorehead gave an animated presentation of Fermat's principle at the Illinois looking glass, and the heptapods repeated it back. Now he's trying to get a symbolic description." He grinned. "Now is that highly neat, or what?"

"It's neat all right, but how come I haven't heard of Fermat's principle before?" I picked up a binder and waved it at him; it was a primer on the physics topics suggested for use in communication with the heptapods. "This thing goes on forever about Planck masses and the spin-flip of atomic hydrogen, and not a word about the refraction of light."

"We guessed wrong about what'd be most useful for you to know," Gary said without embarrassment. "In fact, it's curious that Fermat's principle was the first breakthrough; even though it's easy to explain, you need calculus to describe it mathematically. And not ordinary calculus; you need the calculus of variations. We thought that some simple theorem of geometry or algebra would be the breakthrough."

"Curious indeed. You think the heptapods' idea of what's simple doesn't match ours?"

"Exactly, which is why I'm *dying* to see what their mathematical description of Fermat's principle looks like." He paced as he talked. "If their version of the calculus of variations is simpler to them than their equivalent of algebra, that might explain why we've had so much trouble talking about physics; their entire system of mathematics may be topsy-turvy compared to ours." He pointed to the physics primer. "You can be sure that we're going to revise that."

"So can you build from Fermat's principle to other areas of physics?"

"Probably. There are lots of physical principles just like Fermat's."

"What, like Louise's principle of least closet space? When did physics become so minimalist?"

"Well, the word 'least' is misleading. You see, Fermat's principle of least time is incomplete; in certain situations light follows a path that takes *more* time than any of the other possibilities. It's more accurate to say that light always follows an *extreme* path, either one that minimizes the time taken or one that maximizes it. A minimum and a maximum share certain mathematical properties, so both situations can be described with one equation. So to be precise, Fermat's principle isn't a minimal principle; instead it's what's known as a 'variational' principle."

"And there are more of these variational principles?"

He nodded. "In all branches of physics. Almost every physical law can be restated as a variational principle. The only difference between these principles is in which attribute is minimized or maximized." He gestured as if the different branches of physics were arrayed before him on a table. "In optics, where Fermat's principle applies, time is the attribute that has to be an extreme. In mechanics, it's a different attribute. In electromagnetism, it's something else again. But all these principles are similar mathematically."

"So once you get their mathematical description of Fermat's principle, you should be able to decode the other ones."

"God, I hope so. I think this is the wedge that we've been looking for, the one that cracks open their formulation of physics. This calls for a celebration." He stopped his pacing and turned to me. "Hey Louise, want to go out for dinner? My treat."

I was mildly surprised. "Sure," I said.

It'll be when you first learn to walk that I get daily demonstrations of the asymmetry in our relationship. You'll be incessantly running off somewhere, and each time you walk into a doorframe or scrape your knee, the pain feels like it's my own. It'll be like growing an errant limb, an extension of myself whose sensory nerves report pain just fine, but whose motor nerves don't convey my commands at all. It's so unfair: I'm going to give birth to an animated voodoo doll of myself. I didn't see this in the contract when I signed up. Was this part of the deal?

And then there will be the times when I see you laughing. Like the time you'll be playing with the neighbor's puppy, poking your hands through the chainlink fence separating our back yards, and you'll be laughing so hard you'll start hiccupping. The puppy will run inside the neighbor's house, and your laughter will gradually subside, letting you catch your breath. Then the puppy will come back to the fence to lick your fingers again, and you'll shriek and start laughing again. It will be the most wonderful sound I could ever imagine, a sound that makes me feel like a fountain, or a wellspring.

Now if only I can remember that sound the next time your blithe disregard for self-preservation gives me a heart attack.

After the breakthrough with Fermat's principle, discussions of scientific concepts became more fruitful. It wasn't as if all of heptapod physics was suddenly rendered transparent, but progress was steady. According to Gary, the heptapods' formulation of physics was indeed topsy-turvy relative to ours. Physical attributes that humans defined using integral calculus were seen as fundamental by the heptapods. As an example, Gary described an attribute that, in physics jargon, bore the deceptively simple name "action," which represented "the difference between kinetic and potential energy, integrated over time," whatever that meant. Calculus for us; elementary to them.

Conversely, to define attributes that humans thought of as fundamental, like velocity, the heptapods employed mathematics that were, Gary assured me, "highly weird." The physicists were ultimately able to prove the equivalence of heptapod mathematics and human mathematics; even though their approaches were almost the reverse of one another, both were systems of describing the same physical universe.

I tried following some of the equations that the physicists were coming up with, but it was no use. I couldn't really grasp the significance of physical attributes like "action"; I couldn't, with any confidence, ponder the significance of treating such an attribute as fundamental. Still, I tried to ponder questions formulated in terms more familiar to me: What kind of worldview did the heptapods have, that they would consider Fermat's principle the simplest explanation of light refraction? What kind of perception made a minimum or maximum readily apparent to them?

Your eyes will be blue like your dad's, not mud brown like mine. Boys will stare into those eyes the way I did, and do, into your dad's, surprised and enchanted, as I was and am, to find them in combination with black hair. You will have many suitors.

I remember when you are fifteen, coming home after a weekend at your dad's, incredulous over the interrogation he'll have put you through regarding the boy you're currently dating. You'll sprawl on the sofa, recounting your dad's latest breach of common sense: "You know what he said? He said, 'I know what teenage boys are like." Roll of the eyes. "Like I don't?"

"Don't hold it against him," I'll say. "He's a father;

he can't help it." Having seen you interact with your friends, I won't worry much about a boy taking advantage of you; if anything, the opposite will be more likely. I'll worry about that.

"He wishes I were still a kid. He hasn't known how to act toward me since I grew breasts."

"Well, that development was a shock for him. Give him time to recover."

"It's been years, Mom. How long is it gonna take?"

"I'll let you know when my father has come to terms with mine."

During one of the videoconferences for the linguists, Cisneros from the Massachusetts looking glass had raised an interesting question: Was there a particular order in which semagrams were written in a Heptapod B sentence? It was clear that word order meant next to nothing when speaking in Heptapod A; when asked to repeat what it had just said, a heptapod would likely as not use a different word order unless we specifically asked them not to. Was word order similarly unimportant when writing in Heptapod B?

Previously, we had focused our attention only on how a sentence in Heptapod B looked once it was complete. As far as anyone could tell, there was no preferred order

when reading the semagrams in a sentence; you could start almost anywhere in the nest, then follow the branching clauses until you'd read the whole thing. But that was reading; was the same true about writing?

During my most recent session with Flapper and Raspberry I had asked them if, instead of displaying a semagram only after it was completed, they could show it to us while it was being written. They had agreed. I inserted the videotape of the session into the VCR, and on my computer I consulted the session transcript.

I picked one of the longer utterances from the conversation. What Flapper had said was that the heptapods' planet had two moons, one significantly larger than the other; the three primary constituents of the planet's atmosphere were nitrogen, argon, and oxygen; and 15/28ths of the planet's surface was covered by water. The first words of the spoken utterance translated literally as "inequality-of-size rocky-orbiter rocky-orbiters related-as-primary-to-secondary."

Then I rewound the videotape until the time signature matched the one in the transcription. I started playing the tape, and watched the web of semagrams being spun out of inky spider's silk. I rewound it and played it several times. Finally I froze the video right after the first stroke was completed and before the second one was begun; all

that was visible onscreen was a single sinuous line.

Comparing that initial stroke with the completed sentence, I realized that the stroke participated in several different clauses of the message. It began in the semagram for "oxygen," as the determinant that distinguished it from certain other elements; then it slid down to become the morpheme of comparison in the description of the two moons' sizes; and lastly it flared out as the arched backbone of the semagram for "ocean." Yet this stroke was a single continuous line, and it was the first one that Flapper wrote. That meant the heptapod had to know how the entire sentence would be laid out before it could write the very first stroke.

The other strokes in the sentence also traversed several clauses, making them so interconnected that none could be removed without redesigning the entire sentence. The heptapods didn't write a sentence one semagram at a time; they built it out of strokes irrespective of individual semagrams. I had seen a similarly high degree of integration before in calligraphic designs, particularly those employing the Arabic alphabet. But those designs had required careful planning by expert calligraphers. No one could lay out such an intricate design at the speed needed for holding a conversation. At least, no human could.

There's a joke that I once heard a comedienne tell. It goes like this: "I'm not sure if I'm ready to have children. I asked a friend of mine who has children, 'Suppose I do have kids. What if when they grow up, they blame me for everything that's wrong with their lives?' She laughed and said, 'What do you mean, if?'"

That's my favorite joke.

Gary and I were at a little Chinese restaurant, one of the local places we had taken to patronizing to get away from the encampment. We sat eating the appetizers: potstickers, redolent of pork and sesame oil. My favorite.

I dipped one in soy sauce and vinegar. "So how are you doing with your Heptapod B practice?" I asked.

Gary looked obliquely at the ceiling. I tried to meet his gaze, but he kept shifting it.

"You've given up, haven't you?" I said. "You're not even trying anymore."

He did a wonderful hangdog expression. "I'm just no good at languages," he confessed. "I thought learning Heptapod B might be more like learning mathematics than trying to speak another language, but it's not. It's too foreign for me."

"It would help you discuss physics with them."

"Probably, but since we had our breakthrough, I can

get by with just a few phrases."

I sighed. "I suppose that's fair; I have to admit, I've given up on trying to learn the mathematics."

"So we're even?"

"We're even." I sipped my tea. "Though I did want to ask you about Fermat's principle. Something about it feels odd to me, but I can't put my finger on it. It just doesn't sound like a law of physics."

A twinkle appeared in Gary's eyes. "I'll bet I know what you're talking about." He snipped a potsticker in half with his chopsticks. "You're used to thinking of refraction in terms of cause and effect: Reaching the water's surface is the cause, and the change in direction is the effect. But Fermat's principle sounds weird because it describes light's behavior in goal-oriented terms. It sounds like a commandment to a light beam: 'Thou shalt minimize or maximize the time taken to reach thy destination."

I considered it. "Go on."

"It's an old question in the philosophy of physics. People have been talking about it since Fermat first formulated it in the 1600s; Planck wrote volumes about it. The thing is, while the common formulation of physical laws is causal, a variational principle like Fermat's is purposive, almost teleological." "Hmm, that's an interesting way to put it. Let me think about that for a minute." I pulled out a felt-tip pen and, on my paper napkin, drew a copy of the diagram that Gary had drawn on my blackboard. "Okay," I said, thinking aloud, "so let's say the goal of a ray of light is to take the fastest path. How does the light go about doing that?"

"Well, if I can speak anthropomorphic-projectionally, the light has to examine the possible paths and compute how long each one would take." He plucked the last potsticker from the serving dish.

"And to do that," I continued, "the ray of light has to know just where its destination is. If the destination were somewhere else, the fastest path would be different."

Gary nodded again. "That's right; the notion of a 'fastest path' is meaningless unless there's a destination specified. And computing how long a given path takes also requires information about what lies along that path, like where the water's surface is."

I kept staring at the diagram on the napkin. "And the light ray has to know all that ahead of time, before it starts moving, right?"

"So to speak," said Gary. "The light can't start traveling in any old direction and make course corrections later on, because the path resulting from such behavior

wouldn't be the fastest possible one. The light has to do all its computations at the very beginning."

I thought to myself, the ray of light has to know where it will ultimately end up before it can choose the direction to begin moving in. I knew what that reminded me of. I looked up at Gary. "That's what was bugging me."

I remember when you're fourteen. You'll come out of your bedroom, a graffiti-covered notebook computer in hand, working on a report for school.

"Mom, what do you call it when both sides can win?"

I'll look up from my computer and the paper I'll be writing. "What, you mean a win-win situation?"

"There's some technical name for it, some math word. Remember that time Dad was here, and he was talking about the stock market? He used it then."

"Hmm, that sounds familiar, but I can't remember what he called it."

"I need to know. I want to use that phrase in my social studies report. I can't even search for information on it unless I know what it's called."

"I'm sorry, I don't know it either. Why don't you call your dad?"

Judging from your expression, that will be more effort

than you want to make. At this point, you and your father won't be getting along well. "Can you call Dad and ask him? But don't tell him it's for me."

"I think you can call him yourself."

You'll fume, "Jesus, Mom, I can never get help with my homework since you and Dad split up."

It's amazing the diverse situations in which you can bring up the divorce. "I've helped you with your homework."

"Like a million years ago, Mom."

I'll let that pass. "I'd help you with this if I could, but I don't remember what it's called."

You'll head back to your bedroom in a huff.

I practiced Heptapod B at every opportunity, both with the other linguists and by myself. The novelty of reading a semasiographic language made it compelling in a way that Heptapod A wasn't, and my improvement in writing it excited me. Over time, the sentences I wrote grew shapelier, more cohesive. I had reached the point where it worked better when I didn't think about it too much. Instead of carefully trying to design a sentence before writing, I could simply begin putting down strokes immediately; my initial strokes almost always turned out to be compatible with an elegant rendition of what I was

trying to say. I was developing a faculty like that of the heptapods.

More interesting was the fact that Heptapod B was changing the way I thought. For me, thinking typically meant speaking in an internal voice; as we say in the trade, my thoughts were phonologically coded. My internal voice normally spoke in English, but that wasn't a requirement. The summer after my senior year in high school, I attended a total immersion program for learning Russian; by the end of the summer, I was thinking and even dreaming in Russian. But it was always *spoken* Russian. Different language, same mode: a voice speaking silently aloud.

The idea of thinking in a linguistic yet non-phonological mode always intrigued me. I had a friend born of Deaf parents; he grew up using American Sign Language, and he told me that he often thought in ASL instead of English. I used to wonder what it was like to have one's thoughts be manually coded, to reason using an inner pair of hands instead of an inner voice.

With Heptapod B, I was experiencing something just as foreign: My thoughts were becoming graphically coded. There were trance-like moments during the day when my thoughts weren't expressed with my internal voice; instead, I saw semagrams with my mind's eye,

sprouting like frost on a windowpane.

As I grew more fluent, semagraphic designs would appear fully formed, articulating even complex ideas all at once. My thought processes weren't moving any faster as a result, though. Instead of racing forward, my mind hung balanced on the symmetry underlying the semagrams. The semagrams seemed to be something more than language; they were almost like mandalas. I found myself in a meditative state, contemplating the way in which premises and conclusions were interchangeable. There was no direction inherent in the way propositions were connected, no "train of thought" moving along a particular route; all the components in an act of reasoning were equally powerful, all having identical precedence.

A representative from the State Department named Hossner had the job of briefing the U.S. scientists on our agenda with the heptapods. We sat in the videoconference room, listening to him lecture. Our microphone was turned off, so Gary and I could exchange comments without interrupting Hossner. As we listened, I worried that Gary might harm his vision, rolling his eyes so often.

"They must have had some reason for coming all this way," said the diplomat, his voice tinny through the speakers. "It does not look like their reason was conquest,

thank God. But if that's not the reason, what is? Are they prospectors? Anthropologists? Missionaries? Whatever their motives, there must be something we can offer them. Maybe it's mineral rights to our solar system. Maybe it's information about ourselves. Maybe it's the right to deliver sermons to our populations. But we can be sure that there's something.

"My point is this: their motive might not be to trade, but that doesn't mean that we cannot conduct trade. We simply need to know why they're here, and what we have that they want. Once we have that information, we can begin trade negotiations.

"I should emphasize that our relationship with the heptapods need not be adversarial. This is not a situation where every gain on their part is a loss on ours, or vice versa. If we handle ourselves correctly, both we and the heptapods can come out winners."

"You mean it's a non-zero-sum game?" Gary said in mock incredulity. "Oh my gosh."

"A non-zero-sum game."

"What?" You'll reverse course, heading back from your bedroom.

"When both sides can win: I just remembered, it's called a non-zero-sum game."

"That's it!" you'll say, writing it down on your notebook. "Thanks, Mom!"

"I guess I knew it after all," I'll say. "All those years with your father, some of it must have rubbed off."

"I knew you'd know it," you'll say. You'll give me a sudden, brief hug, and your hair will smell of apples. "You're the best."

"Louise?"

"Hmm? Sorry, I was distracted. What did you say?"

"I said, what do you think about our Mr. Hossner here?"

"I prefer not to."

"I've tried that myself: ignoring the government, seeing if it would go away. It hasn't."

As evidence of Gary's assertion, Hossner kept blathering: "Your immediate task is to think back on what you've learned. Look for anything that might help us. Has there been any indication of what the heptapods want? Of what they value?"

"Gee, it never occurred to us to look for things like that," I said. "We'll get right on it, sir."

"The sad thing is, that's just what we'll have to do," said Gary.

"Are there any questions?" asked Hossner.

Burghart, the linguist at the Ft. Worth looking glass, spoke up. "We've been through this with the heptapods many times. They maintain that they're here to observe, and they maintain that information is not tradable."

"So they would have us believe," said Hossner. "But consider: how could that be true? I know that the heptapods have occasionally stopped talking to us for brief periods. That may be a tactical maneuver on their part. If we were to stop talking to them tomorrow—"

"Wake me up if he says something interesting," said Gary.

"I was just going to ask you to do the same for me."

That day when Gary first explained Fermat's principle to me, he had mentioned that almost every physical law could be stated as a variational principle. Yet when humans thought about physical laws, they preferred to work with them in their causal formulation. I could understand that: The physical attributes that humans found intuitive, like kinetic energy or acceleration, were all properties of an object at a given moment in time. And these were conducive to a chronological, causal interpretation of events: one moment growing out of another, causes and effects creating a chain reaction that grew from past to future.

In contrast, the physical attributes that the heptapods found intuitive, like "action" or those other things defined by integrals, were meaningful only over a period of time. And these were conducive to a teleological interpretation of events: By viewing events over a period of time, one recognized that there was a requirement that had to be satisfied, a goal of minimizing or maximizing. And one had to know the initial and final states to meet that goal; one needed knowledge of the effects before the causes could be initiated.

I was growing to understand that, too.

"Why?" you'll ask again. You'll be three.

"Because it's your bedtime," I'll say again. We'll have gotten as far as getting you bathed and into your jammies, but no further than that.

"But I'm not sleepy," you'll whine. You'll be standing at the bookshelf, pulling down a video to watch: your latest diversionary tactic to keep away from your bedroom.

"It doesn't matter: you still have to go to bed."

"But why?"

"Because I'm the mom and I said so."

I'm actually going to say that, aren't I? God, somebody please shoot me.

I'll pick you up and carry you under my arm to your bed, you wailing piteously all the while, but my sole concern will be my own distress. All those vows made in childhood that I would give reasonable answers when I became a parent, that I would treat my own child as an intelligent, thinking individual, all for naught: I'm going to turn into my mother. I can fight it as much as I want, but there'll be no stopping my slide down that long, dreadful slope.

Was it actually possible to know the future? Not simply to guess at it; was it possible to *know* what was going to happen, with absolute certainty and in specific detail? Gary once told me that the fundamental laws of physics were time-symmetric, that there was no physical difference between past and future. Given that, some might say, "yes, theoretically." But speaking more concretely, most would answer "no," because of free will.

I liked to imagine the objection as a Borgesian fabulation: Consider a person standing before the *Book of Ages*, the chronicle that records every event, past and future. Even though the text has been photoreduced from the full-sized edition, the volume is enormous. With magnifier in hand, she flips through the tissue-thin leaves until she locates the story of her life. She finds the

passage that describes her flipping through the *Book of Ages*, and she skips to the next column, where it details what she'll be doing later in the day: Acting on information she's read in the *Book*, she'll bet \$100 on the racehorse Devil May Care and win twenty times that much.

The thought of doing just that had crossed her mind, but being a contrary sort, she now resolves to refrain from betting on the ponies altogether.

There's the rub. The *Book of Ages* cannot be wrong; this scenario is based on the premise that a person is given knowledge of the actual future, not of some possible future. If this were Greek myth, circumstances would conspire to make her enact her fate despite her best efforts, but prophecies in myth are notoriously vague; the *Book of Ages* is quite specific, and there's no way she can be forced to bet on a racehorse in the manner specified. The result is a contradiction: The *Book of Ages* must be right, by definition; yet no matter what the *Book* says she'll do, she can choose to do otherwise. How can these two facts be reconciled?

They can't be, was the common answer. A volume like the *Book of Ages* is a logical impossibility, for the precise reason that its existence would result in the above contradiction. Or, to be generous, some might say that the

Book of Ages could exist, as long as it wasn't accessible to readers; that the volume is housed in a special collection, and no one has viewing privileges.

The existence of free will meant that we couldn't know the future. And we knew free will existed because we had direct experience of it. Volition was an intrinsic part of consciousness.

Or was it? What if the experience of knowing the future changed a person? What if it evoked a sense of urgency, a sense of obligation to act precisely as she knew she would?

I stopped by Gary's office before leaving for the day. "I'm calling it quits. Did you want to grab something to eat?"

"Sure, just wait a second," he said. He shut down his computer and gathered some papers together. Then he looked up at me. "Hey, want to come to my place for dinner tonight? I'll cook."

I looked at him dubiously. "You can cook?"

"Just one dish," he admitted. "But it's a good one."

"Sure," I said. "I'm game."

"Great. We just need to go shopping for the ingredients."

"Don't go to any trouble—"

"There's a market on the way to my house. It won't

take a minute."

We took separate cars, me following him. I almost lost him when he abruptly turned into a parking lot. It was a gourmet market, not large, but fancy; tall glass jars stuffed with imported foods sat next to specialty utensils on the store's stainless-steel shelves.

I accompanied Gary as he collected fresh basil, tomatoes, garlic, linguini. "There's a fish market next door; we can get fresh clams there," he said.

"Sounds good." We walked past the section of kitchen utensils. My gaze wandered over the shelves—peppermills, garlic presses, salad tongs—and stopped on a wooden salad bowl.

When you are three, you'll pull a dishtowel off the kitchen counter and bring that salad bowl down on top of you. I'll make a grab for it, but I'll miss. The edge of the bowl will leave you with a cut, on the upper edge of your forehead, that will require a single stitch. Your father and I will hold you, sobbing and stained with Caesar dressing, as we wait in the emergency room for hours.

I reached out and took the bowl from the shelf. The motion didn't feel like something I was forced to do. Instead it seemed just as urgent as my rushing to catch the bowl when it falls on you: an instinct that I felt right in following.

"I could use a salad bowl like this."

Gary looked at the bowl and nodded approvingly. "See, wasn't it a good thing that I had to stop at the market?"

"Yes, it was." We got in line to pay for our purchases.

Consider the sentence "The rabbit is ready to eat." Interpret "rabbit" to be the object of "eat," and the sentence was an announcement that dinner would be served shortly. Interpret "rabbit" to be the subject of "eat," and it was a hint, such as a young girl might give her mother so she'll open a bag of Purina Bunny Chow. Two very different utterances; in fact, they were probably mutually exclusive within a single household. Yet either was a valid interpretation; only context could determine what the sentence meant.

Consider the phenomenon of light hitting water at one angle, and traveling through it at a different angle. Explain it by saying that a difference in the index of refraction caused the light to change direction, and one saw the world as humans saw it. Explain it by saying that light minimized the time needed to travel to its destination, and one saw the world as the heptapods saw it. Two very different interpretations.

The physical universe was a language with a perfectly

ambiguous grammar. Every physical event was an utterance that could be parsed in two entirely different ways, one causal and the other teleological, both valid, neither one disqualifiable no matter how much context was available.

When the ancestors of humans and heptapods first acquired the spark of consciousness, they both perceived the same physical world, but they parsed their perceptions differently; the worldviews that ultimately arose were the end result of that divergence. Humans had developed a sequential mode of awareness, while heptapods had developed a simultaneous mode of awareness. We experienced events in an order, and perceived their relationship as cause and effect. They experienced all events at once, and perceived a purpose underlying them all. A minimizing, maximizing purpose.

I have a recurring dream about your death. In the dream, I'm the one who's rock climbing—me, can you imagine it?—and you're three years old, riding in some kind of backpack I'm wearing. We're just a few feet below a ledge where we can rest, and you won't wait until I've climbed up to it. You start pulling yourself out of the pack; I order you to stop, but of course you ignore me. I feel your weight alternating from one side of the pack to

the other as you climb out; then I feel your left foot on my shoulder, and then your right. I'm screaming at you, but I can't get a hand free to grab you. I can see the wavy design on the soles of your sneakers as you climb, and then I see a flake of stone give way beneath one of them. You slide right past me, and I can't move a muscle. I look down and see you shrink into the distance below me.

Then, all of a sudden, I'm at the morgue. An orderly lifts the sheet from your face, and I see that you're twenty-five.

"You okay?"

I was sitting upright in bed; I'd woken Gary with my movements. "I'm fine. I was just startled; I didn't recognize where I was for a moment."

Sleepily, he said, "We can stay at your place next time."

I kissed him. "Don't worry; your place is fine." We curled up, my back against his chest, and went back to sleep.

When you're three and we're climbing a steep, spiral flight of stairs, I'll hold your hand extra tightly. You'll pull your hand away from me. "I can do it by myself," you'll insist, and then move away from me to prove it, and I'll remember that dream. We'll repeat that scene

countless times during your childhood. I can almost believe that, given your contrary nature, my attempts to protect you will be what create your love of climbing: first the jungle gym at the playground, then trees out in the green belt around our neighborhood, the rock walls at the climbing club, and ultimately cliff faces in national parks.

I finished the last radical in the sentence, put down the chalk, and sat down in my desk chair. I leaned back and surveyed the giant Heptapod B sentence I'd written that covered the entire blackboard in my office. It included several complex clauses, and I had managed to integrate all of them rather nicely.

Looking at a sentence like this one, I understood why the heptapods had evolved a semasiographic writing system like Heptapod B; it was better suited for a species with a simultaneous mode of consciousness. For them, speech was a bottleneck because it required that one word follow another sequentially. With writing, on the other hand, every mark on a page was visible simultaneously. Why constrain writing with a glottographic straitjacket, demanding that it be just as sequential as speech? It would never occur to them. Semasiographic writing naturally took advantage of the page's two-dimensionality; instead of doling out morphemes one at a

time, it offered an entire page full of them all at once.

And now that Heptapod B had introduced me to a simultaneous mode of consciousness, I understood the rationale behind Heptapod A's grammar: What my sequential mind had perceived as unnecessarily convoluted, I now recognized as an attempt to provide flexibility within the confines of sequential speech. I could use Heptapod A more easily as a result, though it was still a poor substitute for Heptapod B.

There was a knock at the door and then Gary poked his head in. "Colonel Weber'll be here any minute."

I grimaced. "Right." Weber was coming to participate in a session with Flapper and Raspberry; I was to act as translator, a job I wasn't trained for and that I detested.

Gary stepped inside and closed the door. He pulled me out of my chair and kissed me.

I smiled. "You trying to cheer me up before he gets here?"

"No, I'm trying to cheer me up."

"You weren't interested in talking to the heptapods at all, were you? You worked on this project just to get me into bed."

"Ah, you see right through me."

I looked into his eyes. "You better believe it," I said.

I remember when you'll be a month old, and I'll stumble out of bed to give you your 2:00 am feeding. Your nursery will have that "baby smell" of diaper rash cream and talcum powder, with a faint ammoniac whiff coming from the diaper pail in the corner. I'll lean over your crib, lift your squalling form out, and sit in the rocking chair to nurse you.

The word "infant" is derived from the Latin word for "unable to speak," but you'll be perfectly capable of saying one thing: "I suffer," and you'll do it tirelessly and without hesitation. I have to admire your utter commitment to that statement; when you cry, you'll become outrage incarnate, every fiber of your body employed in expressing that emotion. It's funny: When you're tranquil, you will seem to radiate light, and if someone were to paint a portrait of you like that, I'd insist that they include the halo. But when you're unhappy, you will become a klaxon, built for radiating sound; a portrait of you then could simply be a fire alarm bell.

At that stage of your life, there'll be no past or future for you; until I give you my breast, you'll have no memory of contentment in the past, nor expectation of relief in the future. Once you begin nursing, everything will reverse, and all will be right with the world. NOW is the only moment you'll perceive; you'll live in the present tense. In

many ways, it's an enviable state.

The heptapods are neither free nor bound as we understand those concepts; they don't act according to their will, nor are they helpless automatons. What distinguishes the heptapods' mode of awareness is not just that their actions coincide with history's events; it is also that their motives coincide with history's purposes. They act to create the future, to enact chronology.

Freedom isn't an illusion; it's perfectly real in the context of sequential consciousness. Within the context of simultaneous consciousness, freedom is not meaningful, but neither is coercion; it's simply a different context, no more or less valid than the other. It's like that famous optical illusion, the drawing of either an elegant young woman, face turned away from the viewer, or a wartnosed crone, chin tucked down on her chest. There's no "correct" interpretation; both are equally valid. But you can't see both at the same time.

Similarly, knowledge of the future was incompatible with free will. What made it possible for me to exercise freedom of choice also made it impossible for me to know the future. Conversely, now that I know the future, I would never act contrary to that future, including telling others what I know; those who know the future don't talk

about it. Those who've read the *Book of Ages* never admit to it.

I turned on the VCR and slotted a cassette of a session from the Ft. Worth looking glass. A diplomatic negotiator was having a discussion with the heptapods there, with Burghart acting as translator.

The negotiator was describing humans' moral beliefs, trying to lay some groundwork for the concept of altruism. I knew the heptapods were familiar with the conversation's eventual outcome, but they still participated enthusiastically.

If I could have described this to someone who didn't already know, she might ask, if the heptapods already knew everything that they would ever say or hear, what was the point of their using language at all? A reasonable question. But language wasn't only for communication: It was also a form of action. According to speech act theory, statements like "You're under arrest," "I christen this vessel," or "I promise" were all performative: A speaker could perform the action only by uttering the words. For such acts, knowing what would be said didn't change anything. Everyone at a wedding anticipated the words "I now pronounce you husband and wife," but until the minister actually said them, the ceremony didn't count.

With performative language, saying equaled doing.

For the heptapods, all language was performative. Instead of using language to inform, they used language to actualize. Sure, heptapods already knew what would be said in any conversation; but in order for their knowledge to be true, the conversation would have to take place.

"First Goldilocks tried the papa bear's bowl of porridge, but it was full of Brussels sprouts, which she hated."

You'll laugh. "No, that's wrong!" We'll be sitting side by side on the sofa, the skinny, overpriced hardcover spread open on our laps.

I'll keep reading. "Then Goldilocks tried the mama bear's bowl of porridge, but it was full of spinach, which she also hated."

You'll put your hand on the page of the book to stop me. "You have to read it the right way!"

"I'm reading just what it says here," I'll say, all innocence.

"No, you're not. That's not how the story goes."

"Well, if you already know how the story goes, why do you need me to read it to you?"

"Cause I wanna hear it!"

The air conditioning in Weber's office almost

compensated for having to talk to the man.

"They're willing to engage in a type of exchange," I explained, "but it's not trade. We simply give them something, and they give us something in return. Neither party tells the other what they're giving beforehand."

Colonel Weber's brow furrowed just slightly. "You mean they're willing to exchange gifts?"

I knew what I had to say. "We shouldn't think of it as 'gift-giving.' We don't know if this transaction has the same associations for the heptapods that gift-giving has for us."

"Can we—" he searched for the right wording "— drop hints about the kind of gift we want?"

"They don't do that themselves for this type of transaction. I asked them if we could make a request, and they said we could, but it won't make them tell us what they're giving." I suddenly remembered that a morphological relative of "performative" was "performance," which could describe the sensation of conversing when you knew what would be said: It was like performing in a play.

"But would it make them more likely to give us what we asked for?" Colonel Weber asked. He was perfectly oblivious of the script, yet his responses matched his assigned lines exactly. "No way of knowing," I said. "I doubt it, given that it's not a custom they engage in."

"If we give our gift first, will the value of our gift influence the value of theirs?" He was improvising, while I had carefully rehearsed for this one and only show.

"No," I said. "As far as we can tell, the value of the exchanged items is irrelevant."

"If only my relatives felt that way," murmured Gary wryly.

I watched Colonel Weber turn to Gary. "Have you discovered anything new in the physics discussions?" he asked, right on cue.

"If you mean, any information new to mankind, no," said Gary. "The heptapods haven't varied from the routine. If we demonstrate something to them, they'll show us their formulation of it, but they won't volunteer anything and they won't answer our questions about what they know."

An utterance that was spontaneous and communicative in the context of human discourse became a ritual recitation when viewed by the light of Heptapod B.

Weber scowled. "All right then, we'll see how the State Department feels about this. Maybe we can arrange some kind of gift-giving ceremony."

Like physical events, with their causal and teleological interpretations, every linguistic event had two possible interpretations: as a transmission of information and as the realization of a plan.

"I think that's a good idea, Colonel," I said.

It was an ambiguity invisible to most. A private joke; don't ask me to explain it.

Even though I'm proficient with Heptapod B, I know I don't experience reality the way a heptapod does. My mind was cast in the mold of human, sequential languages, and no amount of immersion in an alien language can completely reshape it. My worldview is an amalgam of human and heptapod.

Before I learned how to think in Heptapod B, my memories grew like a column of cigarette ash, laid down by the infinitesimal sliver of combustion that was my consciousness, marking the sequential present. After I learned Heptapod B, new memories fell into place like gigantic blocks, each one measuring years in duration, and though they didn't arrive in order or land contiguously, they soon composed a period of five decades. It is the period during which I know Heptapod B well enough to think in it, starting during my interviews with Flapper and Raspberry and ending with my death.

Usually, Heptapod B affects just my memory: My consciousness crawls along as it did before, a glowing sliver crawling forward in time, the difference being that the ash of memory lies ahead as well as behind: There is no real combustion. But occasionally I have glimpses when Heptapod B truly reigns, and I experience past and future all at once; my consciousness becomes a half-century-long ember burning outside time. I perceive—during those glimpses—that entire epoch as a simultaneity. It's a period encompassing the rest of my life, and the entirety of yours.

I wrote out the semagrams for "process create-endpoint inclusive-we," meaning "let's start." Raspberry replied in the affirmative, and the slide shows began. The second display screen that the heptapods had provided began presenting a series of images, composed of semagrams and equations, while one of our video screens did the same.

This was the second "gift exchange" I had been present for, the eighth one overall, and I knew it would be the last. The looking-glass tent was crowded with people; Burghart from Ft. Worth was here, as were Gary and a nuclear physicist, assorted biologists, anthropologists, military brass, and diplomats. Thankfully they had set up

an air conditioner to cool the place off. We would review the tapes of the images later to figure out just what the heptapods' "gift" was. Our own "gift" was a presentation on the Lascaux cave paintings.

We all crowded around the heptapods' second screen, trying to glean some idea of the images' content as they went by. "Preliminary assessments?" asked Colonel Weber.

"It's not a return," said Burghart. In a previous exchange, the heptapods had given us information about ourselves that we had previously told them. This had infuriated the State Department, but we had no reason to think of it as an insult: It probably indicated that trade value really didn't play a role in these exchanges. It didn't exclude the possibility that the heptapods might yet offer us a space drive, or cold fusion, or some other wishfulfilling miracle.

"That looks like inorganic chemistry," said the nuclear physicist, pointing at an equation before the image was replaced.

Gary nodded. "It could be materials technology," he said.

"Maybe we're finally getting somewhere," said Colonel Weber.

"I wanna see more animal pictures," I whispered,

quietly so that only Gary could hear me, and pouted like a child. He smiled and poked me. Truthfully, I wished the heptapods had given another xenobiology lecture, as they had on two previous exchanges; judging from those, humans were more similar to the heptapods than any other species they'd ever encountered. Or another lecture on heptapod history; those had been filled with apparent non sequiturs, but were interesting nonetheless. I didn't want the heptapods to give us new technology, because I didn't want to see what our governments might do with it.

I watched Raspberry while the information was being exchanged, looking for any anomalous behavior. It stood barely moving as usual; I saw no indications of what would happen shortly.

After a minute, the heptapod's screen went blank, and a minute after that, ours did too. Gary and most of the other scientists clustered around a tiny video screen that was replaying the heptapods' presentation. I could hear them talk about the need to call in a solid-state physicist.

Colonel Weber turned. "You two," he said, pointing to me and then to Burghart, "schedule the time and location for the next exchange." Then he followed the others to the playback screen.

"Coming right up," I said. To Burghart, I asked,

"Would you care to do the honors, or shall I?"

I knew Burghart had gained a proficiency in Heptapod B similar to mine. "It's your looking glass," he said. "You drive."

I sat down again at the transmitting computer. "Bet you never figured you'd wind up working as an Army translator back when you were a grad student."

"That's for goddamn sure," he said. "Even now I can hardly believe it." Everything we said to each other felt like the carefully bland exchanges of spies who meet in public, but never break cover.

I wrote out the semagrams for "locus exchangetransaction converse inclusive-we" with the projective aspect modulation.

Raspberry wrote its reply. That was my cue to frown, and for Burghart to ask, "What does it mean by that?" His delivery was perfect.

I wrote a request for clarification; Raspberry's reply was the same as before. Then I watched it glide out of the room. The curtain was about to fall on this act of our performance.

Colonel Weber stepped forward. "What's going on? Where did it go?"

"It said that the heptapods are leaving now," I said. "Not just itself; all of them."

"Call it back here now. Ask it what it means."

"Um, I don't think Raspberry's wearing a pager," I said.

The image of the room in the looking glass disappeared so abruptly that it took a moment for my eyes to register what I was seeing instead: it was the other side of the looking-glass tent. The looking glass had become completely transparent. The conversation around the playback screen fell silent.

"What the hell is going on here?" said Colonel Weber.

Gary walked up to the looking glass, and then around it to the other side. He touched the rear surface with one hand; I could see the pale ovals where his fingertips made contact with the looking glass. "I think," he said, "we just saw a demonstration of transmutation at a distance."

I heard the sounds of heavy footfalls on dry grass. A soldier came in through the tent door, short of breath from sprinting, holding an oversize walkie-talkie. "Colonel, message from—"

Weber grabbed the walkie-talkie from him.

I remember what it'll be like watching you when you are a day old. Your father will have gone for a quick visit to the hospital cafeteria, and you'll be lying in your bassinet, and I'll be leaning over you.

So soon after the delivery, I will still be feeling like a wrung-out towel. You will seem incongruously tiny, given how enormous I felt during the pregnancy; I could swear there was room for someone much larger and more robust than you in there. Your hands and feet will be long and thin, not chubby yet. Your face will still be all red and pinched, puffy eyelids squeezed shut, the gnome-like phase that precedes the cherubic.

I'll run a finger over your belly, marveling at the uncanny softness of your skin, wondering if silk would abrade your body like burlap. Then you'll writhe, twisting your body while poking out your legs one at a time, and I'll recognize the gesture as one I had felt you do inside me, many times. So *that's* what it looks like.

I'll feel elated at this evidence of a unique motherchild bond, this certitude that you're the one I carried. Even if I had never laid eyes on you before, I'd be able to pick you out from a sea of babies: Not that one. No, not her either. Wait, that one over there.

Yes, that's her. She's mine.

That final "gift exchange" was the last we ever saw of the heptapods. All at once, all over the world, their looking glasses became transparent and their ships left orbit.

Subsequent analysis of the looking glasses revealed them to be nothing more than sheets of fused silica, completely inert. The information from the final exchange session described a new class of superconducting materials, but it later proved to duplicate the results of research just completed in Japan: Nothing that humans didn't already know.

We never did learn why the heptapods left, any more than we learned what brought them here, or why they acted the way they did. My own new awareness didn't provide that type of knowledge; the heptapods' behavior was presumably explicable from a sequential point of view, but we never found that explanation.

I would have liked to experience more of the heptapods' worldview, to feel the way they feel. Then, perhaps I could immerse myself fully in the necessity of events, as they must, instead of merely wading in its surf for the rest of my life. But that will never come to pass. I will continue to practice the heptapod languages, as will the other linguists on the looking-glass teams, but none of us will ever progress any further than we did when the heptapods were here.

Working with the heptapods changed my life. I met your father and learned Heptapod B, both of which make it possible for me to know you now, here on the patio in

the moonlight. Eventually, many years from now, I'll be without your father, and without you. All I will have left from this moment is the heptapod language. So I pay close attention, and note every detail.

From the beginning I knew my destination, and I chose my route accordingly. But am I working toward an extreme of joy, or of pain? Will I achieve a minimum, or a maximum?

These questions are in my mind when your father asks me, "Do you want to make a baby?" And I smile and answer, "Yes," and I unwrap his arms from around me, and we hold hands as we walk inside to make love, to make you.

© 1998 by Ted Chiang.
Originally published in *Starlight 2*, edited by Patrick Nielsen Hayden.
Reprinted by permission of the author.

Ted Chiang is the author of *Stories of Your Life and Others*. He was born and raised in Port Jefferson, New York, and attended Brown University, where he received a degree in computer science. His debut story "Tower of Babylon" won the Nebula in 1990. Since then, he has won the John W. Campbell Award for Best New Writer in 1992, a Nebula Award and the Theodore Sturgeon Memorial Award for "Story of Your Life" (1998), a Sidewise Award for "Seventy-Two Letters" (2000), a Nebula Award, a Locus Award, and a Hugo Award for his novelette "Hell Is the Absence of God" (2002), a Nebula Award and a Hugo Award for his novelette "The Merchant and the Alchemist's Gate" (2007), a Hugo Award and a Locus

Award for his short story "Exhalation" (2008), and most recently, a Hugo Award and a Locus Award for his novella *The Lifecycle of Software Objects* (2010). He lives outside of Seattle, Washington.

Cold Days Jim Butcher

Chapter 1

Mab, the Queen of Air and Darkness, monarch of the Winter Court of the Sidhe, has unique ideas regarding physical therapy. I woke up in softness.

What I probably should say was that I woke up in a soft bed. But . . . that just doesn't convey how soft this bed was. You know those old cartoons where people sleep on fluffy clouds? Those guys would wake up screaming in pain if they got suckered into taking one of those clouds after they'd been in Mab's bed.

The fire in my chest had finally begun to die away. The heavy wool lining coating my thoughts seemed to have lightened up. When I blinked my eyes open, they felt gummy, but I was able to lift my arm, slowly, and wipe them clear. I'd gone jogging on beaches with less sand than was in my eyes.

Man. Being mostly dead is hard on a guy.

I was in a bed.

A bed the size of my old apartment.

The sheets were all perfectly white and smooth. The

bed was shrouded in drapes of more pure white, drifting on gentle currents of cool air. The temperature was cold enough that when I exhaled, my breath condensed, but I was comfortable beneath the bed's covering.

The curtains around the bed parted and a girl appeared.

She was probably too young to drink legally and she was one of the lovelier women I'd ever seen in person. High cheekbones, exotic almond-shaped eyes. Her skin was a medium olive tone, her eyes an almost eerie shade of pale green-gold. Her hair was pulled back into a simple tail, she wore pale blue hospital scrubs, and she had no makeup at all.

Wow. Any woman who could wear that and still look that good was a freaking goddess.

"Hello," she said, and smiled at me. Maybe it was just the bed talking, but the smile and her voice were even better than the rest of her.

"Hi," I said. My voice came out in a croak that hardly sounded human. I started coughing.

She placed a covered tray on a little stand beside the bed and sat down on the edge of it. She took the cover off the tray and picked up a white china cup. She passed it to me, and it proved to be filled with not quite scalding chicken noodle soup. "You do that every day. Talk before

you've gotten anything down your throat. Drink."

I did. Campbell's. And it was awesome. I flashed on a sudden memory of being sick when I was very young. I couldn't remember where we'd been, but my dad had made me chicken noodle soup. It was the same.

"I think . . . I remember some of it," I said, after several sips. "Your name is . . . Sarah?" She frowned, but I shook my head before she could speak. "No, wait. Sarissa. Your name is Sarissa."

She lifted both eyebrows and smiled. "That's a first. It looks like you're finally coming back into focus."

My stomach gurgled and at the same time a roaring hunger went through me. I blinked at the sudden sensation and started gurgling down more soup.

Sarissa laughed at me. It made the room feel brighter. "Don't drown yourself. There's no rush."

I finished the cup, spilling only a little on my chin, and then murmured, "The hell there isn't. I'm starving. What else is there?"

"Tell you what," she said. "Before you do that, let's shoot for another first."

"Eh?" I said.

"Can you tell me your name?"

"What, you don't know?"

Sarissa smiled again. "Do you?"

"Harry Dresden," I said.

Her eyes sparkled and it made me feel good all the way to my toes. More so when she produced a plate that was piled with chicken and mashed potatoes and some other vegetables that I had little use for but which were probably good for me. I thought I was going to start drooling onto the floor, that food looked so good.

"What do you do, Harry?"

"Professional wizard," I said. "I'm a PI in Chicago." I frowned, suddenly remembering something else. "Oh. And I'm the Winter Knight, I guess."

She stared at me like a statue for several seconds, absolutely nothing on her face.

"Um," I said. "Food?"

She shivered and looked away from me. Then she took a quick breath and picked up an odd little fork, the kind they give to kids with motor control issues—it had lots of rounded edges—and pressed it into my hand. "If you're willing to go for three, we'll have had a really good day."

The fork felt weird and heavy in my fingers. I remembered using forks. I remembered how they felt, the slender weight of them, the precision with which I could get food from the plate to my mouth. This fork felt heavy and clumsy. I fumbled with it for a few seconds, and then

managed, on the second try, to thrust it into the mashed potatoes. Then it was another chore to get the stupid thing to my mouth.

The potatoes were perfect. Just warm enough, barely salted, with a faint hint of rich butter.

"Ohmmgdd," I muttered around the mouthful. Then I went for more.

The second forkful was easier, and the third easier than that, and before I knew it the plate was empty and I was scraping the last of the remains into my mouth. I felt exhausted and stuffed, though it hadn't been all that much food. Sarissa was watching me with a pleased smile.

"Got it all over my face, don't I?" I asked her.

"It means you enjoyed the food," she said. She lifted a napkin to my face and wiped at it. "It's nice to know your name, finally, Harry."

There was the sound of light, steady footsteps coming closer.

Sarissa rose immediately, turned, and then knelt gracefully on the floor with her head bowed.

"Well?" said a woman's velvet voice.

My whole body shuddered in response to that voice, like a guitar's string quivering when the proper note is played near it.

"He's lucid, Your Majesty, and remembered my name

and his. He fed himself."

"Excellent," said the voice. "You are dismissed for today."

"Thank you, Your Majesty," said Sarissa. She rose, glanced at me, and said, "I'm glad to see you feeling better, Sir Knight."

I tried to come up with something charming or witty and said, "Call me."

She huffed out a surprised little breath that might have been the beginning of a laugh, but shot a fearful glance the other way and then retreated. The sound of her sneakers scuffing on the hard floor faded into the distance outside the curtained bed.

A shadow moved across the curtains at the end of the bed. I knew whose it was.

"You have passed your nadir," she said in a decidedly pleased tone. "You are waxing rather than waning, my Knight."

I suddenly had difficulty thinking clearly enough to speak, but I managed. "Well. You know. Wax on, wax off."

She didn't open the curtain around the bed as much as she simply glided through, letting the sheer cloth press against her, outlining her form. She exhaled slowly as she reached my side, looking down at me, her eyes flickering through shades of green in dizzying cycles.

Mab, the Queen of Air and Darkness, was too terrifying to be beautiful. Though every cell in my body suddenly surged with mindless desire and my eyes blurred with tears to see her beauty, I did not want to come an inch closer. She was a tall woman, well over six feet, and every inch was radiance. Pale skin, soft lips the color of frozen raspberries, long silver-white hair that shone with opalescent highlights. She was dressed in a silk gown of deep frozen green that left her strong white shoulders bare.

And she was about six inches away from being in bed with me.

"You look great," I croaked.

Something smoldered in those almond-shaped eyes. "I *am* great, my Knight," she murmured. She reached out a hand, and her nails were all dark blues and greens, the colors shimmering and changing like deep opals. She touched my naked shoulder with those nails.

And I suddenly felt like a fifteen-year-old about to kiss a girl for the first time—excitement and wild expectation and fluttering anxiety.

Her nails, even just the very tips, were icy cold. She trailed them down over one side of my chest and rested them over my heart.

"Um," I said into what was, for me, an incredibly awkward silence.

"How are you?"

She tilted her head and stared at me.

"Sarissa seems nice," I ventured.

"A changeling," Mab said. "Who once sought of me a favor. She saw Lloyd Slate's tenure as my Knight."

I licked my lips. "Um. Where are we?"

"Arctis Tor," she said. "My stronghold. In the Knight's suite. You will find every mortal amenity here."

"That's nice," I said. "What with my apartment burned to the ground and all. Is there a security deposit?"

A slow smile oozed over Mab's mouth and she leaned even closer to me. "It is well that you heal," she whispered. "Your spirit wandered far from your body while you slept."

"Free spirit," I said. "That's me."

"Not anymore," Mab murmured, and leaned down toward me. "You are shaking."

"Yeah."

Her eyes filled my vision. "Are you frightened of me, Harry?"

"I'm sane," I said.

"Do you think I am going to hurt you?" she breathed, her lips a fraction of an inch from mine. My heart beat so hard that it actually hurt. "I think . . . you are who you are."

"Surely you have no reason to fear," she whispered, her breath tickling my lips. "You are mine now. If you are not well, I cannot use you to work my will."

I tried to force myself to relax. "That's . . . that's true," I said.

I hadn't seen her picking up the thick, fluffy pillow beside me while she held my eyes. So I was totally unprepared when she struck, as fast as any snake, and slammed the pillow down over my face.

I froze for half a second, and the pillow pressed down harder, shutting off my air, clogging my nose and mouth. Then the fear took over. I struggled, but my arms and legs felt as if they'd been coated in inches of lead. I tried to push Mab away, but she was simply too heavy, my arms too weak. Her hands and forearms were frozen steel, slender and immovable.

My vision went from red to black. Sensation began to recede.

Mab was cool. Unrelenting. Merciless.

She was Mab.

If I did not stop her, she *would* kill me. Mab couldn't kill a mortal, but to her I was no longer one of them. I was her vassal, a member of her court, and as far as she

was concerned, she had every right to take my life if she saw fit.

That cold knowledge galvanized me. I locked my hands around one of her arms and twisted, straining my entire body. My hips arched up off the bed with the effort, and I wasn't even trying to push her away. There was no opposing the absolute force of her. But I did manage to direct her strength just a little to one side, and in so doing managed to push her hands and the smothering pillow past me, freeing my face enough to suck in a gasp of sweet, cold air.

Mab lay with her upper body across mine, and made no effort at all to move. I could feel her eyes on me, feel the empty intensity of her gaze as I panted, my head swimming with the sudden rush of blessed oxygen.

Mab moved very slowly, very gracefully. There was something serpentine about the way she slithered up my body and lay with her chest against mine. She was a cold, ephemeral weight, an incredibly feminine softness, and her silken hair glided over my cheeks and lips and neck.

Mab made a low, hungry sound in her throat as she leaned down, until her lips were almost touching my ear.

"I have no use for weakness, wizard." She shivered in a kind of slow, alien ecstasy. "Rest. Heal. Sleep. I shall most likely kill you on the morrow." "You? A Princess Bride quote?" I croaked.

"What is that?" she asked.

Then she was gone. Just gone.

And that was day one of my physical therapy.

I could describe the next few weeks in detail, but as bad as they were, they did have a certain routine to them. Besides, in my head, they're a music video montage set to the Foo Fighters' "Walk."

I would wake in the morning and find Sarissa waiting for me, keeping a polite and professional distance between us. She would help me take care of the needs of my weakened body, which was rarely dignified, but she never spoke about herself. At some point after that, Mab would try to kill me in increasingly unexpected and inventive ways.

In the video in my head, there's a shot of me eating my own meal again—until, just as I finish, the giant bed bursts into flames. I awkwardly flop out of it and crawl away before I roast. Then, obviously the next day, Sarissa is helping me walk to the bathroom and back. Just as I relax back into bed, a poisonous serpent, a freaking Indian cobra, falls from the bed's canopy onto my shoulders. I scream like a girl and throw it on the floor. The next day, I'm fumbling my way into new clothes with

Sarissa's help—until a small swarm of stinging ants comes boiling out of them onto my flesh, and I have to literally rip the clothes off of me.

It goes on like that. Sarissa and me on waist-high parallel bars, me struggling to remember how to keep my balance, interrupted by a tidal flood of red-eyed rats that forces us to hop up onto the bars before our feet get eaten off. Sarissa spotting me on a bench press, and then Mab bringing a great big old fireman's ax whistling down at my head at the end of my third set so that I have to block with the stupid straight bar. Me slogging my exhausted way into a hot shower, only to have the door slam shut and the thing start to fill with water. Into which freaking piranha begin to plop.

On and on. Seventy-seven days. Seventy-seven attempted murders. Use your imagination. Mab sure as hell did. There was even a ticking crocodile.

I had just gotten back from the small gym, where I'd hiked about four miles up and I don't know how many miles forward on the elliptical machine. I was sweaty and exhausted and thinking about a shower and then bed again. I opened the door to my quarters, and when I did, Mab opened fire with a freaking shotgun.

I didn't have time to think or calculate before she

pulled the trigger. All I could do was react. I flung myself back, slammed my will out into the air ahead of me, coalescing it into a barrier of pure energy. The gun roared, deafening in the enclosed space. Buckshot slammed against the barrier and bounced, scattering everywhere, landing with pops and rattles. I hit the floor, keeping the barrier up, and Mab advanced, her eyes glittering through every shade of opal, wild and ecstatic and incongruous against her otherwise calm expression.

It was one of those Russian-designed shotguns with the big drum magazine, and she poured all of it into me, aiming for my face.

The second the gun went click instead of boom, I flung myself to one side in a swift roll, just in time to avoid the pounce of a silver-grey malk—a feline creature about the size of a bobcat with wicked claws and the strength of a small bear. It landed where my head had been, its claws gouging chips from the stone floor.

I kicked the malk with my heel and sent him flying across the hall and into the stone wall. He hit it with a yowl of protest. I whirled my attention back to Mab as she dropped one drum magazine on the floor and produced another.

Before she could seat it in the weapon, I slashed at the air with my hand and shouted, "Forzare!" Unseen force

lashed out and ripped the magazine and the shotgun alike from her hands. I made a yanking motion, and the bouncing shotgun abruptly shot across the empty space between us. I grabbed it by the barrel (which was freaking *hot*) just as the malk recovered and leapt at me again. I swung the empty shotgun two-handed and slammed the malk in the skull, hard enough to knock it from the air and leave it senseless on the floor.

Mab let out a delighted silvery laugh and clapped her hands like a little girl who has just been told she's getting a pony. "Yes!" she said. "Lovely. Brutal, vicious, and lovely."

I held on to the shotgun until the stunned malk recovered and began slinking sullenly away, and only after it was out of sight around the corner did I turn to face Mab again.

"This is getting old," I said. "Don't you have anything better to do with your time than to play Grimtooth games with me?"

"Indeed, I do," she replied. "But why play games if not to prepare for challenges that lie ahead?"

I rolled my eyes. "Fun?" I suggested.

The delight faded from her face, replaced by the usual icy calm. It was a scary transformation, and I found myself hoping that I had not provoked her with my

wiseassery.

"The fun begins when the games end, my Knight." I frowned at her. "What is that supposed to mean?"

"That appropriate attire awaits you in your chambers, and that you are to get dressed for the evening." She turned to walk after the departed malk, her gown whispering on the stone of the floor. "Tonight, my wizard, shall be . . . fun."

[End Excerpt]

From *Cold Days* by Jim Butcher.
Published by arrangement with ROC, a member of Penguin Group (USA),
Inc.

Copyright © Jim Butcher, 2012. All rights reserved.

Jim Butcher is the bestselling author of Dresden Files and the Codex Alera series. *Cold Days* is his fourteenth novel featuring paranormal investigator Harry Dresden.

Interview: Junot Diaz The Geek's Guide to the Galaxy

Junot Diaz is the author of the bestselling novel *The Brief Wondrous Life of Oscar Wao* and the collections *Drown* and *This is How You Lose Her*. His short fiction has appeared in *The New Yorker* many times, and also in *Story* and *Glimmer Train*. He is a Pulitzer Prize winner, and was recently named the recipient of one of the prestigious 2012 MacArthur Fellowships (a/k/a the MacArthur Genius Grant). He is also an editor at *The Boston Review*, and is a professor at MIT.

This interview first appeared on Wired.com's *The Geek's Guide to the Galaxy* podcast, which is hosted by John Joseph Adams and David Barr Kirtley. Visit geeksguideshow.com to listen to the entire interview and the rest of the show, in which the hosts discuss various geeky topics.

You were recently featured in *The New Yorker*'s firstever science fiction issue. Why do you think they chose this moment to do a science fiction issue? That's a great question. I think it speaks to a shift in how everyone is viewing genre. I would also say that a lot of these shifts are linked to economic considerations. It used to be a respectability thing that science fiction wasn't going to be allowed, except for certain kinds of practitioners. Ray Bradbury would perhaps be allowed in the door. Ursula K. Le Guin would be in the door, but the very concept of a science fiction issue would have been anathema in previous *New Yorker* administrations. But I think that there is a large generation shift in how we think about it. Still, there are also a lot of problems.

So what sort of response did the issue get, and what sort of impact do you think it might have?

Is it safe to say "zero" and "zero"? I mean, really, like *The New Yorker* is going to somehow have an enormous impact on science fiction, which has the kind of fan review and critical community that very few genres have ever had? It was more of a curiosity than anything, in my mind.

So tell us about your story, "Monstro." What was that about?

It's actually part of a novel I'm working on. I've been working on this insane novel about a strange invader virus-type thing that takes root in the poorest, hottest places in the world in the near future, and of course one of those places is going to be Haiti. I write most specifically about the Dominican Republic and that island. So I had this crazy idea to write a near-future story where these virused-up 40-foot monstrosities are going around eating people, and taking it from there. I'm only at the first part of the novel, so I haven't really gotten down to the eating, and I've got to eat a couple cities before I think the thing will really get going.

The story is a combination of the type of doomed relationship story you've written a lot of plus these post-apocalyptic aspects. What are some of the challenges of combining those two elements?

I just loved the idea of these over-privileged doofuses pursuing what we would call a "mainstream" or "literary fiction" narrative, while in the background, just out of their range—though they could see it if they wished to see it—there's a much more extreme, horrifying narrative unfolding. And I think that there's a part of me that feels this way sometimes, where I'm in the Dominican

Republic and I'll go to the border of Haiti, and then I'll fly and I'm back in New York City, and there's a part of me that thinks, wow, people are living these "mainstream" lives, and they're arguing about why the cafe is closed or that their pizza didn't have enough anchovies, and then there's this other, almost "generic" world where frightening things are happening, not far away.

I heard you say that one of the things that drew you to science fiction when you were younger was that you had this experience with dictatorship, and you only saw dictators in fantasy and science fiction books, and not in literary fiction.

Well, when you look at a lot of science fiction novels they're asking questions about power. There are questions about what it means to have power and what are the long-term consequences of power. When you think about the Dune novels—the original Dune novels start out as this Machiavellian fix-up—the battle between these houses—but they turn out to be a very troubling meditation on what it means to take over an entire civilization and set it on a certain path.

But there were other books that just were supremely

important to me, where I was like, damn. Stuff was happening in these science fiction books that I wasn't seeing anywhere. Whether it was the Dorsai series or Harry Harrison or the Death World novels, where they're imprisoned in this nightmare world where it's sort of like a *Doom* videogame on crack. There was all of this extreme stuff happening that resonated with a lot of the ideas and experiences and the historical shadows that have been cast from the Dominican Republic. I didn't see mainstream, literary, realistic fiction talking about power, talking about dictatorship, talking about the consequences of breeding people, which of course is something that in the Caribbean is never far away.

Monstro isn't the first science fiction novel that you've tried to write. You also had one called Dark America?

Oh my god, that book sucked, man! I tried to write this—before the whole young adult dystopian craze—this pseudo-*Akira*, pseudo-post-dirty-war novel about a young woman in a rebuilt city that had been blown up by some sort of strange perhaps-terrorist-psychic, perhaps not, and she was part of this whole historical recovery project. The book was a disaster.

What was it about *Akira* that made you want to do your own take on it, even if it didn't succeed?

I grew up in a time—I'm forty-three now and I grew up only fourteen miles from New York City—I grew up in a time where nearly every day on television they would show us these maps of New York City, and show us the destruction zones from the coming nuclear war. There would be this wonderful map and these concentric circles of doom, and my neighborhood was squarely in the black of destruction. I was part of that group of kids growing up in the '80s under the Reagan regime, what I used to call "living in the shadow of Dr. Manhattan," where we would have dreams all the time that New York City was being destroyed, and that that wall of light and destruction was rolling out and would just devour our neighborhood. And I'd always wanted to do something with that image. I mean, if you're haunted by an image for so long, there's a part of you that thinks, perhaps if I turn it into art, I can at least get a two cents return on this five million dollars of trepidation.

There's been a lot of controversy lately over them casting mostly white actors in the *Akira* live-action movie. Were you following that at all?

Oh yeah, that was the biggest joke of all. I think that there is a general pattern of "white-ifying" everything. Just because they make Heimdall black in the *Thor* movies doesn't really make a counterargument. In fact, the amount of what they call "racebending" that goes on in Hollywood is extraordinary. I mean, I have sat down with agents who will tell me straight up, "Listen, you write about Dominicans in New Jersey. We can make an indie film about this, but nobody in Hollywood wants to see anything but white leads." And so when I heard that they wanted to cast all white characters in Akira, it just really shows you how little the dream factory of our popular culture has caught up with the diverse reality of our present. I mean, the nation in which we live—and the world in which we live—is so extraordinarily more like a future than the futures that we're being sold on the screen and on television.

You recently wrote an appreciation of Ray Bradbury in which you described the impact that his story "All Summer in a Day" had on you. Could you talk about that a bit?

I was one of these kids who was an inveterate reader.

There was Asimov, Bradbury, Bova, Clarke, and then you would go out to Heinlein and Zelazny, and these were the first vocabulary that I had as a young reader. Bradbury was extremely important, and I'll never forget that he was also one of the few writers who I was reading in my spare time that the teachers would actually bring in as work for us. I recall the same year that I read Ursula K. Le Guin's "The Ones Who Walk Away from Omelas"—the teacher presented that story, which is one of the most wonderful parable/critiques of our capitalist moment—that same year our teacher brought in the Bradbury story.

I was this immigrant kid who was going through the pain, the dislocation, the sorrow, the confusion of being an immigrant. I think that immigration is still one of those experiences where our understanding of it is profoundly bowdlerized and profoundly distorted, especially the immigration of young people. And I'll never forget reading that Bradbury story. It came at a really great moment for me, because my command of the English language, and my understanding of American society, and my maturation as an immigrant had reached a point where this story could come in and give me a lens through which to understand all the things that were happening to me as an immigrant, how all the difficulties that were occurring to me were not simply something that happened just to me, that there is a whole culture of childhood persecution that, I think, for many of us who are caught in that moment, we often think it's just us, we don't see that there is a larger context. We don't see that we're not entirely alone.

And I remember reading Bradbury at that time and reading this story and suddenly becoming aware that even if this was fiction, that I felt a bond to the poor kid being locked up in the closet, that I felt that there was someone else in the universe that understood my difficulties, my hardship, my suffering, my own moment of exclusion and being ostracized. And not only could I connect to this character, but that there was a writer somewhere out there who was also saying, "I understand this, and not only do I understand this, but here it is being presented to you in a way that will help you understand it, and not just so that you're lost in it, but so that you can have some context. That you can have some distance from it and that you could see it." Because a lot of times, bearing witness to what's happening is perhaps the most important step for us to overcoming it, and Bradbury gave me a way of bearing witness to my own experience as an immigrant going through a lot of the nonsense young immigrants put up with when we're in a very hostile society, in a very hostile climate, and I never forgot that, and I never forgot

him.

American culture has certainly been hostile to young geeks, but you've talked about how it was particularly hard in the Dominican Republic where you grew up. In recent years in the U.S., geek culture has kind of gone mainstream. Is that happening outside the U.S.? Is anything like that happening—or do you think will happen—in the Dominican Republic?

I guess my sense of this thing about geek culture being mainstream is that I would be very, very cautious about thinking that simply because capitalism has decided that this is a really great area to strip-mine so that it can make its big tent-pole movies, and so that it can pad its bottom line, to think that the average "geek" is in any way more respected or less marginalized. Even though we now have all sorts of wild conventions and you can go to Comic-Con, and they send the New York Times reporter to Comic-Con, they send the *Economist* reporter to Comic-Con, and there's a huge videogame industry that makes billions of dollars, and there's all these superstar comic book writers and superstar genre writers who are even more wildly rock stars than any of the traditional figures from the genre. I mean, China Miéville is a rock star in a

way that Heinlein could probably never have imagined. Even though this is all happening, we're still talking about a minority.

This is a country that still creates hierarchies. This is a country that still has a very clear pecking order in how it likes to dole out privilege. I guess what I'm saying is that the day I see someone who's writing the Hulk comic up for the Guggenheim, or the kid who's writing strictly military science fiction being inducted into the American Academy of Arts, then I'll be like, "Damn, yeah. This whole social economy of who is in and who is out vis-àvis geeks has altered." I think that there are a lot of economic interests at stake that have encouraged folks to let geeks sit at certain tables, but we're certainly far below the salt, and the average geek who is not making a ton of money for Marvel, who is not connected to some huge videogame enterprise, or who is not one of these great, hotshot young writers, and who doesn't find their way to a convention, and isn't in a convention among his or her own tribe, I still think that there's a lot of marginalization, and I wouldn't be quick to say we've entered some sort of utopian paradise, because I work in the public school system, and I'm telling you that while it is certainly far easier for somebody to say, "I'm a comic book person," than it was growing up in the '80s, I

wouldn't underestimate the amount of marginalization that is still present today.

And how about the situation in the Dominican Republic?

Again, we're talking about a very small set of people who are interested in these things, and the larger culture just scratches its head. I was in Japan recently, about a year ago, doing an event with a whole bunch of literary people, and my translator was somebody who was himself sort of a golden boy in the literary circle, this person who had translated all these hotshot American and British opinion writers, and I'll never forget that I started talking about [Space Battleship] Yamato, what we used to call Star Blazers when it appeared in the United States, how it had this interesting effect on me, and even in Japan, a country that people tend to think goes hand-in-hand with nerd-ery —that Japan's otaku-ness is so widespread—even in Japan, when I was in this literary circle, I started talking about Star Blazers and people were like, "Are you insane?" My interpreter was like, "Yeah. People are saying that this is just children's stuff and why are you bringing this up in a place where we're having a serious

discussion." When I think of that moment in Japan, it reminds me of the situation in the Dominican Republic where in "serious circles" these pursuits of comic books, of videogames, of science fiction and fantasy—these things are considered children's pursuits. Now, by everyone? No. But in serious circles? Yeah, I still think that there's that kind of generalization, that unhelpful, distorted generalization.

Your new book, *This is How You Lose Her*, chronicles the troubled relationships of a geeky protagonist. Do you think there are dating pitfalls that are particular to geeks?

Well, that would probably be a mischaracterization. Yunior is a kid who knows everything about science fiction, everything about role-playing games, knows a ton about videogames, and yet who does not go out of his way to fly his nerd flag at all. So therefore he's a different character than, say, the poor Oscar character in *The Brief Wondrous Life of Oscar Wao*, who was dripping with his geekness, who was nerd into the seventh dimension. I think that you do have a lot of people like Yunior who love this stuff and yet feel a little bit ashamed of it. Not all

of us are as proud of reading comic books and loving China Miéville or playing videogames as others. I think it's fascinating the way his identity unfolds and the way that a reader, for example, is often much more aware of how nerdy Yunior is than perhaps any of the women in his life.

One thing I think about a lot is, how many of the social problems that geeks have are because they just don't fit in—that they would be fine if other people were more like them, but they're not—and how much actually is a matter of just objectively poor social skills? I mean, obviously I love geeks, I am a geek, but I just wonder sometimes if there is any dark side to the power fantasies and maybe over-romanticization that goes with the geek mindset?

Uh, yeah. I mean, have you ever been to a Comic-Con and seen the way that some of the comic fans go after these creators, who are often just work-for-hire people who are getting mandates down from corporate telling them what to do? I've been to horror conventions, and seen some of the crazy behavior that goes on. I'm not just saying "crazy" behavior that's fun, but crazy behavior that's a little bit antisocial and certainly fundamentally

sexist. You know, you go to a convention where it's overwhelmingly male and not exactly a safe space for women. Have you ever read the talkbacks whenever race comes up in geek culture? You know, we don't want to tar all nerds and all geeks with the same brush, because that's not the reality of it, but I do think that we're not a special category, we're not "fans are slans." We are human, and we have a lot of weird stuff afoot.

Certainly folks who are marginalized can be as oppressive as anyone else. There's always this saying in Santo Domingo that "there's nobody more oppressive than the oppressed." Certainly few of us would want to be female characters in, say, most military science fiction. I don't know about you, but I wouldn't want to be. The average science fiction writer who writes pseudofuturistic, pseudo-Blade Runner type work—I mean, Jesus Christ, how often are the women characters either raped, prostitutes, or have some kind of weird sexual abuse thing going on? You only have to talk to people of color who are working in these fields, you only have to talk to women who are working in these fields, and you hear some of the challenges that they have, about some of the stuff that gets tolerated among our circles that wouldn't be tolerated at all in the mainstream because there are already these mechanisms in place.

I mean, the recent harassment that happened at Readercon was deeply, deeply disturbing. Now it's sort of shaken things up a bit, it's started the right conversations we need to have, but I'm not shocked that there was this kind of flagrant case of sexual harassment at a place like Readercon. I mean, I've been to Readercon, I love Readercon. Most of Readercon is this fantastic, brilliant convention, but there's also a lot of weird stuff when you get a lot of guys together—even if they're geeks, whether they're geeks or not—a lot of guys together in one room and no mechanism to handle this stuff, well, you're going to have serious, serious problems.

I think that this is why creators like Alan Moore, like Hideaki Anno in anime, are so important to us. They're people who look at the culture in which they operate, the geek culture in which they operate, they look square into its shadowed heart, and see not only what's good about it and what's exhilarating about it, the promise of it, but what's incredibly dangerous about it, what is retrograde about it, what in some ways is toxic about it.

We're something that I find beautiful, that I find interesting, but that I myself think is plagued by a lot of shortcomings. And shortcomings we can fix, shortcomings that I think a lot of us are really interested in fixing and addressing. And it's generational too. There

are more women, people of color, queer folks, with each generation—certainly now, in what we would call the nerd or geek arena, than there were when I was a kid. And I think each generation brings us more promise of diversity, and brings us more promise of a better climate for all nerds/geeks.

Speaking of writers of color, I saw you say that one of your ambitions was to be a Dominican Samuel R. Delany or Octavia E. Butler.

Did I actually say that? That's so deranged! I think that was one of my younger ambitions. Sort of like when you used to have a dream about going to a Shaolin Temple. Me trying to be Octavia Butler or Samuel R. Delany really is like the forty-year-old guy wistfully thinking about how if only he had run away when he was fourteen and gone on a tramp steamer off to Hong Kong, and from there slipped across the border into the new territories and gone up to the Shaolin Temple and practiced his wushu, my god, if only I'd done that I'd already be the absolute master killer. Let me tell you something, that tramp steamer has sailed and gone, my friend. I'll be lucky if I can write another two books before I'm in the grave.

These writers are absolutely remarkable and

important. The depth of their metaphors—you know, when you think about what science fiction does best, whether we're talking about Suvin's idea of the novum, or all the different ways that people approach the central force of science fiction, these metaphors that allow us to address sectors or areas of our reality that aren't being addressed, that aren't being openly discussed, that are cloaked in silence or taboo. I look at both of them and I think that they have done wonderful jobs of exploring our realities, and exploring our anxieties, and dreaming of futures in a way that allow us to better see our present. They're absolutely indispensable, and they've certainly given me a vocabulary of ways to think about my present and my future as a person of African diasporic descent, and just as a person living in the U.S. I said that I'm working on a book right now that's an apocalyptic, giantmonster, zombie-virus invasion story that might not ever come together, but if there's anything that's useful and good about that, I certainly would love to put that at the feet of these two writers.

Are you familiar with authors like Nalo Hopkinson and Tobias Buckell, who write fantasy and science fiction using Caribbean themes and characters?

Of course. I mean, Nalo is my girl. I saw Nalo just a couple days ago. She is somebody that I've been reading since she first won that Warner Aspect First Novel Contest back in the day for Brown Girl in the Ring. And of course, Buckell. I mean, Buckell is someone that I started reading immediately because of the stuff he was doing and the way that he was weaving in the Antillean reality into his work. I mean, really, really great stuff. Listen, you can't go wrong with somebody who has a group of characters called the Mongoose Men. I'm in. I mean, compared to where we were twenty years ago, it's really, really promising. And then we have N. K. Jemisin, who's fantastic. I think each generation brings more to the table, and hopefully this trend will continue.

Back in episode 55 we interviewed Michael Chabon, and he mentioned how in college he wanted to write science fiction, but his professors forbid it. Did you have experiences like that in school?

I was very fortunate. As an undergraduate I had a brilliant professor who was what we would call a "mainstream science fiction writer"—though of course now they just cast him as mainstream—a brilliant genre writer named T. E. Holt, who published a collection of genre short

stories called *In the Valley of the Kings*. We start off with a spaceship on its way to Jupiter that has lost all power and is going to go crash, and then moves on to a story about a meteor that's going to smash into the Earth and these are the last months before the inevitable doom. Really, really remarkable stories, and he was very, very encouraging about my genre tastes and my genre interests.

When I sold my first book, *Drown*, I actually had a dual contract. I sold my book *Drown* and I sold a three-part science fiction and fantasy series that was intended to be a more "popular" version of the Gene Wolfe Shadow of the Torturer books. It was going to be this Dying Earth-type setting, and *Drown* was supposed to have come out and then a few months later the first book of this trilogy was supposed to come out. I still have the contract, it is still in force. The problem was I never could rewrite the damn first book.

I realized that the first book, which was hilariously, predictably, and stealing-ly enough named *Shadow of the Adept*—I could never get around to re-writing it, it was so bad, the draft was so terrible, and yet they still gave me a contract for it, because they were like, "You know what, this is actually pretty promising, if you could only take out all the bad stuff and rewrite it in a thorough way, we

might have something tolerable." I always had this dream that I was going to be this switch-hitter, that I was going to be one year writing a book like *Drown* and the next year writing *Shadow of the Adept*, and it never came to be, I moved so slow. And then of course what ends up happening is that what I'm known for is always my mainstream work, because unfortunately I'm pretty bad and seem to be very slow at my genre work.

You currently teach at MIT, which I would imagine would expose you to a lot of science fiction fans. Is that true?

Yeah, but I wouldn't overplay it, though. You'd be amazed how many of my students are what we would consider mainstream. For example, I'll have a creative writing class, and I will say, "Okay, we're going to do a science fiction assignment," and two-thirds of my students will be like, "I don't want to do it. I'm not interested in science fiction." I used to dream that I would go into an MIT class and I would say, "We're going to do a science fiction assignment," and the kids would put on bubble helmets and whip out their tin ray guns, but nope. It's amazing. Even at a place like MIT, there has been so

much of a transformation of MIT from a boutique nerd school to a more mainstream select college, but on average are there more sci-fi nerds than there were when I was teaching at NYU a year ago? Hell yes. Are there as many as I wanted? No. I really did think I would be able to literally form a sub-club for "Fans of *Dune*," and we would have like 500 members, but that wasn't to be. Or the "Samuel R. Delany-ists," but that didn't happen.

I don't know if you've ever been over there to the science fiction book club library that they have. They have one of the most extraordinary collections of science fiction that you have ever seen, assembled by student fans over the last three or four decades, it's extraordinary. Everything that you could ever want is there and it's upstairs in the student center. People are downstairs in the student center playing pinball and buying slightly out-of-date milk, and upstairs there's every damn book you could ever want. If we ever get a plague apocalypse, I am going to set myself up as the king of that library.

Speaking of the apocalypse, I saw that you teach a class on post-apocalyptic literature. How did that come about and what sort of books do you use in your class?

Well, as I said earlier, I grew up during the '80s, which was a time ripe with apocalyptic and post-apocalyptic narrative. I was in the theaters when *Terminator* came out. I was in the theaters when *Blade Runner* came out. I was in the theater when *Red Dawn* came out. I grew up with *Alas, Babylon*. I grew up with *Warday*. I grew up with *Earth Abides*. You know, all the John Christopher novels—he was one of these great apocalyptic writers. I grew up with John Wyndham—another one of the Brit doom boys. I grew up with his *The Kraken Wakes*. I grew up with *The Chrysalids*. I grew up with *The Midwich Cuckoos*, which became *Village of the Damned*.

So I grew up surrounded by this culture, and therefore it's no surprise that when given an opportunity, I turn around and teach that class at MIT, and it actually went really, really well. I never realized there were so many young people that were equally possessed by this dread and fascinated by it too.

What are some of the most obscure geek references in your work, and have there been any that you worried were just too nerdy or obscure?

There's a reference in the novel to M. A. R. Barker, who

is a role-playing game designer, a kind of Middle-Eastern Tolkien, and a novelist. He created the empire of Tékumel, the Tékumel world. There were two novels that were published by DAW—The Man of Gold, and the second one was Flamesong. It was like a Middle-Easternmeets-Urdu-meets-Mesoamerican future world where a human empire had spread to an alien world and colonized it, and then the human empire collapsed, and the humans were stranded in this very, very hostile world, and they rebuilt their civilization to an almost pseudo-medieval level, but of course the culture is entirely South-Asian/Middle-Eastern, and he has these remarkable mythologies and a remarkable world. And he created this series of languages à la Tolkien—Tsolyáni and Mogul lohani.

They were science fiction in the vein of Gene Wolfe, where the science is so advanced and the culture where it resides is so collapsed that they view it in mystical terms. In his world there were two sets of extra-dimensional beings that humans worshiped as gods, and they were called the Gods of Change and the Gods of Stability. And there's a reference in *Oscar Wao* to the change and the stability. And I think only one person has ever written me and told me, "Hey, I love those M. A. R. Barker novels, too."

The Geek's Guide to the Galaxy is a science fiction/fantasy talk show podcast. It is hosted by:

John Joseph Adams, in addition to serving as publisher and editor of Lightspeed, is the bestselling editor of many anthologies, such as Epic, Other Worlds Than These, Armored, Under the Moons of Mars: New Adventures on Barsoom, Brave New Worlds, Wastelands, The Living Dead, The Living Dead 2, By Blood We Live, Federations, The Improbable Adventures of Sherlock Holmes, and The Way of the Wizard. He is a four-time finalist for the Hugo Award and a four-time finalist for the World Fantasy Award. Forthcoming anthologies include The Mad Scientist's Guide to World Domination (2013, Tor) and Robot Uprisings (2013, Doubleday). He is also the co-host of Wired.com's The Geek's Guide to the Galaxy podcast. Find him on Twitter @johnjosephadams.

David Barr Kirtley has published fiction in magazines such as *Realms of Fantasy, Weird Tales, Lightspeed, Intergalactic Medicine Show, On Spec,* and *Cicada,* and in anthologies such as *New Voices in Science Fiction, Fantasy: The Best of the Year,* and *The Dragon Done It.* Recently he's contributed stories to several of John Joseph Adams's anthologies, including *The Living Dead, The Living Dead 2,* and *The Way of the Wizard.* He's attended numerous writing workshops, including Clarion, Odyssey, Viable Paradise, James Gunn's Center for the Study of Science Fiction, and Orson Scott Card's Writers Bootcamp, and he holds an MFA in screenwriting and fiction from the University of Southern California. He also teaches regularly at Alpha, a Pittsburgh-area science fiction workshop for young writers. He lives in New York.

Interview: Tad Williams The Geek's Guide to the Galaxy

Tad Williams is the bestselling author of the Memory, Sorrow & Thorn series, the Otherland series, and the Shadowmarch series. He has also written several other novels, such as *Tailchaser's Song, The War of the Flowers*, and *The Dragons of Ordinary Farm*, which was co-written with his wife, Deborah Beale. His short fiction has appeared in such venues as *Weird Tales, The Magazine of Fantasy & Science Fiction*, and in the anthologies *Legends* and *Legends II*. A collection of his short work, *Rite*, was released in 2006. He has also written for D.C. Comics, first with the miniseries *The Next*, and then doing a stint on *Aquaman*.

This interview first appeared on Wired.com's *The Geek's Guide to the Galaxy* podcast, which is hosted by John Joseph Adams and David Barr Kirtley. Visit geeksguideshow.com to listen to the entire interview and the rest of the show, in which the hosts discuss various geeky topics.

So tell us about your new book, The Dirty Streets of

Heaven. What's it about?

The initial idea was about the similar nature between the standard version of heaven versus hell—the classic, Western, Judeo-Christian idea that has developed—and the way that the Cold War was actually run, where the whole thing was sort of happening under the surface and all of the struggle was, to an extent, not noticed by most people most of the time. The main character, Bobby Dollar, is an Earth-bound angel who's part of the process of Earthly souls being judged after the people die. But then things begin to get stranger, and other odd things happen in the Cold War between heaven and hell, and he winds up in a lot deeper than he had expected. So on one level it's a fantasy—it's about angels, it's about demons, it's about all that stuff. On another level, it's also very much, I think, similar to a crime novel in its characters and approach.

When you're writing a book where the protagonist works for God, if God is all-powerful, is it a challenge then to create problems for your protagonist?

Well, one of the interesting things about the book, I think, is that how the universe really works is not necessarily

apparent to the minions down at the bottom end, of which our main character is one. Nobody he knows has ever met God, just as an example. The heavenly bureaucracy is huge and complicated, and the people at the bottom have only the dimmest idea of where their orders are coming from.

I've always wondered why the forces of hell would show up at Armageddon if they know they're going to lose. But in your book, you suggest that they think they're going to win.

Yeah. I think Bobby actually says something to the effect of that they think that's all just PR and that they have a perfectly good chance to win, and since they sort of represent the chaos side of things—I don't know how well you know Michael Moorcock's cosmology of law and chaos. It wasn't intentional—though I'm a big Moorcock fan—but the way it worked out as I was thinking these things through is that heaven winds up being sort of like Ultimate Law in Moorcock's version of things, which is something that doesn't change. It's very static. It's all about the same frequency of reward and existence, and it just keeps going on and on and on and on.

Hell is much more dynamic, because the—and this is the main character's presumption, I tend not to step in as the narrator in this, because it's being told by the main character—but the main character's presumption is that hell has to be varied, otherwise punishment is no longer effective, because it becomes familiar. So hell has to be something where your punishment surprises you, and part of your punishment is that there is no getting used to things because you never know what will happen next. That's a very simplified version, but that's one of the main differences. So hell is quite dynamic and changing. It's very feudal. It's very much about "whoever has the power makes the rules." In heaven that's true also, but you don't know who made the rules. The rules have all been made and they're not changing.

I really enjoyed the angel and demon names in the book. To what extent are those drawn from folklore and to what extent did you just make them up?

A lot of them come from traditional folklore—as I'm sure you know, a lot of angel names are in fact the names of religious figures or deities and things like that that were supplanted by Christianity, in most cases. Both the demons and the angels. And then some of them I have in

fact made up.

What about the demon names like "Grasswax" and "Howlingfell"?

In a lot of cases I am taking things like that—the names of the common order of demons—I'm sort of inventing a pseudo-medieval sort of name, like the kinds of things that used to come up in witch trials. You know, where the women would admit the devil had sent them a familiar named such and such, and they always had these kind of odd, little, strangely domestic names that didn't really sound very dramatically devilish, but clearly this had become the common currency at the time for what demon servants would be called.

An example just off the top my head would be, say, Lovecraft's "Brown Jenkin." That was probably also based on these medieval stories where they were named things like "Creeper" or "Black Pat," or just these very prosaic names. So that's where I got that, but as I said, a lot of the names are actually invented, and I have to do that in part just because I tend to have so many names in even a very short book like this that I work very carefully to keep them from being too similar-sounding.

The book is set where you live, in the vicinity of Stanford University. What are some of the benefits or drawbacks of using that as a setting?

The main thing that occasioned that is, as I was first approaching the idea of writing something with kind of a noir angle to it—and specifically a noir in the classic mode of being told first person by the protagonist—the more I thought about it, the more I realized that one of the things about noir as a subgenre is it is almost always urban, and that's because of the anonymity of cities, that's because of the size of cities, oftentimes because of the impenetrability of cities and their subcultures.

Gaiman does this all the time, he invents these civilizations that exist just under the radar, as it were. It's very exciting for readers to think that these things are right around the corner, or right underneath a leaf, or just behind the Hogwarts track 9 and 1/2 sign, or anything like that. So very much, for me, I wanted a city. On the other hand, I also wanted to write something where I felt very familiar with the sort of locations. And what's around Stanford University, which is the general area where I grew up, is a huge suburban area between San Francisco and San Jose—the two capitals of the Silicon Valley/Bay Area, whatever you want to call it. So what I

did was make an artificial city—I invented a city that wound up happening instead of San Jose. So I could write local, but I could still write a city.

Why did you choose the name "San Judas"?

Well, partially because everything around here—certainly most of the cities—were named by the Spanish missionaries, Junípero Serra's people and those after them, so most of the big cities in California—San Diego, Santa Barbara, San Jose, San Francisco—are named after saints. But of course the nature of this particular kind of strange city, this slightly odd, off-kilter, Thomas Pynchonian kind of a place, was such that I wanted to name it differently. So "San Judas" is actually Saint Jude the Obscure, patron saint of lost causes, but people constantly mistake that Judas—you know, you could see the missionaries naming this place after Saint Judas Thaddeus, Saint Jude, but that everyone would assume it was named after Judas Iscariot, the guy who betrayed Christ, so it seemed like a perfect fit.

In an interview from two years back, you said that the book would be called *Sleeping Late on Judgment Day*.

Why'd you decide to change that?

Strictly because as I thought about these three linked books, the first three Bobby Dollar books—I'm hoping to write more, because I really enjoy it—but I certainly knew that these three linked books would have an arc to them, and it seemed to me the more I thought about it that *Sleeping Late on Judgment Day* was a better name for the last book of the three. I already had *Happy Hour in Hell* pretty much locked in for the second book, so I just came up with a new name for the first one and moved the other one to being the last. So there will still be a *Sleeping Late on Judgment Day*. It will just be the last of the three.

The book describes heaven as being a beautiful garden, but my initial reaction to that was that I don't really care how nice a garden it is, if there's no internet there I'm not interested.

For me, any book I'm writing is also a chance to get in and research and read and learn things that I maybe only knew a little bit about before. So one of the fascinating things about researching heaven and hell is, of course, the fact that there are so few descriptions of heaven, because most people can't really explain what it would be like beyond a couple of sentences, whereas hell is quite often personal. It's usually quite grotesque—I mean, I'm talking about medieval visions, and more recent people's feelings that they've had a vision of hell, and they're all quite individual. They're oftentimes quite specific and very odd.

So what I wanted to do was try to come up with a version of heaven that would explain what an eternal reward might be like in terms that we can understand. And I think most of us—as you're saying, if there's not internet you don't want to be there—I think most of us are thinking, "Well, if I just have to keep doing the same things every day, being happy and cheerful and worshiping the Lord, it sounds really frickin' boring." But within the books there's also this aspect that the Blessed, those who have gotten into heaven in the afterlife, are somehow almost, to Bobby's way of thinking, they're almost kind of like lotus eaters or hypnotized or whatever. He doesn't quite understand, but they seem to be on an entirely different wavelength.

Which leaves it open, so some of us will say, "Oh, they're kept like cattle. They're kept quiet and cheerful, or it's like they've been drugged or something." But also the case could be made that Bobby just doesn't understand, because he's not happy in that way, he's not connected

into the Lord or whatever. So again, I'm trying to leave it open, and let the readers make up their own minds. I have some ideas, very definitely, but I'm not necessarily certain they'll ever make it into the books. They might, they might not.

Some of our traditional notions of heaven and hell have these pretty offensive implications, such as the idea that atheists and adherents of other religions are damned. When you're writing for a wide, contemporary audience, how do you handle issues like that?

Well, one of the things—and I believe Bobby actually says so when he's talking to the new young angel in town—at one point he says basically, "As far as I know, even atheists get a fair shake, depending on how well they lived their lives. Belief is no obstacle to getting into Heaven." And I believe he says also that as far as he knows nobody is kept out of Heaven because of any of the standard political issues that come up these days—not because they're gay, or because they're from a different religion, or whatever. But he doesn't know how it all works. So there's always that caveat with anything he's saying. He's saying, "This is what I know, and it may not

be all the truth."

Have you gotten any criticism from the other direction? People who like the traditional views and don't like the way you're meddling with it?

I'd be lying if I said I wouldn't love to see some vigorous responses on that, and I hope that if the book continues to get attention—and it has been so far, I've been very lucky —if it continues to get attention, I hope at some point it will provoke some discussions, and may already have that I haven't found. I mean, I'm not really out there looking for people talking about my book. So I'd welcome it. I think it would be fun. I kind of half-expect people will read the books and jump to the conclusion that I'm either saying, "Heaven is a con job," or something like that, and some other people may say, "Well, he's just pushing that same old Judeo-Christian crap down our throats. Why would heaven be that much like what everybody expects?" So I don't know, but I wouldn't be upset if any of that happened, because I think the very fact that we use these ideas as reasons to do things in our daily lives, and our political lives, our national life and so on, means that we should actually think about them and try to figure out if they even make sense.

Speaking of hell, do you ever worry that you'll go to hell for lying to your publisher about losing your first book in a flood?

[laughs] Believe me, if somebody's keeping score on me, that's pretty far down the list of hell-worthy things. But, I mean, anybody who knows me knows that I have a spiritual side, but I do not have a religious bone in my body. Largely because I was not born to a family that went to church. But neither were my parents anti-religion. In some ways, that would have pushed me in another direction. My parents were perfectly open-minded about everything. They never tried to convince us of what was true or what wasn't true in their minds. We were just presented with the information that was around and pretty much allowed—though, I mean, we knew how they felt. We knew they didn't go to church. So obviously that had an effect.

Do you want to just explain for listeners what the losing the book in the flood story is?

Sure, yeah. When I had submitted my first novel to my eventual publisher, DAW Books, who are still my publisher today many, many years later, I hadn't heard a

response from them for a while. So, hoping to provoke some action without seeming whiny or attention-seeking, I sent them a letter saying, "Because of floods here in California, my basement has been flooded, and you now have the only copy of my manuscript, and could you please copy it and send it back to me. I'll pay for it." I was hoping that they would go find the manuscript and look at it while they were copying it, and perhaps notice that they hadn't responded yet, because this was several months after submission. But I was also hoping like hell that they didn't know that basically California was in the middle of an eight-year drought, and that there's almost no such thing as basements in California—I certainly have never had one.

I didn't find out until years later that it was my dear friend Peter Stampfel, Betsy Wollheim's husband, who had to go—and this was the days when they didn't have bin feeders or anything—he had to go and take this 500-page manuscript and copy it page by page by page. As it turned out, I don't know if that had anything to do with it, they did wind up buying the book, and it's still in print. That's *Tailchaser's Song*. But it took me years to be able to admit to Peter that it had been a total lie, and to Peter's great credit, and probably the thing that will keep me out of hell for this one, he immediately forgave me and

laughed and thought it was a really good idea when you didn't know if someone was paying attention to your manuscript or was using it to prop up a short leg on a desk.

Actually, speaking of *Tailchaser's Song*, that was your first novel, and it's about a talking cat. As a writer myself, I've learned the hard way that there's a whole anti-talking cat contingent out there on the internet. I was just wondering if you've had any run-ins with any of them?

At this point, I have to somewhat embarrassingly admit that, of course, *Tailchaser's Song* was written before there was an internet. So I didn't notice that at first, if there was such a thing. At this point it's one of those things that's been around for so long now—I mean, I bumped into somebody at a convention once and we were talking, and this guy was a furry, and so I was chatting with him about something and he found out my name and said, "Oh my god. You're a patron saint of the furry movement." And I said, "Really?" in kind of a startled way, and he goes, "Yeah, you wrote *Tailchaser's Song*, right?" and I'm like, "Oh, yeah. I did." So god knows what people think about it. Obviously some people

thought it was an important step forward for furry Americans and others of their—excuse the expression—stripe, but I have no idea.

One of your popular series is the Otherland series, and apparently it's very popular in Germany. How'd that come about?

Well, I used to have a contract in Germany that dated back to my earliest days in business—my books had been sold there by my American publishers, and I was getting a fairly small percentage by the time it all got to me. But despite that, my wife realized that we were making a lot of money, so she began to analyze things and figured out that actually I was really popular in Germany, and I hadn't really found that out yet. So when the Otherland books were ready to go out, we said to the then-current publisher, "You guys are going to have to pay a little more now, because you've sold a hundred thousand such and such copies of the last book." And they looked at the Otherland book and said, "Well, it's not really what we wanted anyway, and it's not fantasy, and so we're not even going to offer on it."

So we said, "Fine," and put it up for auction, and wound up with Klett-Cotta, who is my current German

publisher. At the time I think they only published two fantasy or science fiction writers at all. One was Tolkien and one was Peter S. Beagle. So once they picked me up, because they are primarily a company known for literary fiction, for philosophy, for history, for some fairly academic high-end stuff, I had a certain legitimacy that lifted me out of the genre in Germany. And then a couple of good things happened very quickly, including, among other things, somebody decided to do it as a radio play, which wound up being the longest radio play in German radio history, and all this other stuff happened and the books really took off there, and I was being reviewed in the mainstream newspapers and magazines, the equivalent of the Wall Street Journal and the New York Times and Time and Newsweek, stuff that hadn't happened to me in America, and I quickly became more culturally significant than I had been up to that point in the States or England.

So it was a combination of factors, but it was quite startling how the same exact books that were being reviewed kind of like Star Trek novels or something here in the States were being reviewed by very knowledgeable people who were talking about the future of human civilization and about what the 21st-century was going to be like economically. It was the same books, but they had

been moved to a completely different context—namely, "real fiction with important issues being discussed," which I had always felt they were. It just shows you how much of this stuff is circumstantial, how much of it is context, and where you are, and how fortunate you are in getting into the cultural discussion.

Speaking of Otherland, what's the current status of the Otherland MMO?

Well, they had to push back release a couple months, but they're in beta now. It was originally going to be out this month. It has now been pushed back to, I think, very, very early next year. As far as I know, there's nothing wrong. There're just technical issues that they're working on. It's a big, huge, complicated game. But yeah, to the best of my knowledge, it's going to be probably very, very early 2013.

Last year we interviewed R. A. Salvatore, and he spent years working on an MMO project called *Kingdoms of Amalur*, which recently suffered this big collapse. I was just wondering if you had followed that at all.

No, I haven't, but I'm sorry to hear it. That's one of the difficult things about anything being done with your material. Deb and I have kind of—Deb being my wife Deborah Beale—Deb and I have kind of developed what I refer to as the "George Harrison's 'Taxman' law." You may remember that in that song, he says, "There's one for you, nineteen for me." And we've interpreted that to mean that out of any twenty things that people come to you wanting to do with your material, you're going to be lucky if one of them comes to fruition, if five percent come to fruition.

Do you follow video games at all? Or have you had any other involvement with the project?

Yeah, I've had a lot of involvement. I've been over to Singapore quite a few times, I've done a lot of consultation, I've offered a lot of ideas, I've met with the head writer and I'm in communication with him. I've been very involved, actually. And one of the things about it in the long run is I'm kind of thinking I want to—that instead of doing a conventional sequel to Otherland someday, that I'd like to try to do a sequel that's actually part of this interactive game world. In other words, I

would create story that would be fitted into the game world, not as an immutable sequence, but as a slightly coercive set of story information that would cause the game participant to have all of these new experiences in the game world. So that's one of the things I'm playing around with. I've been interested in interactive fiction since back in the 1980s.

So, other than the MMO, are there any other adaptations of your work in development?

Yeah, there's a *Tailchaser's Song* animated film, which is being done by Animetropolis out of Austin, and they're already well into the process, and they're working with a Japanese animation company whose name right now skips my mind, but they are the people who did *Cat Shit One*, if you ever heard of that, which is a very bizarre Iraq-war-with-rodents kind of thing. It's very good. So anyway, they're doing a *Tailchaser's Song* adaptation, and at the moment Warner Bros. has an option on Otherland. So those are two things that I can talk about, and there are various other things always floating around, but the George Harrison rule applies there as well.

I really enjoyed your story "Child of an Ancient City," which recently appeared in John's vampire anthology *By Blood We Live*. Could you talk a bit about your process for writing that story?

It's hard to talk about some of these things without sounding like a complete slut, I have to say. That story started out way back when, probably in the early 1980s, before I was even a professional writer. I was reading Barbara Tuchman's book *A Distant Mirror*—she's my favorite historian—and one of the things that she talks about in that book is the Battle of Nicopolis, where the sultan Bayezid so badly kicked the ass of the Western forces that he basically set up what would eventually become the fall of Constantinople about 100 years later. So this was a crucial battle, but it was also interesting because it was such a rout.

So when I initially got the idea for a vampire tale-telling story, I wanted a reason why these characters were stuck out in the middle of nowhere for so long, and I had them be a bunch of French crusaders who were coming back from Nicopolis and were trying to make it back to Western Europe. Now then, somewhere along the line, somebody—and I suspect it was Byron Price—was doing an Arabian Nights anthology, and said, "Do you have a

story?" And I didn't have one at the time, but I had this unfinished thing, and I said, "I think I can make this into an Arabian Nights story." At which point I changed the characters from French crusaders into inhabitants of the legendary version of Baghdad, and then when Byron wanted me to increase it into a short novel for a program he was doing at the time, I actually wound up working with Nina Kiriki Hoffman. So the book version is Nina Hoffman and myself, and she did a really good job of mostly adding folk tales to the story.

I think that's interesting because the story is so reminiscent of Scheherazade, which fits so perfectly with the Arabian Nights theme. Is that just a coincidence?

No, I mean, I definitely bent it that way. I mean, I think it was more of a vampire story and less of a story about storytelling when it was in its early crusaders version, but I never finished that. Whereas by the time I was redoing it as an Arabian Nights story, as you said the whole Scheherazade and the Thousand and One Nights kind of rose to the surface, and then that became one of the dominant features and, like a lot of my work, storytelling became what the story itself was about.

So back in Episode 8, we interviewed Blake Charlton, and he described how the two of you almost came to blows the first time you met while playing basketball, and I'm just curious to hear your version of that story.

I don't remember us coming to blows. We're both very similar guys, although Blake is much younger than I am, but we're both a bit similar looking and we're a bit . . . I wouldn't say "pugnacious," but we're certainly not shy about bumping into people when we're playing a sport. We both have a football background, even though we mostly play basketball now. I'm sure it would make a better story if I had tried to punch him out or something, but as I recall, it was no more than the usual sort of testosterone-fueled jostling and bumping.

The way he told it is, he said, "Who do you think you are?" and you said, "I'm Tad Williams," and he said, "You're Tad Williams? You wrote *The Dragonbone Chair*? Oh my god, I love that book."

[laughs] Again, I don't want to undercut Blake's good story. The only thing I would not say is "I'm Tad Williams," assuming somebody would know who that was. I've had an entire professional lifetime of finding out

how few people actually do know what that name means or know anything about what I do for a living. So that's kind of more like a good version of a story, but I don't think I would actually say "I'm Tad Williams." I think I might say, I don't know, "I'm a writer." That's probably more how I would have phrased it. And then if he said, "Well, would I know you?" then I would have said, "Well, I'm Tad Williams. I write fantasy and science fiction," and then we might have had that conversation.

Are there any other new or upcoming projects you want to mention?

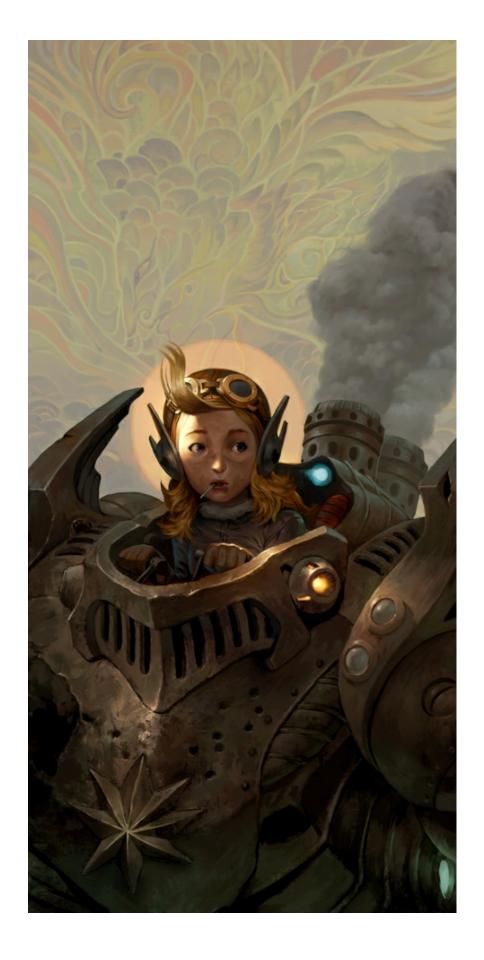
I mentioned I'm doing the second Bobby Dollar book right now, and I'm pretty much finished with it. I'm doing a ton of short stories, including two that I just sent to John Joseph Adams in the last few months, one I just did for Gardner Dozois, and one I'm doing for an online magazine. So I seem to be in one of my patches where I'm doing a lot of short stories all at once, which is kind of fun because it's a change of pace for me. Other than that, just the usual. People may get tired of hearing from me, but I don't think I'll ever run out of things that I want to write about.

The Geek's Guide to the Galaxy is a science fiction/fantasy talk show podcast. It is hosted by:

John Joseph Adams, in addition to serving as publisher and editor of Lightspeed, is the bestselling editor of many anthologies, such as Epic, Other Worlds Than These, Armored, Under the Moons of Mars: New Adventures on Barsoom, Brave New Worlds, Wastelands, The Living Dead, The Living Dead 2, By Blood We Live, Federations, The Improbable Adventures of Sherlock Holmes, and The Way of the Wizard. He is a four-time finalist for the Hugo Award and a four-time finalist for the World Fantasy Award. Forthcoming anthologies include The Mad Scientist's Guide to World Domination (2013, Tor) and Robot Uprisings (2013, Doubleday). He is also the co-host of Wired.com's The Geek's Guide to the Galaxy podcast. Find him on Twitter @johnjosephadams.

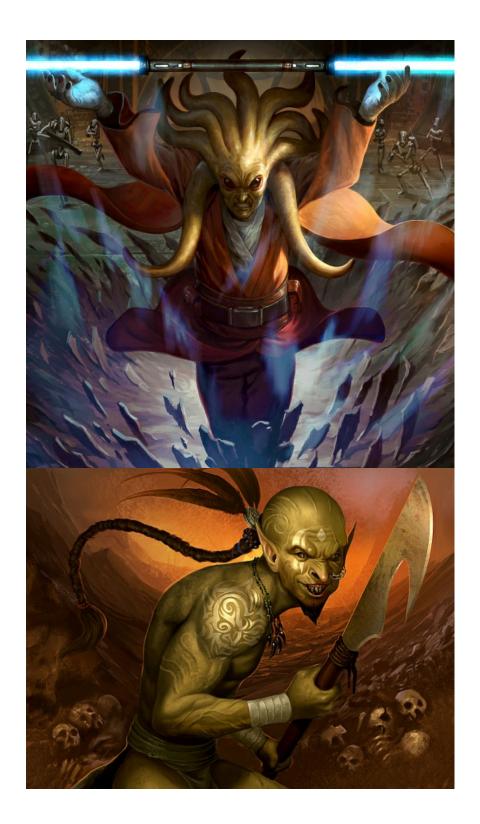
David Barr Kirtley has published fiction in magazines such as *Realms of Fantasy, Weird Tales, Lightspeed, Intergalactic Medicine Show, On Spec,* and *Cicada,* and in anthologies such as *New Voices in Science Fiction, Fantasy: The Best of the Year,* and *The Dragon Done It.* Recently he's contributed stories to several of John Joseph Adams's anthologies, including *The Living Dead, The Living Dead 2,* and *The Way of the Wizard.* He's attended numerous writing workshops, including Clarion, Odyssey, Viable Paradise, James Gunn's Center for the Study of Science Fiction, and Orson Scott Card's Writers Bootcamp, and he holds an MFA in screenwriting and fiction from the University of Southern California. He also teaches regularly at Alpha, a Pittsburgh-area science fiction workshop for young writers. He lives in New York.

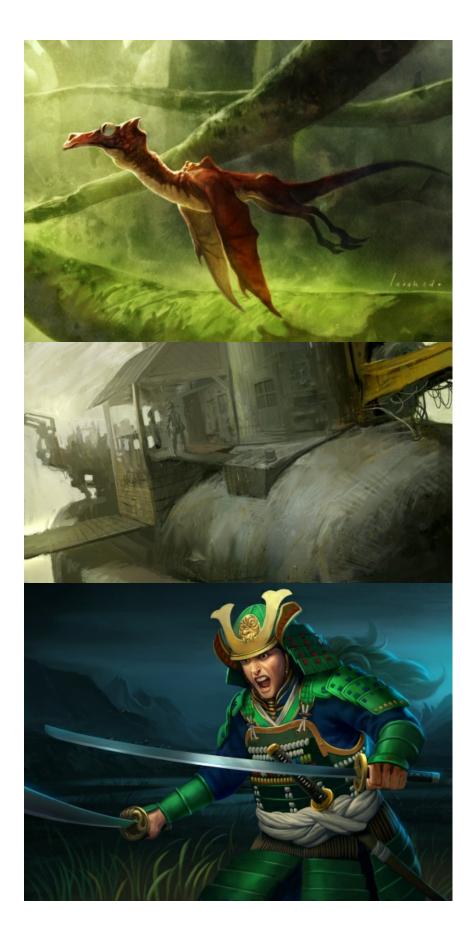
Artist Gallery











Artist Spotlight: Luis Lasahido J. T. Glover

Luis Lasahido lives and paints in Indonesia, where he works at Caravan Studio. He's worked on projects in various media, including *Marvel: Ultimate Alliance 2* and *Drafted: 100 Days*. Most of his art is created digitally, and it all started because he loved to draw . . .

Can you discuss your process for deciding on the character and setting of "Paradox?"

It comes from the meaning of the word "paradox" itself. Based on the definition I read in a dictionary, paradox is a self-contradictory statement or proposition that, when explained, may prove to be true. I thought about a small kid going to war, reflecting what's happening in the world nowadays. This inspired me to draw an innocent little girl operating a war machine. [This month's cover was previously the illustration for a Wacom competition based around the word "paradox."—eds..]

How much of a story do you imagine surrounding a

work while you're painting it? The subject of "Paradox" could almost be standing still, except for that glance to her left! Something is clearly happening outside of the frame.

It's a postwar situation, full of deaths, wrecks, and loss. The girl is looking at her surroundings, but she seems to be used to the overall condition of things.

How much flexibility do you usually have with the creative briefs you're given?

It depends on the clients. There are many types of client; some of them may ask me to work strictly to the description and reference, and others are more flexible.

Elsewhere you've talked about your love for movies and comics. Which do you think most influenced your art?

I love both of them! But there are some things movies cannot do as well as comics, like the effect, expression, exaggerated form, and so on. Hence I spend my time more on comics, yet I still love both of them.

Many of the scenes you paint are from a tilted or otherwise unusual perspective. How do you decide on the composition, or the viewpoint, of a particular work?

When working on a project, let's say an illustration, in the beginning I always look for appropriate references. Then I pick and use the best of each reference I've found, selecting for mood, composition, and perspective, and I assemble them into my illustration. It's part of my learning process. As time goes by, I'm getting used to it, and I work automatically based on what I learned from the references.

Do you set creative goals, either to increase the quality or the quantity of your work?

Yes, absolutely. I think every artist has his or her creative goals. As an illustrator, I have my goals, too. I am a big fan of Craig Mullins' art and I really want to be like him, making great works that inspire other artists and illustrators.

Do you always work digitally, or do you use traditional

media? How about for sketching?

I use both. Sometimes I use traditional media for the sketch, but mostly I work digitally.

Do your working methods differ between personal pieces and the work you do for clients?

Of course. I can do more exploring in personal pieces, depending on my idea, and it can change anytime I want—the character, the style. Also, it has no deadline, so I can work freely on it. There are limitations with clients' projects, they have descriptions and guidelines for what they want the illustration to look like, and there's a time limit, too.

One section of your deviantART gallery is devoted to "Children Illustration." Do you currently illustrate for the children's market, or would you like to work in that area?

Actually I'm not working for the children's market right now, but I really look forward to working for it someday.

What's next for you? What would you like to work on next?

I really love illustrating, especially fantasy. I hope to work one day on card illustrations for *Magic: The Gathering* and concept art for fantasy games like *Assassin's Creed, Monster Hunter*, and *World of Warcraft*.

J. T. Glover has published fiction, non-fiction, and poetry in *Dark Recesses* and *Underground Voices*, among other venues. Born and raised in the Pacific Northwest, he currently resides in Richmond, Virginia with his wife and a not inconsiderable number of fur-bearing friends. By day he is an academic reference librarian specializing in the humanities.

The Perfect Match Ken Liu

Sai woke to the rousing first movement of Vivaldi's violin concerto in C minor, "Il Sospetto."

He lay still for a minute, letting the music wash over him like a gentle Pacific breeze. The room brightened as the blinds gradually opened to the sunlight. Tilly had woken him right at the end of a light sleep cycle, the optimal time. He felt great: refreshed, optimistic, ready to jump out of bed.

Which is what he did next. "Tilly, that's an inspired choice for a wake-up song."

"Of course," Tilly spoke from the camera/speaker in the nightstand. "Who knows your tastes and moods better than I?" The voice, though electronic, was affectionate and playful.

Sai went into the shower.

"Remember to wear the new shoes today," Tilly now spoke to him from the camera/speaker in the ceiling.

"Why?"

"You have a date after work."

"Oh, the new girl. Shoot, what's her name? I know you told me—"

"I'll bring you up to speed after work. I'm sure you'll like her. The compatibility index is very high. I think you'll be in love for at least six months."

Sai looked forward to the date. Tilly had also introduced him to his last girlfriend, and that relationship had been wonderful. The break up afterwards was awful, of course, but it helped that Tilly had guided him through it. He felt that he had matured emotionally, and after a month on his own, was ready to start a new relationship.

But first he still had to get through the workday. "What do you recommend for breakfast this morning?"

"You are scheduled to attend the kickoff meeting for the Davis case at eleven, which means you'll get a lunch paid for by the firm. I suggest you go light on the breakfast, maybe just a banana."

Sai was excited. All the paralegals at Chapman Singh Stevens & Rios lived for client lunches, made by the firm's own executive chef. "Do I have time to make my own coffee?"

"You do. Traffic is light this morning. But I suggest you go to this new smoothie place along the way instead —I can get you a coupon code."

"But I really want coffee."

"Trust me, you'll love the smoothie."

Sai smiled as he turned off the shower. "Okay, Tilly.

You always know best."

Although it was another pleasant and sunny morning in Las Aldamas, California—68 degrees Fahrenheit—Sai's neighbor Jenny was wearing a thick winter coat, ski goggles, and a long, dark scarf that covered her hair and the rest of her face.

"I thought I told you I didn't want that thing installed," she said as he stepped out of his apartment. Her voice was garbled through some kind of electronic filter. In response to his questioning look, she gestured to the camera over Sai's door.

Talking to Jenny was like talking to one of his grandmother's friends who refused to use Centillion email or get a ShareAll account because they were afraid of having "the computer" know "all their business"— except that as far as he could tell, Jenny was his age. She had grown up a digital native, but somehow had missed the ethos of sharing.

"Jenny, I'm not going to argue with you. I have a right to install anything I want over *my* door. And I want Tilly to keep an eye on my door when I'm away. Apartment 308 was just burglarized last week."

"But your camera will record visitors to my place, too, because we share this hallway."

"So?"

"I don't want Tilly to have any of my social graph." Sai rolled his eyes. "What do you have to hide?" "That's not the point—"

"Yeah, yeah, civil liberties, freedom, privacy, blah blah . . . "

Sai was sick of arguing with people like Jenny. He had made the same point countless times: Centillion is not some big scary government. It's a private company, whose motto happens to be "Make things better!" Just because you want to live in the dark ages doesn't mean the rest of us shouldn't enjoy the benefits of ubiquitous computing.

He dodged around her bulky frame to get to the stairs.

"Tilly doesn't just tell you what you want," Jenny shouted. "She tells you what to *think*. Do you even know what you really want any more?"

Sai paused for a moment.

"Do you?" she pressed.

What a ridiculous question. Just the kind of pseudointellectual anti-technology rant that people like her mistake for profundity.

He kept on walking.

"Freak," he muttered, expecting Tilly to chime in from his phone earpiece with some joke to cheer him up.

But Tilly said nothing.

Having Tilly around was like having the world's best assistant:

- "Hey Tilly, do you remember where I kept that Wyoming filing with the weird company name and the F merger from maybe six months ago?"
- "Hey Tilly, can you get me a form for Section 131 Articles? Make sure it's a form that associates working with Singh use."
- "Hey Tilly, memorize these pages. Assign them these tags: 'Chapman,' 'favors buyer,' 'only use if associate is nice to me."

For a while, Chapman Singh had resisted the idea of allowing employees to bring Tilly into the office, preferring their proprietary corporate AI system. But it proved too difficult to force employees to keep their personal calendars and recommendations rigidly separate from work ones, and once the partners started to violate the rules and use Tilly for work, IT had to support them.

And Centillion had then pledged that they would encrypt all corporate-derived information in a secure manner and never use it for competitive purposes—only to give better recommendations to employees of Chapman Singh. After all, the mission statement of Centillion was to "arrange the world's information to ennoble the human race," and what could be more ennobling than making work more efficient, more productive, more pleasant?

As Sai enjoyed his lunch, he felt very lucky. He couldn't even imagine what drudgery work would have been like before Tilly came along.

After work, Tilly guided Sai to the flower shop—of course Tilly had a coupon—and then, on the way to the restaurant, she filled Sai in on his date, Ellen: educational background, ShareAll profile, reviews by previous boyfriends/girlfriends, interests, likes, dislikes, and of course, pictures—dozens of photos recognized and gathered by Tilly from around the Net.

Sai smiled. As usual, Tilly was right: Ellen was exactly his type.

It was a truism that what a man wouldn't tell his best friend, he'd happily search for on Centillion. Tilly knew all about what kind of women Sai found attractive, having observed the pictures and videos he perused late at night while engaging the Just-For-Me mode in his browser.

And, of course, Tilly would know Ellen just as well as she knew him, so Sai knew that he would be exactly Ellen's type, too.

As predicted, it turned out they were into the same books, the same movies, the same music. They had compatible ideas about how hard one should work. They laughed at each other's jokes. They fed off each other's energy.

Sai marveled at Tilly's accomplishment. Four billion women on Earth, and Tilly seemed to have found the perfect match for him. It was just like hitting the "I Trust You" button on Centillion search back in the early days and how it knew just the right web page to take you to.

Sai could feel himself falling in love, and he could tell that Ellen wanted to ask him to come home with her.

Although everything had gone exceedingly well, if he was being completely honest with himself, it wasn't *quite* as exciting and lovely as he had expected. Everything was indeed going smoothly, but maybe just a tad *too* smoothly. It was as if they already knew everything there was to know about each other. There were no surprises, no thrill of finding the truly new.

In other words, the date was a bit boring.

As Sai's mind wandered, there was a lull in the conversation. They smiled at each other and just tried to enjoy the silence.

In that moment, Tilly's voice burst into his earpiece, "You might want to ask her if she likes contemporary

Japanese desserts. I know just the place."

Sai realized that though he hadn't been aware of it until just then, he did suddenly have a craving for something sweet and delicate.

Tilly doesn't just tell you what you want. She tells you what to think.

Sai paused.

Do you even know what you really want any more?

He tried to sort out his feelings. Did Tilly just figure out what he hadn't even known he wanted? Or did she put the thought into his head?

Do you?

The way Tilly filled in that lull . . . it was as if Tilly didn't trust that he would be able to manage the date on his own, as if Tilly thought he wouldn't know what to say or do if she didn't jump in.

Sai suddenly felt irritated. The moment had been ruined.

I'm being treated like a child.

"I know you'll like it. I have a coupon."

"Tilly," he said, "please stop monitoring and terminate auto-suggestions."

"Are you sure? Gaps in sharing can cause your profile to be incomplete—"

"Yes, please cease."

With a beep, Tilly turned herself off.

Ellen stared at him, eyes and mouth wide open in shock.

"Why did you do that?"

"I wanted to talk to you alone, just the two of us." Sai smiled. "It's nice sometimes to just be ourselves, without Tilly, don't you think?"

Ellen looked confused. "But you know that the more Tilly knows, the more helpful she can be. Don't you want to be sure we don't make silly mistakes on a first date? We're both busy, and Tilly—"

"I know what Tilly can do. But—"

Ellen held up a hand, silencing him. She tilted her head, listening to her headset.

"I have the perfect idea," Ellen said. "There's this new club, and I know Tilly can get us a coupon."

Sai shook his head, annoyed. "Let's try to think of something to do without Tilly. Would you please turn her off?"

Ellen's face was unreadable for a moment.

"I think I should head home," she said. "Early workday tomorrow." She looked away.

"Did Tilly tell you to say that?"

She said nothing and avoided looking into his eyes.

"I had a great time," Sai added quickly. "Would you

like to go out again?"

Ellen paid half the bill and did not ask him to walk her home.

"You're being very antisocial tonight," Tilly said.

"I'm not antisocial. I just didn't like how you were interfering with everything."

"I have every confidence you would have enjoyed the rest of the date had you followed my advice."

Sai drove on in silence.

"I sense a lot of aggression in you. How about some kickboxing? You haven't gone in a while, and there's a 24-hour gym coming up. Take a right here."

Sai drove straight on.

"What's wrong?"

"I don't feel like spending more money."

"You know I have a coupon."

"What exactly do you have against me saving my money?"

"Your savings rate is right on target. I simply want to make sure you're sticking to your regimen for consumption of leisure. If you over-save, you'll later regret that you didn't make the most of your youth. I've plotted the optimum amount of consumption you should engage in daily."

"Tilly, I just want to go home and sleep. Can you shut yourself off for the rest of the night?"

"You know that in order to make the best life recommendations, I need to have complete knowledge of you. If you shut me out of parts of your life, my recommendations won't be as accurate—"

Sai reached into his pocket and turned off the phone. The earpiece went silent.

When Sai got home, he saw that the light over the stairs leading up to his apartment had gone out, and several dark shapes skulked around the bottom.

"Who's there?"

Several of the shadows scattered, but one came toward him: Jenny.

"You're back early."

He almost didn't recognize her; this was the first time he'd heard her voice without the electronic filter she normally used. It sounded surprisingly . . . happy.

Sai was taken aback. "How did you know I was back early? You stalking me?"

Jenny rolled her eyes. "Why would I need to stalk you? Your phone automatically checks in and out of everywhere you go with a status message based on your mood. It's all on your ShareAll lifecast for anyone to see."

He stared at her. In the faint glow from the streetlights he could see that she wasn't wearing her thick winter coat or ski goggles or scarf. Instead, she was in shorts and a loose white t-shirt. Her black hair had been dyed white in streaks. In fact, she looked very pretty, if a bit nerdy.

"What, surprised that I do know how to use a computer?"

"It's just that you usually seem so . . ."

"Paranoid? Crazy? Say what's on your mind. I won't be offended."

"Where's your coat and goggles? I've never even seen you without them."

"Oh, I taped over your door camera so my friends could come for a visit tonight, so I'm not wearing them. I'm sorry—"

"You did what?"

"—and I came out here to meet you because I saw that you turned off Tilly, not once, but *twice*. I'm guessing you're finally ready for the truth."

Stepping into Jenny's apartment was like stepping into the middle of a fishing net.

The ceiling, floor, and walls were all covered with a fine metal mesh, which glinted like liquid silver in the flickering light from the many large, hi-definition computer monitors stacked on top of each other around the room, apparently the only sources of illumination.

Besides the monitors, the only other visible furniture appeared to be bookshelves—full of books (the paper kind, strangely enough). A few upside-down, ancient milk crates covered with cushions served as chairs.

Sai had been feeling restless, had wanted to do something strange. But he now regretted his decision to accept her invitation to come in. She was indeed eccentric, perhaps too much so.

Jenny closed the door and reached up and plucked the earpiece out of Sai's ear. Then she held out her hand. "Give me your phone."

"Why? It's already off."

Jenny's hand didn't move. Reluctantly, Sai took out his phone and gave it to her.

She looked at it contemptuously. "No removable battery. Just what you'd expect of a Centillion phone. They should call these things tracking devices, not phones. You can never be sure they're really off." She slipped the phone inside a thick pouch, sealed it, and dropped it on the desk.

"Okay, now that your phone is acoustically and electromagnetically shielded, we can talk. The mesh on the walls basically makes my apartment into a Faraday cage, so cellular signals can't get through. But I don't feel comfortable around a Centillion phone until I can put a few layers of shielding around it."

"I'm just going to say it. You are *nuts*. You think Centillion spies on you? Their privacy policy is the best in the business. Every bit of information they gather has to be given up by the user voluntarily, and it's all used to make the user's life better—"

Jenny tilted her head and looked at him with a smirk until he stopped talking.

"If that's all true, why did you turn Tilly off tonight? Why did you agree to come up here with me?"

Sai wasn't sure he himself knew the answers.

"Look at you. You've agreed to have cameras observe your every move, to have every thought, word, interaction recorded in some distant data center so that algorithms could be run over them, mining them for data that marketers pay for.

"Now you've got nothing left that's private, nothing that's yours and yours alone. Centillion owns all of you. You don't even know who you are any more. You buy what Centillion wants you to buy; you read what Centillion suggests you read; you date who Centillion thinks you should date. But are you really happy?"

"That's an outdated way to look at it. Everything Tilly

suggests to me has been scientifically proven to fit my taste profile, to be something I'd like."

"You mean some advertiser paid Centillion to pitch it at you."

"That's the point of advertising, isn't it? To match desire with satisfaction. There are thousands of products in this world that would have been perfect for me, but I might never have known about them. Just like there's a perfect girl out there for me, but I might never have met her. What's wrong with listening to Tilly so that the perfect product finds the perfect consumer, the perfect girl finds the perfect boy?"

Jenny chuckled. "I love how you're so good at rationalizing your state. I ask you again: If life with Tilly is so wonderful, why did you turn her off tonight?"

"I can't explain it," Sai said. He shook his head. "This is a mistake. I think I'll head home."

"Wait. Let me show you a few things about your beloved Tilly first," Jenny said. She went to the desk and started typing, bringing up a series of documents on a monitor. She talked as Sai tried to scan them and get their gist.

"Years ago, they caught Centillion's trafficmonitoring cars sniffing all the wireless traffic from home networks on the streets they drove through. Centillion also used to override the security settings on your machine and track your browsing habits before they shifted to an opt-in monitoring policy designed to provide better 'recommendations.' Do you think they've really changed? They hunger for data about you—the more the better—and damned if they care about how they get it."

Sai flicked through the documents skeptically. "If this is all true, why hasn't anyone brought it up in the news?"

Jenny laughed. "First, everything Centillion did was arguably legal. The wireless transmissions were floating in public space, for example, so there was no violation of privacy. And the end user agreement could be read to allow everything Centillion did to 'make things better' for you. Second, these days, how do you get your news except through Centillion? If Centillion doesn't want you to see something, you won't."

"So how did you find these documents?"

"My machine is connected to a network built on top of the Net, one that Centillion can't see inside. Basically, we rely on a virus that turns people's computers into relaying stations for us, and everything is encrypted and bounced around so that Centillion can't see our traffic."

Sai shook his head. "You're really one of those tinfoil-hat conspiracy theorists. You make Centillion sound like some evil repressive government. But it's just

a company trying to make some money."

Jenny shook her head. "Surveillance is surveillance. I can never understand why some people think it matters whether it's the government doing it to you or a company. These days, Centillion is bigger than governments. Remember, it managed to topple three countries' governments just because they dared to ban Centillion within their borders."

"Those were repressive places—"

"Oh, right, and you live in the land of the free. You think Centillion was trying to promote freedom? They wanted to be able to get in there and monitor everyone and urge them to all consume more so that Centillion could make more money."

"But that's just business. It's not the same thing as evil."

"You say that, but that's only because you don't know what the world really looks like any more, now that it's been remade in Centillion's image."

Although Jenny's car was heavily shielded like her apartment, as she and Sai drove, she whispered anyway, as if she were afraid that their conversation would be overheard by people walking by on the sidewalk.

"I can't believe how decrepit this place looks," Sai

said as she parked the car by the side of the street. The surface of the road was pockmarked with potholes and the houses around them in ill repair. A few had been abandoned and were falling apart. In the distance they could hear the fading sound of a police siren. This was not a part of Las Aldamas that Sai had ever been to.

"It wasn't like this even ten years ago."

"What happened?"

"Centillion noticed a certain tendency for people—some people, not all—to self-segregate by race when it came to where they wanted to live. The company tried to serve this need by prioritizing different real estate listings to searchers based on their race. Nothing illegal about what they were doing, since they were just satisfying a need and desire in their users. They weren't hiding any listings, just pushing them far down the list, and in any event, you couldn't ever pick apart their algorithm and prove that they were looking at race when it was just one out of hundreds of factors in their magical ranking formula.

"After a while, the process began to snowball, and the segregation got worse and worse. It became easier for the politicians to gerrymander districts based on race. And so here we are. Guess who got stuck in these parts of the town?"

Sai took a deep breath. "I had no idea."

"If you ask Centillion, they'll say that their algorithms just reflected and replicated the desire to self-segregate in some of their users, and that Centillion wasn't in the business of policing thoughts. Oh, they'd claim that they were actually increasing freedom by giving people just what they wanted. They'd neglect to mention that they were profiting off of it through real estate commissions, of course."

"I can't believe no one ever says anything about this."

"You're forgetting again that everything you know now comes filtered through Centillion. Whenever you do a search, whenever you hear a news digest, it's been curated by Centillion to fit what it thinks you want to hear. Someone upset by the news isn't going to buy anything sold by the advertisers, so Centillion adjusts things to make it all okay.

"It's like we're all living in Oz's Emerald City. Centillion puts these thick green goggles over our eyes and we all think everything is a beautiful shade of green."

"You're accusing Centillion of censorship."

"No. Centillion is an algorithm that's gotten out of hand. It just gives you more of what it thinks you want. And we—people like me—think that's the root of the problem. Centillion has put us in little bubbles, where all

we see and hear are echoes of ourselves, and we become ever more stuck in our existing beliefs and exaggerated in our inclinations. We stop asking questions and accept Tilly's judgment on everything.

"Year after year, we become more docile and grow more wool for Centillion to shave off and grow rich with. But I don't want to live that way."

"And why are you telling me all this?"

"Because, neighbor, we're going to kill Tilly," Jenny said, giving Sai a hard look, "and you're going to help us do it."

Jenny's apartment, with all its windows tightly shut and curtained, felt even more stifling after the car ride. Sai looked around at the flickering screens showing dancing, abstract patterns, suddenly wary. "And just how are you planning to kill Tilly, exactly?"

"We're working on a virus, a cyber weapon, if you want to get all macho about it."

"What exactly would it do?"

"Since the lifeblood of Tilly is data—the billions of profiles Centillion has compiled on every user—that's how we have to take it down.

"Once inside the Centillion data center, the virus will gradually alter every user profile it encounters and create

new, fake profiles. We want it to move slowly to avoid detection. But eventually, it will have poisoned the data so much that it will no longer be possible for Tilly to make creepy, controlling predictions about users. And if we do it slowly enough, they can't even go to backups because they'll be corrupted too. Without the data it's built up over the decades, Centillion's advertising revenue will dry up overnight, and poof, Tilly'll be gone."

Sai imagined the billions of bits in the cloud: his tastes, likes and dislikes, secret desires, announced intentions, history of searches, purchases, articles and books read, pages browsed.

Collectively, the bits made up a digital copy of him, literally. Was there anything that was a part of *him* that wasn't also up there in the cloud, curated by Tilly? Wouldn't unleashing a virus on that be like suicide, like murder?

But then he remembered how it had felt to have Tilly lead him by the nose on every choice, how he had been content, like a pig happily wallowing in his enclosure.

The bits were his, but not *him*. He had a will that could not be captured in bits. And Tilly had almost succeeded in making him forget that.

"How can I help?" Sai asked.

Sai woke to Miles Davis's rendition of "So What."

For a moment, he wondered if the memory of the night before wasn't a dream. It felt so good to be awake, listening to just the song he wanted to hear.

"Are you feeling better, Sai?" Tilly asked.

Am I?

"I thought I turned you off, Tilly, with a hardware switch."

"I was quite concerned that you stopped all Centillion access to your life last night and forgot to turn it back on. You might have missed your wake-up call. However, Centillion added a system-level fail-safe to prevent just such an occurrence. We thought most users such as yourself would want such an override so that Centillion could regain access to your life."

"Of course," Sai said. So it's impossible to turn Tilly off and keep her off. Everything Jenny said last night was true. He felt a chill tingle on his back.

"There's a gap of about twelve hours during which I couldn't acquire data about you. To prevent degradation in my ability to help you, I recommend that you fill me in."

"Oh, you didn't miss much. I came home and fell asleep. Too tired."

"There appears to have been vandalism last night of

the new security cameras you installed. The police have been informed. Unfortunately, the camera did not capture a good image of the perpetrator."

"Don't worry about it. There's nothing here worth stealing anyway."

"You sound a bit down. Is it because of the date last night? It seems that Ellen wasn't the right match for you after all."

"Um, yeah. Maybe not."

"Don't worry: I know just the thing that will put you in a good mood."

Over the next few weeks, Sai found it extremely difficult to play his assigned role.

Maintaining the pretense that he still trusted Tilly was crucial, Jenny had emphasized, if their plan was to succeed. Tilly couldn't suspect anything was going on at all.

It seemed simple enough at first, but it was nerve wracking, keeping secrets from Tilly. Could she detect the tremors in his voice, Sai wondered. Could she tell that he was faking enthusiasm for the commercial consumption transactions she suggested?

Meanwhile, he also had a much bigger puzzle to solve before John P. Rushgore, Assistant General Counsel of Centillion, came to Chapman Singh in another week.

Chapman Singh is defending Centillion in a patent dispute with ShareAll, Jenny had said. This is our opportunity to get inside Centillion's network. All you have to do is to get someone from Centillion to plug this into his laptop.

And she had then handed him a tiny thumb drive.

Though he still hadn't figured out a plan for plugging the thumb drive into a Centillion machine, Sai was glad to have come to the end of another long day of guarding himself against Tilly.

"Tilly, I'm going jogging. I'll leave you here."

"You know that it's best to carry me with you," Tilly said. "I can track your heart rate and suggest an optimal route for you."

"I know. But I just want to run around on my own a bit, all right?"

"I'm growing quite concerned with your latest tendencies towards hiding instead of sharing."

"There's no tendency, Tilly. I just don't want you to be stolen if I get mugged. You know this neighborhood has become more unsafe lately."

And he turned off the phone and left it in his bedroom.

He closed the door behind him, made sure that the taped-over camera was still taped-over, and gently knocked on Jenny's door.

Getting to know Jenny was the oddest thing he'd ever done, Sai realized.

He couldn't count on Tilly to have made sure ahead of time that they would have topics to talk about. He couldn't rely on Tilly's always apropos suggestions when he was at a loss for words. He couldn't even count on being able to look up Jenny's ShareAll profile.

He was on his own. And it was exhilarating.

"How did you figure out everything Tilly was doing to us?"

"I grew up in China," Jenny said, wiping a strand of hair behind her ear. Sai found the gesture inexplicably endearing. "Back then, the government watched everything you did on the Network and made no secret of it. You had to learn how to keep the insanity at bay, to read between the lines, to speak without being overheard."

"I guess we were lucky, over here."

"No." And she smiled at his surprise. He was learning that she preferred to be contrarian, to disagree with him. He liked that about her. "You grew up

believing you were free, which made it even harder for you to see when you weren't. You were like frogs in the pot being slowly boiled."

"Are there many like you?"

"No. It's hard to live off the grid. I've lost touch with my old friends. I have a hard time getting to know people because so much of their lives are lived inside Centillion and ShareAll. I can peek in on them once in a while through a dummy profile, but I can never *be* a part of their lives. Sometimes I wonder if I'm doing the right thing."

"You are," Sai said, and, though there was no Tilly to prompt him, he took Jenny's hand in his. She didn't pull away.

"I never really thought of you as my type," she said. Sai's heart sank like a stone.

"But who thinks only in terms of 'types' except Tilly?" she said quickly, then smiled and pulled him closer.

Finally, the day had come. Rushgore had come to Chapman Singh to prepare for a deposition. He was huddled up with the firm's lawyers in one of their conference rooms all day long.

Sai sat down in his cubicle, stood up, and sat down again. He found himself full of nervous energy as he

contemplated the best way to deliver the payload, as it were.

Maybe he could pretend to be tech support, there to perform an emergency scan of his system?

Maybe he could deliver lunch, and plug the drive in slyly?

Maybe he could pull the fire alarm, and hope that Rushgore would leave his laptop behind?

Not a single one of his ideas passed the laugh test.

"Hey," the associate who had been with Rushgore in the conference room all day was suddenly standing next to Sai's cubicle. "Rushgore needs to charge his phone you got a Centillion charging cable over here?"

Sai stared at him, dumbfounded by his luck.

The associate held up a phone and waved it at him.

"Of course!" Sai said. "I'll bring one right to you."

"Thanks." The associate went back to the conference room.

Sai couldn't believe it. This was it. He plugged the drive into a charging cable and added an extension on the other end. The whole thing looked only a little odd, like a thin python who had swallowed a rat.

But suddenly he felt a sinking feeling in the pit of his stomach and he almost swore aloud: He had forgotten to turn off the webcam above his computer—*Tilly's eyes*—

before preparing the cable. If Tilly raised questions about the weird cable he was carrying, he would have no explanation, and then all of his efforts at misdirection, at hiding, would be for naught.

But there was nothing he could do about it now but proceed as planned. As he left his cubicle, his heart was almost in his throat.

He stepped into the hallway, and strode down to the conference room.

Still nothing from his earpiece.

He opened the door. Rushgore was too busy with his computer even to look up. He grabbed the cable from Sai and plugged one end into his computer, and the other end into his phone.

And Tilly remained silent.

Sai woke to—what else?—"We Are the Champions."

The previous night of drinking and laughing with Jenny and her friends had been a blur, but he did remember coming home and telling Tilly, right before he fell asleep, "We did it! We won!"

Ah, if Tilly only knew what we were celebrating.

The music faded, stopped.

Sai stretched lazily, turned to his side, and stared into the eyes of four burly, very serious men. "Tilly, call the police!"

"I'm afraid I can't do that, Sai."

"Why the hell not?"

"These men are here to help you. Trust me, Sai. You know I know just what you need."

When the strange men had appeared in his apartment, Sai had imagined torture chambers, mental hospitals, faceless guards parading outside of dark cells. He had not imagined that he would be sitting across the table from Christian Rinn, Founder and Executive Chairman of Centillion, having white tea.

"You got pretty close." Rinn said. The man was barely in his forties and looked fit and efficient—*kind of like how I picture a male version of Tilly,* Sai thought. He smiled. "Closer than almost anyone."

"What was the mistake that gave us away?" Jenny asked.

She was sitting to Sai's left, and Sai reached out for her hand. They intertwined their fingers, giving each other strength.

"It was his phone, on that first night he visited you."

"Impossible. I shielded it. It couldn't have recorded anything."

"But you left it on your desk, where it could still make

use of its accelerometer. It detected and recorded the vibrations from your typing. There's a very distinctive way we strike the keys on a keyboard, and it's possible to reconstruct what someone was typing based on the vibration patterns alone. It's an old technology we developed for catching terrorists and drug dealers."

Jenny cursed under her breath, and Sai realized that until that moment, on some level, he still hadn't quite believed Jenny's paranoia.

"But I didn't bring my phone after that first day."

"True, but we didn't need it. After Tilly picked up what Jenny was typing, the right alert algorithms were triggered and we focused surveillance on you. We parked a traffic observation vehicle a block away and trained a little laser on Jenny's window. It was enough to record your conversations through the vibrations in the glass."

"You're a very creepy man, Mr. Rinn," Sai said. "And despicable too."

Rinn didn't seem bothered by this. "I think you might feel differently by the end of our conversation. Centillion was not the first company to stalk you."

Jenny's fingers tightened around Sai's. "Let him go. I'm the one you really want. He doesn't know anything."

Rinn shook his head and smiled apologetically. "Sai, did you realize that Jenny moved into the apartment next

to yours a week after we retained Chapman Singh to represent us in the suit against ShareAll?"

Sai didn't understand what Rinn was getting at, but he sensed that he would not like what he was about to find out. He wanted to tell Rinn to shut up, but he held his tongue.

"Curious, aren't you? You can't resist the pull of information. If it's possible, you always want to learn something new; we're hardwired that way. That's the drive behind Centillion, too."

"Don't believe anything he says," Jenny said.

"Would it surprise you to find out that the five other paralegals in your firm also had new neighbors move in during that same week? Would it also surprise you to learn that the new neighbors have all sworn to destroy Centillion, just like Jenny here? Tilly is very good at detecting patterns."

Sai's heart beat faster. He turned to Jenny. "Is this true? You planned from the start to use me? You got to know me just so you'd have a chance to deliver a virus?"

Jenny turned her face away.

"They know that there's no way to hack into our systems from the outside, so they had to sneak a trojan in. You were used, Sai. She and her friends guided you, led you by the nose, made you do things—just like they

accuse us of doing."

"It's not like that," Jenny said. "Listen, Sai, maybe that was how it started. But life's full of surprises. I was surprised by you, and that's a good thing."

Sai let go of Jenny's hand and turned back to Rinn. "Maybe they *did* use me. But they're right. You've turned the world into a Panopticon and all the people in it into obedient puppets that you nudge this way and that just so you'd make more money."

"You yourself pointed out that we were fulfilling desires, lubricating the engine of commerce in an essential way."

"But you also fulfill dark desires." He remembered again the abandoned houses by the side of the road, the pockmarked pavement.

"We unveil only the darkness that was already inside people," Rinn said. "And Jenny didn't tell you about how many child pornographers we've caught, how many planned murders we've stopped, or how many drug cartels and terrorists we've exposed. And all the dictators and strongmen we've toppled by filtering out their propaganda and magnifying the voices of those who oppose them."

"Don't make yourself sound so noble," Jenny said. "After you topple governments, you and the other

Western companies get to move in and profit. You're just propagandists of a different ilk—for making the world flat, turning everywhere into copies of suburban America, studded with malls."

"It's easy to be cynical like that," Rinn said. "But I'm proud of what we've done. If cultural imperialism is what it takes to make the world a better place, then we'll happily arrange the world's information to ennoble the human race."

"Why can't you just be in the business of neutrally offering up information? Why not go back to being a simple search engine? Why all the surveillance and filtering? Why all the manipulation?" Sai asked.

"There's no such thing as neutrally offering up information. If someone asks Tilly about the name of a candidate, should Tilly bring them to his official site or a site that criticizes him? If someone asks Tilly about 'Tiananmen,' should Tilly tell them about the hundreds of years of history behind the place or just tell them about June 4, 1989? The 'I Trust You' button is a heavy responsibility that we take very seriously.

"Centillion is in the business of organizing information, and that requires choices, direction, inherent subjectivity. What is important to you—what is true to you—is not as important or as true to others. It depends

on judgment and ranking. To search for what matters to you, we must know all about you. And that, in turn, is indistinguishable from filtering, from manipulation."

"You make it sound so inevitable."

"It *is* inevitable. You think destroying Centillion will free you, whatever 'free' means. But let me ask you, can you tell me the requirements for starting a new business in the State of New York?"

Sai opened his mouth and realized that his instinct was to ask Tilly. He closed his mouth again.

"What's your mother's phone number?"

Sai resisted the urge to reach for his phone.

"How about you tell me what happened in the world yesterday? What book did you buy and enjoy three years ago? When did you start dating your last girlfriend?"

Sai said nothing.

"You see? Without Tilly, you can't do your job, you can't remember your life, you can't even call your mother. We are now a race of cyborgs. We long ago began to spread our minds into the electronic realm, and it is no longer possible to squeeze all of ourselves back into our brains. The electronic copies of yourselves that you wanted to destroy are, in a literal sense, actually you.

"Since it's impossible to live without these electronic extensions of ourselves, if you destroy Centillion, a

replacement will just rise to take its place. It's too late; the genie has long left the bottle. Churchill said that we shape our buildings, and afterwards, our buildings shape us. We made machines to help us think, and now the machines think for us."

"So what do you want with us?" Jenny asked. "We won't stop fighting you."

"I want you to come and work for Centillion."

Sai and Jenny looked at each other. "What?"

"We want people who can see through Tilly's suggestions, detect her imperfections. For all that we've been able to do with AI and data mining, the Perfect Algorithm remains elusive. Because you can see her flaws, you'll be the best at figuring out what Tilly's still missing and where she's gone too far. It's the perfect match. You'll make her better, more compelling, so that Tilly will do a better job."

"Why would we do that?" Jenny asked. "Why would we want to help you run people's lives with a machine?"

"Because as bad as you think Centillion is, any replacement is likely worse. It was not a mere PR move that I made 'ennobling the human race' the mission of this company, even if you don't agree with how I've gone about it.

"If we fail, who do you think will replace us?

ShareAll? A Chinese company?"

Jenny looked away.

"And that is why we've gone to such extraordinary lengths to be sure that we have all the data we need to stop competitors as well as well-meaning, but naïve, individuals like you from destroying all that Centillion has accomplished."

"What if we refuse to join you but tell the world what you've done?"

"No one would believe you. We will make it so that whatever you say, whatever you write, no one will ever find it. On the Net, if it can't be found by Centillion, it doesn't exist."

Sai knew that he was right.

"You thought Centillion was just an algorithm, a machine. But now you know that it's built by people—people like me, people like you. You've told me what I've done wrong. Wouldn't you rather be part of us so that you can try to make things better?

"In the face of the inevitable, the only choice is to adapt."

Sai closed the door of the apartment behind him. The camera overhead followed.

"Will Jenny be coming over tomorrow for dinner?"

Tilly asked.

"Maybe."

"You really need to get her to start sharing. It will make planning much easier."

"I wouldn't count on it, Tilly."

"You're tired," Tilly said. "How about I order you some hot organic cider for delivery and then you go to bed?"

That does sound perfect.

"No," Sai said. "I think I prefer to just read for a while, in bed."

"Of course. Would you like me to suggest a book?"

"I'd rather you take the rest of the night off, actually.

But first, set the wake-up song to Sinatra's 'My Way.'"

"An unusual choice, given your taste. Is this a onetime experiment or would you like me to incorporate it into your music recommendations for the future?"

"Just this once, for now. Good night, Tilly. Please turn yourself off."

The camera whirred, followed Sai to bed, and shut off.

But a red light continued to blink, slowly, in the darkness.

Ken Liu is an author and translator of speculative fiction, as well as a lawyer and programmer. His fiction has appeared in magazines such as *The Magazine of Fantasy & Science Fiction, Asimov's, Analog, Clarkesworld, Lightspeed, Nature, Apex, Daily SF, Fireside, TRSF,* and *Strange Horizons,* and has been reprinted in the prestigious *Year's Best SF* and *The Best Science Fiction and Fantasy of the Year* anthology series. He has won a Nebula and been nominated for the Hugo and Sturgeon awards. He lives with his family near Boston, Massachusetts.

Swanwatch Yoon Ha Lee

Officially, the five exiles on the station were the Initiates of the Fermata. Unofficially, the Concert of Worlds called them the swanwatch.

The older exiles called themselves Dragon and Phoenix, Tiger and Tortoise, according to tradition based in an ancient civilization's legends. The newest and youngest exile went by Swan. She was not a swan in the way of fairy tales. If so, she would have had a history sung across the galaxy's billions of stars, of rapturous beauty or resolute virtue. She would have woven the hearts of dead stars into armor for the Concert's soldiers and hushed novae to sleep so ships could safely pass. However, she was, as befitted the name they gave her, a musician.

Swan had been exiled to the station because she had offended the captain of a guestship from the scintillant core. In a moment of confusion, she had addressed him in the wrong language for the occasion. Through the convolutions of Concert politics, she wound up in the swanwatch.

The captain sent her a single expensive message

across the vast space now separating them. It was because of the message that Swan first went to Dragon. Dragon was not the oldest and wisest of the swanwatch; that honor belonged to Tortoise. But Dragon loved oddments of knowledge, and he could read the calligraphy in which the captain had written his message.

"You have good taste in enemies," Dragon commented, as though Swan had singled out the captain. Dragon was a lanky man with skin lighter than Swan's, and he was always pacing, or whittling appallingly rare scraps of wood, or tapping earworm-rhythms upon his knee.

Swan bowed her head. *I'd rather not be here, and be back with my family*. She didn't say so out loud, though. That would have implied a disregard for Dragon's company, and she was already fond of Dragon. "Can you read it?" she asked.

"Of course I can read it, although it would help if you held the message right side up."

Swan wasn't illiterate, but there were many languages in the Concert of Worlds. "This way?" Swan asked, rotating the sheet.

Dragon nodded.

"What does it say?"

Dragon's foot tapped. "It says: 'I look forward to

hearing your masterpiece honoring the swanships.' Should I read all his titles, too?" Dragon's ironic tone made his opinion of the captain's pretensions quite clear. "They take up the rest of the page."

Swan had paled. "No, thank you," she said. The swanwatch's official purpose was as a retreat for artists. Its inhabitants could only leave upon presenting an acceptable masterwork to the judges who visited every decade. In practice, those exiled here lacked the requisite skill. The captain's message clearly mocked her.

Like many privileged children, Swan had had lessons in the high arts: music and calligraphy, fencing and poetry. She could set a fragment of text to a melody, if given the proper mode, and play the essential three instruments: the zither, the flute, and the keyboard. But she had never pursued composing any further than that, expecting a life as a patron of the arts rather than an artist herself.

Dragon said, kindly, "It's another way of telling you your task is impossible."

Swan wondered if Dragon was a composer, but would not be so uncouth as to ask. "Thank you for reading me the letter," she said.

"It was my pleasure," Dragon said. It was obvious to him that Swan was determined to leave the Initiates and return home, however difficult the task and however much home might have changed in the interim. Kind for a second time, he did not disillusion her about her chances.

Tiger was a tall woman with deceptively sweet eyes and a rapacious smile. When Swan first met her, she was afraid that Tiger would gobble her up in some manner peculiar to the Initiates. But Tiger said only, "How are you settling in?"

Swan had a few reminders of her home, things she had been allowed to bring in physical form: a jewelry box inlaid with abalone, inherited from her deceased mother; a silver flute her best friend had given her. The official who had processed Swan's transfer to the station had reminded her to choose carefully, and had said she could bring a lot more in scanned form, to be replicated at the station. But where homesickness was concerned, she wanted the real item, not a copy.

Swan thought about it, then said, "I'll adjust."

Tiger said, "We all do." She stretched, joints creaking. "You've seen the duty roster, I trust. There's a swanship coming in very soon. Shall I show you what to do?"

Although Swan could have trusted the manuals, she knew she would be sharing swanwatch with Tiger and

the others for a long time. If Tiger was feeling generous enough to explain the procedures to her, best not to offend Tiger by declining.

Together, Tiger and Swan walked the long halls of their prison to the monitoring room. "You can do this from anywhere on the station," Tiger said. "The computers log everything, and it only requires a moment's attention for you to pray in honor of the swanship's valor, if you believe in that at all. Once you've been here a while, you'll welcome the ritual and the illusion that you matter. They do value ritual where you come from, don't they?"

"Yes," Swan said.

"How much of the fermata did you see on your way here?"

"They wouldn't let me look." In fact, Swan had been sedated for her arrival. New Initiates sometimes attempted escape. "They said I'd have plenty of time to stare at the grave-of-ships as an Initiate."

"Quite right," Tiger said, a little bitterly.

Doors upon doors irised before them until at last they reached the monitoring room. To Swan's surprise, it was a vast hall, lined with subtly glowing banks of controls and projective screens. Tiger grasped Swan's shoulder firmly and steered her to the center of the hall. "The

grave-of-ships," Tiger said, adding an honorific to the phrase. "Look!"

Swan looked. All around them were the projected images of swanships in the first blush of redshift, those who had cast themselves into the fermata and left their inexorably dimming shadows: the Concert of Worlds' highest form of suicide art. In any number of religions, the swanships formed a great fleet to battle the silence at the end of time. Some societies in the Concert sent their condemned in swanships to redeem themselves, while others sent their most honored generals.

"The ship doesn't need our assistance, does it?" Swan said.

"What, in plunging into a black hole?" Tiger said dryly. "Not usually, no."

Tiger muttered a command, and all the images flickered away save that of the incoming swanship and its escort of three. The escort peeled away; the swanship flew straight toward the fermata's hidden heart, indicated in the displays by a pulsing point.

Swan did not know how long she watched that fatal trajectory.

Tiger tapped Swan on the shoulder. "Breathe, cygnet. It's not coming back. You'll just see the ship go more and more slowly as it approaches the event horizon forever,

and you don't want to pass out."

"How many people were on the ship?" Swan said.

"You want statistics?" Tiger said approvingly. Tiger, Swan would learn, was a great believer in morbid details. She showed Swan how to look up the basic things one might wish to know about a swanship: its crew and shipyard of origin, its registry, the weapons it brought to the fight at the end of time.

"I had thought it would be more spectacular," Swan said, gazing back at the swanship's frozen image. "Even if I knew about the—the physics involved."

"What were you expecting, cygnet? False-color explosions and a crescendo in the music of your mind?" Tiger saw Swan bite her lip. "It wasn't hard to guess how you'd try to escape, little musician. It's too bad you can't ask Tortoise to write music for your freedom, but all Tortoise does anymore is sleep."

"I wouldn't ask that of Tortoise," Swan said. "But I have to understand the swanships if I am to compose for them."

"Poor cygnet," Tiger said. "You'll learn to set hope aside soon enough."

Tiger kissed Swan on the side of the mouth, not at all benevolently, then walked away.

In the silence, Swan listened to the ringing in her ears,

and shivered.

After her nineteenth swanship, Swan hunted through the station's libraries—updated each time a swanship and its entourage came through—for material on composition. She read interactive treatises on music theory for six hours, skipping lunch and dinner: modes and keys, time signatures and rhythms, tones and textures, hierarchies of structure. The result was a vile headache. The Concert of Worlds was as rich in musical forms as it was in languages, and despite Swan's efforts to be discriminating, she ran into contradictory traditions.

Swan returned to the three instruments she knew, zither, flute, and keyboard. The station replicated the first and third for her according to her specifications. Drawing upon the classics she had memorized in childhood and the libraries' collection of poetry, she practiced setting texts to music. Sometimes she did this in the station's rock garden. The impracticality of the place delighted her absurdly.

Dragon often came to listen, offering neither encouragement nor criticism. Rather than applauding, he left her the figurines he whittled. Swan decorated her room with them.

"Are you an artist?" she asked Dragon once after

botching her warm-up scales on the flute.

"No," Dragon said. "I could play a chord or two on your keyboard, but that's all."

Swan turned her hand palm-up and stepped away from the keyboard, offering. Smiling, he declined, and she did not press him.

After fifty-seven swanships—months as the station reckoned time—Swan asked the others if she could move her keyboard into the observation room. Dragon not only agreed, but offered to help her move it, knowing that Swan felt uneasy around the station's mechanical servitors. Phoenix said she supposed there was no harm in it. Tiger laughed and said, "Anything for you, cygnet." Swan was horribly afraid that Tiger meant it. Tortoise didn't respond, which the others assured her was a yes.

Swan wrote fragments of poetry for each ship thereafter, and set them to music. The poetry itself was frequently wretched—Swan was honest enough with herself to admit this—but she had some hope for the music. She was briefly encouraged by her attempts at orchestration: bright, brassy fanfares for ships that had served in battles; shimmering chords for ships built with beauty rather than speed in mind; the menacing clatter of drums for those rare ships that defied their fate and swung around to attack the station.

Tiger deigned to listen to one of Swan's fragments, despite her ordinary impatience for musical endeavors. "Orchestrate a battle; orchestrate a piece of music. This isn't the only language that uses the same verb for both. Your battle, cygnet, is a hundred skirmishes and no master plan. If you plan to do this for every swanship that is and has ever been, you'll die of old age before you're finished."

"I'm no general," Swan said, "but I have a battle to fight and music to write."

"I can't decide whether your persistence is tiresome or admirable," Tiger said. But she was smiling, and although she didn't seem to realize it, her foot was still tapping to the beat.

Swan had already returned to the keyboard, sketching a theme around the caesuras of an ancient hymn. Lost in visions of ships stretched beyond recognition, she did not hear Tiger leave.

Phoenix had held herself aloof from Swan after their initial introduction. This was not a matter of personal ill-will, as Dragon told Swan. Phoenix didn't hold anyone but herself in high regard, and she locked herself away in pursuit of her own art, painting.

Perhaps Swan's diligence impressed Phoenix at last.

It was hard to say. Tiger paid as little attention to Phoenix as possible, and urged Swan to do likewise. "She's forever painting nebulae and alien landscapes, then burning the results," Tiger said contemptuously. "What's the point, then?"

Dragon said that everyone was entitled to a few quirks. Tiger remarked that anyone would say that of a former lover. At that point, Swan excused herself from the conversation.

"I have heard that you started the first movement of your symphony. I should like to hear it," Phoenix said to Swan through the station's most impersonal messaging system.

So Swan invited her to the observation room at an hour when no swanships were scheduled to arrive. She played the flute—her best instrument—to the station's recordings of the other parts; the libraries had included numerous sequencers.

Phoenix applauded when Swan had finished. Her expression was reluctantly respectful. Gravely, she said, "This captain of yours—"

He's not mine, Swan thought, although perhaps I am his.

"—do you know anything of his musical preferences?"

Swan shook her head. "I tried to find out," she said. After all, if the captain had possessed enough influence to send her to the swanwatch, he might also be able to influence the selection of judges. "He commissioned a synesthetic opera once, which I have no recording of. Beyond that, who knows how he interprets the grave-of-ships? And if I am to do each swanship justice, shouldn't I draw upon the musical traditions of their cultures? Some of them contradict each other. How am I to deal with this in a single finite symphony?"

Phoenix lifted an eyebrow, and Swan felt ashamed of her outburst. "Do you know why we're here, Swan?" she asked. She was not referring to their official mission of contemplating the fermata to further their art.

"It seemed impolite to ask," Swan said.

"Tiger is a war criminal," Phoenix said. "Tortoise is a scholar who resigned and came here to protest the policies of some government that has since been wiped out of time. It might even have done some good, in the strand of society where he was famous. I, of course, am here as unjustly as you are." She did not elaborate.

"And Dragon?"

Phoenix smiled thinly. "You should ask Dragon yourself. It might make you think twice about your symphony."

Swan wouldn't have realized anything was wrong if Tiger hadn't sent her a message while she was in the middle of working on her second movement. The idea had come to her in the middle of her sleep shift, and she was kneeling at the zither, adjusting the bridges.

"Urgent message from Tiger," the station informed her.

"Go ahead," Swan said absently, trying to decide what mode to tune to.

Tiger's voice said, "Hello, cygnet. It's Tortoise's watch, but he seems to be asleep as usual, and you might be interested in going to the observation room."

Tiger's tone was lazy, but she had flagged the message as urgent. What was going on?

"Station," Swan said, "who's in the observation room now?"

"No one," it said.

"Is there a swanship scheduled to arrive soon?"

"There is an unscheduled swanship right now."

Swan rose and ran to the observation room.

Tiger had been correct about the importance of ritual. No matter how smoothly a ship descended into the fermata, Swan always checked the ship's status. Swanships did occasionally arrive off-schedule, but she wondered why Tiger had sounded concerned.

So she looked at the ship, which was tiny, with an underpowered sublight drive, and its crew, a single person: Gazhien of the *Circle of Swords*.

She knew that name, although ages had passed since she had used it. It was Dragon.

She asked the station what the *Circle of Swords* was. It had been a swanship nearly a century ago, and all but one member of the crew had passed into the fermata on it.

"Swan to Dragon," she said to the tiny ship, which was one of the station's shuttles. "Swan to Dragon. Please come back!"

After a heartstopping moment, Dragon replied, "Ah, Swan."

Swan could have said, *What do you think you're doing?*, but they both knew that. Instead, she asked, "Why now, and not tomorrow, or the day before? Why this day of all days, after a century of waiting?"

"You are as tactful as ever," Dragon said, "even about the matter of my cowardice."

"Please, Dragon."

Dragon's voice was peculiarly meditative. "Your symphony reminds me of my duty, Swan. I came here a long time ago on the *Circle of Swords*. It was one of the proudest warships of—well, the nation has since passed into anarchy. I was the only soldier too afraid of my fate

to swear the sacred oath to *sing always against the coming silence*. As punishment, they left me here to contemplate my failure, forever separated from my comrades."

"Dragon," Swan said, "they're long gone now. What good will it do them, at this end of time, for you to die?"

"The Concert teaches that the fermata is our greatest form of immortality—"

"Dead is dead," Swan said. "At this end of time, what is the hurry?"

The door whisked open. Swan looked away from the ship's image and met Tiger's curious eyes.

"Damn, 'Zhien," Tiger said respectfully. "So you found the courage after all."

"That's not it," Swan said. "The symphony wasn't supposed to be about the glory of death."

Loftily, Tiger said, "Oh, *I'd* never perform suicide art. There's nothing pretty about death. You learn that in battle."

After a silence, Dragon said, "What did you intend, then, Swan?"

The question brought her up short. She had been so absorbed in attempting to convey the swanships' grandeur that she had forgotten that real people passed into the fermata to send their souls to the end of time. "I'll

change my music," she said. "I'll delete it all if I have to."

"Please don't," Dragon said. "I would miss it greatly." A faint swelling of melody: his ship was playing back one of her first, stumbling efforts.

"You'll miss it forever if you keep going."

"A bargain, then," Dragon said. "I was never an artist, only a soldier, but a hundred years here have taught me the value of art. Don't destroy your music, and I'll come back."

Swan's eyes prickled. "All right."

Tiger and Swan watched as Dragon's ship decelerated, then reversed its course, returning to the station.

"You've sacrificed your freedom to bring him back, you know," Tiger said. "If you finish your symphony now, it will lack conviction. Anyone with half an ear will be able to tell."

"I would rather have Dragon's life than write a masterpiece," Swan said.

"You're a fool, cygnet."

Only then did Swan realize that, in her alarm over the situation, she had completely forgotten the theme she had meant to record.

Dragon helped Swan move the keyboard out of the observation room and into the rock garden. "I'm glad you're not giving up your music," he remarked.

She looked at him, really looked at him, thinking of how she had almost lost a friend. "I'm not writing the symphony," she said.

He blinked.

"I'm still writing music," Swan assured him. "Just not the captain's symphony. Because you were right: it's impossible. At least, what I envisioned is impossible. If I dwell upon the impossible, I achieve nothing. But if I do what I can, where I can—I might get somewhere."

She wasn't referring to freedom from the swanwatch.

Dragon nodded. "I think I see. And Swan—" He hesitated. "Thank you."

"It's been a long day," she said. "You should rest."

"Like Tortoise?" He chuckled. "Perhaps I will." He ran one hand along the keyboard in a flurry of notes. Then he sat on one of the garden's benches and closed his eyes, humming idly.

Swan studied Dragon's calm face. Then she stood at the keyboard and played several tentative notes, a song for Dragon and Phoenix and Tiger. A song for the living.

© 2009 Yoon Ha Lee.

Originally published in Federations, edited by John Joseph Adams.

Reprinted by permission of the author.

Yoon Ha Lee's work has appeared in *The Magazine of Fantasy & Science Fiction, Clarkesworld, Fantasy Magazine, Ideomancer, Lady Churchill's Rosebud Wristlet, Farrago's Wainscot, Beneath Ceaseless Skies, Electric Velocipede,* and *Sybil's Garage.* She's also appeared in the anthologies *Twenty Epics, Japanese Dreams, In Lands That Never Were, The Way of the Wizard, Year's Best Fantasy #6,* and *Science Fiction: The Best of 2002.* Her poetry has appeared in such venues as *Jabberwocky, Strange Horizons, Star*Line, Mythic Delirium,* and *Goblin Fruit.* Learn more at pegasus.cityofveils.com.

Dreams in Dust D. Thomas Minton

The arrival of the dust-covered girl caught Keraf by surprise. The girl's slender face, sun-beaten to a deep brown, blended seamlessly into the cloth wrapped around her head. She couldn't have been more than seventeen, but she wielded her rifle with ease.

Keraf didn't even try for his own rifle, slung over his shoulder. Shooting her would be a waste of his last bullet because she didn't appear to have a canteen.

"My sand sled got demasted four days ago," he said in response to her unspoken question. His tongue, dry and dusty, made it difficult to speak. "I have things I can trade for water."

Her eyes roved over Keraf's gauzy robes, his *keffiyeh* wrapped around the lower half of his face, his rifle, the narrow metal cylinder at his waist, and the empty water bag slung over his back.

"I could just shoot you," she said.

With roles reversed, Keraf might have said the same. In the wastes of the Atlantic Basin, bandits outnumbered honest men. He didn't think she would believe him, but told her what he thought was the truth. "I'm carrying

something that could save the Earth."

"Nothing can save the Earth," the girl said.

"Water can."

Keraf thought he saw the tip of her rifle dip, but the sun was strong and the shadows stark.

The girl's eyes narrowed. "Start walking, and don't try anything. I've deaded better liars than you."

The girl led him across the dunes to an earthen embankment. Keraf hadn't realized it was there until he was upon it; the mound of earth blended with the beige and umber monotony of the rippled dunescape. They were met by a boy covered more in sand than clothing. After a whispered exchange with the girl, the boy set off running up and over the hill.

Keraf waited with the girl, collecting a thicker skin of dust.

After a few minutes, the boy returned with a bundle of cloth-wrapped poles slung over his shoulder. A stoneware bottle bounced from a cord against his left thigh. He gave the girl the bottle, then set about erecting a canopy from the poles.

The girl's lips glistened when she lowered the bottle.

Keraf watched the water evaporate. He licked cracked lips with a sandpaper tongue. Six swallows, he had

counted, more than a day's ration in the lamasery.

He unslung his water bag and dropped it in the sand at the edge of the canopy. It wasn't any cooler in the shade, but at least he was out of the sun.

The girl eyed him, but said nothing. She shared the same fine bones and gold-flecked eyes as the boy. A family compound, then, Keraf thought, hidden somewhere over the embankment. They couldn't have had more than a condenser or two, but maybe a trade was still possible.

After a few minutes, an older man and woman came over the embankment and down the sand face. The woman carried a naked toddler on her hip. When the girl saw them, she ran to meet them and exchanged her rifle for the little boy.

As they came into the shade, Keraf pushed his shoulders back and rose up to his full height. The man peeled his checkered *keffiyeh* aside to reveal cheeks covered with coarse gray stubble and skin pitted from where the cancers had been cut away.

In his hands he carried another stoneware bottle capped with a small metal cup. He wiped the dust from the inside of the cup with the sleeve of his robe and poured a finger of water. He extended it to Keraf.

Keraf pressed his palms together and touched his

fingertips to his forehead. "Your water is life," he murmured. When he reached for the cup, the old man pulled it back.

"Your face," he said. "I want to see who drinks our water."

Keraf unclipped his *keffiyeh*, exposing his face. Even though the air was hot, it felt cool on his black skin.

"The mark of the Mechanists," the man said, nodding at the metal ankh hanging at Keraf's throat. "We don't see many of your kind here." He extended the cup a second time. "I am called Faruk," he said. "You have met Imani, my grandniece." He motioned to the girl with the toddler in her arms.

The child's top lip was split from his mouth to his nose, a defect of birth. Keraf had seen such deformities in small enclaves before. It gave him hope that the one thing he could trade had value.

Keraf stared down into the water, and forced himself to sip. It cooled his burning tongue. He licked every drop of moisture from his lips before tipping the last of the water into his mouth. He handed the cup back to Faruk.

"I am Keraf," he said, now that his throat was lubricated. "Your water is life; I owe you my life."

Faruk handed the cup to the little boy in Imani's arms. The boy's slender red tongue snapped in and out

through the cleft in his lip, licking dry the beads of water that clung to the metal.

Keraf found it difficult not to stare. "I am on a mission to Costa de Santo," he said, pulling his eyes from the toddler. "Four days ago, my sled capsized crossing the mid-Atlantic mountains. What water I had was lost. I seek water so I can complete my mission."

Faruk's eyes narrowed. "We have no water to spare."

Keraf did not expect anyone to *give* him water. A single condenser could produce a gallon a day from the basin's arid atmosphere, enough for only a handful of people and a few plants.

"I can trade," he said. "I carry a fully-functional uric acid modification, enhanced melanin, and high-efficiency sweat glands." The genetic modifications had become fixed in the Earth's human population prior to the final dewatering by the Orbitals, but small enclaves could regress through inbreeding. "My semen is worth a few days of water."

"It's worth nothing if we dry out."

From Faruk's expression, Keraf could not tell if the man was simply negotiating. The Atlantic Basin was isolated, and opportunities to maintain his clan's genetic viability could not have presented themselves often. Pressing the issue this early in a negotiation could offend.

"You have the advantage," Keraf said. "My rifle is worth something, as is my water bag. I'm willing to work for a ration."

Faruk looked unimpressed.

"I beg your compassion. My mission is important."

"He says he carries something that could save us," Imani said. The toddler squirmed in her arms, and she set him down. The boy hid behind her robes and poked his tongue out at Keraf through his cleft.

"The Earth is dead," Faruk said. "Those who believe otherwise are chasing fantasies in the dust."

"What if he speaks the truth? We can spare—"

Faruk hissed and the girl fell silent. The toddler started to cry. The tears on his cheek made Keraf's mouth water.

Imani knelt and pulled the boy into her arms, quieting him. She collected his tears on her fingertips and put them in her mouth.

Keraf pretended to ignore the exchange, even as his mind tried to construct what Imani had intended to say. Could they spare water? No one could spare water, for there was none to spare.

"Let me show you." Keraf slowly unclipped the metal cylinder from his belt and unscrewed the cap on one end. "These are copies of a document discovered by my Order." Keraf removed a tube of handmade paper and carefully unrolled it. It was covered with intricate lines and neat blocks of hand-printed text. "It is a plan for a deep drilling machine, but my lamasery lacks the resources to construct it. The Mechanist Court at Costa de Santo can build it, and if they do, they can bring water to the surface."

Faruk studied the document for a moment, but Keraf suspected the man could not decipher it. Without water, industrialization and the skills associated with it had collapsed. Other than condensers, little remained from the wet-Earth.

Faruk's lips pulled downward into a frown. He waved the paper aside. "The deep ocean? A myth. I won't spend time looking at what I don't have, only to lose sight of what I do. My grandniece should do the same, for her son. We cannot help you. We have no water to spare."

"Please, I am at your mercy." Keraf reached for Faruk, but the man stepped back.

Faruk pushed aside a fold of his robe to reveal a revolver in his belt. "It's best you be on your way."

Imani grabbed her great uncle's arm. "You talk of the future, but my son has no—"

Faruk pulled his arm free. "Enough!" Imani lowered her face.

"How long will your condensers last?" Keraf tried to keep the desperation out of his voice. "Ours run on sweat and prayer. Out here, it must be—" An odd sound drew Keraf's eyes to the toddler. The boy was peeing on the sand.

Keraf dropped the paper. His eyes grew wide. "You have found water," he whispered, as he fell to his knees.

Faruk drew the pistol from his belt. In a single fluid motion, he leveled it at Keraf's chest.

Keraf could not take his eyes off the arc of lemonyellow water. The toddler did not have the genetic modification to produce uric acid instead of urine. He would need over a gallon of water a day to survive; yet he lived.

The toddler finished peeing, and Imani scooped him into her arms. Keraf watched the puddle sink into the dust. He ached to hold the wet sand in his hands.

Faruk pulled back the hammer on his revolver.

- "Don't, Uncle," Imani said.
- "He will bring others. They will take what we have."
- "But the drilling machine . . ."
- "Those drawings are probably not even real," Faruk said. "A ruse to steal water from our mouths."
- "Already the seep gives less than it once did. If the paper he carries can bring back the water . . ." Imani

squeezed the toddler in her arms. The boy squirmed but could not slip free.

Keraf stared, no longer seeing the toddler's cleft lip. "Your child is the future," he said, "one where we have enough water to wet the ground with our urine." He looked up the revolver's barrel, past the three bullets arrayed in the chambers. "I have dedicated my life to bringing water back to the world," he said. "I have heard it used to fall from the sky. I have never seen such a thing, but I dream that our children will. If you shoot me, at least deliver these plans to Costa de Santo. I believe they can save us."

Faruk's eyebrows pinched together. "Why do you believe?"

"If I do not, then everything is just dust." Keraf waited for the bullet. He imagined a heaven with cool rain.

The pistol wavered. "The last time I saw the rain, I was a small boy," Faruk said. "We ran outside with pots and plates and cloths—anything that could hold water. It rained for less than a minute—only a fine mist really—but enough to dampen my face." He touched his cheeks, as if wiping moisture from them. "I will never forget that."

Keraf licked his lips, trying to imagine what rain

would taste like. "Sometimes it is hard not to lose hope," he said.

Faruk lowered the revolver. "Hope is a powerful thing." He picked up the paper at his feet, carefully rolled it, and handed it back to Keraf. "Come."

Keraf followed Faruk up the embankment, leaving the others to dismantle the canopy. As he crested the top, Keraf stopped.

Below, in the dusty trough, a dozen dome-shaped dwellings ringed a small greenhouse. Through beads of water sparkling on the greenhouse glass, Keraf saw a pool of water nestled among green leaves. He drew an audible breath.

"Without hope, we are dust." Faruk said. "Before you leave, we will share water."

© 2012 D. Thomas Minton.

D. Thomas Minton tells people he lives with his wife and daughter in a grass hut on the beach of a tropical Pacific Island, but only some of that is true. When not writing, he gets paid to "play" in the ocean, travel to remote places, and help people conserve coral reefs. His fiction has been published in *Asimov's, Lightspeed,* and *Daily Science Fiction*. His idle ramblings hold court at dthomasminton.com.

Lázaro y Antonio Marta Randall

It starts

Sure Lázaro was broke, but he still wasn't interested in rolling drunks, not even rich belligerent Academy chilito drunks. This one had shown up last night with some pendejo brotherhood, too many to take on, but tonight he was alone and still a dick so Lázaro had no qualms about holding Antonio's new foxleather jacket while Antonio whacked the guy's fright-coifed blond head, just precisely so. The kid fell into the alley, all bonelessness and fat, and Antonio had his wallet out and popped his com and wasted the chip, all within thirty seconds. Lázaro observed with admiration; it was always a pleasure to watch a master at work. A couple of minutes after the kid had stepped into the alley to take a leak, Antonio and Lázaro strolled out together, Antonio wriggling his shoulders a little to seat the jacket and smoothing back his black hair. Lázaro admired that, too.

The Curve was quiet for a Friday night. Paychecks had come out last week and would come again next week, but those who had money tonight were not the kind to

waste it on the bars and bitches in the Port's seedy arc. The solid citizens were all at home Northside, with their families and their big screens and their hot dinners. The *chilito* wasn't an exception, he was a tourist, which is why Antonio felt free to relieve him of his cash and com. Tourists were warned to stay away from the Curve, warned that the spaceport cops wouldn't protect them once they left the port by the Southside gate. There was always someone who couldn't resist the challenge. The ones who could take care of themselves had a good time and no harm done, but dicks like this one were easy pickings.

"So, how much he had?" Lázaro asked.

Antonio shrugged. "Dunno, bro. We get to Celia's, I'll tell you. Not gonna paw it out here. What, you some kinda tard?"

"Hell no," Lázaro said, but his outrage was faked. He was some kinda tard and he usually admitted it. It made life easier.

Celia's was almost empty. Two old birds sat at the bar, staring into their glasses and not saying much. Krumholz, who owned Celia's, was in a generous mood and had cranked up the sound so everyone could enjoy his beloved ancient techno. Lázaro didn't like it because he couldn't follow the melodies but Krumholz was always

good for a drink and a place to hang out for a few hours without being hassled. Now Lázaro followed Antonio to a booth near the back. Krumholz came over and slapped at the table with his rag.

"You guys freeloadin' again?" he demanded.

"No, man, we got scratch," Antonio said with lazy confidence. "I wanna beer, and another for my 'ssociate."

Krumholz snorted but went back to the bar. Antonio waited until he came back with the drinks, collected a five, and left. Each took a ritual sip of beer before Antonio slid the wallet onto the table. The two men regarded it with approval. It was a nice one, made of some fine-grained leather, probably real, tanned a pleasant light brown with fancy designs burned into it along the edges and a complicated glyph on the front. Most tourists just used paper folds from the change houses—no thumbs allowed on the Curve. This guy either traveled a lot or wanted people to think he did. Lázaro tapped the wallet and, when Antonio didn't object, touched it again.

"Whazzat?" he said.

"It's the, what you call it, the picto for some fancy-ass school off near the Hub." Antonio used one fingernail to flip the wallet open. Sheaves of plastic decorated the insides under the lip of the billfold. Here's the thing about plastic and chips: A chip's this bitty thing and kinda

private, but plastic, hell, you can flash that around and impress everyone you can get to look at you. Antonio snorted. Lázaro knew that Antonio had plenty of plastic himself and wasn't impressed by this lot.

When Antonio opened the billfold, he cursed with surprise and jerked his hand back.

"Yeah? What?" Lázaro whispered, leaning away from the table.

Antonio lifted the lip of the billfold again and started sliding out the bills. There were a lot of them, more than either man had ever seen in one place. Lázaro whistled under his breath.

"Hijo de la madre, man," he breathed. "You think they're real?"

Antonio dropped a napkin over them. "How'n hell do I know?" he muttered, and stuck his fingers in the billfold again. This time he brought out scraps of paper. Sales receipts, tickets, notes in a language neither man recognized. The last one held a series of numbers. Lázaro squinted at the paper and muttered the numbers. "One one two three five eight one three two one three four five five eight nine." He looked up. "Mean anythin' to you?"

Antonio shook his head.

Lázaro thought for a long moment. The numbers were almost familiar, like voices so far away that you can't

understand them. He shook his own head. "You gonna gimme some of the cash, man? I mean, I held your coat and all."

"Sure, what you take me for?" Antonio's fingers got busy under the napkin. He brought his hand out, palm down, and slid it over to Lázaro. The money moved from Antonio's palm to Lázaro's with the ease of long practice. Lázaro peeked at the bills and grinned and put them in his pocket, the inside one right over his hip.

A few minutes later they finished their drinks. Antonio palmed the bills and plastic into his jacket pocket and left the paper scraps on the table. When his back was turned, Lázaro scooped them up and tucked them away. He didn't know why.

At the corner, before they parted, Antonio dropped the wallet into a trash mouth. The mouth gargled for a second, flashed, and the wallet was gone. Then they hit each other's shoulders in farewell and went their separate ways.

One one two three five eight

Lázaro sat at the table in his squat and counted over the bills again. There were enough to last for a couple of

months, if he was careful, didn't binge, made his food instead of buying it—hell, he could even pay his rent ahead and still have some cash left over for a new jacket, maybe foxleather like Antonio's. It was getting cold out there.

Or he could blow the whole thing in a week, roistering along the Curve like any other fool with a pocket full of cash and enough whiskey and drugs in him to make sure that he didn't have a care in the world, or didn't recognize them. He grinned, thinking about that and about the cathouse above Papa Carlisle's. It didn't matter that he'd spend a week in lock-up, jonesing until the last of the drugs washed out of him and left him back in the pale beige world with nothing in his pockets and not even the memories of the drunk to sustain him. A good drunk was its own reward.

He had piled the paper scraps beside the money and now he went through them again. The lettering looked like it ought to be familiar but it just barely wasn't, like something seen through wavy glass. The only numbers were on the scrap that he had read. They were handwritten and strung together to form one long chain. The next numbers in the sequence were 144233 but Lázaro didn't know why he knew that. It felt like how it felt when old garbage came up from the back of his brain,

stuff he'd rather not have, from a life that he couldn't remember. He pushed the paper around with his forefinger. Too many numbers to be a passkey. Maybe some form of ID or an account number. He could pay for time on public access and search, but he wouldn't get anything useful—although he didn't know why he knew that.

He pondered this as he heated a tin of soup. This being the first day of his current riches, he had determined to stretch it out as long as he could before he fell, as he knew he inevitably would, into the delirium of the Curve. It bothered him that the number sequence wasn't just gibberish, it bothered him that he couldn't let it go. He pushed the numbers out of his head and thought about the plastic Antonio had palmed but wouldn't use. Plastic was trash, but it caused trouble. Antonio knew what to do with it; by now the plastic was probably out-system somewhere, making mischief in places that Antonio and Lázaro and even the drunk kid had never been.

The soup was pretty good. He dunked the heel of a bread loaf into it and counted out the bills again. One one two three five eight one three . . . maybe the numbers didn't mean anything alone but pointed to something else. Like, maybe, the next numbers in the sequence. Or pointed to a pattern. Images grew into his consciousness,

patterns starting and growing and turning on themselves to the rhythm of almost but not quite 1.618 from the zero square where you started to the one square to the two square to the three square to the five square to the eight square and on and on through the matrices of the Continuum, each square turning into itself to the next square in a dance folding and doubling until you reach, you reach, you reach, you reach...

Damn, Lázaro thought. He grabbed up the paper scraps and threw them onto the stove and turned the burner on. It cycled from black to orange to white. The papers whooshed to flame and disappeared into grey ash. Lázaro returned to the table, grabbed another hunk of stale bread, and slammed it into the soup. Drops of broth scattered over the table, balling up in the accumulated dust.

Screw all of it. He'd spend the money on the biggest, loudest, longest drunk anybody in the Curve had ever had. Yeah. As soon as he cooped out a bit so he'd be fresh and ready for action. He could start at Papa Carlisle's and work his way up one side of the Curve and down the other and end up at Papa's again but upstairs this time. Or he could start upstairs at Papa's and snag him a honey and have some company up and down the Curve. Yeah. Yeah, that.

He pushed the soup bowl aside, where it settled against a growing collection of crusted plates and crawling green food wrappers, and stumbled into his cot. Tomorrow. Early. Up one side and down the other. That would make all this damned clarity go away.

Domes, bubbles, and arcs

First, the Port dome's not really a dome, it's an annulus but everybody calls it a "dome," so what the hell. The top's open and the sides only come up about a thousand meters because the designers figured that was enough—but of course it wasn't. So the ships go in and the ships come out, and the gas and garbage spills into the Port and down the outsides, too, like this thick crap soup. The Port dome's about half a klick thick and inside are offices and subways and hotels and all the stuff you need to run a good respectable Port, but it isn't enough space. It never is. You'd think they could've figured that out, but they never do.

So after the Port dome went up they built this lean-to partial dome that tilts up against the Port dome like a crescent cupping a bigger arc: the Curve. It was supposed to be just warehouses and megas, not living space, so

they didn't attach it to the Port dome very well and now the Curve pulls away from the Port dome a little more every year, and a little more gas and garbage falls into the Curve, but nobody seems to give a damn.

Northside, there's the Bubbles with the residentials and parks and stores and crap like that. Inside the Port dome there's a whole separate dome called the Island that was management and politics before the plague came. You can forget about all that. This story isn't about the Bubbles or the Island or the plague, it's just about Lázaro and Antonio and the Curve. Oh yeah, and it's about Jane, too, a little bit.

Jane

The next morning he wasn't drunk or hung over—which was kind of too bad because it meant he could see okay. Papa Carlisle's crowded up against an edge of the Curve, next to where the port dome came down into the dirt and under where the arc of the Curve dome lay up against the bigger dome but not quite, so weather crept in. Today there was bright, sunny weather falling through the dome joins, and that was too bad too because Papa Carlisle's didn't do well in sunny weather. It shabbied up all the

scales and feathers.

Lázaro came through the front shimmer. Papa was up already, wearing a face ferocious in its cheerfulness—until he saw Lázaro and the cheerfulness fell away, as did the extravagant moustache. Papa turned back to its card game and turned her sweet, sexy face into the usual mirror.

"Hey," Lázaro said, his feelings hurt. "I got scratch."

Papa turned back to him. The flat mirror face grew one eyebrow, which rose into an arch. "Yes?" Papa said. "Where did you find money, you useless junk-diver? Were you relieving inebriated personages of their superfluity of cash?" Papa hadn't grown a mouth, so the words came out of the air behind it.

Lázaro squirmed. "Not me," he said, clinging to the half-truth. "Look, I got scratch and I wanna spend it, maybe with, with, who you got today you can rent to me? Not too shaggy," he added with haste. "I don't want be seen with no skant."

Papa waved this away. "Today I am honored by the presence of Mistress Anastasia of the Fourteen Mysteries, the lovely and talented Stephen Comelightly, and—" Papa paused. "And we can call her Jane."

"Jane," Lázaro breathed. "Jane."

The mirror grew lips, which smiled and shouted,

"Jane, darling. Descend."

"Wait," Lázaro said, panicked. "I ain't got that much scratch, I mean, I gotta save. I ain't paid up my rent and ___"

And by then it was too late, because a brand-new Jane was there and smiling at him as though she knew that he did so have that much scratch and that she scared him pale and that it didn't matter because, after all, she was Jane and they had been married for twenty years and he still loved her like fury, even though he couldn't quite remember anything else about her. But Jane did that to you, had always done that even way back when he was a —was a —was a what? He almost had it for a minute before it pixilated and was gone, leaving just Jane.

"Children," Papa said, smoothing a moustache that grew somewhere under her tilted eyebrow and beside his still-smiling lips. "Go."

They went.

You dance a box

By noon he found himself telling her all about it. They sat over a plate of spaghetti with meatballs in the back room at Giancarlo's, sharing a fork and a beer and a glass of wine which mostly Jane drank, and he told her about Antonio and the rude drunk Academy asshole and the money and—

"... three five eight one three two one three four," he whispered.

Jane's pretty eyes went wide. "The Fibonacci sequence," she said, and he nodded because of course that is what it was. "A space grid?"

"I dunno. Maybe. Yeah." Lázaro looked at her. "Jane? Why do I know that?"

"I don't know," she said, touching his hand. "I just met you this morning, remember? But that's what it is, yeah? I mean, launch's zero and you follow the numbers until somehow you're off into the Continuum, zero one one two three five eight thirteen twenty-one . . . don't need to be a space jock to know that."

"I ain't just no space jock," he muttered. She touched his hand again.

"Of course you're not, Lázaro. Of course not."

That's when Antonio came in, waving his flash and wearing his foxleather jacket over his shoulders, in that suave way he had. Lázaro waved at him. Antonio looked over the bar along the side wall and the tables in front of it, already crowded with tourists and spacers and a couple townies come to the Curve for rough trade along with

their lunch. He had that lazy picking-and-choosing look on his face. Lázaro waved harder and for a moment it looked like Antonio was gonna ignore him—before he saw Jane and came over like she was reeling him in.

Antonio got all smoothly and snakely and put his ass down on the bench beside Jane so she had to scootch over, but she was smiling because that's what Jane was: a whore, and whores give people what people want. Lázaro didn't mind.

While Antonio sweet-talked Jane, some spacers at a table near the bar made big juhla, yelling and slamming mugs on the table where they flashed out, so the beer jumped into the air all on its lone. Lázaro liked it when they did that. He watched and finished off another beer himself. By now he was getting fuzzy around the edges and so was the world. One more and he'd be flying, so he ordered it and downed it and when he looked across the table he saw that Jane and Antonio had disappeared somewhere. Anything Jane made while away from Papa's was hers and Lázaro didn't begrudge her a little walkingaround money. Besides, by then the flying was happening, the backwards and forwards inside his head matching the backwards and forwards inside his mind. All the comforting fuzziness came back like he lived in a world that he couldn't just quite almost touch, but it was

okay now because he was backwards and forwards and flying and he didn't care.

So he let himself fly over to the spacers's table and took a chair and slid it up between a couple of them and waved his hand at the barkeep and waved at the table to order another round. The barkeep blinked and buzzed and the spacers looked at each other and moved over for him.

Lázaro took a deep, happy breath. "Yo soy un Fibs," he announced.

"The hell," said the spacer with captain's bars, but she said it grinning. "No way you ain't no Fibs, knocker."

"Te lo juro," Lázaro said. The waitress floated a tray full of drinks over and everybody grabbed. Lázaro stuck a bunch of bills in the waitress's navel, which went green. He liked doing that. "You start at zero and you dance a box," he said with authority. "Then you dance a box, then you dance a box, then you dance a box until you're solid gone. Whoof! Just like that!"

The captain laughed. "You are so fulla shit," she said. She lifted her drink to him. "Danke."

The table had finished drying itself by now, so Lázaro, who was about to illustrate by drawing boxes on the tabletop with beer, instead just ran his index finger in an imaginary square, joined to a square, joined to a square.

"It's the numbers," he told them. "It's the numbers and dancing, numbers to boxes to places to time to something, something I don't remember . . . but I remember the numbers. Except," he said, compelled by an engineered honesty, "I don't know how to use it anymore, but I remember I did use it, but then I stop remembering it at all."

"Skitte," one of the spacers said with cheerful contempt, and they all went back to yelling and drinking. The numbers fell out of Lázaro's head and he was happy to sit with them, like he belonged at the table, like he was still a Fibs and the yelling and drinking were home somehow, except they weren't.

"Hey, Fibs, we're dry," one of the spacers shouted to him. Lázaro started to raise his arm, but somebody put a hand on his wrist and stopped him. He looked up and back at Antonio and Jane. Antonio always was kinda fast and here he was done and his hair combed back and bein' his buddy. That Antonio didn't miss a thing.

Now he shook his head at the spacers. "I think my bro Laz has bought enough," he said. "What you givin' him in return, just you let him sit here? You think that's some kinda big deal? You show some respect."

"Like hell," the captain said, but she didn't sound mad. "Your ponyboy says he's a Fibs. Don't take kindly to that, mockin' the trade."

Antonio made a big sigh and put his head to one side, like he was exasperated. "First off, he ain't my ponyboy, he's my bro. And second, he was Fibs on *Mi Fregado Suerte*."

"Like hell," the captain said again. "Emiliano Corazón's ship? No way. That was one stand-up balls-on smugglin' bastard. They caught him and scrapped the ship years ago."

"Laz," Antonio said. "Show her your arm." Lázaro started rolling up his right shirt-sleeve and Antonio cuffed him lightly on the side of his head. "The other one, *cabron*. With the writing on it."

Lázaro did and held his arm out so everyone could see the numbers and symbols under his skin. Once all that stuff had moved and had lights and color, but that was a long time ago and now it was just a washed-out kind of blue. The spacers crowded around to stare, then backed off and stared at his face instead.

"Hell," the captain said again, quieter. "What happened to him? He wasn't like that when he was Fibs on the *Suerte*—not if he's the one who navved Castle Peaks."

"There an' back," Antonio said. "Come on, Laz, let's get goin'."

When Lázaro stood he staggered a little with all the beer, so Jane put his arm over her shoulders to help him walk. He waved goodbye to his new friends, but the captain caught up with them at the door.

"Man, what happened to him?" she demanded. "I heard the Freddies found the ship, said some lyin' *skitte* about a cargo and jumped the ship when they got aboard. Ditched Corazón out on some asteroid."

"Yeah," Antonio said. By now they were out on the Curve and somehow it had gotten to be late afternoon so it was darker and the place looked a lot better. Giancarlo's was almost in the middle and the Curve curved back on both sides until it disappeared behind the port dome's arc. Lázaro smiled at Jane, who smiled back and put his hand on her boob.

Antonio said, "Bastards don't mind stealin' when it's them doin' it, and don't believe in capital punishment, but they sure as hell believe in gettin' even." There was a pause while he stared at the captain and she stared back at him, and something came up between them because she nodded and Antonio nodded, and Lázaro was happy that his friends were getting along, but the flying was going away and he wanted more.

"Mira, Antonio," he said, "quiero mas cerveza." "Yeah, bro, just a minute." Antonio kept staring at

the captain.

"The crew," she said. She didn't sound like she was flyin' either anymore. "What happened to the crew?"

Antonio put Lázaro's free arm over his shoulders so Lázaro was bracketed by two people he cared about. The captain looked at his face and looked away again.

"You know that stuff they make, brings back your memories? I mean, everything you want, all the time? Cleans out all the sticky junk in your brain like blasting sludge off an engine? That stuff?" The captain just looked at him. "Yeah, well, before they got to that they found a way to make the sludge. You'd think they ain't got a use for that, brain-gunk, but they ain't about to let nothin' go they can squeeze some use outta it."

"The crew."

"The crew," Antonio said, agreeing. "Laz's brain, he's got so much sludge in there he can't remember nothin'. Sometimes something comes up, but he don't know what it is half the time, an' don't know what to do about it."

Antonio took a deep breath. Lázaro's hand had gone slack so Jane put her hand over his and cupped his fingers around her breast.

"Last year he remembered a week of training, like it was yesterday. That's gone. Right now all he can remember is good times, and he's havin' fun. Year from now, maybe two, he'll forget how to breathe, or his heart'll forget how to beat, and that'll be that. 'Cause the Freddies, they don't believe in no death penalty. So they ain't killin' him, they just shot him up and chipped him and dumped him here."

"And you're his jailer," the captain said.

"He don't need no jailer," Antonio said. "He's chipped. There ain't no way out of here."

With that, Antonio and Jane moved him down the street. Lázaro looked over his shoulder at the captain. He had told her something, important maybe, but he couldn't remember what it was. After a moment he stopped trying to remember and waved goodbye. She just stared back.

A halcyon interlude

So anyway, Lázaro got to fly, but he didn't get to spend a week doing it and didn't get to spend any more of his scratch either, because Antonio took it away and said he'd give it back in pieces. For a little while this made Lázaro mad—before he forgot that he had the scratch at all and was just happy that Antonio gave him money when he wanted it. Jane went back to Papa's, but

sometimes Antonio let Lázaro buy her out for a couple hours, and they went up and down the Curve and had spaghetti at Giancarlo's before she and Antonio went away to do some nookie-nookie, but they always came back. Papa Carlisle let Jane go out cheap on account of he knew Lázaro couldn't fuck, but what she did when she was out with him, that wasn't Papa's business at all, so everyone was happy.

So Lázaro's finishing the spaghetti and finishing his beer, and this woman comes and sits across from him and says "Yo" like she knows him, and they talk garbage for a while before Antonio comes back alone and sees her and sits down.

"I figured you'd be back," he said. "Did some research?"

"Ain't much else to do, workin' short hauls around this *penjamo*." She put her beer down. "Corazón's last run."

Antonio nodded.

"Don't know what he was runnin', but rumor says he stood to make a killing from it."

Antonio nodded again.

"Which wasn't on Mi Suerte when he got tagged."

"So probably he dumped it," Antonio said. "And it's still sittin' there, somewhere out there, just waitin' for

someone to come bag it. You ain't the first to think it."

"And your friend here, if you ain't lyin' and he was Corazón's Fibs, he knows where it is."

"Knew where it is," Antonio said.

Lázaro looked from one to the other. "Knew what, Antonio?"

"Go on," Antonio said to the captain, ignoring Lázaro.

"They got the cleanin'-up memories stuff. So why not just get some for your buddy and clean up his memory, and we go out after the schatz." She leaned back. "Fifty-fifty, you an' me. I cut my crew into my half, you cut your buddy into yours. Win win."

Antonio shook his head. "You can't do it. MemMax's red-list Hub only, and even if you find it, it's hella expensive and you ain't got that much scratch, not for enough to do some good. Little dose, all it'll do is get him unfuzzed for maybe a day. You want my help, you get enough so he's never goin' back to this. Got me?"

The captain looked at him, then away, then back, then pushed her chair away from the table and stood up. "I'll find a way," she said. "Don't you go sellin' him to anyone else, hear?"

Antonio just laughed. "You the only bitch crazy enough to think that'll work," he said. "Don't worry. Me

an' Laz, we ain't got nowhere to go."

Floating like a yuck parade

After that there was a long time when nothing much happened. The weather that leaked in beside Papa Carlisle's got hot, then it got damp, then it got cool, then it rained like hell and the street flooded so all the mud and garbage and boosters and prophs and dead cats came floating through like a yuck parade. Days like that, Lázaro stayed home. Lately he'd been spending a lot of time back when he was a kid right out of school, before he hooked up with—with—well, never mind. Being right out of school was like swank, lots of money to send home and money in his pocket and good friends and once they all climbed a mountain together, got the gear and hired a guide and went on up the sucker to the very top where there was hardly any air and it was cold as sin, and he and Jane made love in the snow at the top of the world. It was great, like it all happened yesterday, and Lázaro had a good time telling his furniture all about it, telling the jokes and laughing at them, and sharing around the hike food, and saying what his dad said when he called him up from the top of the world and that made him cry a little,

but it was a good cry even if he couldn't remember why he did it.

When Antonio showed up, Lázaro thought he was the guide and told him they were running low on food and when was it going to stop raining at the top of the world, anyway? Antonio went away and came back with food and made Lázaro eat some hot stuff and go to bed. When he woke up, Antonio was gone and so was the top of the world and he didn't remember what it was that he missed, only that he missed something. Maybe it was the rain, because there wasn't any now and the mud was drying up with crap sticking up out of it so he had to walk around it real careful 'cause some of that stuff, it got on your foot it could hurt you. He kept walking anyway, trying to find a place that would take him back to the place that he remembered that he couldn't remember. He walked all the way to where the Curve got skinny and dark and stopped in a pile of garbage against the port dome, then he came back on one of the side streets, but nothing made him remember anything. He slept out a couple of times. Maybe more. There was maybe someplace else he was supposed to sleep, but maybe not. It made his eyes hurt to try to think about it.

One morning he thought he found the remembering place, so he came through the shimmer into Papa's. Papa

scowled with only half her face on and then a woman came down and took his hand and led him away.

"We've been looking for you for days," she said. "Are you all right? Stop, turn around, let me see you, damn, Laz, you scared the shit out of Antonio an' me, we thought you'd gone off and died somewhere, where you been?"

Lázaro wanted to tell her, but he couldn't. The words were there, he just couldn't make them work, couldn't remember how to make his mouth make them. Jane started crying and took him upstairs to her room and called Antonio. Lázaro just sat with his hands folded in his lap and the only thing he could remember was that everything he had to remember was gone. It was all dark and cold and hollow and he didn't like it, but when he stood to go the woman grabbed his arm and told him he couldn't leave, and that made him angry so he hit her and she fell away so he went out the door and someone he almost knew came and pushed him back into the room and locked the door.

"You okay?" the man said to the woman. The woman nodded and stood and put her hand alongside her face where she was bleeding a little. Lázaro didn't know who had hit her, but if he found out he'd make them real sorry.

Then a voice with no body started shouting and the

man in the room cursed and he and the woman took Lázaro away to another place and a second woman came and they all stood around looking at Lázaro and jabbering, but nothing they said made any sense to him. Something about swag and something about skunking a deal and other stuff. The woman had a box with shiny things in it and the man talked about what was real and the woman said it was real and did he want it or not and he said he didn't trust her, and the other woman—the pretty woman with the black eye—kept crying and Lázaro kept trying to talk, but the words were gone, solid gone, and the harder he tried the more gone they were. First he wept, then he got mad again and stood up and made fists, and the man pulled Lázaro's sleeve up and slapped a skinsting against his arm and then he went to sleep.

He woke up two days later. His brain hurt. Before he could be all the way awake, they fed him and skinned him and he passed out again.

How she got it

It's only available in the Hub, and even there you need a full croesus and permission from the Govs carved in platinum and set with gems just to get within a klick of it. Made from some kind of venom, from some kind of bug, that can only live on a planet that got crudded to death years ago—so you can see that it's pretty rare. But that's not what the story's about, how she found it and got it and brought it back, and we're not stopping the story to say. She found it. She got it. She brought it back. That's enough.

Clarity

The fourth time he woke up, he opened his eyes and saw Antonio sitting there, holding a bowl of hot soup. Behind him a woman in spacer's clothes sat with her butt on the edge of a table, arms crossed, staring at him.

"Toño," Lázaro said. "Híjole, me duele la cabeza como un verdadero diablo."

"Yeah, well, that ain't too surprising," Antonio said, but he was grinning like a maniac. "Have some soup."

"Corazón," the woman said, like she'd said it a lot before. She had captain's bars on her sleeves. Lázaro decided he didn't like her.

"Mi Fregado Suerte," she continued.

Lázaro scooted himself up to sit against the wall and took the bowl. "I been drunk?"

"Kinda," Antonio said. He passed a hunk of bread. "Corazón's last run."

Lázaro frowned at her. "Corazón's last run, some *chingadero* ratted him to the Freddies and they dumped him on some *fregado* asteroid somewhere and trashed the rest of us too."

"But he had a cargo, he dumped it before the Freddies caught him," she insisted. "Where'd he dump it?"

Lázaro took a bite of the bread. It was fresh and tasted great. "Toño?" he said, his mouth full. "What's goin' on?"

Antonio shrugged, leaning back in the chair. It creaked and wobbled, but it held him.

"She got an offer for us," Antonio said. "She's got MemMax, enough to fix what the Freddies did to you. What she wants is the zero point to get to where Corazón dropped his loot, and she'll share it out fifty-fifty, you an' me on one side, her and her crew on the other."

"You don't even have to come with," she said.

"Maybe better if you didn't. You just tell me where and
__"

"And you take off with the whole thing," Antonio said, like he'd said it a lot already. "What, you think we're stupid or something? Laz can't go 'cause the Freddies got him chipped and he can't leave the Curve,

but I'm goin' with. You got a problem with that, you say it and we can stop the whole thing right here."

"Skitte," she said. "Your ponyboy ain't got enough MemMax in him to be permanent, just enough to buy him maybe a couple weeks then bang, right back to Stupidville. You ain't about to stop it right here."

"And I ain't about to give you the numbers and watch you fly off and hope someday you'll be back, neither," Antonio retorted. "And he ain't my ponyboy, he's my brother, got it?"

They kept bickering. Antonio's foxleather jacket hung from the back of the rickety chair, frayed along the seams so that Lázaro could see the plastic of it. Antonio's slick black hair showed some grey at the roots. He had always cared a lot about his looks, even back when they were kids. Lázaro sat up and swung his legs over the side of the cot. Now that the soup was gone the room smelled stale and close and there was nothing in it that said it was his place, no glyphs or books or anything, but he knew it was his anyway. He recognized the stains on the wall.

He recognized his memories, too. Being a kid, school, the Academy, climbing mountains, the first commission, the years with Emiliano Corazón, the last run, the bust, and what the Freddies did to him afterwards. He remembered the years roaming the Curve, while more and

more of himself sloughed away, and he remembered Jane, the Jane that had been and the Jane that was.

"How'm I chipped?" he said, interrupting their conversation. Both heads swung toward him. "How'm I chipped?" he repeated. "Where'd they put it?"

"It's like, it's a blastoma nano." Antonio hesitated.

"It's in your brain, Laz. They shoot it into your artery, right about here, and it heads up to your brain and latches on." He took his fingers off his neck. "They know it's there, they check for it, 'slong as they get a signal back they know where you are and that you ain't dead, and it sleeps. But you try to leave, we even try to find it, it goes malignant."

He pulled his mouth down and shrugged and went back to the argument, while Lázaro thought about that and about his memories. The argument kept intruding, making noise inside his head as well as outside. Finally he put his hand out to stop them.

"Enough," he said. "Here's how we'll do it. I'll give Toño the zero points, there and back, and your Fibs can run the numbers. I'll stay here with the rest of the MemMax, you two go get the cargo. Is Trafalgar still outside Freddie control?"

"Oh yeah," the captain said. "Outside and wide open."

"You go there, look for a company name of Chisler Chang-Himmel. They commissioned the smuggle, they'll still pay for it. Chang's got a long memory. You divide up the loot, Antonio brings our half back here, you go wherever you want with your own cut. Agreed?"

"Hold on," the captain said. "Why unload it on Chang-Himmel? If it's that damned valuable, we could bid it up . . ."

"It's kids," Lázaro said. "Chang's kids, embryos. Stem-cells, some of them, others already growin' parts. Everything in ten-year stasis. Chang commissioned them, then welshed on the debt. Hemetica wouldn't release them and blackballed Chang from the other clone houses, too. Chang's pretty desperate for spare parts. I been out for what, four years?"

"Five," Antonio said.

"Five. Chang still wants them and nobody else does 'cause they're tailored. You want to unload them, you got only one market, but that market'll pay big. You take the stuff to Trafalgar. Chang'll want a recognition code—Toño's gonna carry that. And part of the price is Chang gives Toño a ride back. You get the money, you split the money, you split. Nobody gets a chance to screw nobody."

"Stem cells," the woman said. "About how big a

payload?"

Lázaro showed her with his hands; maybe the size of a spacer's duffle, maybe a bit smaller. "That's why it's tricky," he said. "It's a small box and it's just floating out there on some bitty asteroid, probably no bigger than the one they left Emiliano on." He rocked back; the cot creaked. "So, you gonna do it?"

Antonio and the woman looked at each other, then she shrugged and he stuck his hand out and they shook on it. She went outside while the men huddled over the table and Lázaro made Antonio memorize the zero point coordinates and the recognition code. When Lázaro was satisfied, he put out his hand to keep Antonio from rising.

"Hey, that stuff about the chip. True?"

"Yeah, bro. All of it." Lázaro looked at him and Antonio said, "But listen, man, it's not a bad life. And when this comes down we'll have so much scratch we won't never have to even think about it again, we can walk on money and drink credits and piss gold, we'll be kings of the Curve. You remember all that scratch you used to send home, kept us all goin'? It'll look like mouse dicky next to what we're gonna have. We ain't gonna be livin' in no squats, either. Hell, you could buy Papa Carlisle's if you want, kick that skanky noface bastard outta there and have it all for yourself." He hit Lázaro's

shoulder. "What you say, bro? Pretty sweet, yeah?"

"And the stuff, the MemMax—"

"Relax, there's plenty. You got about half in you right now. You get Jane to come in an' babysit you while you finish it off. Another week, maybe 10 days, and bammo! The gunk's outta your brain and the Freddies won't know nothing."

"And if I stop now—"

"But that won't happen, cause the bitch's gonna give us the rest of the drug just as soon as we let her in again. You take it while we're gone, and when I come back, I tell you bro, kings of the Curve." He hit Lázaro's shoulder again and opened the door for the woman.

And that's almost the way it went down

Antonio and the numbers and the codes and the captain lifted off for the Continuum as soon as she could gather her crew and sober them up. Lázaro stood at the edge of the Curve dome and stared up through the gap until a ship rose into the sunlight, then walked back to his apartment, avoiding Papa Carlisle's. He didn't want to see it. He didn't want to see any more of the Curve than he had to.

Back in his squat, Lázaro sat with his hands in his lap and remembered, although some of the older memories were getting fuzzy and others were already gone. But the Curve memories were clear and strong: laughing with Antonio at Celia's, Papa Carlisle's mirror face, the taste of beer and the way it made him feel as if he was flying, and Jane who wasn't Jane but who was, somehow. He remembered how the Curve curved inside its arc of dome and how small it all was, and how the only sky was the little bit of it that leaked in beside Papa Carlisle's. When Antonio came back with all that scratch they'd still be in the Curve and none of the memories would matter because what the hell use was it if you remembered mountains if you couldn't touch them?

There was another memory waiting, an older one. He turned away from it and the very act of turning brought it over him like a falling of light.

How it works

I don't know exactly, I'm no Fibs and neither are you. But it starts where you are, that's the zero and grows square to square, from (zero) where you are to (one) to (zero+one) to (one+one) to (two+one) to (three+two) to (five+three)

to (eight+five) and on out forever, in growing strides to the reaches of the universe, and every right-angle step is a dimension from zero (here) where you start to (here + up+down) to (here+up+down + backwards+forwards) to (here+up+down+backwards+forwards + time), dancing through the dimensions and the Fibs dances each step, hands and mind and body moving to the rhythm of phi and the Fibs makes a turn and the boxes follow and the dimensions follow into the other there that is the Continuum, like launching the ship out through the pit of your guts, like sex, only better because you're it and you're you and you're the ship and the boxes and the dance and the Continuum and when you're not the dance, you're waiting for the dance like you wait for a breath or a heartbeat or anything else that keeps you alive because you're a Fibonacci Dancer. You're a Fibs.

The King of the Curve

He couldn't dance, not without a ship, not without the Continuum, not sitting at the table in his squat, not anywhere in the Curve, just not.

He wondered how long the blastoma nano would take to work. He wondered if it would hurt. He wondered if it would eat memories too. He wondered what it would be like, living in the Curve, knowing the dance was out there but unable to reach it, ever. He wondered what it would be like to die in the Curve knowing you were dying in the Curve.

He couldn't change the Curve and he couldn't escape it, but he could change who he was within the Curve. When he understood that, he opened the box of MemMax ampules. There were four left, each one ready to slip into the skinsting and apply, and when they were all gone he would be a king of the Curve. His brother had said so.

He took them into the reeking bathroom and broke each ampule into the commode, and flushed them away. Then he went back to the table and sat, hands folded, waiting to be Lázaro again.

© 2007 Marta Randall.

Originally published in *The Magazine of Fantasy & Science Fiction*. Reprinted by permission of the author.

Two-time Nebula nominee **Marta Randall** is the author of seven novels: *Islands, A City in the North, Journey, Dangerous Games, The Sword of Winter, Those Who Favor Fire,* and *Growing Light*. Her short fiction has appeared in *The Magazine of Fantasy & Science Fiction, Asimov's, Omni, Twilight Zone Magazine,* and in many anthologies. In the past, she served for two years as the president of the Science Fiction and Fantasy Writers of America, and she currently teaches science fiction writing at

WritingClasses.com. Learn more at MartaRandall.com.

An Accounting Brian Evenson

I have been ordered to write an honest accounting of how I became a Midwestern Jesus and the subsequent disastrous events thereby accruing, events for which I am, I am willing to admit, at least partly to blame. I know of no simpler way than to simply begin.

In August it was determined that our stores were depleted and not likely to outlast the winter. One of our number must travel East and beg further provision from our compatriots on the coast, another must move further inland, hold converse with the Midwestern sects as he encountered them, bartering for supplies as he could. Lots were drawn and this latter role fell to me.

I was provided a dog and a dogcart, a knife, a revolver with six rounds, rations, food for the dog, a flint and steel, and a rucksack stuffed with objects for trade. I named the dog Finger, for reasons obscure even to myself. I received as well a small packet of our currency, though it was suspected that, since the rupture, our currency, with its Masonic imagery, would be considered by the pious Midwesterners anathema. It was not known if I would be met with hostility, but this was considered not unlikely

considering no recent adventurer into the territory had returned.

I was given as well some hasty training by a former Midwesterner turned heretic named Barton. According to him, I was to make frequent reference to God—though not to use the word, Goddamn, as in the phrase "Where are my goddamn eggs?" "What eggs are these?" I asked Barton, only to discover the eggs themselves were apparently of no matter. He ticked off a list of other words considered profane and to be avoided. I was told to frequently describe things as God's will. "There but for the grace of God go I" was also an acceptable phrase, as was "Praise God." Things were not to be called "Godawful" though I was allowed to use, very rarely and with care, the term "God's aweful grace." If someone was to ask me if I were "saved," I was to claim that yes indeed I was saved, and that I had "accepted Jesus Christ as my personal Savior." I made notes of all these locutions, silently vowing to memorize them along the route.

"Another thing," said Barton. "If in dire straits, you should Jesus them and claim revelation from God."

So, as you see, it was not I myself who produced the idea of "Jesusing" them, but Barton. Am I to be blamed if I interpreted the verb in a way other than he intended? Perhaps he is to blame for his insufficiencies as an

instructor.

But I am outstripping myself. Each story must be told in some order, and mine, having begun at the beginning, has no reason not to take each bit and piece according to its proper chronology, so as to let each reader of this accounting arrive at his own conclusions.

I was driven a certain way, on the bed of an old carrier converted now to steam power. The roads directly surrounding our encampment—what had been my former city in better days—were passable, having been repaired in the years following the rupture. After a few dozen miles, however, the going became more difficult, the carrier forced at times to edge its way forward through the underbrush to avoid a collapse or eruption of the road. Nevertheless, I had a excellent driver, Marchent, and we had nearly broached the border of the former Pennsylvania before we encountered a portion of road so destroyed by a large mortar or some other such engine of devastation that we could discover no way around. Marchent, one of the finest, blamed himself, though to my mind there was no blame to be taken.

I was unloaded. Marchent and his sturdy second, Bates, carried Finger and his dogcart through the trees to deposit them on the far side of the crater. I myself simply scrambled down hand over foot and then scrambled up the other side.

To this point, my journey could not be called irregular. Indeed, it was nothing but routine, with little interest. As I stood on the far side of the crater, watching Marchent and his second depart in the carrier, I found myself almost relishing the adventure that lay before me.

This was before the days I spent trudging alone down a broken and mangled road through a pale rain. This was before I found myself sometimes delayed for half a day trying to figure how to get dog and dogcart around an obstacle. They had provided me a simple harness for the cart, but had forseen nothing by way of rope or tether to secure the fellow. If I tried to skirt, say, a shell crater, while carrying the bulky dogcart, Finger, feeling himself on the verge of abandonment, was anxious to accompany me. He would be there, darting between my legs and nearly precipitating me into the abyss itself, and if I did not fall, he did, so that once I had crossed, I had to figure some way of extricating him. Often had I shouted at him the command "Finger! Heel!" or the command "Finger! Sit!" but it was soon clear that I, despite pursuing the most dangerous of the two missions, had been disbursed the least adequate canine.

Nevertheless, I grew to love Finger and it was for this

I was sorry and even wept when later I had to eat him.

But I fear I have let my digression on Finger, which in honesty began not as a digression but as a simple description of a traveler's difficulty, get the better of my narrative. Imagine me, then, now attempting to carry Finger around a gap in the road in the dogcart itself, with Finger awaiting his moment to effect an escape by clawing his way up my chest and onto my head, and myself shouting "Finger! Stay!" in my most authoritative tone as I feel the ground beginning to slide out from under my feet. Or imagine Finger and I crammed into the dogcart together, the hound clawing my hands to ribbons as we rattle down a slope not knowing what obstacle we shall encounter at the bottom. That should render sufficient picture of the travails of my journey as regards Finger, and the reason as well—after splicing its harness and refashioning it as a short leash for Finger—for abandoning the dogcart, the which, I am willing to admit, as communal property, I had no right to forsake.

Needless to say, the journey was longer than our experts had predicted. I was uncertain if I had crossed into the Midwest and, in any case, had seen no signs of inhabitants or habitation. The weather had commenced to turn cold and I was racked with fits of ague. My

provisions, being insufficiently calculated, had run low. The resourceful Finger managed to provide for himself by sniffling out and devouring dead creatures when he was released from his makeshift leash—though he was at least as prone to simply roll in said creature and return to me stinking and panting. I myself tried to eat one of these, scraping it up and roasting it first on a spit, but the pain that subsequently assaulted my bowels made me prefer to eat instead what remained of Finger's dog food and then, thereafter, to go hungry.

I had begun to despair when the landscape suffered through a transformation in character and I became convinced that I entered the Midwest at last. The ground sloped ever downward, leveling into a flat and gray expanse. The trees gave way to scrub and brush and a strange crippled grasses which, if one was not careful, cut one quite badly. Whereas the mountains and hills had at least had occasional berries or fruit to forage, here the vegetation was not such as to bear fruit. Whereas before one had seen only the occasional crater, here the road seemed to have been systematically uprooted so that almost no trace of it remained. I saw, as well, in the distance as I left the slopes for the flat expanse, a devastated city, now little more than a smear on the landscape. Yet, I reasoned, perhaps this city, like my own

city, had become a site for encampment; surely, there was someone to be found therein, or at least nearby.

Our progress over this prairie was much more rapid, and Finger did manage to scare up a hare which, in its confusion, made a run at me and was shot dead with one of my twelve bullets, the noise of its demise echoing forth like an envoy. I made a fire from scrub brush and roasted the hare over it. I had been long without food, and though the creature was stringy and had taken on the stink of the scrub, it was no less a feast for that.

It was this fire that made my presence known, the white smoke rising high through the daylight like a beacon. In retrospect, cooking the rabbit can be considered a tactical error, but you must recall that it had been several days since I had eaten and I was perhaps in a state of confusion.

In any case, even before I had consumed the hare to its end, Finger made a mourning noise and his hackles arose. I captured, from the corner of an eye, a movement through the grass, the which I divined to be human. I rose to my feet. Wrapping Finger's leash around one hand, with the other I lifted my revolver from beside him and cocked it.

I hallooed the man and, brandishing my revolver, encouraged him to come forth of his own accord. Else, I

claimed, I would send my dog into the brush to flush him and then would shoot him dead. Finger, too, entered wonderfully into the spirit of the thing, though I knew he would hurt nobody but only sniff them and, were they dead, roll in their remains. There was no response for a long moment and then the fellow arose like a ghost from the quaking grass and tottered out, as did his compatriots.

There were perhaps a dozen of them, a pitiful crew, each largely unclothed and unkempt, their skin as well discolored and lesioned. They were thin, arms and legs just slightly more than pale sticks, bellies swollen with hunger.

"Who is your leader?" I asked the man who had come first.

"God is our leader," the fellow claimed.

"Praise God," I said, "God's will be done, the Lord be praised," rattling off their phrases as if I had been giving utterance to them all my life. "But who is your leader in this world?"

They looked at one another dumbly as if my question lay beyond comprehension. It was quickly determined that they had no leader but were *waiting for a sign*, viz. were waiting for God to inform them as to how to proceed.

"I am that sign," I told them, thinking such authority

might help better effect my purposes. There was a certain pleased rumbling at this. "I have come to beg you for provisions."

But food they claimed not to have, and, by testimony of their own sorry condition, I was apt to believe them. Indeed, they were hungrily eyeing the sorry remains of my hare.

I gestured to it with my revolver. "I would invite you to share my humble meal," I said, and at those words one of them stumbled forward and took up the spit.

It was only by leveling the revolver at each of them in turn as he ate that each was assured a share of the little that remained. Indeed, by force of the revolver alone was established what later they referred to as "the miracle of the everlasting hare," where, it was said, the food was allowed to pass from hand to hand and yet there remained enough for all.

If this be in fact a miracle, it is attributable not to me but to the revolver. It would have been better to designate said revolver as their Messiah instead of myself. Perhaps you will argue that, though this be true, without my hand to hold said weapon it could not have become a Jesus, that both of us together a Jesus make, and I must admit that such an argument is hard to counter. Though if I were a Jesus, or a portion of a Jesus, I was an unwitting one at

this stage, and must plead for understanding.

When the hare was consumed, I allowed Finger what remained of the bones. The fellows who I had fed squatted about the fire and asked me if I had else to provide them by way of nourishment. I confessed I did not.

"We understand," one of them said, "from your teachings, that mankind cannot live by bread alone. But must not mankind have bread to live?"

"My teachings?" I said. I was not familiar at that time with the verse, was unsure what this rustic seer intended by attributing this statement to me.

"You are that sign," he said. "You have said so yourself."

Would you believe that I was unfamiliar enough at that moment with the teachings of the Holy Bible to not understand the mistake being made? I was like a gentleman in a foreign country, reader, armed with just enough of the language to promote serious misunderstanding. So that when I stated, in return, "I am that sign," and heard the rumble of approval around me, I thought merely that I was returning a formula, a manner of speech devoid of content. Realizing that because of the lateness of the season I might well have to remain in the Midwest through the worst of Winter, it was in my

interest to be on good terms with those likely to be of use to me.

Indeed, it was not until perhaps a week later, as their discourse and their continued demands for "further light and knowledge" became more specific, that I realized that by saying "I am that sign" I was saying to them, "I am your Jesus." By that time, even had I affected a denial of my Jesushood, it would not have been believed, would have been seen merely as a paradoxical sort of teaching, a parable.

But I digress. Suffice to say that I had become their Jesus by ignorance and remained in that ignorance for some little time, and remain to some extent puzzled even today by the society I have unwittingly created. Would I have returned from the Midwest if I were in accord with them? True, it may be argued that I did not return of my own, yet when I was captured, it is beyond dispute, I was on the road toward my original encampment. I had no other purpose or intention but to report to my superiors. What other purpose could have brought me back?

In those first days, I stayed encamped on that crippled, pestilent prairie, surrounded by a group of Midwesterners who would not leave me and who posed increasingly esoteric questions: Did I come bearing an

olive branch or a sword? (Neither, in fact, but a revolver.) What moneychangers would I overturn in this epoch? (But currency is of no use here, I protested.) What was the state of an unborn child? (Dead, I suggested, before realizing by unborn they did not mean stillborn, but by then it was too late to retrace my steps.) They refused to leave my side, seemed starved to talk to someone like myself—perhaps, I reasoned, the novelty of a foreigner. They were already mythologizing the "miracle of the everlasting hare"—which I told them they were making too much of: Were it truly everlasting, the hare would still be here and we could commence to eat it over again. They looked thoughtful at this. There was, they felt, some lesson to be had in my words.

The day following the partaking of the hare, serious questions began to develop as to what we would eat next. I set snares and taught them to do the same, but it seemed that the hare had been an anomaly and the snares remained unsprung. It was clear they expected me to feed them, as if by sharing my hare with them I had entered into an obligation to provide for them. I tried at times to shoo them away from me and even pointed the revolver once or twice, but though I could drive them off a little distance, they were never out of sight and would soon returned.

But I am neglecting Finger. The men sat near me or, if I were walking, dogged my footsteps. I found my hunger banging like a shutter and had no desire so strong as to abandon their company immediately. Soon they began to beseech me in plaintive tones, using phrases such as these:

Master, call down manna from heaven.

Master, strike that rock with your stave [n.b. I had no stave] and cause a fountain to spring forth.

Master, transfigure our bodies so that they have no need of food but are nourished on the word alone.

Being a heretic, I did not grasp the antecedent of this harangue (i.e. my Jesushood), but only its broader sense. Soon they were all crying out, and I, already maddened from hunger, did not know how to proceed. A fever overcame me. Perhaps, I thought, I could slip away from them. But no, it was clear they thought they belonged with me and would not let me go. If I was to rid myself of them, there seemed no choice but to kill them.

It was here that my eyes fell upon Finger, he who had shared in my travails for many days, the cause of both much frustration and much joy. Here, I thought, is the inevitable first step, though I wept to think this. Divining no other choice, I drew my revolver and shot Finger through the head, then flensed him and trussed him and

broiled him over the flames. He tasted, I must reluctantly admit, not unlike chicken. *Poor Finger*, I told myself, *perhaps we shall meet in a better world*.

Their response to this act was to declare I came not with an olive branch but with a sword, and to use the phrase *He smiteth*, a phrase which haunts me to this day.

It is by little sinful steps that grander evils come to pass. I am sorry to say that Finger was only a temporary solution, quickly consumed. I had hoped that, once sated, they would allow me to depart in peace, but they seemed more bound to me than ever now and even offered me tributes: strange woven creations of no use nor any mimetic value which they assembled from the tortured grass, crippled and faceless half-creatures that came apart in my hands.

I thought and pondered and saw no way out but to sneak away from them by night. At first, I thought to have effected an escape, yet before I was even a hundred yards from the campsite one of them had raised a hue and cry and they were all there with me, begging me not to go.

"I must go," I claimed. "Others await me."

"Then we shall accompany you," they said.

"I must go alone."

This they would not accept. I cannot stop them from coming with me, I thought, but at least I may move them

in the proper direction to facilitate my eventual return to my camp. And in any case, I thought, if we are to survive, we must leave this accursed plain where nothing grows but dust and scrub and misery. We must gain the hills.

So gain the hills we did. My plan was to instruct them in self-sufficiency, how to trap their own prey and how to grow their own foodstuffs, how to scavenge and forage and make do with what was at hand and thereby avoid starvation. This done, I hoped to convince them to allow me to depart.

We had arrived in the hills too late for crops, and animals and matter for foraging had grown scarce as well. We employed our first days gleaning what little food we could, gathering firewood and making for ourselves shelter prone to withstand the winter. But by the time winter set in with earnestness, we discovered our food all but gone and our straits dire indeed. I, as their Jesus, was looked to for a solution.

We have reached that unfortunate chapter which I assume to be the reason for my being asked to compose this accounting. Might I say, before I begin, that I regret everything, but that, at the time, I felt there to be no better choice? Were my inquest (assuming there is to be an inquest) to take place before a group of starved men, I

might at least accrue some sympathy. But to the well-fed, necessity must surely appear barbarity. And now, again well-fed myself, I regret everything. Would I do it again? Of course not. Unless I was very hungry indeed.

In the midst of our suffering, I explained to them that one of us must sacrifice himself for the others. I explained how I, as I had not yet finished my work, was unable to serve. To this they nodded sagely. And which of you, I asked, dare sacrifice himself, by so doing to become a type and shadow of your Jesus? There was among them one willing to step forward, and he was instantly shot dead. *He smiteth,* I could hear the men mumbling. What followed? Reader, we ate him.

By winter's end we had consumed two of his fellows, who stepped forward both times unprotesting, each as my apostle honored to become a type and shadow of their Jesus by a sacrifice of his own. Their bones we cracked open to eat the marrow, but the skulls of all three we preserved and enshrined, out of respect for their sacrifice—along with the skull of Finger which I had preserved and continue to carry with me to this day. Early in Spring, I urged them further into the hills until we had discovered a small valley whose soil seemed fertile and promising. In a cave, we discovered an unrefined salt. I taught them to

fish and how as well to smoke their fish to preserve it, and this they described as becoming fishers of men (though to my mind it were more properly described as fishers of fish). We again set snares along game trails and left them undisturbed and this time caught rabbits and birds, and sometimes a squirrel, and this meat we ate or smoked and preserved as well. The hides they learned to strip and tan, and they bound them about their feet. I taught them as well how to cultivate those plants as were available to them, and to make them fruitful. When they realized it was my will that they fend for themselves, they were quick to learn. And thus we were not long into Summer when I called them together to inform them of my departure.

At first they would not hear of this, and could not understand why their Jesus would leave them. *Other sheep I have*, I told them, *that are not of this fold*. Having spent the winter in converse with them and reading an old tattered copy of their Bible, I had become conversant in matters of faith, and though I never did feel a temptation to give myself over to it, I did know how to best employ it for my purposes. When even this statement did not seem sufficient for the most stubborn among them, who still threatened to accompany me, I told them, *Go and spread my teachings*.

By this I meant what I had taught them of farming and clothing themselves and hunting but, just as with Barton, it would have served me well to be more specific. Indeed, this knowledge did spread, but with it came a ritual of the eating of human flesh throughout the winter months, a ritual I had not encouraged and had only resorted to in direst emergency. This they supported not only with glosses from the Bible, but words from a new Holy Book they had written on birchbark pounded flat, in which I recognized a twisted rendering of my own words.

It was not until I had been discovered by my former compatriots and imprisoned briefly under suspicion and then returned to my own campsite that I heard any hint of this lamentable practice. It was enquired of me if I had seen any such thing in my travels in the Midwest. Perhaps it was wrong of me to feign ignorance. And I had long returned to my duties, despite the hard questions concerning dog and dogcart and provisions that I had been unable to answer, before there were rumors that the practice had begun, like a contagion, to spread, and had even crossed from the Midwest into our own territories. I had indeed lost nearly all sense of my days as a Midwestern Jesus before the authorities discovered my name circulating in Midwestern mouths, inscribed in their holy books. If, when I was again apprehended, I was indeed preparing to flee—and I do not admit to such—it is only because of a fear of becoming a scapegoat, a fear which is in the process of being realized.

If I had intended to create this cult around my own figure, why then would I have ever left the Midwest? What purpose would I have had in abandoning a world in which I could have been a God? The insinuations that I have been spreading my own cult in our own territories are spurious. There is absolutely no proof.

There is one other thing I shall say in my defense: What takes place beyond the borders of the known world is not to be judged against the standards of this world. Then, you may well inquire, what standard of judgment should be applied? I do not know the answer to this question. Unless the answer be no standard of judgment at all.

I was ordered to write an honest accounting of how I became a Midwestern Jesus, and to the best of my ability I have done so. I regret to say that at the conclusion of my task, I now see for the first time my actions in a cold light. I have no faith in the clemency of my judges, nor faith that any regret for those events I unintentionally set in motion will lead to a pardon. I have no illusions: I shall be executed.

Yet I have one last request. After my death, I ask that my body be torn asunder and given in pieces to my followers. Though I remain a heretic, I see no way of bringing my cult to an end otherwise. Let those who want to partake of me partake and then I will at least have rounded the circle, my skull joining a pile of skulls in the Midwest, my bones shattered and sucked free of marrow and left to bleach upon the plain. And then, if I do not arise from the dead, if I do not appear to them in a garment of white, Finger beside, then perhaps it all will end.

And if I do arise, stripping the lineaments of death away to reveal renewed the raiment of the living? Permit me to say, then, that it is already too late for all of you, for I come not with an olive branch but a sword. *He smiteth*, and when he smiteth, ye shall surely die.

© 2006 by Brian Evenson.

Originally published in *Paraspheres*, edited by Rusty Morrison & Ken Keegan.

Reprinted by permission of the author.

Brian Evenson is the author of twelve books of fiction, most recently the novel *Immobility* and the story collection *Windeye* (2012). His novel *Last Days* (2009) won the American Library Association's Award for Best Horror Novel. His novel *The Open Curtain* was a finalist for an Edgar Award and an International Horror Guild Award. His short story collection *The Wavering*

| Knife won the IHG | Award. H | Ie lives and | works in | Providence, | Rhode Island. |
|-------------------|----------|--------------|----------|-------------|---------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Family Teeth (Part 5): American Jackal J.T. Petty

One

He watched her legs approach in the mirror and smiled down at the butter melting on his pancakes when she sat on the stool beside him.

"You're free to sit anywhere you like, but I can't much promise to be good company," he said.

"Here we go," she said.

"My dad just won the lottery, nine thousand dollars. Probably be half that after taxes, but he wants me to come home and help him spend it. Shit. Take a lot more money than that to get me back East."

"He send you any of that money?" she asked.

"I got money. Buy you breakfast? What do you want?"

He waved at the cook until he came over and took the lady's order. She plucked the ice from her water glass and piled it on a napkin and licked the moisture from her fingers.

She asked him what happened to his hands and he told a story about a small bear coming after his horse

while he was up greasing the gearbox on a wind pump.

"Wasn't that big a bear, but the horse was about ready to shit sideways and die and I liked that horse, so I climbed down before I even realized I was out there without a gun—which was damn stupid I know, but I'm not too proud to admit it when last night's Em Gee Dee makes me stupid in the morning. Grabbed the closest thing at hand and swung it pretty hard and ended up beating that bear to death with a log chain."

"No," she said.

"Yeah. Swear to god."

She laughed and poked egg yolks with hard-fried bacon and dragged sulfur-yellow stripes through the red chile on her plate.

"You're a liar," she said. Which was a true. David hadn't talked to his father in three years, and the man played the lottery often but never won more than ten dollars. David had never seen a bear in the wild closer than half a mile and the only animal he killed on the ranch was a scrawny dog he shot in the haunches with a rifle and claimed to have mistook for a coyote. The dog's owner misbelieved David and wouldn't accept a liar's apology, so they fought until the man was unconscious and David's knuckles were swollen beneath broken skin.

"You never did," she said. "It's not possible."

"I swear. You can ask anybody."

"You beat a bear to death."

"She wasn't that big a bear."

"With a lawn chair."

He whooped and laughed and pressed his forearm to his mouth to keep from spitting pancakes on the counter.

"Log. Chain," he said. "I killed her with a log chain." She laughed.

"That's a hell of an accent you've got," she said.

David was born in inland Maine among flat-voiced Protestants, but soaked up accents like a mockingbird. He couldn't talk to an Irishman for three minutes without catching a brogue, or to a black man from anywhere without embarrassing himself. Missouri, Kansas, and Colorado had all dragged his vowels in different directions, and now cowboying on a ranch in New Mexico had softened his consonants and slowed his cadence, made everything sound a little bit like a question that expected bad news in the answer.

"Are you a cowboy?" she asked.

"I was until last night. As of now, I am unemployed." "You quit?"

"Got fired," he said, and: "I'm gonna miss that horse," his only whole truth of the entire conversation. The man who owned the dog David shot was the son of

the woman who owned the ranch.

"What kind of accent is that?" he asked, "Indian?"

"We're from Mexico."

"We?"

"My family."

"They with you here?"

"Family's always with you."

"Shit, mine weren't. Even when they were around. Where in Mexico? I been to Mexico."

"All over. We're gypsies. I'm on my own now."

"Where are you heading?"

"The city, I guess."

"I could go to the city," she said.

She watched him and he couldn't tell if she was smiling or not. "Do you want a beer?" he said. "I'm gonna get a beer."

"Okay."

He called out to the cook and ordered.

"I need to piss," she said, the final word soft and vulgar. He wanted to feel her ear between his teeth. He closed his hand into a fist so it wouldn't reach out to touch her.

She stepped off the stool and walked across the restaurant, knowing that he was watching her go. The midday sun made a glaring white sheet of the plate glass

windows and outlined her dark body against the faded cotton of the shirt. David was glad he was sitting down.

He stared carefully at the beaded condensation on the bottle of beer before him when she walked back a few minutes later.

She said her name was Maribel, and David said his name was Jason.

Two

He told her he was allergic to latex and she said she couldn't get pregnant anyway.

Afterward, coyotes cried out in the desert. Maribel curled on the sweat-damp sheets and covered her ears.

"Just dogs," David said.

Maribel shook her head, eyes closed.

Bars of silver pierced the skin under her clavicles, joined by a chain that held a small amulet to the hollow of her throat, a hard-shriveled brown bead set in silver.

"What is that?" David asked. "A piece of an animal?"

"Don't touch it."

"Looks like a spider egg."

She turned away from him and he lay listening to the coyotes yell at the sky.

They found cash in an unlocked motel room and bought tickets on the Greyhound north to Taos to find her brother.

"He needs to pay me back some money," she said.

They walked from the bus depot into the desert and to a few trailers parked in the lot of an abandoned gas station. Maribel pointed out her brother's trailer and David knocked.

A fat old woman in a slip too small for her opened the door and laughed and picked at her scalp and told Maribel that her brother was out drinking.

"You send him back to me, all right?" the old woman said, scraping a nail on her tooth.

When they found her brother, he was in a hat several sizes too small, drunk and insulting the bartender.

He said, "Maribel!" and hugged her, and, "Who the fuck is this?"

She introduced him as Jason and her brother ignored David's offer of a handshake.

"I'm Diego," her brother said and tried to put his hat on David's head. David ducked out of the way.

"What are you doing, man?" David asked.

"You need a hat, bro."

"I'm all right."

"Diego," Maribel said.

"He'd look good in the hat, wouldn't he?" Diego said,

balancing it atop his head as he carefully tilted more Jim Beam down his throat.

The bartender served David and Maribel and gave Diego a hard time. Diego wouldn't let them pay for the drinks but wasn't carrying any cash himself. He kept trying to put his tiny hat on David's head.

All three were drunk by the time they walked back to Diego's trailer. They ate potato chips and watched Diego and the old woman smoke meth.

David told an entirely false story from his teenage years about saving a boy's life who'd stopped breathing after inhaling nitrous oxide.

"You going to make my sister a mother?" Diego asked without looking at him.

"Jesus Christ," David said.

"Shut up, Diego," Maribel said.

"Way of the world, man. You gonna do it?"

"We met two days ago."

"But you gonna do it, right? Dear old mamma,"
Diego said and smiled at his sister and poured a little beer on the floor.

"What's that mean?" David asked.

They watched TV for a while. Maribel found an incomplete deck of cards and carefully assembled a tenuous house.

Diego put his hat on David's head and he let it rest there.

"How I look?" David asked.

"Like a cowboy," Maribel said.

"That's my hat, motherfucker," Diego said, and slapped David across the mouth. They fought inside the trailer until the fat woman pushed them out and kicked David in the throat where he landed.

David hit the fat woman in the jaw and knocked her unconscious. She smiled obscenely, asleep with her eyes open.

Diego knocked David down and stomped on his hand, breaking a finger. David kicked Diego in the knee and, when he fell, grabbed a folding lawn chair and beat him with it until he stopped struggling.

They went back inside and Maribel taped David's fingers together while the fat woman traded some cough medicine for beers from a neighbor.

David gave Diego his hat back and they smoked meth together and Diego said, "I think he'll do pretty good."

David and the fat woman laughed at each other while Diego and Maribel argued in Spanish.

In the morning, her brother gave Maribel nearly three thousand dollars in dry cash.

"I got twelve more I could give you," Diego said.

"I only want mine," Maribel said.

"I'd give you the twelve for that pacifier."

Diego touched the amulet at Maribel's throat through her shirt.

"Fuck yourself, Diego," she said, and he laughed.

"Twelve thousand?" David asked.

"That's right."

"No. We're going," Maribel said.

"Give your man a say in the matter. Good as family now," Diego said.

"Shut up," Maribel said.

"You send me your address when you figure a place to live," Diego said.

"I'm not doing that," Maribel said.

David stretched and rubbed his knuckles against the small of his back. Meth always made his kidneys hurt the next day.

They used a thousand dollars to buy a thoroughly used car and drove south toward Albuquerque.

Maribel said, "That's the last you're going to meet of my family."

"He seemed all right," David said.

"He's got his problems."

"You got other brothers and sisters?"

"Yeah. Lots."

"I got two brothers, both older," David said.

"I'm the baby of the family," said Maribel.

"Bastards, both of them." David broke his left thighbone at the age of fourteen when his oldest brother, Jason, pushed him off the roof of the house.

"You didn't know your father?"

"I did, he was around. He was a bastard, too. What was that business about your mom?" David asked.

"Nothing," Maribel said.

"Is she dead?"

"Yeah. I never knew her."

"Never really knew my mom either," David said.

"She got an infection from a bad tooth before I even learned to walk, got down into her heart. She was around for another dozen years or so, but never really matched up with the stories I'd hear about what she had been like before. She was all right though. If you could make her laugh she'd forget about being sick for a while."

"Coyotes killed my mother," Maribel said.

"Okay, you win," David said, laughing.

"I'm serious."

"Coyotes."

"Killed my mother."

"Like. Ate her?"

"I was just a baby."

"Holy shit."

Liars don't trust anybody and David had his doubts.

Three

They rented half a house in Albuquerque in David's name alone. He got a cash-under-the-table job with a pest control company that he had to give up on account of how much the idea of steel traps upset Maribel.

They drank prodigiously and fucked more often than David ever had in his life, even as a teenager. He got used to being called Jason.

He learned to go back to sleep when Maribel woke screaming in the night. He learned to ignore the banging on the walls from the old woman who lived next door.

There was about twelve hundred dollars left in a folded piece of newspaper that Maribel didn't seem especially concerned about.

David once left a cousin—on his mother's side—atop a mountain forty miles from the nearest drinkable water for three hundred and eighty dollars and a roll of nickels. He assumed Gerald had lived but hadn't talked to him since.

David sometimes thumbed through the money when

Maribel was sleeping and thought about ways to leave if he had to go fast.

Naked in bed, David asked her why she couldn't get pregnant.

"I got fixed," she said.

"Fixed is the word they use on dogs."

"It is."

He asked why her brother had called the thing chained to her neck a "pacifier" and she told him to mind his own grits.

A dry season drove animals in from the desert and deer and coyote were spotted in the city, cannily watching shoppers from the fields of cars surrounding the big box stores. Cats went missing.

A few times they heard coyotes at night and Maribel would cry and pretend she was asleep.

David came back from the bar one afternoon and found Maribel sitting on the steps with a lit Parliament between her fingers, blowing smoke at the passing cars.

"I didn't know you smoked," he said.

She shook her head and tears brimmed her eyes.

"At least give me one."

David sat beside her and took a cigarette and lit it. He

grimaced and tried to lick the taste from his own mouth but kept smoking.

"I'm pregnant," she said.

"Okay," he said.

He thought about absolutely nothing at all and smoked the cigarette.

"It's not possible," she said.

"That's what I thought," David said. He tried to make sense of the vanity plate on a passing van that read "OU6ETHNG."

She cried and leaned into him and asked what they were going to do. David figured she'd get an abortion if he didn't say anything.

She smoked heavily and didn't stop drinking. Every time he suggested they go to a doctor, she would scream at him beyond all reason. He stopped bringing it up.

After a month, he noticed more flesh in her face. She smoked less because the aftertaste of vomit took her out of flavor country.

"Are you going to do something?" he asked. "About the baby?"

She watched him carefully.

"It will be too late soon, right?"

"It's already too late," she said.

They still fucked constantly. She screamed at him daily over nothing at all. Her hips were wider, the skin softer and smelling faintly of loam. She held her belly while she slept and no longer woke screaming.

"I'm going for a walk," Maribel said in a tone that didn't invite company or further questions.

David opened a beer and sat on the stoop and watched her walk out of sight around the block, trying to remember the exact words he'd once heard an old drunk say about two animals wrestling in a bag. Cats or dogs. Midgets, maybe.

The old woman from the other half of the house came out and sat beside him uninvited. Oily currents of gin swirled in her iced tea.

She called him Jason even though they'd never been introduced. David imagined her muting the television to listen to them argue and fuck.

She said she had two children who took no interest in her, and a husband who "died just in time to avoid the hassle of a divorce."

She winked at him and laughed, told him to enjoy the early years.

"She's having a baby," David said.

"Oh, well," the old woman said.

- "February. March, maybe."
- "It's going to be girls."
- "How can you tell?"
- "You're the type," the old woman said.
- "Girls. Plural?"
- "You're not ready."
- "What do you mean I'm not ready?" David asked.
- "Men never are. It's why women have to be moms and men get to be dads."
 - "That's kind of shitty."
 - "There's a tradition," the old woman said.

She insulted him for a little while and David told her lies about his own childhood to contradict her. They refilled their drinks and disparaged the institution of marriage. David realized she was flirting with him and made excuses to go back inside and she told him the story of La Llorona.

"Mexican legend, followed them up North but slowly. Not many whites know about it, but for them it's like Dracula. This woman, she's a real innocent, young thing, falls in love with some fast-talking man about town. A Don. He talks her into bed before they're married and she gets familyish."

"Famished?"

"Pregnant. She gets pregnant. You listening?"

"Sure."

"She gets pregnant and goes to the Don to tell him so, but when she finds him, she doesn't just find him, but him and his whole family. Wife, kids, mistress, dog, the whole can of beans. And the Don needs another kid and another mistress like he needs another asshole, so he looks at this little pregnant girl and goes—who the hell are you?"

"That's shitty."

"Yes, it is. So she says I'm pregnant and the baby's yours and the Don says—no lover of mine would be dumb enough to get pregnant, and he threatens to sic the dogs on her if she don't get off the yard. So she goes back to her mom, but when her belly starts to show, her mom says—no daughter of mine would be slut enough to get pregnant if she weren't married, and kicks her out of the house."

"I thought Dracula was the bad guy."

"I'm getting there. So she wanders homeless for months through the winter as her belly swells and she eats garbage and begs and gets chased around by dogs and boys with rocks. Till finally she's big enough to burst and goes ahead and does it. Has the baby all on her own on a cold and rainy night while the Don is having a big dinner by the fire with his family. "And this woman is so crazed with love and despair that she takes the baby down to the river before she's named it, before she's even cut the umbilical, she's still connected to this child, and she puts it in the water and holds it down until her hands go numb. But when she pulls it back up, the baby's not dead. It was still attached. You see?"

David nodded, though he didn't understand.

"She tore the umbilical cord with her teeth, like an animal, and put the baby back into the water bleeding and held him down until he was dead.

"Then she went and found the Don. And she said—I done it. And he said—done what? And she said the baby's dead. Like he was never born. We can be together. There's she standing in her homeless rags, all stained with the blood of birth and filth from the river saying you can love me again. And the Don tells her to get good and fucked off and releases his dogs, who chase her down on account of the blood and they rough her up awfully before she climbs the wall and gets back out into the streets.

"And there she is with nothing left, the murderess of her own child, cast off by everyone who was supposed to love her. And she walks into the river and drowns herself."

"And then here's where it gets scary. Because late

nights, people by the river can hear this woman screaming, but when they go to investigate there's nothing there, just the rushing of the water. And they go home and tell their children not to be afraid, that it's just the wind and the water. But the kids say—how can wind and water sound just like laughter? 'Cause when the kids hear it, they hear this sound like the best birthday party the nicest lady in the world was throwing you, laughing and singing. And some of those kids, the Don's kids, are the first ones to do it, go to investigate. And when they get to the river's edge, La Llorona, the weeping woman, rises up and pulls them in and holds them down until they drown."

She stopped speaking and looked at David until he said, "Okay."

"She can be anywhere there's water and people to believe in her. Enough Mexicans up here now I expect we got her, too."

"So you're saying I ought to be a better dad than that rich old Mexican guy?"

"That's part of it."

"I'll do the best I can."

It was noon and he was drunk when the telephone rang. "Hello?" he said.

He could hear fabric move against rough skin, a muted television in the background playing violent cartoons.

They called back three more times before dusk. Each time David listened to them breathe a little longer.

The fifth time they called, Maribel had returned from what she called a walk and David pretended to be asleep.

David listened with eyes closed to half of a hissed argument in Spanish.

She told whoever was on the far end that she would kill them and herself if she had to and hung up the phone.

Twenty minutes later, David pretended to wake up at the sound of Maribel packing.

"Where are you going?" he said.

"I have to go. You can come with me."

"Where?"

"I don't know. Into the mountains maybe. Someplace we can hide."

"What's going on? Baby . . ." he touched her arm and she snapped around at him like a trap, taking shuddering breaths.

"Baby?" he said.

"Can we just go? Can you not ask and we can just go? I need you."

"Yeah."

"I love you," she said.

"Yeah, okay, let's go then."

They put everything in plastic Walmart bags and piled it into the trunk of the car. David drank the last of the beer so it wouldn't go to waste and Maribel filled a box with their few kitchen utensils.

He found her staring at their bare mattress in an empty bedroom and took her hand. She kissed his lips and he kissed her neck and slid a hand beneath her shirt.

They didn't hear the window glass break for the sound of the bedsprings.

Maribel screamed when they came in the room and David sprang out of the bed, naked, erect and ridiculous.

"The fuck?" David said.

"Hey, Sis," said Diego. The other man looked just like him but bigger.

"Put some clothes on and let's go," Diego said. "Van's waiting."

Maribel swung out of the bed and crouched over an open box and came up all in one motion with a bread knife in her hand.

She screamed and swung the blade like she was walking through a cloud of flies. Cuts opened on Diego's arms before the big one grabbed Maribel's wrist and squeezed the knife from her grip.

David punched the big one in the throat and pushed a thumb in his eye. He let go of Maribel and she fell to the ground and scrambled back to the kitchen box.

Diego yelled and when David turned on him was momentarily stunned and amused by the sight of his dick. David grabbed Diego by the shirt and drove his forehead into the bridge of his nose. Blood splattered onto David's naked chest.

The big one tried to grab David's balls and Maribel stuck a steak knife in his calf. He howled and slapped her and ran from the house crying.

Diego punched and kicked at David from the floor, and David stomped on his head until he stopped moving.

They dragged Diego into the closet and shut the door but could still hear the wet suck of his breathing. David shoved the bed in front of the closet door and they pulled their clothes on and ran to the car.

"Alfonso will come back with others," Maribel said.

"He's the one with the knife in his leg."

"Sí."

David started the car.

"I don't want to meet any more of your family," he said.

Four

They maxed out their credit cards on cash advances and then gave them to a homeless man.

Autumn accelerated as they drove north and into the mountains. By mid-Idaho they didn't have enough clothing and had to stop at a Salvation Army.

They followed signs to a man-made lake on the assumption it would be empty through the winter. They spent a day and a half driving on dirt roads before they found a cabin Maribel thought looked lonely enough.

David couldn't jimmy the lock, so he kicked in the door to the mudroom. There were pictures inside of a family David guessed were too blond and too satisfied to be anything but Mormons. Inside they found a month's worth of dried and canned food, paperback mysteries, board games, puzzles, and a hunting rifle.

David gathered wood and beat a trail to the lake. Maribel cleaned and organized the cabin, suddenly cheerful and industrious as her belly grew.

Every couple of weeks, David would broach the subject of her family again, and again be met with such energetic vitriol that he would shrink from the topic like a flame.

He killed deer and rabbits to supplement their

dwindling stores. Whole weeks passed in which Maribel ate nothing but flesh. Days passed without a spoken word. David read mysteries with predictable endings.

"Jason is a good name for a baby," Maribel said sometime after Christmas. They sat before a fire in a cabin surrounded by woods and knee-high snow.

David felt movement in her belly and tried to understand that he was going to be delivering a baby.

David broke a three-day silence with an elaborate story about his sister-in-law's pregnancy that ran so far askew of the facts of Maribel's basic empirical experience that she laughed until she pissed herself. David tried to talk through her laughter, but his words slowed and floundered and eventually he just watched her laugh and wished the cabin had something to drink in it.

"God damn Mormons," he said.

He shot a doe through the haunches at dusk and then followed the trail of blood a quarter mile to where she stood wavering like a lost drunk. He shot her in the neck and she died.

He unzipped her from sternum to asshole and opened her up and spilled her guts onto the ground.

The sky was fleshy and red, smeared with ashy clouds, the snow banks a dirty pink.

Gray shapes moved in the corner of his eye, behind the steam rising from the carcass. They vanished when he looked at them directly.

He wet the blood on his hands with snow and wiped them on his pants and picked up his rifle.

Shadows moved at the edges of his vision all around, lost in the pinkish gray swells between trees.

He became still and rested the rifle on his knees. He focused his eyes on the doe's bloody ear and counted to ninety-nine, watching the coyotes move at the edge of his vision.

He could see eleven of them. The sun kept sinking.

David raised the rifle. The coyotes waited.

He fired a shot skyward, a sharp crack in cold air.

The coyotes waited.

David stood and looked at them all. Their fur was the yellowish gray of dead men's teeth, eyes black and bright. Thick plumes of breath fogged their muzzles.

David raised the rifle and sited the nearest of them and pulled the trigger.

Snow jumped behind the coyote and he turned and trotted back into the woods. David looked for the others and they were gone.

He dragged the deer back to the cabin and hoisted it by a post on the deck and ripped its skin off. "I want the heart," Maribel said. She wore panties and a thin t-shirt despite the cold, her belly huge and tight.

David cut the heart out and gave it to her.

"Come in and eat. You can butcher her in the morning."

"It'll be froze by morning," David said.

She shrugged and smiled and smelled the bloody heart and walked back into the candle-lit cabin.

David built a fire to work by. He set a tin pitcher of snow by the fire to melt. He sharpened his knife on a stone and roughly sawed meat from the carcass and piled it in the snow. Runnels of blood froze.

When half of the meat was processed, he paused to carry it inside and pile it in the sink.

Maribel stood over the stove mechanically shoveling pieces of warmed heart into her mouth.

David went back into the yard and stood by the fire and drank from the pitcher of melted snow.

A dozen pairs of silver eyes watched him from the woods. He stared back at them, tightening a bloody fist around his knife.

"Go on," he said.

A few coyotes moved closer, orange light from the fire burning around the edges of their flat eyes like the moment of an eclipse.

"Go! Go!" he shouted, and then roared at them without language.

They watched him. With the fire at his back, his vision adjusted to the darkness and he saw pieces of teeth hanging beneath their eyes.

He screamed at them in the darkness.

"They want our babies," Maribel said from the porch.

David didn't turn to look at her.

"It's the blood. The deer."

"It is blood," she said, "You have to kill them."

"Yeah."

"Don't let them take our babies."

"Nobody's taking our child."

He folded the knife and put it in his pocket and backed to the porch and picked up his rifle.

He walked out past the fire and cocked the rifle and took careful aim at the nearest pair of eyes and fired.

The eyes blinked and juked sideways and then settled on him.

He aimed and fired again and again until the rifle clicked empty.

A coyote leapt from where there had been only darkness and bit his arm, hanging briefly before flesh tore free. David yelled and cursed as the coyote fell and

scrambled, smiling, back into the darkness, licking blood from his chops.

"Get inside," he told Maribel.

The coyotes swept in, moving over the ground like the shadows of birds. David ran, blood sheeting from his arm, swinging the rifle as a club.

Maribel stood huge and wavering inside with the door all but closed.

David kicked a coyote into the fire and it rolled away smiling in the snow, trailing smoke.

Jaws snapped at his legs, tearing canvas and flesh.

A coyote leapt and clawed its way up his back and bit off a piece of David's ear.

He stumbled on the stairs of the porch and fell and three coyotes climbed his back. David looked up at Maribel inside the door and knew that she would close the door and leave him out here to be eaten before risking the life of their unborn and love filled him up.

A coyote ran past him toward Maribel and he grabbed its tail. It turned in a moment and bit through the webbing between his thumb and forefinger.

David rolled and crushed away the coyotes on his back. Another sunk its teeth into his shoulder and David bit the dog's neck, grinding his teeth until it released him.

He flailed and swung and fell inside and kicked the

door closed.

"Lock it," he said, "and shutter the windows."

She did, and he pushed more bullets into the rifle until it was full. He bled all over the floor and kitchen table.

Claws scraped on the porch and at the door. They heard a coyote climb the propane tank to the tool shed to the roof and pace above.

She wiped the blood away until she could see his wounds. He screamed when she poured rubbing alcohol into them, loud enough that the coyotes outside paused to listen. He gasped and wept while she taped pieces of towel over the holes ripped in his skin.

"You're not strong enough to kill them all, are you?" Maribel asked.

"You're a hard woman to be in love with," David said.

"Thank you."

"What in hell is going on?"

"I don't know," Maribel said.

"You knew they were coming?"

"My family is cursed," she said.

"Okay," David said. "So we got that going for us. Will they go away?"

She looked toward the sound of claws scraping on wood outside the door and shook her head.

They sat through the night and all the next day listening to the coyotes outside, pacing, growling, leaping to tear pieces from the half-butchered doe.

Beyond their breath and their claws, the coyotes were silent.

David passed in and out of sleep, tongue thick in his head. He woke twice to Maribel pouring melted snow down his throat, chewing deer meat and expelling it into his mouth and rubbing his throat until he swallowed. It was raw and sweet-tasting with her saliva.

Every other time he woke, she was standing by the kitchen table and eating as if filling a hole. She watched the door and listened to the coyotes pace.

He slept for fourteen hours and dreamed about a shaggy deer rubbing its head violently on the trees to wear away its scalp and expose its horns.

Five

The howling woke him. He startled to his feet and spun drunkenly around. He thought first of a hurricane or avalanche, a sound scaled like weather. Dozens of coyotes yelled at the sky.

Maribel stood with one hand on the bloody kitchen

table, the other at her belly, thick water dripping from between her legs.

"Here they come," she said, smiling.

"What do I do?" he said.

"Help me."

He put his arm under hers and helped her walk to the bed.

The coyotes kept howling.

"Shut up," David yelled.

Maribel moaned and it sounded like pleasure.

He added the last of the wood to the fire and filled a pitcher with water and washed his hands. Maribel peeled off her shirt and panties and lolled ponderously on the bed. The coyotes howled and scraped at the walls.

David washed his hands again and again, but the water kept sheeting off coppery red.

A small body slammed against the door. The pitch of scraped claws against lumber deepened, teeth gouging at wood.

"Fuck," David said.

Maribel moaned and David went to her and squeezed her hand.

"Stay here," she said.

David flinched each time the coyotes threw themselves at the door. The wood shook, the hinges

rattling. The howling never stopped.

Maribel clawed at the amulet at her throat like it was burning her, pulling until the piercings at her clavicles broke and bled. David tried to take her hand away and she tore the skin from his ring finger with her teeth.

He yelled and pulled back and she ripped the piercings from her chest and threw the bloody chain across the room.

"Now," she said.

David watched her heave, drawing ragged breaths through tiny, sharp teeth.

"Don't let them have the babies," Maribel said.

David pulled the rifle close to the bed.

Time unmoored. The smells of animal blood and birthing saturated the deep animal crevices of David's brain and all the pretenses of humanity slept. He held Maribel down and let her tear at his skin while the pains wracked her. She cursed him and laughed and begged him to make it stop and keep the dogs away. The coyotes howled. They scraped the wood of the door thin enough that David could hear the ragged hiss of their breaths in between Maribel's contractions.

Just before dawn, she passed a tooth, a tiny canine triangle in a slick of blood between her legs. David picked it up and held it between his thumb and forefinger.

Maribel screamed and lifted from the bed so that only her heels and the back of her head touched the blood and sweat-stained linens.

David wrapped his arms around her and tried to push her down and a dozen tiny teeth snapped into his arm. Her belly bulged in four different directions, a starburst with rounded edges. Teeth punctured the drum-tight skin from inside, bright red spots centering vascular stains of burst vessels. David held tighter, trying to push her down, and their children tore upward through the skin of her belly and snapped at his arms and face.

He fell deeper into her as she fell apart, and scrambled for purchase, trying to keep his face out of the blood and fur.

The pups squirmed in their mother's gore, tiny and sightless, as she died.

The door cracked inward and a snout and paw wormed through the splintered wood. The coyote growled and whined and the wood broke and he ran for the bed. Coyotes poured like water through the hole and surrounded the bed, snapping at David's heels.

He drew his legs up onto the bed, curled up as if in a kiddy pool filled with coyote pups, blood, and bones. The tiny, nearly hairless dogs nipped at him and struggled to rise from the slick.

The adults put their forepaws on the edges of the bed and gently lifted pups from the slurry by the napes of their necks.

"No," David said.

The adult trotted with the pups back through the shattered door.

An adult bit his face and when he rolled away, lifted a pup from beneath him.

In moments all the pups were gone but one, scrawny and blood-soaked, pushing against David's chest.

He grabbed the pup and held her close.

Three adults remained. They growled and snapped at David. The pup squirmed in his arms.

"She's mine," he said.

The dogs leapt onto the bed and took his flesh in their teeth and shook their heads. David curled tighter, holding on to the pup, screaming.

He let them chew on his back and arms and neck until the sun reached in through the broken door and the others began howling from deep in the woods.

The three raised their bloody snouts and looked toward the sound and then jumped off the bed and were gone.

David uncurled and looked down at his pup. Blind and gore-slicked, she huddled against her father and

licked at a wound on his chest.

"Baby," David said, and closed his eyes and slept.

He named the puppy Sheila, after his mother.

He healed and took Sheila to Mexico, where a grotesquely scarred Gringo was no stranger than a grotesquely scarred Gringo with a pet coyote.

David watched her closely, waiting for Sheila to become a human girl, and wondering how long it would take her kind to find her.

© 2012 J.T. Petty.

J.T. Petty is a writer and director of movies, video games, and books. His movies include horror-western *The Burrowers*, released by Lionsgate, and documentary-horror *S&Man* (Sandman), released by Magnolia. His best-known work in video games is *Splinter Cell* and several of its sequels. His most recent work includes the exorcism-comedy *Hellbenders* (Toronto International Film Festival 2012) and the graphic novel *Bloody Chester*.

Catskin Kelly Link

Cats went in and out of the witch's house all day long. The windows stayed open, and the doors, and there were other doors, cat-sized and private, in the walls and up in the attic. The cats were large and sleek and silent. No one knew their names, or even if they had names, except for the witch.

Some of the cats were cream-colored and some were brindled. Some were black as beetles. They were about the witch's business. Some came into the witch's bedroom with live things in their mouths. When they came out again, their mouths were empty.

The cats trotted and slunk and leapt and crouched. They were busy. Their movements were catlike, or perhaps clockwork. Their tails twitched like hairy pendulums. They paid no attention to the witch's children.

The witch had three living children at this time, although at one time she had had dozens, maybe more. No one, certainly not the witch, had ever bothered to tally them up. But at one time, the house had bulged with cats and babies.

Now, since witches cannot have children in the usual way—their wombs are full of straw or bricks or stones, and when they give birth, they give birth to rabbits, kittens, tadpoles, houses, silk dresses, and yet even witches must have heirs, even witches wish to be mothers—the witch had acquired her children by other means: She had stolen or bought them.

She'd had a passion for children with a certain color of red hair. Twins she had never been able to abide (they were the wrong kind of magic), although she'd sometimes attempted to match up sets of children, as though she had been putting together a chess set and not a family. If you were to say *a witch's chess set*, instead of *a witch's family*, there would be some truth in that. Perhaps this is true of other families as well.

One girl she had grown like a cyst, upon her thigh. Other children she had made out of things in her garden, or bits of trash that the cats brought her: aluminum foil with strings of chicken fat still crusted to it, broken television sets, cardboard boxes that the neighbors had thrown out. She had always been a thrifty witch.

Some of these children had run away and others had died. Some of them she had simply misplaced, or accidentally left behind on buses. It is to be hoped that

these children were later adopted into good homes, or reunited with their natural parents. If you are looking for a happy ending in this story, then perhaps you should stop reading here and picture these children, these parents, their reunions.

Are you still reading? The witch, up in her bedroom, was dying. She had been poisoned by an enemy, a witch, a man named Lack. The child Finn, who had been her food taster, was dead already and so were three cats who'd licked her dish clean. The witch knew who had killed her and she snatched pieces of time, here and there, from the business of dying, to make her revenge. Once the question of this revenge had been settled to her satisfaction, the shape of it like a black ball of twine in her head, she began to divide up her estate between her three remaining children.

Flecks of vomit stuck to the corners of her mouth, and there was a basin beside the foot of the bed, which was full of black liquid. The room smelled like cats' piss and wet matches. The witch panted as if she were giving birth to her own death.

"Flora shall have my automobile," she said, "and also my purse, which will never be empty, so long as you always leave a coin at the bottom, my darling, my spendthrift, my profligate, my drop of poison, my pretty, pretty Flora. And when I am dead, take the road outside the house and go west. There's one last piece of advice."

Flora, who was the oldest of the witch's living children, was redheaded and stylish. She had been waiting for the witch's death for a long time now, although she had been patient. She kissed the witch's cheek and said, "Thank you, Mother."

The witch looked up at her, panting. She could see Flora's life, already laid out, flat as a map. Perhaps all mothers can see as far.

"Jack, my love, my birds nest, my bite, my scrap of porridge," the witch said, "you shall have my books. I won't have any need of books where I am going. And when you leave my house, strike out in an easterly direction and you won't be any sorrier than you are now."

Jack, who had once been a little bundle of feathers and twigs and eggshell all tied up with a tatty piece of string, was a sturdy lad, almost full grown. If he knew how to read, only the cats knew it. But he nodded and kissed his mother's gray lips.

"And what shall I leave to my boy, Small?" the witch said, convulsing. She threw up again in the basin. Cats came running, leaning on the lip of the basin to inspect her vomitus. The witch's hand dug into Small's leg.

"Oh, it is hard, hard, so very hard, for a mother to leave her children (though I have done harder things). Children need a mother, even such a mother as I have been." She wiped at her eyes, and yet it is a fact that witches cannot cry.

Small, who still slept in the witch's bed, was the youngest of the witch's children. (Perhaps not as young as you think.) He sat upon the bed, and although he didn't cry, it was only because witch's children have no one to teach them the use of crying. His heart was breaking.

Small could juggle and sing and every morning he brushed and plaited the witch's long, silky hair. Surely every mother must wish for a boy like Small, a curly-headed, sweet-breathed, tenderhearted boy like Small, who can cook a fine omelet, and who has a good strong singing voice as well as a gentle hand with a hairbrush.

"Mother," he said, "if you must die, then you must die. And if I can't come along with you, then I'll do my best to live and make you proud. Give me your hairbrush to remember you by, and I'll go make my own way in the world."

"You shall have my hairbrush, then," said the witch to Small, looking, and panting, panting. "And I love you best of all. You shall have my tinderbox and my matches, and also my revenge, and you will make me proud, or I don't know my own children."

"What shall we do with the house, Mother?" said Jack. He said it as if he didn't care.

"When I am dead," the witch said, "this house will be of no use to anyone. I gave birth to it—that was a very long time ago—and raised it from just a dollhouse. Oh, it was the most dear, most darling dollhouse ever. It had eight rooms and a tin roof, and a staircase that went nowhere at all. But I nursed it and rocked it to sleep in a cradle, and it grew up to be a real house, and see how it has taken care of me, its parent, how it knows a child's duty to its mother. And perhaps you can see how it is now, how it pines, how it grows sick to see me dying like this. Leave it to the cats. They'll know what to do with it."

All this time, the cats have been running in and out of the room, bringing things and taking things away. It seems as if they will never slow down, never come to rest, never nap, never have the time to sleep, or to die, or even to mourn. They have a certain proprietary look about them, as if the house is already theirs.

The witch vomits up mud, fur, glass buttons, tin soldiers, trowels, hat pins, thumbtacks, love letters (mislabeled or

sent without the appropriate amount of postage and never read), and a dozen regiments of red ants, each ant as long and wide as a kidney bean. The ants swim across the perilous, stinking basin, clamber up the sides of the basin, and go marching across the floor in a shiny ribbon. They are carrying pieces of Time in their mandibles. Time is heavy, even in such small pieces, but the ants have strong jaws, strong legs. Across the floor they go, and up the wall, and out the window. The cats watch, but don't interfere. The witch gasps and coughs and then lies still. Her hands beat against the bed once and then are still. Still the children wait, to make sure that she is dead, and that she has nothing else to say.

In the witch's house, the dead are sometimes quite talkative.

But the witch has nothing else to say at this time.

The house groans and all the cats begin to mew piteously, trotting in and out of the room as if they have dropped something and must go and hunt for it—they will never find it—and the children, at last, find they know how to cry, but the witch is perfectly still and quiet. There is a tiny smile on her face, as if everything has happened

exactly to her satisfaction. Or maybe she is looking forward to the next part of the story.

The children buried the witch in one of her half-grown dollhouses. They crammed her into the downstairs parlor, and knocked out the inner walls so that her head rested on the kitchen table in the breakfast nook, and her ankles threaded through a bedroom door. Small brushed out her hair, and, because he wasn't sure what she should wear now that she was dead, he put all her dresses on her, one over the other over the other, until he could hardly see her white limbs at all beneath the stack of petticoats and coats and dresses. It didn't matter: Once they'd nailed the dollhouse shut again, all they could see was the red crown of her head in the kitchen window, and the worn-down heels of her dancing shoes knocking against the shutters of the bedroom window.

Jack, who was handy, rigged a set of wheels for the dollhouse, and a harness so that it could be pulled. They put the harness on Small, and Small pulled and Flora pushed, and Jack talked and coaxed the house along, over the hill, down to the cemetery, and the cats ran along beside them.

The cats are beginning to look a bit shabby, as if they are

molting. Their mouths look very empty. The ants have marched away, through the woods, and down into town, and they have built a nest on your yard, out of the bits of Time. And if you hold a magnifying glass over their nest, to see the ants dance and burn, Time will catch fire and you will be sorry.

Outside the cemetery gates, the cats had been digging a grave for the witch. The children tipped the dollhouse into the grave, kitchen window first. But then they saw that the grave wasn't deep enough, and the house sat there on its end, looking uncomfortable. Small began to cry (now that he'd learned how, it seemed he would spend all his time practicing), thinking how horrible it would be to spend one's death, all of eternity, upside down and not even properly buried, not even able to feel the rain when it beat down on the exposed shingles of the house, and seeped down into the house and filled your mouth and drowned you, so that you had to die all over again, every time it rained.

The dollhouse chimney had broken off and fallen on the ground. One of the cats picked it up and carried it away, like a souvenir. That cat carried the chimney into the woods and ate it, a mouthful at a time, and passed out of this story and into another one. It's no concern of ours. The other cats began to carry up mouthfuls of dirt, dropping it and mounding it around the house with their paws. The children helped, and when they'd finished, they'd managed to bury the witch properly, so that only the bedroom window was visible, a little pane of glass like an eye at the top of a small dirt hill.

On the way home, Flora began to flirt with Jack. Perhaps she liked the way he looked in his funeral black. They talked about what they planned to be, now that they were grown up. Flora wanted to find her parents. She was a pretty girl: Someone would want to look after her. Jack said he would like to marry someone rich. They began to make plans.

Small walked a little behind, slippery cats twining around his ankles. He had the witch's hairbrush in his pocket, and his fingers slipped around the figured horn handle for comfort.

The house, when they reached it, had a dangerous, grief-stricken look to it, as if it was beginning to pull away from itself. Flora and Jack wouldn't go back inside. They squeezed Small lovingly, and asked if he wouldn't want to come along with them. He would have liked to, but who would have looked after the witch's cats, the witch's revenge? So he watched as they drove off together. They went north. What child has ever heeded a

mother's advice?

Jack hasn't even bothered to bring along the witch's library: He says there isn't space in the trunk for everything. He'll rely on Flora and her magic purse.

Small sat in the garden, and ate stalks of grass when he was hungry, and pretended that the grass was bread and milk and chocolate cake. He drank out of the garden hose. When it began to grow dark, he was lonelier than he had ever been in his life. The witch's cats were not good company. He said nothing to them and they had nothing to tell him, about the house, or the future, or the witch's revenge, or about where he was supposed to sleep. He had never slept anywhere except in the witch's bed, so at last he went back over the hill and down to the cemetery.

Some of the cats were still going up and down the grave, covering the base of the mound with leaves and grass and feathers, their own loose fur. It was a soft sort of nest to lie down on. The cats were still busy when Small fell asleep—cats are always busy—cheek pressed against the cool glass of the bedroom window, hand curled in his pocket around the hairbrush, but in the middle of the night, when he woke up, he was swaddled, head to foot, in warm, grass-scented cat bodies.

A tail is curled around his chin like a rope, and all the bodies are soughing breath in and out, whiskers and paws twitching, silky bellies rising and falling. All the cats are sleeping a frantic, exhausted, busy sleep, except for one, a white cat who sits near his head, looking down at him. Small has never seen this cat before, and yet he knows her, the way that you know the people who visit you in dreams: She's white everywhere, except for reddish tufts and frills at her ears and tail and paws, as if someone has embroidered her with fire around the edges.

"What's your name?" Small says. He's never talked to the witch's cats before.

The cat lifts a leg and licks herself in a private place. Then she looks at him. "You may call me Mother," she says.

But Small shakes his head. He can't call the cat that. Down under the blanket of cats, under the windowpane, the witch's Spanish heel is drinking in moonlight.

"Very well, then, you may call me The Witch's Revenge," the cat says. Her mouth doesn't move, but he hears her speak inside his head. Her voice is furry and sharp, like a blanket made of needles. "And you may comb my fur."

Small sits up, displacing sleeping cats, and lifts the brush out of his pocket. The bristles have left rows of

little holes indented in the pink palm of his hand, like some sort of code. If he could read the code, it would say: Comb my fur.

Small combs the fur of The Witch's Revenge. There's grave dirt in the cat's fur, and one or two red ants, who drop and scurry away. The Witch's Revenge bends her head down to the ground, snaps them up in her jaws. The heap of cats around them is yawning and stretching. There are things to do.

"You must burn her house down," The Witch's Revenge says. "That's the first thing."

Small's comb catches a knot, and The Witch's Revenge turns and nips him on the wrist. Then she licks him in the tender place between his thumb and his first finger. "That's enough," she says. "There's work to do."

So they all go back to the house, Small stumbling in the dark, moving farther and farther away from the witch's grave, the cats trotting along, their eyes lit like torches, twigs and branches in their mouths, as if they plan to build a nest, a canoe, a fence to keep the world out. The house, when they reach it, is full of lights, and more cats, and piles of tinder. The house is making a noise, like an instrument that someone is breathing into. Small realizes that all the cats are mewing, endlessly, as they run in and out the doors, looking for more kindling.

The Witch's Revenge says, "First we must latch all the doors."

So Small shuts all the doors and windows on the first floor, leaving open only the kitchen door, and The Witch's Revenge shuts the catches on the secret doors, the cat doors, the doors in the attic, and up on the roof, and the cellar doors. Not a single secret door is left open. Now all the noise is on the inside, and Small and The Witch's Revenge are on the outside.

All the cats have slipped into the house through the kitchen door. There isn't a single cat in the garden. Small can see the witch's cats through the windows, arranging their piles of twigs. The Witch's Revenge sits beside him, watching. "Now light a match and throw it in," says The Witch's Revenge.

Small lights a match. He throws it in. What boy doesn't love to start a fire?

"Now shut the kitchen door," says The Witch's Revenge, but Small can't do that. All the cats are inside. The Witch's Revenge stands on her hindpaws and pushes the kitchen door shut. Inside, the lit match catches something on fire. Fire runs along the floor and up the kitchen walls. Cats catch fire, and run into the other rooms of the house. Small can see all this through the windows. He stands with his face against the glass,

which is cold, and then warm, and then hot. Burning cats with burning twigs in their mouths press up against the kitchen door, and the other doors of the house, but all the doors are locked. Small and The Witch's Revenge stand in the garden and watch the witch's house and the witch's books and the witch's sofas and the witch's cooking pots and the witch's cats, her cats, too, all her cats burn.

You should never burn down a house. You should never set a cat on fire. You should never watch and do nothing while a house is burning. You should never listen to a cat who says to do any of these things. You should listen to your mother when she tells you to come away from watching, to go to bed, to go to sleep. You should listen to your mother's revenge.

You should never poison a witch.

In the morning, Small woke up in the garden. Soot covered him in a greasy blanket. The Witch's Revenge was curled up asleep on his chest. The witch's house was still standing, but the windows had melted and run down the walls.

The Witch's Revenge woke and stretched and licked Small clean with her small sharkskin tongue. She

demanded to be combed. Then she went into the house and came out, carrying a little bundle. It dangled, boneless, from her mouth, like a kitten.

It is a catskin, Small sees, only there is no longer a cat inside it. The Witch's Revenge drops it in his lap.

He picked it up and something shiny fell out of the loose light skin. It was a piece of gold, sloppy, slippery with fat. The Witch's Revenge brought out dozens and dozens of catskins, and there was a gold piece in every skin. While Small counted his fortune, The Witch's Revenge bit off one of her own claws, and pulled one long witch hair out of the witch's comb. She sat up, like a tailor, cross-legged in the grass, and began to stitch up a bag, out of the many catskins.

Small shivered. There was nothing to eat for breakfast but grass, and the grass was black and cooked.

"Are you cold?" said The Witch's Revenge. She put the bag aside and picked up another catskin, a fine black one. She slit a sharp claw down the middle. "We'll make you a warm suit."

She used the coat of a black cat, and the coat of a calico cat, and she put a trim around the paws, of greyand-white-striped fur.

While she did this, she said to Small, "Did you know that there was once a battle, fought on this very patch of ground?"

Small shook his head no.

"Wherever there's a garden," The Witch's Revenge said, scratching with one paw at the ground, "I promise you there are people buried somewhere beneath it. Look here." She plucked up a little brown clot, put it in her mouth, and cleaned it with her tongue.

When she spat the little circle out again, Small saw it was an ivory regimental button. The Witch's Revenge dug more buttons out of the ground—as if buttons of ivory grew in the ground—and sewed them onto the catskin. She fashioned a hood with two eyeholes and a set of fine whiskers, and sewed four fine cat tails to the back of the suit, as if the single tail that grew there wasn't good enough for Small. She threaded a bell on each one. "Put this on," she said to Small.

Small puts on the suit and the bells chime. The Witch's Revenge laughs. "You make a fine-looking cat," she says. "Any mother would be proud."

The inside of the catsuit is soft and a little sticky against Small's skin. When he puts the hood over his head, the world disappears. He can see only the vivid corners of it through the eyeholes—grass, gold, the cat

who sits cross-legged, stitching up her sack of skins—and air seeps in, down at the loosely sewn seam, where the skin droops and sags over his chest and around the gaping buttons. Small holds his tails in his clumsy fingerless paw, like a handful of eels, and swings them back and forth to hear them ring. The sound of the bells and the sooty, cooked smell of the air, the warm stickiness of the suit, the feel of his new fur against the ground: he falls asleep and dreams that hundreds of ants come and lift him and gently carry him off to bed.

When Small tipped his hood back again, he saw that The Witch's Revenge had finished with her needle and thread. Small helped her fill the bag with gold. The Witch's Revenge stood up on her hind legs, took the bag, and swung it over her shoulders. The gold coins went sliding against each other, mewling and hissing. The bag dragged along the grass, picking up ash, leaving a trail of green behind it. The Witch's Revenge strutted along as if she were carrying a sack of air.

Small put the hood on again, and he got down on his hands and knees. And then he trotted after The Witch's Revenge. They left the garden gate wide open and went into the forest, towards the house where the witch Lack lived.

The forest is smaller than it used to be. Small is growing, but the forest is shrinking. Trees have been cut down. Houses have been built. Lawns rolled, roads laid. The Witch's Revenge and Small walked alongside one of the roads. A school bus rolled by: The children inside looked out their windows and laughed when they saw The Witch's Revenge walking on her hind legs, and at her heels, Small, in his catsuit. Small lifted his head and peered out of his eyeholes after the school bus.

"Who lives in these houses?" he asked The Witch's Revenge.

"That's the wrong question, Small," said The Witch's Revenge, looking down at him and striding along.

Meow, the catskin bag says. Clink.

"What's the right question, then?" Small said.

"Ask me who lives under the houses," The Witch's Revenge said.

Obediently, Small said, "Who lives under the houses?"

"You see, not everyone can give birth to their own house. Most people give birth to children instead. And when you have children, you need houses to put them in. So children and houses: Most people give birth to the first and have to build the second. The houses, that is. A long

time ago, when men and women were going to build a house, they would dig a hole first. And they'd make a little room—a little, wooden, one-room house—in the hole. And they'd steal or buy a child to put in the house in the hole, to live there. And then they built their house over that first little house."

"Did they make a door in the lid of the little house?" Small said.

"They did not make a door," said The Witch's Revenge.

"But then how did the girl or the boy climb out?" Small said.

"The boy or the girl stayed in that little house," said The Witch's Revenge. "They lived there all their life, and they are living in those houses still, under the other houses where the people live, and the people who live in the houses above may come and go as they please, and they don't ever think about how there are little houses with little children, sitting in little rooms, under their feet."

"But what about the mothers and fathers?" Small asked. "Didn't they ever go looking for their boys and girls?"

"Ah," said The Witch's Revenge. "Sometimes they did and sometimes they didn't. And after all, who was

living under *their* houses? But that was a long time ago. Now people mostly bury a cat when they build their house, instead of a child. That's why we call cats housecats. Which is why we must walk along smartly. As you can see, there are houses under construction here."

And so there are. They walk by clearings where men are digging little holes. First Small puts his hood back and walks on two legs, and then he puts on his hood again, and goes on all fours: He makes himself as small and slinky as possible, just like a cat. But the bells on his tails jounce and the coins in the bag that The Witch's Revenge carries go *clink, meow,* and the men stop their work and watch them go by.

How many witches are there in the world? Have you ever seen one? Would you know a witch if you saw one? And what would you do if you saw one? For that matter, do you know a cat when you see one? Are you sure?

Small followed The Witch's Revenge. Small grew calluses on his knees and the pads of his fingers. He would have liked to carry the bag sometimes, but it was too heavy. How heavy? You would not have been able to carry it, either.

They drank out of streams. At night they opened the catskin bag and climbed inside to sleep, and when they were hungry they licked the coins, which seemed to sweat golden fat, and always more fat. As they went, The Witch's Revenge sang a song:

I had no mother and my mother had no mother and her mother had no mother and her mother had no mother and her mother had no mother and you have no mother to sing you this song

The coins in the bag sang too, *meow, meow,* and the bells on Small's tails kept the rhythm.

Every night Small combs The Witch's Revenge's fur. And every morning The Witch's Revenge licks him all over, not neglecting the places behind his ears, and at the backs of his knees. And then he puts the catsuit back on, and she grooms him all over again.

Sometimes they were in the forest, and sometimes the forest became a town, and then The Witch's Revenge

would tell Small stories about the people who lived in the houses, and the children who lived in the houses under the houses. Once, in the forest, The Witch's Revenge showed Small where there had once been a house. Now there were only the stones of the foundation, upholstered in moss, and the chimney stack, propped up with fat ropes and coils of ivy.

The Witch's Revenge rapped on the grassy ground, moving clockwise around the foundation, until both she and Small could hear a hollow sound; The Witch's Revenge dropped to all fours and clawed at the ground, tearing it up with her paws and biting at it, until they could see a little wooden roof. The Witch's Revenge knocked on the roof, and Small lashed his tails.

"Well, Small," said The Witch's Revenge, "shall we take off the roof and let the poor child go?"

Small crept up close to the hole she had made. He put his ear to it and listened, but he heard nothing at all. "There's no one in there," he said.

"Maybe they're shy," said The Witch's Revenge.
"Shall we let them out, or shall we leave them be?"

"Let them out!" said Small, but what he meant to say was, "Leave them alone!" Or maybe he said *Leave them be!* although he meant the opposite. The Witch's Revenge looked at him, and Small thought he heard something

then—beneath him where he crouched, frozen—very faint: a scrabbling at the dirty, sunken roof.

Small sprang away. The Witch's Revenge picked up a stone and brought it down hard, caving the roof in. When they peered inside, there was nothing except blackness and a faint smell. They waited, sitting on the ground, to see what might come out, but nothing came out. After a while, The Witch's Revenge picked up her catskin bag, and they set off again.

For several nights after that, Small dreamed that someone, something, was following them. It was small and thin and bleached and cold and dirty and afraid. One night it crept away again, and Small never knew where it went. But if you come to that part of the forest, where they sat and waited by the stone foundation, perhaps you will meet the thing that they set free.

No one knew the reason for the quarrel between the witch Small's mother and the witch Lack, although the witch Small's mother had died for it. The witch Lack was a handsome man and he loved his children dearly. He had stolen them out of the cribs and beds of palaces and manors and harems. He dressed his children in silks, as befitted their station, and they wore gold crowns and ate off gold plates. They drank from cups of gold. Lack's

children, it was said, lacked nothing.

Perhaps the witch Lack had made some remark about the way the witch Small's mother was raising her children, or perhaps the witch Small's mother had boasted of her children's red hair. But it might have been something else. Witches are proud and they like to quarrel.

When Small and The Witch's Revenge came at last to the house of the witch Lack, The Witch's Revenge said to Small, "Look at this monstrosity! I've produced finer turds and buried them under leaves. And the smell, like an open sewer! How can his neighbors stand the stink?"

Male witches have no wombs, and must come by their houses in other ways, or else buy them from female witches. But Small thought it was a very fine house. There was a prince or a princess at each window staring down at him, as he sat on his haunches in the driveway, beside The Witch's Revenge. He said nothing, but he missed his brothers and sisters.

"Come along," said The Witch's Revenge. "We'll go a little ways off and wait for the witch Lack to come home."

Small followed The Witch's Revenge back into the forest, and in a while, two of the witch Lack's children came out of the house, carrying baskets made of gold.

They went into the forest as well and began to pick blackberries.

The Witch's Revenge and Small sat in the briar and watched.

There was a wind in the briar. Small was thinking of his brothers and sisters. He thought of the taste of blackberries, the feel of them in his mouth, which was not at all like the taste of fat.

The Witch's Revenge nestled against the small of Small's back. She was licking down a lump of knotted fur at the base of his spine. The princesses were singing.

Small decided that he would live in the briar with The Witch's Revenge. They would live on berries and spy on the children who came to pick them, and The Witch's Revenge would change her name. The word *Mother* was in his mouth, along with the sweet taste of the blackberries.

"Now you must go out," said The Witch's Revenge, "and be kittenish. Be playful. Chase your tail. Be shy, but don't be too shy. Don't talk too much. Let them pet you. Don't bite."

She pushed at Small's rump, and Small tumbled out of the briar and sprawled at the feet of the witch Lack's children.

The Princess Georgia said, "Look! It's a dear little cat!"

Her sister Margaret said doubtfully, "But it has five tails. I've never seen a cat that needed so many tails. And its skin is done up with buttons and it's almost as large as you are."

Small, however, began to caper and prance. He swung his tails back and forth so that the bells rang out and then he pretended to be alarmed by this. First he ran away from his tails and then he chased his tails. The two princesses put down their baskets, half-full of blackberries, and spoke to him, calling him a silly puss.

At first he wouldn't go near them. But, slowly, he pretended to be won over. He allowed himself to be petted and fed blackberries. He chased a hair ribbon and he stretched out to let them admire the buttons up and down his belly. Princess Margaret's fingers tugged at his skin; then she slid one hand in between the loose catskin and Small's boy skin. He batted her hand away with a paw, and Margaret's sister Georgia said knowingly that cats didn't like to be petted on their bellies.

They were all good friends by the time The Witch's Revenge came out of the briar, standing on her hind legs and singing:

I have no children and my children have no children have no children have no children and their children and their children have no whiskers and no tails

At this sight, the Princesses Margaret and Georgia began to laugh and point. They had never heard a cat sing, or seen a cat walk on its hind legs. Small lashed his five tails furiously, and all the fur of the catskin stood up on his arched back, and they laughed at that too.

When they came back from the forest, with their baskets piled with berries, Small was stalking close at their heels, and The Witch's Revenge came walking just behind. But she left the bag of gold hidden in the briar.

That night, when the witch Lack came home, his hands were full of gifts for his children. One of his sons ran to meet him at the door and said, "Come and see what followed Margaret and Georgia home from the forest! Can we keep them?"

And the table had not been set for dinner, and the children of the witch Lack had not sat down to do their

homework, and in the witch Lack's throne room, there was a cat with five tails, spinning in circles, while a second cat sat impudently upon his throne, and sang:

Yes!
your father's house
is the shiniest
brownest largest
the most expensive
the sweetest-smelling
house
that has ever
come out of
anyone's
ass!

The witch Lack's children began to laugh at this, until they saw the witch, their father, standing there. Then they fell silent. Small stopped spinning.

"You!" said the witch Lack.

"Me!" said The Witch's Revenge, and sprang from the throne. Before anyone knew what she was about, her jaws were fastened about the witch Lack's neck, and then she ripped out his throat. Lack opened his mouth to speak and his blood fell out, making The Witch's Revenge's fur more red now than white. The witch Lack fell down dead, and red ants went marching out of the hole in his neck and the hole of his mouth, and they held pieces of Time in their jaws as tightly as The Witch's Revenge had held Lack's throat in hers. But she let Lack go and left him lying in his blood on the floor, and she snatched up the ants and ate them, quickly, as if she had been hungry for a very long time.

While this was happening, the witch Lack's children stood and watched and did nothing. Small sat on the floor, his tails curled about his paws. Children, all of them, they did nothing. They were too surprised. The Witch's Revenge, her belly full of ants, her mouth stained with blood, stood up and surveyed them.

"Go and fetch me my catskin bag," she said to Small.

Small found that he could move. Around him, the princes and princesses stayed absolutely still. The Witch's Revenge was holding them in her gaze.

"I'll need help," Small said. "The bag is too heavy for me to carry."

The Witch's Revenge yawned. She licked a paw and began to pat at her mouth. Small stood still.

"Very well," she said. "Take those big strong girls the Princesses Margaret and Georgia with you. They know the way."

The Princesses Margaret and Georgia, finding that they could move again, began to tremble. They gathered their courage and they went with Small, the two girls holding each other's hands, out of the throne room, not looking down at the body of their father, the witch Lack, and back into the forest.

Georgia began to weep, but the Princess Margaret said to Small: "Let us go!"

"Where will you go?" said Small. "The world is a dangerous place. There are people in it who mean you no good." He threw back his hood, and the Princess Georgia began to weep harder.

"Let us go," said the Princess Margaret. "My parents are the King and Queen of a country not three days' walk from here. They will be glad to see us again."

Small said nothing. They came to the briar and he sent the Princess Georgia in to hunt for the catskin bag. She came out scratched and bleeding, the bag in her hand. It had caught on the briars and torn open. Gold coins rolled out, like glossy drops of fat, falling on the ground.

"Your father killed my mother," said Small.

"And that cat, your mother's devil, will kill us, or worse," said Princess Margaret. "Let us go!"

Small lifted the catskin bag. There were no coins in it now. The Princess Georgia was on her hands and knees,

scooping up coins and putting them into her pockets.

"Was he a good father?" Small asked.

"He thought he was," Princess Margaret said. "But I'm not sorry he's dead. When I grow up, I will be Queen. I'll make a law to put all the witches in the kingdom to death, and all their cats as well."

Small became afraid. He took up the catskin bag and ran back to the house of the witch Lack, leaving the two princesses in the forest. And whether they made their way home to the Princess Margaret's parents, or whether they fell into the hands of thieves, or whether they lived in the briar, or whether the Princess Margaret grew up and kept her promise and rid her kingdom of witches and cats, Small never knew, and neither do I, and neither shall you.

When he came back into the witch Lack's house, The Witch's Revenge saw at once what had happened. "Never mind," she said.

There were no children, no princes and princesses, in the throne room. The witch Lack's body still lay on the floor, but The Witch's Revenge had skinned it like a coney, and sewn up the skin into a bag. The bag wriggled and jerked, the sides heaving as if the witch Lack were still alive somewhere inside. The Witch's Revenge held the witchskin bag in one hand, and with the other, she was stuffing a cat into the neck of the skin. The cat wailed as it went into the bag. The bag was full of wailing. But the discarded flesh of the witch Lack lolled, slack.

There was a little pile of gold crowns on the floor beside the flayed corpse, and transparent, papery things that blew about the room on a current of air, surprised looks on the thin, shed faces.

Cats were hiding in the corners of the room, and under the throne. "Go catch them," said The Witch's Revenge. "But leave the three prettiest alone."

"Where are the witch Lack's children?" Small said.

The Witch's Revenge nodded around the room. "As you see," she said. "I've slipped off their skins, and they were all cats underneath. They're cats now, but if we were to wait a year or two, they would shed these skins as well and become something new. Children are always growing."

Small chased the cats around the room. They were fast, but he was faster. They were nimble, but he was nimbler. He had worn his catsuit longer. He drove the cats down the length of the room, and The Witch's Revenge caught them and dropped them into her bag. At the end, there were only three cats left in the throne room and they were as pretty a trio of cats as anyone could ask for. All the other cats were inside the bag.

"Well done and quickly done, too," said The Witch's Revenge, and she took her needle and stitched shut the neck of the bag. The skin of the witch Lack smiled up at Small, and a cat put its head through Lack's stained mouth, wailing. But The Witch's Revenge sewed Lack's mouth shut too, and the hole on the other end, where a house had come out. She left only his earholes and his eyeholes and his nostrils, which were full of fur, rolled open so that the cats could breathe.

The Witch's Revenge slung the skin full of cats over her shoulder and stood up.

"Where are you going?" Small said.

"These cats have mothers and fathers," The Witch's Revenge said. "They have mothers and fathers who miss them very much."

She gazed at Small. He decided not to ask again. So he waited in the house with the two princesses and the prince in their new catsuits, while The Witch's Revenge went down to the river. Or perhaps she took them down to the market and sold them. Or maybe she took each cat home, to its own mother and father, back to the kingdom where it had been born. Maybe she wasn't so careful to make sure that each child was returned to the right mother and father. After all, she was in a hurry, and cats look very much alike at night.

No one saw where she went—but the market is closer than the palaces of the Kings and Queens whose children had been stolen by the witch Lack, and the river is closer still.

When The Witch's Revenge came back to Lack's house, she looked around her. The house was beginning to stink very badly. Even Small could smell it now.

"I suppose the Princess Margaret let you fuck her," said The Witch's Revenge, as if she had been thinking about this while she ran her errands. "And that is why you let them go. I don't mind. She was a pretty puss. I might have let her go myself."

She looked at Small's face and saw that he was confused. "Never mind," she said.

She had a length of string in her paw, and a cork, which she greased with a piece of fat she had cut from the witch Lack. She threaded the cork on the string, calling it a good, quick, little mouse, and greased the string as well, and she fed the wriggling cork to the tabby who had been curled up in Small's lap. And when she had the cork back again, she greased it again and fed it to the little black cat, and then she fed it to the cat with two white forepaws, so that she had all three cats upon her string.

She sewed up the rip in the catskin bag, and Small put the gold crowns in the bag, and it was nearly as heavy

as it had been before. The Witch's Revenge carried the bag, and Small took the greased string, holding it in his teeth, so the three cats were forced to run along behind him as they left the house of the witch Lack.

Small strikes a match, and he lights the house of the dead witch, Lack, on fire, as they leave. But shit burns slowly, if at all, and that house might be burning still, if someone hasn't gone and put it out. And maybe, someday, someone will go fishing in the river near that house, and hook their line on a bag full of princes and princesses, wet and sorry and wriggling in their catsuit skins—that's one way to catch a husband or a wife.

Small and The Witch's Revenge walked without stopping and the three cats came behind them. They walked until they reached a little village very near where the witch Small's mother had lived and there they settled down in a room The Witch's Revenge rented from a butcher. They cut the greased string, and bought a cage and hung it from a hook in the kitchen. They kept the three cats in it, but Small bought collars and leashes, and sometimes he put one of the cats on a leash and took it for a walk around the town.

Sometimes he wore his own catsuit and went out

prowling, but The Witch's Revenge used to scold him if she caught him dressed like that. There are country manners and there are town manners and Small was a boy about town now.

The Witch's Revenge kept house. She cleaned and she cooked and she made Small's bed in the morning. Like all of the witch's cats, she was always busy. She melted down the gold crowns in a stewpot, and minted them into coins.

The Witch's Revenge wore a silk dress and gloves and a heavy veil, and ran her errands in a fine carriage, Small at her side. She opened an account in a bank, and she enrolled Small in a private academy. She bought a piece of land to build a house on, and she sent Small off to school every morning, no matter how he cried. But at night she took off her clothes and slept on his pillow and he combed her red and white fur.

Sometimes at night she twitched and moaned, and when he asked her what she was dreaming, she said, "There are ants! Can't you comb them out? Be quick and catch them, if you love me."

But there were never any ants.

One day when Small came home, the little cat with the white front paws was gone. When he asked The Witch's Revenge, she said that the little cat had fallen out of the cage and through the open window and into the garden and before The Witch's Revenge could think what to do, a crow had swooped down and carried the little cat off.

They moved into their new house a few months later, and Small was always very careful when he went in and out the doorway, imagining the little cat, down there in the dark, under the doorstep, under his foot.

Small got bigger. He didn't make any friends in the village, or at his school, but when you're big enough, you don't need friends.

One day while he and The Witch's Revenge were eating their dinner, there was a knock at the door. When Small opened the door, there stood Flora and Jack. Flora was wearing a drab, thrift-store coat, and Jack looked more than ever like a bundle of sticks.

"Small!" said Flora. "How tall you've become!" She burst into tears, and wrung her beautiful hands. Jack said, looking at The Witch's Revenge, "And who are you?"

The Witch's Revenge said to Jack, "Who am I? I'm your mother's cat, and you're a handful of dry sticks in a suit two sizes too large. But I won't tell anyone if you won't tell, either."

Jack snorted at this, and Flora stopped crying. She

began to look around the house, which was sunny and large and well appointed.

"There's room enough for both of you," said The Witch's Revenge, "if Small doesn't mind."

Small thought his heart would burst with happiness to have his family back again. He showed Flora to one bedroom and Jack to another. Then they went downstairs and had a second dinner, and Small and The Witch's Revenge listened, and the cats in their hanging cage listened, while Flora and Jack recounted their adventures.

A pickpocket had taken Flora's purse, and they'd sold the witch's automobile, and lost the money in a game of cards. Flora found her parents, but they were a pair of old scoundrels who had no use for her. (She was too old to sell again. She would have realized what they were up to.) She'd gone to work in a department store, and Jack had sold tickets in a movie theater. They'd quarreled and made up, and then fallen in love with other people, and had many disappointments. At last they had decided to go home to the witch's house and see if it would do for a squat, or if there was anything left, to carry away and sell.

But the house, of course, had burned down. As they argued about what to do next, Jack had smelled Small, his brother, down in the village. So here they were.

"You'll live here, with us," Small said.

Jack and Flora said they could not do that. They had ambitions, they said. They had plans. They would stay for a week, or two weeks, and then they would be off again. The Witch's Revenge nodded and said that this was sensible.

Every day, Small came home from school and went out again, with Flora, on a bicycle built for two. Or he stayed home and Jack taught him how to hold a coin between two fingers, and how to follow the egg, as it moved from cup to cup. The Witch's Revenge taught them to play bridge, although Flora and Jack couldn't be partners. They quarreled with each other as if they were husband and wife.

"What do you want?" Small asked Flora one day. He was leaning against her, wishing he were still a cat, and could sit in her lap. She smelled of secrets. "Why do you have to go away again?"

Flora patted Small on the head. She said, "What do I want? That's easy enough! To never have to worry about money. I want to marry a man and know that he'll never cheat on me, or leave me." She looked at Jack as she said this.

Jack said, "I want a rich wife who won't talk back, who doesn't lie in bed all day, with the covers pulled up over her head, weeping and calling me a bundle of

twigs." And he looked at Flora when he said this.

The Witch's Revenge put down the sweater that she was knitting for Small. She looked at Flora and she looked at Jack and then she looked at Small.

Small went into the kitchen and opened the door of the hanging cage. He lifted out the two cats and brought them to Flora and Jack. "Here," he said. "A husband for you, Flora, and a wife for Jack. A prince and a princess, and both of them beautiful, and well brought up, and wealthy, no doubt."

Flora picked up the little tomcat and said, "Don't tease at me, Small! Who ever heard of marrying a cat!"

The Witch's Revenge said, "The trick is to keep their catskins in a safe hiding place. And if they sulk, or treat you badly, sew them back into their catskin and put them into a bag and throw them in the river."

Then she took her claw and slit the skin of the tabby-colored catsuit, and Flora was holding a naked man. Flora shrieked and dropped him on the ground. He was a handsome man, well made, and he had a princely manner. He was not a man that anyone would ever mistake for a cat. He stood up and made a bow, very elegant, for all that he was naked. Flora blushed, but she looked pleased.

"Go fetch some clothes for the Prince and the

Princess," The Witch's Revenge said to Small. When he got back, there was a naked princess hiding behind the sofa, and Jack was leering at her.

A few weeks after that, there were two weddings, and then Flora left with her new husband, and Jack went off with his new princess. Perhaps they lived happily ever after.

The Witch's Revenge said to Small, "We have no wife for you."

Small shrugged. "I'm still too young," he said.

But try as hard as he can, Small is getting older now. The catskin barely fits across his shoulders. The buttons strain when he fastens them. His grown-up fur—his people fur—is coming in. At night he dreams.

The witch his mother's Spanish heel beats against the pane of glass. The princess hangs in the briar. She's holding up her dress, so he can see the catfur down there. Now she's under the house. She wants to marry him, but the house will fall down if he kisses her. He and Flora are children again, in the witch's house. Flora lifts up her skirt and says, see my pussy? There's a cat down there, peeking out at him, but it doesn't look like any cat he's ever seen. He says to Flora, I have a pussy, too. But his isn't the same.

At last he knows what happened to the little, starving, naked thing in the forest, where it went. It crawled into his catskin, while he was asleep, and then it climbed right inside him, his Small skin, and now it is huddled in his chest, still cold and sad and hungry. It is eating him from the inside, and getting bigger, and one day there will be no Small left at all, only that nameless, hungry child, wearing a Small skin.

Small moans in his sleep.

There are ants in The Witch's Revenge's skin, leaking out of her seams, and they march down into the sheets and pinch at him, down under his arms, and between his legs where his fur is growing in, and it hurts, it aches and aches. He dreams that The Witch's Revenge wakes now, and comes and licks him all over, until the pain melts. The pane of glass melts. The ants march away again on their long, greased thread.

"What do you want?" says The Witch's Revenge.

Small is no longer dreaming. He says, "I want my mother!"

Light from the moon comes down through the window over their bed. The Witch's Revenge is very beautiful—she looks like a Queen, like a knife, like a burning house, a cat—in the moonlight. Her fur shines. Her whiskers stand out like pulled stitches, wax and

thread. The Witch's Revenge says, "Your mother is dead."

"Take off your skin," Small says. He's crying and The Witch's Revenge licks his tears away. Small's skin pricks all over, and down under the house, something small wails and wails. "Give me back my mother," he says.

"Oh, my darling," says his mother, the witch, The Witch's Revenge, "I can't do that. I'm full of ants. Take off my skin, and all the ants will spill out, and there will be nothing left of me."

Small says, "Why have you left me all alone?"

His mother the witch says, "I've never left you alone, not even for a minute. I sewed up my death in a catskin so I could stay with you."

"Take it off! Let me see you!" Small says. He pulls at the sheet on the bed, as if it were his mother's catskin.

The Witch's Revenge shakes her head. She trembles and beats her tail back and forth. She says, "How can you ask me for such a thing, and how can I say no to you? Do you know what you're asking me for? Tomorrow night. Ask me again, tomorrow night."

And Small has to be satisfied with that. All night long, Small combs his mother's fur. His fingers are looking for the seams in her catskin. When The Witch's Revenge yawns, he peers inside her mouth, hoping to

catch a glimpse of his mother's face. He can feel himself becoming smaller and smaller. In the morning he will be so small that when he tries to put his catskin on, he can barely do up the buttons. He'll be so small, so sharp, you might mistake him for an ant, and when The Witch's Revenge yawns, he'll creep inside her mouth, he'll go down into her belly, he'll go find his mother. If he can, he'll help his mother cut her catskin open so that she can get out again and come and live in the world with him, and if she won't come out, then he won't, either. He'll live there, the way that sailors learn to live, inside the belly of fish who have eaten them, and keep house for his mother inside the house of her skin.

This is the end of the story. The Princess Margaret grows up to kill witches and cats. If she doesn't, then someone else will have to do it. There is no such thing as witches, and there is no such thing as cats, either, only people dressed up in catskin suits. They have their reasons, and who is to say that they might not live that way, happily ever after, until the ants have carried away all of the time that there is, to build something new and better out of it?

© 2003 Kelly Link.

Originally published in *McSweeney's Mammoth Treasury of Thrilling Tales*, edited by Michael Chabon.

Reprinted by permission of the author.

Kelly Link is the author of three collections, *Pretty Monsters, Magic for Beginners*, and *Stranger Things Happen*. Her short stories have won three Nebula Awards, a Shirley Jackson Award, a Hugo, a Locus, and a World Fantasy Award. She was born in Miami, Florida, and once won a free trip around the world by answering the question "Why do you want to go around the world?" ("Because you can't go through it.") Link lives in Northampton, Massachusetts, where she and her husband, Gavin J. Grant, run Small Beer Press and play ping-pong. In 1996 they started the occasional zine *Lady Churchill's Rosebud Wristlet*.

Family Teeth (Part 6): St. Polycarp's Home For Happy Wanderers Sarah Langan

One: Getting Kissed up to God

Sheila Halpern got her looks from her Momma, who died pushing her out. Died before, even, but still kept pushing.

"You're the prettiest thing in the whole darn world," her daddy told her the day he put her on the train for the St. Polycarp's Home for Happy Wanderers, his age-soft teeth all chipped so everything sounded muffled. She was eight years old, lice riddled, and 90% liar like her daddy. He was beat-up and down and sideways—an egg with a broken yolk.

The day before, he'd killed two howlers with just his hands. Pressed his thumbs plumb-through their eye sockets and mushed their brains. Now the rest of the pack was after them, and so were the New Mexico Staties. Roadblocks and night creatures left them no time to vanish south of Juarez.

"I don' wanna," Sheila said. The ticket her daddy'd pinned to her t-shirt was starting to crinkle. Nobody'd be able to read it. They'd boot her right off the train and then

she'd be solo forever.

"You gotta," her daddy told her. He was looking all around the empty station, his jagged hands like cattle prods. Those hands had been through every violation—torn up by bull-drawn rope, split apart with corn lye, chewed by dogs and wolves and coyotes. By now they were swollen to the size of oven mitts, and she sometimes caught him rubbing them with wintergreen oil just to numb the hurt.

"Go now," Daddy said, still prodding.

Up ahead were stairs that nobody was climbing. Past that, a lonesome ticket agent, sweltering in a red three-button coat. Nobody traveled or worked or did anything out here in the West unless they had to, and even then, they mostly rolled over and died instead. She and Daddy were different. They had each other, plus Momma watchin' over them from heaven.

The train pulled into the station. Gnarly and sunpruned travelers from Tucson looked out their dusty windows. To the north, lightning flashed. You could see it for miles, like a yellow cottonwood falling branchesfirst from the sky. Soon, hard rain would come. The kind that doesn't cool nothing but the Joshua Trees.

"All aboard!" some guy shouted over a muffled speaker that echoed across the flat, dry West.

Sheila itched her lice. She and Daddy had been through this before—close calls, heated races into new towns, dyed hair and phony names. This was gonna be the same. He'd back down, hug her, tell her she was his one and only. No way he'd kept her alive all these years, just to kiss her up to God.

"Who's gonna save me from the howling?"

He wiped his leaking hands on the backs of his jeans. "It's a nice place for a good girl. You hide there. Don' talk to nobody. Don' trust nobody. I'll git you when it's safe."

The engine started up. "Scat, Puppy," Daddy said.

Sheila's ears pricked. Even though it was broad daylight, she heard howlers on the hunt. It's an empty sound that kinda sonics through your innards 'til your bowels shake loose.

"They're here," Sheila whispered. "No use my leavin' now. You and me'll just have to fight 'em to the death."

Daddy didn't have her good ears, but he trusted her when it came to the howlers. He shoved her on the train, then stood in her way so she couldn't get out.

A hand clamped down on her shoulder. "Ticket?" a sweating man in red asked.

The sky darkened. The howlers took shelter under the mean clouds, loping on four legs toward the station.

The train pulled away. Sheila didn't have it in her to scream. This was Las Cruces, a baby shithole in the giant outhouse of the West. So she just watched as four howlers circled her poor Daddy, and the whole, used-up world got small.

Two: Three Foster Homes, a Drowned Lady, and a Bad Habit

The trip East took four days and she slept with her face pressed to the glass, eating just peanut packets that came free and water from the bathroom sink. Her ninth birthday happened in the plains of St. Louis. "Dear Daddy and Momma," she whispered once she figured out that nobody was gonna stop the train and surprise her with Hostess cupcakes, "You're the worst parents in the whole world and this is the worst day in my whole life, even including the real day I was born and you died on me, Mom."

Then she cried for a while and felt sorry for herself, which wasn't her nature. By Portland, Maine, the conductor was happy to get rid of her. He pushed her off her seat like shaking Serano chile seeds loose from their fruit.

Sister Rita was waiting near the Amtrak Dunkin' Donuts, holding a sign that read *Sheila Halpern*. She was skinny as pulled jerky and her pale cheeks and neck flapped like empty clothes.

"Sheila?" she asked.

"Susannah," she answered, because that was the name she'd used in Yuma, where her Daddy taught her to catch trout with just her hands.

Sister Rita looked her up and down, smiling sweetly, fingers weaved so tight they looked like albino worms. "Orphan cowgirl, you'll be my special challenge," she said.

You get a feeling about people the first time you see them that later, you forget. Susannah had a feeling: Sister Rita was bat-shit nuts.

Overcrowded wasn't the word. St. Polycarp's Home for Happy Wanderers had thirty beds and a hundred kids, with busloads more every day. Most got fostered out to trailers and lean-tos where they made some lady's payday. The rest ran away, or else or became Rita's house-broke pets, which probably wasn't worse than death, but came close.

Susannah's first foster was with Bonnie Sleeper on Winter Street in Sanford. Bonnie sold used books and

clothes. She dated the guy at Jenny's Garden next door, so her whole house was forever full of baby's breath flowers, basically for free.

Susannah liked the set-up, especially because it was an easy walk to Sanford Elementary. The other six foster kids were a fun pack that stuck tight. She didn't even mind Bonnie's newborn twins that squawked all night.

But then her foster brother Mike climbed into her cot one night. "My own's too cold," he said. His hands jabbed at her like mechanical dough kneaders. The other fosters watched, like this was normal.

Susannah told herself it was no big deal. Easy peasy, dream of wheezy. But her skin had its own ideas. It started crawling like it was mixed with lice. When he got to her panties, the lice went crazy.

At the free clinic emergency room that night, nobody would believe it was Susannah—the bite marks were too sharp. "Canine," the hand surgeon said. "Definitely dog."

The next day, her skin and mind got into harmony. She stole two boxes of Ex-Lax and put them into the Bisquick pancakes she fried up for everybody's lunch. They ate them and all got sick, even Bonnie's sweet baby twins. "I did it," Susannah declared, just so there wasn't any confusion.

So she got returned to St. Poly's, like one of those

Barbie Dolls that's supposed to be good until you take it out of the box and find out its elbows are bent forever.

"Of course you stuck up for yourself. You're a fighter. The kind that doesn't bend. Only breaks," Sister Rita said when Susannah told about the touching. Then Rita scratched the hidden neck skin under her habit—all red and flaky like fish scales.

Back at school, the foster siblings spread word that Susannah was bad news. Worse, she couldn't stop lying, even when nobody believed her. "My family's ancient, like from the days Gods used to walk around like normal people, stealing fire," she told Carole, the most popular girl in class, who pinned her hair back with ribbon barrettes and never talked much, just kinda sneered. "Did you know coyotes aren't even animals? They're cursed murderers and birth-defected. My Daddy hunts 'em."

Pretty soon, Carole's friends were listening, too. All those cool kids who walked together to the Mobil station and went sledding instead of doing afternoon chores. "You know how they have vampire hunters? Well, my family's like that, only with tricksters," Susannah said.

By now, the whole class was quiet. This was lunch time—napkins unfolded over desks, everybody sitting like their seats had glue. Even Mrs. Solomon was listening. Susannah could hear the titters. The excitement.

She had them. They liked her.

"So basically, this is a warning. You keep teasing me, and I'll feed ya to the werecoyotes."

Everybody got quiet. A full two-seconds of awe. Mrs. Solomon started to say something, but then Carole snickered. The sound echoed like thunder in a desert. Then everybody was laughing. Even Mrs. Solomon.

Next thing, the kids were shoving her into her locker just for fun, then throwing a Medico up for a nonstop riot. She came home with a note taped to her back that Sister Rita pulled off. It read: "I'm an ugly Gaylord."

Sister Rita squeezed Susannah's shoulder, offered her enough sympathy to get her waterworks going, then said. "It's okay to like girls. You just can't act on it. We'll hang this up, to remember our prostrations and humility."

So there it went, Scotch taped to Sister Rita's office door: *I'm an ugly Gaylord*. Only now, underneath, Sister Rita had written: *Susannah Halpern*.

That night Susannah wrote an entry in her school diary she was supposed to keep. It read like this:

Every thing I told you guys 2day is tru. You should know that no thing will ever hurt me because Im all ready sick in my heart for my Daddy-Momma. When I cried in the locker it was an acident. Its like flies on a

broke horses ass—he swings his tail, shure, but only outta habbit.

I hope you drop ded for laughin at me, Missus Solomon.

Good night diahrea diary,

Susannah Halpern, wich isn't even my real name, you jerks

Four months after Los Cruces, Sister Rita found Susannah a second foster home. By then, she'd been thinking about running away. But she kept hoping her daddy was alive. Sister Rita was the only way they'd find each other again.

The new house was in Camden with rich people. Everybody smiled on the outside and dressed pretty, but when you talked to them, you got the feeling they hated you. The parents were always whispering about the kids. Always disappointed or looking to find out who'd spilled juice or tracked dirt or left open a window. All that contention felt like somebody playing steel guitar with Susannah's organs.

She knew it was rabid stupid, but her nervous teeth got the better of her brain and she started biting herself—hands at first, then arms, too. Her tiny canines punched through below-skin bloodwebs to make red bruises,

which her foster sister reported, so her foster parents made her stand in the corner, which didn't stop her from biting, so they always made her stand in the corner, which made her always bite herself, which got her returned, because she was bringing everybody else down.

Because it used to be a mill town, Sanford had this river called the Mousam that Susannah sometimes sneaked out at night to visit. The sound it made was laughing during full moons, crying the rest of the time. Once, she saw an older version of herself inside it—baggy eyed with a beat-up face. In the reflection, she was wearing a nun's habit.

Another time, she saw her beautiful Momma, who was hairy and sleek as a cat. Her eyes were sharp green Sprite bottles, just like Susannah's. She wanted to dive in.

"Is Daddy with you?" she asked.

Momma just kind of stared up from the bottom, like she was so deep in it that she couldn't hear. Pretty soon, she was gone, and the crying lady was back. The crazy one, who was always trying to pull people in.

She'd been gone from Las Cruces eight months. Back at St. Poly's, the *Gaylord* note now had creases, like Rita'd been carrying it around in her wallet.

"You ever hear from my daddy?" Susannah asked one night while she was mopping the rectory floors with vinegar.

Sister Rita scratched her scales so that neck dandruff rained polka dots over her habit. "My ugly orphan, of course not. He's dead."

The third place Sister Rita found happened nine months after Las Cruces. A Sanford junkyard doublewide full of kids and drunk people. Susannah stayed quiet and cleaned up the poop. She changed baby diapers and laughed a lot with the three other ten years-olds, but didn't drink cough syrup with them, because it made her head hurt.

Their last name was Halpern, too, and everybody in the family had bad teeth. The mom and grandmomma had both died from incisor infections. They also lied a lot, and were bad at the lottery. They weren't so different from people she'd met on the road with her Daddy, only none of them was her Daddy.

It was August—hot and wet. Sleeping at night felt like climbing into a cat's mouth. And then one night, she heard that Rottweiler barking so long it got her stirred up. Her skin felt like it was on fire. So she sneaked past everybody sleeping on floors and drooled-upon couches.

Not even the babies stirred, cause of the NyQuil.

The dog belonged to the trailer park, so everybody and nobody fed it, which made it mean. *Woof! Woof! Woof!* It barked so long she felt like she was gonna scream. She got down on all fours and tried to reason with it, which turned out to be a him with giant man-parts. "Hush! You're makin' me crazy!"

But he didn't see the virtue of her words. So her brain turned off and her skin took over. All she saw was white like the hottest part of a fire poker, and she bit him in the neck until his blood rushed out.

She got caught blood-faced and in the act by her foster uncle. The whole thing made the newspapers, which was exactly what her Daddy'd warned against. The howlers can read, after all.

Sister Rita called Susannah into her office on the first day back at St. Poly's. "Sweet cowgirl, we can't find a place for you. Not after what happened with the dog."

"That's okay," Susannah said. "My pop's comin' for me. He'll pay you back for my keep, then some. He's got a system with the lottery."

"My lovely ugly," Rita told her, then pulled a long, thin branch out from behind her desk. "It's a sin to lie."

Before she could even wonder what was happening,

Sister Rita bent Susannah against the desk and pulled down her panties. Slapped her butt cheeks hard with the switch.

Whock!

Then she righted her again, kissed her forehead, and gave her a chocolate calcium chew treat. It all happened in maybe eight seconds.

"Take it," Sister Rita said, holding the foil-wrapped candy, all breathless and excited and flush-cheeked as a junior at prom.

For the first time in a long while, Susannah's skin and head went in opposite directions, and neither won. She looked at the candy. Bared her teeth. But couldn't bring herself to bite.

Three: Two-Dollar Love

Nine months after Las Cruces, a good thing happened: Susannah's third grade teacher, Mrs. Melton, drowned in the river. Then a bad thing happened: The howlers started up. She could hear them at night, all distant and far away. That was how they hunted—in big circles that narrowed and narrowed until suddenly you were trapped.

On the first day back at school, she had a new teacher

—Ms. Canis from New Mexico. She had smooth skin like the throw-away paper from a sticker.

Since the kids were all the same as last year, everybody still hated Susannah. Only now, they'd read in the *Sanford Sentinel* about how she'd bit a junkyard dog to death. Even before the Pledge of Allegiance, they were calling her animal.

Animal, go crazy! Animal, where's your collar? Animal, you got a black cooter or do you die it blonde?

All through it, popular Carole sneered like a remote control dictator. The kids were drone fighters and she was this silent pilot a billion miles away. Susannah wondered if maybe she ought to act like an animal and start biting them. Or lift Carole by the ankles and jump rope with her.

"You stop or my zombie Momma's gonna drown you," she said.

Carole giggled. She'd traded her ribbon barrettes for complicated Princess Leia donut braids. "I didn't know animals could talk!"

Ms. Canis came out from behind her desk with this long, wood pointer. Another beat stick, Susannah guessed. This was how grown-ups out East laid down law.

Ms. Canis banged the stick across her desk hard

enough to break it in two. Everybody shut up, right then and there.

After recess it happened again. Carole pinched Susannah's wrist. "Bark, dog, bark!" she hissed.

Even though it got whispered from across the room, Ms. Canis heard. Her big ears pricked. She got up, shoving desks as she walked, like a tornado, until she reached the two of them. Then she hurled Carole's unicorn Trapper Keeper through the window. *Crash!*

Glass dangling and still falling, Carole crying along with a bunch of other kids, Ms. Canis smiled like a pacifist. "Starting out orphaned puts you ten miles behind the rest of the world, and you have to be a marathoner to catch up. You kids ought to show some compassion."

The kids stared. Ms. Canis pulled shards loose from the sill with her cardigan. "So we'll keep this quiet, won't we? Because I know where all of you live."

The kids laughed, but not ha-ha. Scared laughed.

"Are you a marathoner, Susannah?" Ms. Canis asked.

Susannah waited for the snickers, but everybody was too hopped up on freak-out. "Uh," she said.

"Can you run for your whole life?" she asked, like there was a secret in there someplace. Like she was talking about Daddy and the road and all those ranches where they'd earned their biscuits cleaning stables. "I dunno."

Ms. Canis tapped a shard of glass against her palm like she wasn't afraid of a little blood. "Better figure out what you're running from, Pup."

People stopped teasing Susannah after that. They stopped talking to her all together.

By now, it was a year since Las Cruces. At St. Polycarp's, things were the same. Sister Rita kept her close and sometimes whipped her but mostly gave her calcium chocolates. Orphan life was starting to feel normal. Bad normal.

"You hear from my daddy? He ever send word?"

Sometimes Rita said he was dead. Sometimes, it was jail. Sometimes she didn't know where he was, because he didn't care enough to keep in touch. "But I want you, sweetie. I want you like you're my own," she always said.

Around Christmas, the howlers closed in on Sanford. She could smell their pee on park benches, the school hallways, her bedroom window. On good days, she guessed they'd found her because of the junkyard dog, on bad ones, because her Daddy'd betrayed her.

The first to die were Susanna's foster family with all the kids, even the baby twins. Their beds got eaten up along with the bodies, so pictures showed cheap mattress fillings unstuffed and mixed with baby's breath flowers.

Bounty hunters and Staties came with guns. They shot a bunch of wolves and dogs, but didn't track the coyotes, probably because when they're not hunting, they just look normal like anybody else.

The next to go was the rich family from Camden. They got gored, then the outside of their house painted in blood. More hunters came. People talked about spraying poison with crop dusters, only they couldn't figure out how to make it okay for people, too.

In January, Susannah got a late Christmas present from Sister Rita: a new wardrobe from charity that fit her well and looked like new. For every dollar it cost, Rita lashed her. Susannah held to the backs of her legs and wondered if other people were happy, or if they just lied better. Then she passed out from the pain.

When Rita was done she scratched all under her hot, heavy habit. Skin flaked like desert snow. On the desk, Susannah saw this letter opener made of silver that she could plunge into Sister Rita's cold, shitty heart. She thought about that as she gnawed her calcium chew. Thought about how her head and skin were all messed up these days, because she wanted to kill Rita, but she loved her, too.

"It's time for some new lessons," Sister Rita told her,

still scratching, only further south, like her between-legs were made of lice. "You're ready for phase two."

Susannah'd known just one girl who'd been Rita's pet this long. She got out by tying her neck with a sheet, then throwing herself out St. Poly's window.

Around the feast of St. Nicholas, school let out for a half day because of the snow. It came down in white puffs like liquid clouds and wasn't nearly so cold as she'd feared. The rest of the kids headed out for busses, but Susannah figured she'd walk around. Maybe beg for change at the Mobil, get a Rainbow Slushy. Tell Rita to fuck herself and run away, even if it meant she'd never see her Daddy again.

"I'm glad you stayed. I brought you something," her teacher Ms. Canis told her. Then she handed Susannah a fancy box from Target. It had tissue paper and she inhaled the new, unspoiled-ness of it.

"What?" she asked.

"To wear," Ms. Canis said. She had brown hair that was gray at the roots and her fingers were always bitten down, but she kept herself fit, her teeth sparkling white. She ate fruit and vegetables and nuts like a squirrel. Healthy on the inside—dumpy on the outside, which was pretty much the opposite of Sister Rita.

Susannah picked the present up. It was a silver chain

—or at least, painted silver with a kind of pod on it that smelled like dried weeds. It felt electric, sort of, like the live wire around a chicken coop.

"It's supposed to help you keep your head and skin in agreement so you have control of both," she said.

"I don't like it," Susannah lied. "It's ugly and stupid and I don't know what you're showin' it to me for."

Ms. Canis smiled. "That'll be all."

Susannah got up and started out.

"Take it with you."

Susannah kept going. Ms. Canis followed her with the thing. "Take it."

Susannah didn't turn around. She was crying and didn't want nobody to see. When people do nice things, it's awful. Feels like your heart is all rotten and full of puss, and they're scraping on it. Maybe they wanna clean it out; maybe they just like puss.

That night at St. Polycarp's was like the rest. Cheese sandwiches, Pepsi, and Grandma's brand chocolate chip cookies for desert. Then Sister Rita beat her thirty lashes. When she was done, she took off her shoes and socks so Susannah could see her smooshed big toes and blue-green leg veins. Her whole body was flaking like a coat of cheap paint.

"You hear that story about the woman who drinks the blood of the young, and stays young because of it?" Sister Rita asked.

Susannah nodded, because anything else would earn more lashes.

"Wrong answer," Rita said, then lashed her thirty more.

The howling came real close that night. Susannah propped herself on a blood-stained pillow, opened the window and listened. Maybe her Daddy'd been wrong and they weren't so bad. Maybe she didn't care, because getting et up might be a relief.

They came right up. All four, with a big Momma behind them, watching over. They were half-grown, had to stand on top of each other to reach her window. The smallest and lightest nosed through the opening and licked her.

She shut it fast and squeezed her eyes tight. Shoved the pillow over her head while they howled, and the rest of the orphans cried out in fear. But still, she kept her arm unwashed for a day, palming where the little werecoyote's tongue had gone, sweet and gentle as a family kiss.

The next day, the newspapers announced another bunch

of coyote murders. This time in the trailer park with the dead dog. Everybody got killed, even the babies and the old people. Not a single Halpern left in all of Sanford. It was like the howlers were eating up Susannah's trail, so nobody'd know there'd once been a girl who got dumped on a train.

Cops came to St. Poly's, asking to talk to Susannah because they'd figured out the coincidence, but Sister Rita told them they needed a warrant. Then she locked her office door and held Susannah tight as a tick under skin while Susannah stared at the letter opener, wishing she was somebody un-broke.

That Monday the amulet was on her desk at school. She tossed it in the garbage first thing. Ms. Canis shrugged and kept up her lesson about the dust bowl that happened because everybody fenced in their cows and it ruined everything. "But the Old West is coming back," she told the class. "Civilization is an idea, and so is savagery. The former crests and collapses, the latter persists in light and in dark. A hundred years from now, we'll hunt in tribes again, and our tall buildings will house only death. Humanity itself will die out, leaving dominion of the Earth to the things that are wild."

She talked like that sometimes. Especially when the

moon was full.

At recess, Susannah sat by herself. Imagined where she'd go and run away to. Back West, probably. A ranch or horse farm. Or maybe that other tribe. Maybe the howling.

The girls that day played married, walking down the aisle with boys they crushed on, then sharing Doritos and SweeTarts like a proper reception. The cool ones talked about kissing. Susannah wiped her hairy chin and thought about her liar daddy, who'd told her she was pretty.

She booked it after class, went straight home where Sister Rita was waiting. "You killed all of them, didn't you? All those families I assigned you. God told me."

Susannah nodded, because if she denied it, she'd get beaten. Sister Rita pointed at two packed bags. "Take my things to the car. We're leaving here."

Susannah didn't hesitate. That's how far gone down the well she'd fallen. She picked up Rita's leather satchel and started out. Dropped it inside the old Saab that everybody called the Jesus Mobile because of all the bumper stickers and rosaries. The satchel opened up and on top was a bunch of letters bundled together with red ribbon. The first was the Gaylord note, the next had a picture of Las Cruces.

"Deer Susannah," the Las Cruces card read inside. "I

love you very much. Please take this money and buy yerself something that matches yer eyes."

There were more. She opened them, one by one. They were postmarked from the New Mexico county jail. They all said they had money, but they didn't. Then came the last letter, from a warden, saying that during transfer to maximum security in Baltimore, her Daddy had escaped. This was two days ago. They said they thought he'd come looking for his daughter.

Suddenly, Rita was at the driver side, opening the door. She started the car and waved for Susannah to sit. Then she saw the letters. "Sneaky, sneaky. I know what's good for you," she said with that crazy smile.

She leaned across the car, like to reach up and give Susannah a slap. What happened next, Susannah didn't know. She blacked out.

It felt like *Crack! Crack! Crack!* lightning in the sky. Her head and skin stuck together again and made electricity. Her whole body thrumped and throbbed. She got low. Everything changed, even her eyes and smell and the beat of her heart.

And then the car was shaking, and glass all over, and the sharp, shocked sounds of Rita's screams. And blood. So much blood.

She woke up in a strange bed that was low to the ground, wearing Ms. Canis' amulet. Something sizzled in the next room and she staggered there. It was empty except for a steak in a frying pan, and a couple of scientists talking on the radio about polar ice caps.

"That's the thing," Ms. Canis said from behind and Susannah didn't turn, because she knew somebody'd washed the blood off and kept her safe from the police.

"Coyotes survive anything. We mate with dogs. Wolves. Lawyers. The rest of the world is limping toward apocalypse, but we keep getting stronger."

Ms. Canis passed Susannah, flipped the steak with a fork, then threw it on the floor like that was where food belonged.

"You're the one broke my family?" she asked. The shirt she wore was two sizes too big. Something that probably belonged to the real owner of this house.

While Susannah watched, Ms. Canis changed. She got hairier and her nose elongated. She didn't turn full animal—just something smart and lowdown, in the nightlike in-between.

"It's generations. On and on. We've mixed for thousands of years. Your mother was more human than most. Dangerous because of it. You two legs are all heart and no instinct. You change because of the moon or a bad mood. We'd kill you if you weren't so smart—there's no way we'd have crossed the Mississippi without you."

"My momma watches over me," Susannah said.

Ms. Canis let out a throaty click. "If anybody, she does. More than the other pups, you take after her. It's what they call an evolutionary leap."

"Momma was perfect and beautiful," Susannah said, and for some reason, just the mention of Momma's name from somebody who used to know her started the waterworks.

"She was ugly. But she loved your Dad so much that her tubes knit back together. She bore you pups even though her hips weren't wide enough for those big, human brains. You'd think that kind of sacrifice would have made you kids ease up, but you were worse than the coyotes. You chewed your way right out her womb."

"That's a lie," Susannah said.

Ms. Canis laughed. "You think so? Either way, you belong with us. I was your momma's half-sister. I raised your five sisters like my own. We're your family."

Ms. Canis started to gnaw on the meat. The sound was familiar. Susannah'd dreamed it during full moons. Outside, the howlers started. She couldn't tell if they were laughing or crying.

"We'll go South, I think. New York. The park there

has a feeding ground."

The amulet stung Susannah's neck. Underneath, her heart blood felt like it was pooling.

"What's different about you is that you can live among them. They smell you're not right, but they don't know it for sure. It's why you never fit in, but they don't kill you. You don't fit in with us, either. But we'll take you." Meat was all in her teeth. Susannah saw that it wasn't cow steak. A bloody black habit hung in shreds on the doorknob.

"I always wanted a momma," Susannah said. "To show me things and to love me."

Ms. Canis bit the meat in half and threw some in Susannah's direction. It was hand gristle. "That necklace makes it so you can't change when you wear it. You mostly-humans need that to get by."

Susannah nosed the meat. Five half-grown howlers appeared in the doorway. Just pups. They looked like her, only wilder. The smallest nosed up next to her, then pressed its head down by her feet in submission. Susannah didn't think. She licked the thing's forehead, then pushed it toward food.

"Go now, pup," she said, like soul memory.

Now all the howlers were munching—calm and quiet and heading toward satisfied. Susannah bent down. They

made a space for her like she belonged inside it. She'd never had family dinner. Never known anybody with thick brows like her. Ugly like her.

But then she smelled the hand meat. It stank of pretend holiness and she knew she couldn't stomach it. Didn't want it stuck inside her. Because then she'd grow up one day and be just like Rita. Like Canis. Saying things that don't mean nothing. Pretending your wants are law.

She imagined her momma, like womb memory. They'd lived together in a cabin and drank snow. She'd hidden inside her Momma's chest and listened to her death breath even after the rest had gone. Mourned her, like a part of herself had been severed. Susannah's head and skin resolved into the same thing. She wasn't conflicted. She knew what she loved, and what she didn't. The blood was pooling and the amulet burning, but that didn't mean nothing. She tore it from her neck.

The change happened fast. Ms. Canis growled with wide, shocked eyes. And then she wore no expression at all. Susannah was young. Spry. Half crazy from the year she'd spent without her daddy.

A jugular is an easy thing once you're set on it.

She used Canis' dead body as a shield from her sisters.

Biting, tearing. Everything white as the pups went mad in their way. It was orphan against orphan.

She didn't hear the shots that made them drop: one, two, three, four, five. They whined in a desolate way, their bodies changing back to hands and feet and full, pink lips. Even the little one.

And then, in the doorway with his shotgun, stood Daddy. One year missing, scarred-up so bad this time he'd lost his face. But you can smell the people you love, the people who love you.

He picked up the amulet and handed it to her. "This was your mother's," he said. Then he looked down at the mess and shook his head. "That's something we won't forget."

She was still changed, on the floor. Feeling shamed that he could see her like this. All animal.

"Come on, Sheila," he said, holding out his ragged hand.

She got up slow, waiting until she could walk on two legs like she belonged. They went north over the border to the horse farms in Canada. It wasn't easy, but they made their way like they always had. Like she hoped they always would.

Sarah Langan is the author of the novels *The Keeper* and *The Missing*, and her most recent novel, *Audrey's Door*, won the 2009 Stoker for best novel. Her short fiction has appeared in the magazines *Nightmare*, *Cemetery Dance*, *Phantom*, and *Chiaroscuro*, and in the anthologies *Brave New Worlds*, *Darkness on the Edge*, and *Unspeakable Horror*. She is currently working on a post-apocalyptic young adult series called Kids and two adult novels: *Empty Houses*, which was inspired by *The Twilight Zone*, and *My Father's Ghost*, which was inspired by *Hamlet*. Her work has been translated into ten languages and optioned by the Weinstein Company for film. It has also garnered three Bram Stoker Awards, an American Library Association Award, two Dark Scribe Awards, a *New York Times Book Review* editor's pick, and a *Publishers Weekly* favorite book of the year selection.

Author Spotlight: Ted Chiang Moshe Siegel

Louise, narrator of your Nebula and Sturgeon Award winning novella, "Story of Your Life," seems ably prepared for observing alien life-forms by her experience as a mother—a knack for interpreting unpredictable behavior appears as important as her linguistic training, in deciphering heptapod culture. Did you intentionally draw a parallel between alien intelligences and children?

No, that hadn't occurred to me. When Louise encounters the aliens, she isn't a mother yet; her ability to interpret their behavior is purely a result of her experience in field linguistics. Instead, I'd say that her background in linguistics inflects her experience as a mother. Children are endlessly fascinating from a linguist's perspective, not so much because they're speaking a foreign language, but because they seem to be geniuses at learning our language.

It is difficult not to struggle against the idea of determinism, or at least, difficult to align our human

ego into a "predetermined" context. Yet Louise seems willing, even eager, to delve ever-deeper into this long view perspective via the heptapod's languages—perhaps because she comes to know the entirety of what she stands to gain, and to lose. Does her embrace of the good and bad in life reflect the average human's reaction to a sudden epiphany of their next 50 years, or does Louise have an uncommon aptitude for omnipresence?

Well, I haven't conducted a survey of people who suddenly gained foreknowledge of their futures, so I don't know how the average human would react. My goal was to make Louise's reaction seem plausible to readers, but I don't claim that it's necessarily how most people would feel in her situation. I agree that people in general are resistant to knowing too much about their future, and the story can be read as a kind of argument for compatibility between free will and determinism.

Do you think human memory can be considered a form of teleological perspective? If we know the consequences of past actions, and can reflect on the events and choices which led to those consequences (feeling pleasure or regret accordingly with each

recollection) all the way back to our childhood, does it qualify as (re)living all those moments in unison? Or, does the lack of future knowledge forever limit humanity to a sequential perspective?

A teleological perspective isn't necessarily the same thing as perceiving everything simultaneously, but I think you're asking about the latter. I don't think having memory of the past is the same as experiencing all of one's past simultaneously; I feel like I know what the former is like, but not the latter. In fact, in the story, Louise explicitly makes a distinction between the times that she has memories of the future and the moments during which she experiences her whole life simultaneously.

In "Story of Your Life," the military's method of dealing with the heptapods is to restrict as much knowledge as possible, for future exploitation and barter. This elicited many an eye-roll from the academics (mostly Gary) involved in humanity's first contact with an alien species. In a "real world" scenario, would it be more reasonable to meet an observing alien intelligence with civilian curiosity and willing information exchange, or a show of stoic

military prudence?

In terms of real-world scenarios, I doubt aliens would ever visit humans on Earth; I think it's more likely that we'd discover interstellar signals of artificial origin. But hypothetically, if aliens were to visit us, I'm sure our military would go on high alert, but I can't imagine it would make much difference. Any civilization with the capability to send a ship across interstellar space in a reasonable amount of time would be able to squash us like a bug, so we might as well be friendly.

In other interviews, you've discussed the Clarion Writer's Workshop as being a formative step in your life as a writer. This past summer, you were an instructor at Clarion. How does it feel to have come full circle?

I really enjoyed teaching, but I don't feel like I've come full circle. I'm not as experienced as my instructors were when I was a student, but more significantly, I don't think my students were in the same position that I was. Nowadays it's possible to write SF in a college creative-writing class, something that was unheard of when I went to college. Similarly, the internet has made it much easier

for people to discover the SF community. So I doubt I made the same impression on my students as my instructors made on me. Perhaps this is just a variation of the "you can't step in the same river twice" idea.

I hope it satisfies any latent hetapodian perspective you may possess to be asked: Do you have any upcoming projects you'd like to tell us about?

As noted above, most people feel it's better not to know too much about what lies ahead. In that spirit, I won't say a lot about what I'm working on, except that it's a novelette about memory and the written word.

Moshe Siegel works as a slusher, proofreader, and interviewer at Lightspeed, interns at the pleasure of a Random House-published author, freelance edits hither and yon, and is a Publisher's Assistant at Codhill Press. His overladen bookshelf and smug e-reader glare at each other across his home office in upstate New York, and he isn't quite sure what to think about it all. Follow tweets of varying relevance @moshesiegel.

Author Spotlight: Ken Liu Caleb Jordan Schulz

In your story, "The Perfect Match," Sai needs Tilly the AI to make decisions for him. Tilly can find him the perfect date, can suggest the best place to go for dessert, can organize his daily tasks from beginning to end, effectively removing his decision-making from the equation. This matching of the perfect product for the perfect consumer reflects a growing trend in our daily lives. Is this evolution of algorithms making decisions for us something to embrace or something to be concerned about?

First, thanks for having me again, Lightspeed!

I suppose the answer to your question depends on one's perspective. The Age of Big Data is upon us, and the externalization of our inner life and the outsourcing of our mental processes to technology are long-term trends. Do these trends free us to be more creative, more caring, more human? Or do they make us more dependent, more isolated, less human? Different temperaments and vantage points will lead us to give different answers.

I'm not so concerned about AIs doing our thinking for

us—that's a matter of technological advancement, which in itself is morally neutral. I'm far more concerned about the power these trends towards ubiquitous computing—especially the constant collection and accumulation of data about each of us—give to particular companies and individuals. This is especially so when the collection of data occurs within frameworks that appear voluntary. Those who are in possession of such data have the potential to know our innermost secrets, to shape our thinking, and to generally wield far more power over us than the totalitarian regimes in traditional dystopias.

Ultimately, I am not afraid of machines and databases, but those who hold the keys to the databases.

Human reliance on machines has been accelerating at an astonishing rate. With even more machine-man integration in the future, with nanobots, artificial organs, smart tissue, etc., do you believe this progression is inevitable?

I wouldn't call any projected technological trend "inevitable." The history of technology is full of examples where paths once imagined to be inevitable turned out to be the roads not taken.

But our growing dependence on technology and

integration with technology do appear to be broad, accelerating trends that have been true at least since we began using stone tools.

At the 2012 Olympic Games, much was made of the tens of thousands of CCTV cameras that were used by the UK government to monitor its citizens and visitors. (There are 12,000 cameras in the London Underground alone.) Recently, Mayor Bloomberg announced that a new system called the Domain Awareness System was monitoring the streets of Manhattan with upwards of 3,000 cameras. Do you feel this type of surveillance is healthy?

Many of us are alarmed by instances of surveillance by governments. But there seems to be a conceptual block where intrusive surveillance and tracking, done in the name of private, commercial exchange, are typically seen as benign.

But data is data, and having data gives one power. As for whether such concentration of power in a government or a company is a good thing, I think there is no simple answer. With the ever-increasing sharing of our lives with others through social media, and corporations prying more and more information from us, do you see a day where privacy is a thing of the past?

I view privacy as one aspect of the general problem of information control: who, what, how much? (Censorship, free speech, copyright, etc., are all aspects of the same problem.)

There's some information about each of us we consider "private" and believe that only the individual should control such information—though what is considered "private" differs from person to person, society to society.

Technology's role in this, as usual, is to act as a force multiplier. Information that used to be hard to get is now easy to get. Information that used to be scattered in many places can now be aggregated in one place. When information can move faster and more cheaply, it becomes harder and harder to maintain control over it.

At the same time, technology also makes it easy to encrypt secrets, or to hide them in the open by making it easy to lie and spread false information to make searching for the secrets harder.

So, I don't know if privacy will disappear. Perhaps

it's more likely that our expectation of privacy will change to suit this new environment.

Your story is a cautionary tale, but like Sai, most people are so firmly entrenched in technology that they have a hard time pulling away. Do you see any reversal of this dependence, or is this just a runaway train now?

As I indicated above, I think our growing dependence on technology is part of an ancient trend that has been going on for many, many generations. That we have not reversed this trend so far seems to me to suggest that it cannot be reversed, but I also know that the past is no map to the future.

Being dependent on technology may be either a good thing or a bad thing. I expect that many of us would find Tilly a valuable part of our lives. But Tilly is going to be created by people. And people, when given a chance, always want to shape the world to be more like their vision, and we do not all agree on a vision of the world that we all want.

Finally, do you have any new projects you'd like to

announce?

I'm working on a few short stories that I'm really excited about, and there's also the epic fantasy novel that my wife and I have been working on for a while now. I'm hoping that we'll finally be done soon. The end is in sight.

Caleb Jordan Schulz is a writer, illustrator, and nomad, currently finding himself in Buenos Aires, Argentina. His fiction can be found in *Subversion*, *Scape*, *Crossed Genres Year Two* anthology, *Ray Gun Revival*, and *Innsmouth Free Press*. In between his work for *Lightspeed Magazine*, he's a freelance editor, and blogs occasionally at: theright2write.blogspot.com.

Author Spotlight: Yoon Ha Lee Caleb Jordan Schulz

In your story, "Swanwatch," Swan and the other elites live in close proximity to a black hole as they work on creating their masterworks. This juxtaposition between the creation of art and the destructive qualities of a black hole highlights the true power that artistic expression holds. How do you see this artistic expression unfolding in the centuries to come?

I'm afraid I try to avoid making this kind of prediction in the first place! I remember reading SF back in middle and high school that speculated about the future of art.

Nothing I read in those stories (I recall one had an olfactory symphony, for instance) would have prepared me for slash fanvids or World of Warcraft machinima sagas or custom My Little Ponies done up as everything from Marilyn Monroe to Johnny Depp, all of which are very nifty. I don't think my imagination is good enough to anticipate what form human (or other?) creativity will take in the future.

The edge of a black hole is quite a location for an

artist's colony. What was your inspiration for this choice?

I thought of it more as a prison than an artist's colony. Or a prison that also happened to be an artist's colony. Mostly, though, it was the idea of a black hole as a fermata—the suspended note/silence/image—that did it for me.

Your language in the story speaks to familiarity with music—from the perfect naming of the Fermata to the Concert of Worlds to Swan's compositions. Did this all stem from research or do you have a background in music?

A little of both? I took seven years of piano lessons, five of viola, and three summers of classical guitar, and I've dabbled with soprano recorder, harmonica (diatonic and chromatic), ocarina, and pennywhistle. I am not a musician, but I compose as a hobby, mostly for piano or small orchestra or electronica using MIDI. My high school senior project was a small suite that the school orchestra performed. I remember doing up the score with Finale, but there was a bug in that version that corrupted the entire score if you attempted to extract parts, so I had

to recopy everything by hand for the orchestra! These days I like to read the occasional issue of *Computer Music*, and I mess around with Reaper (a DAW, or Digital Audio Workstation) and Vienna Special Edition; before that I was using Logic Pro 8.

Dragon, Phoenix, Tiger, Tortoise, and Swan. How did you decide on just five exiles, or Initiates of the Fermata, and not more?

Efficiency issues (read: laziness), especially in a short story. I wanted enough characters for some variety but not so many that they were hard to remember, and notice that Tortoise never even makes an appearance.

You create a powerful image of the swanships diving into the heart of the black hole to battle the silence at the end of time. What do you believe happens to all that matter that enters a black hole?

It . . . compacts down into a singularity? I am not the gravitational astrophysicist in the family, that's my husband, but certainly, mythologizing aside, I don't think that matter is coming back in any useful form.

Finally, do you have any new projects you'd like to announce?

I have a collection of short stories coming out in 2013, *Conservation of Shadows*. According to Prime Books' website it's due out around May, and it includes an original novella, "Iseul's Lexicon," which is about genocide and tactical linguistics.

Caleb Jordan Schulz is a writer, illustrator, and nomad, currently finding himself in Buenos Aires, Argentina. His fiction can be found in *Subversion*, *Scape*, *Crossed Genres Year Two* anthology, *Ray Gun Revival*, and *Innsmouth Free Press*. In between his work for *Lightspeed Magazine*, he's a freelance editor, and blogs occasionally at: theright2write.blogspot.com.

Author Spotlight: D. Thomas Minton Kevin McNeil

Can you tell us a little bit about your writing process and what inspired "Dreams in Dust?"

"Dreams in Dust" was inspired by a regular feature at io9 called "Concept Art." For this feature, a picture is posted as a writing prompt. Back in February of 2012, the prompt was a picture of a man with a camel in the desert, with the wreck of a submarine in the background. That wonderfully evocative picture led to a chain of ideas that resulted in this story.

I don't think my writing process is anything special: I write every day (often in the dark hours before the sun comes up). I don't start writing until I have a complete story in my head, because I like to know where I'm going. Usually I finish a rough draft in a couple of writing sessions. After few days, in which I let it "simmer" untouched, I revise it, delving deeper into the characters and conflicts.

The dystopian setting for this story is incredibly vivid. I found it particularly interesting that a marine

biologist would choose to set a story in a desert world. What can you tell us about the creation of this world?

I would have been a desert biologist if I hadn't become a marine biologist. I find deserts incredibly beautiful, and have spent some time wandering the American Southwest. I can't get enough of them. That said, Keraf's world is fairly generic, but what makes it special to me is that Keraf feels like he is of this world, and not simply a modern-day man transplanted from suburbia into the sand. Everything Keraf does and thinks has been shaped by growing up and living in this world, and that is what I think sells it to readers. I hope that I have created a world that is deeper than the sand dunes.

In "Dreams in Dust," Earth has been dewatered by the Orbitals. The result is devastating and raises thoughts about our own environment and the climate change we are experiencing. Is this an issue you feel strongly about?

As a marine ecologist, I see the impending impact of climate change every day. The places I love will be (and some would say already have been) irrevocably altered by our changing climate. It still amazes me that anyone can

continue to deny something as obvious as the changes that are occurring.

Your previous story in *Lightspeed*, "Thief of Futures" (September 2011), also dealt with the idea of a future in peril, although on a more personal level. Each story left me thinking about the need to protect the future for our children. Is this a theme you tend to revisit in your work?

I've never thought about it, but this is a theme I tend to explore in my work. My daughter inspires me, and I think often about what her future will be like. One of my greatest fears is that I will leave behind a world that is a much worse place than when I grew up. She deserves more than that. Unfortunately, until we all start thinking about our children and their children and stop thinking about short-term gains, I don't think much will change.

Your story ends on a hopeful note, although Keraf still has a struggle ahead of him if he's going to be successful in bringing water back into the world. Why did you choose to end the story at this point? Do you have more stories planned in this world?

I chose to end this story where I did because I wanted to focus on Keraf's immediate and very personal problem—his lack of water. Bringing water back to the Earth is such a large challenge, it transcends Keraf alone. He cares passionately about his greater mission, however, and I found it interesting to explore how he struggled with his immediate problem in order to continue on his quest to solve a larger global problem.

I intentionally left many things vague in this story because they were larger stories than I wanted to tell. I'm working on a novel that will examine some of these things. Keraf's world is complex and rich, and "Dreams in Dust" only touches the surface.

Is there anything else you'd like to share about this piece? What's next for you?

I hope your readers enjoy my story. The next few months for me promise to be busy. There's a big move potentially in the works (although nothing is certain yet) and a lot of stories to write.

Kevin McNeil reads slush and helps out with a few other things for *Lightspeed* and *Nightmare* Magazines. He is a physical therapist, sports

fanatic, and volunteer coach for the Special Olympics. He graduated from the Odyssey Writing Workshop in 2012 and Kij Johnson's Novel Writer's Workshop in 2011. Kevin is a New Englander currently living in California. Find him on Twitter @kevinmcneil.

Author Spotlight: Marta Randall Andrew Liptak

Hi Marta, thank you for taking the time to speak with us. First off, how did your story, "Lázaro y Antonio" come to be?

A number of impulses came together at the same time. I wanted to play with voice and place. After the first five or six pages, I had a mental image of the last scene, and I wrote toward that.

Right off the bat, this story breaks out of many of the conventions that space opera has typically used. You've built a rich, multicultural world—how did your background influence this?

I can't lay claim to a strong multi-cultural background myself. I was born in Mexico City and we would return periodically to visit relatives, but from the age of four, our household was English-language only (my teachers thought that being multi-lingual would somehow retard my progress. As a result I lost my first language, but boy, did my mother become a pro with English!). More to the

point, I grew up in Berkeley but spent much of my adult life in Oakland, perhaps the most culturally diverse city in the country. That diversity created a rich, ever-evolving stew of color, taste, accent, intention, and I wanted to think about a future where all of those things still live.

Memory and cognitive functions are an important element to this story, and I got a real sense of déjà vu for the story "Flowers for Algernon." Is there any connection?

There's probably a subconscious connection to the Keyes story, but the more immediate connection was to my father. He died of Alzheimer's after a long, ugly, demeaning slide that eventually robbed him even of his voice. Could anything be worse than that? Well, possibly, yes. It's no consolation, but there it is.

Antonio and Lázaro have an uphill battle: They seem to be firmly kept in the lower rungs. Do you think that such stratification will exist if humanity moves offworld?

Oh, yes, unless somehow the Flying Spaghetti Monster

returns to Earth and purges us all of greed, intolerance, fear, xenophobia, envy, the whole ugly works. Power tends to corrupt, said Lord Acton. There are always people who will get ahead by stomping their way up the ladder of life, and the devil take the hindmost. I suppose we could think about colonizing a planet and refusing to let any of the Bad Guys in, but even so, who's going to do the choosing? Absolute power, Acton went on, tends to corrupt absolutely.

Lastly, what's next for you?

I don't have anything in the works at the moment. I'm anticipating retirement next spring, so a lot of my time is spent planning for that. I teach online through Gotham Writers Workshop and that's going to continue. Mark Twain, a personal hero, said that prophecy is very difficult, especially with respect to the future, so I think I'll nod in his direction and just take things as they come.

Andrew Liptak is a freelance writer and historian from Vermont. He has written for such places as *io9*, *Tor.com*, *SF Signal*, *Blastr*, *Kirkus and Armchair General* and he can be found over at andrewliptak.wordpress.com and at @AndrewLiptak on Twitter.

Author Spotlight: Brian Evenson Jennifer Koneiczny

Your story "An Accounting" traces the accidental foundation of a new religion in the American Midwest. How did your own religious beliefs inform the story?

I grew up Mormon in Utah, so I was part of a fairly intensive religion in a state where it was the dominant cultural influence. It thought of itself as a day-to-day religion more than a Sunday religion, and so infected a good part of one's other activities. Now I'm an excommunicated Mormon and am fairly far outside of it, but am still fascinated not only with religion but with the ways community forms around religious belief. Mormonism purports to have started in a very unlikely way: with a revelation from God given to a 14-year-old boy. That a religion might spring up from the situation in "An Accounting" strikes me as just as likely . . . I like, too, the idea of the reluctant prophet, which is something that had a huge impact on me when I was a kid. Things like Michael Moorcock's Behold the Man, to name the one that's probably struck with me the most. (But also

things like the Thomas Covenant series, which I haven't reread recently.)

Do you agree with the narrator's statement that, "What takes place beyond the borders of the known world is not to be judged against the standards of this world"?

Well, yes and no. I don't think you can help but judge things according to your situation, and that that's necessary if only to establish the grounds for the distance that needs to be crossed by empathy. Having said that, there's also the implication in the story that the narrator has very specific, even selfish, reasons for saying what he does, that he has an audience he wants to convince, and may in fact be lying. How reliable he is or is not is a question the story revolves around.

I very much enjoyed the dark humor in your story. "[Finger] tasted, I must reluctantly admit, not unlike chicken" was unexpected in the writings of an (admittedly accidental) savior. What do you think is the role of humor in religion? Is there a place for it?

I think there's a huge role for humor in fiction, even in dark and/or dramatic fiction—that it can give an interesting texture to what might otherwise be relentless. I see my own fiction as twining strands of darkness and humor that never quite blend into one another and that leave both the darkness and the humor in a position where they can occasionally shock or surprise the reader.

In terms of the role of humor in religion, I think that religion tends generally to use humor pretty badly—to enforce a message or to reassert a hierarchical arrangement. It's generally safe and sanitized. Very rarely (except for maybe in Buddhism) is humor allowed to move in a direction that's anarchic or chaotic or really surprising—which is what I find delightful about humor. I do think that religion would be much richer as a cultural activity if humor was more actively a part of it.

You said in an interview with raintaxi.com that, "Hopefully the reader's relationship to ["An Accounting"] is very complicated by the end, his or her allegiances unsettled." In your own reading, do you prefer stories that have that effect? If so, can you recommend your favorites?

Yes, I genuinely do prefer stories that leave me unsettled,

that keep me thinking long after they're gone. There are lots of stories or novels that do this, but I'll just mention two or three. In SF, probably my very favorite is Gene Wolfe's The Fifth Head of Cerberus, in which each of the three novellas seems to partially erase what you think you learned from the novella that came before, so that by the end you're left in a very interesting place. I'd say something similar about Brian Conn's novel The Fixed Stars, which is also excellent, though that does it by weaving together different strands through the course of a whole novel rather than doing it consecutively. In (socalled literary) fiction my favorite is probably William Trevor's story "Miss Smith," which makes you have to switch your allegiances halfway through the story, and then leaves you at the end not sure what to think. It's an intense experience, and one I'd like to try to replicate in my own work.

What's next for you?

Good question. I've got an idea for a sequel to my novel *Immobility* and I might work on that. Or I might go back to a project I've been working on about a schizophrenic and the strange relationship he has with his uncle. I'm

always working on stories as well . . .

Jennifer Konieczny studied English and History at Villanova University and Medieval Studies at the University of Toronto. She currently resides in Philadelphia and enjoys volunteering as a slush reader, author interviewer, and editorial assistant at *Lightspeed* Magazine, and inflicting her medieval-studies self on her students.

Author Spotlight: J.T. Petty Earnie Sotirokos

"American Jackal" is the fifth part of the Family Teeth series you co-authored with your wife, Sarah Langan. Did you go into this piece of the collaboration knowing which direction you wanted to take it?

We had ideas, and talked a lot about the mythology, but a big part of what I liked about the collaboration is the whole exquisite corpse of it all, working with somebody I can trust to get me off my own path and into more interesting places. And for the record—parts 5 and 6 are all we've written so far. Seemed like fun to start in the middle.

For much of the story the supernatural elements take a back seat. Instead the focus is placed on David and Maribel's growing relationship. Why did you steer the narrative in that direction?

The culture of the coyotes feels a lot more interesting to me than dog-level violence or the mechanics of transformation. Especially in the way romance in America can blur the borders that insulate a subculture. Like the first time Sarah came to one of my Protestant family's witch burnings.

You've written for films and video games, in addition to also being a director. How does having such a wide variety of creative experiences affect your short fiction?

If anything, I'd say visual and interactive mediums have made me mistrustful of too much description of thought. An omniscient and impartial narrator who sees every character's every thought very quickly starts to feel inherently dishonest to me, putting too much faith in people's consistency. I don't really believe in reliable narrators.

Do you feel you altered your normal style of writing because you were working exclusively with another person?

I just told the story as it felt natural to tell it. We read each other's pages while we were writing and revising, but I think we're both cussed enough to be pretty stuck in

our own voices.

What can we expect from you in the future?

More monsters.

Earnie Sotirokos grew up in a household where *Star Trek: The Next Generation* marathons were only interrupted for baseball and football games. When he's not writing copy for radio or reading slush, he enjoys penning fiction based on those influences. Follow him on Twitter @sotirokos.

Author Spotlight: Kelly Link Erin Stocks

Your story "Catskin" is a marvelously twisted sort of fairy tale, taking the reader in all sorts of unexpected directions. Will you tell us a little bit about the inspiration behind this story?

Reading Angela Carter and Shelley Jackson, mostly. I wanted to have something new when I went on tour for *Stranger Things Happen*, (with Shelley Jackson, whose collection, *The Melancholy of Anatomy*, had just come out), and so I wrote "Catskin" very quickly.

The story touches on themes found in many of your short stories: family, the awkwardness that accompanies adolescence, and unusual relationships. What draws you to themes like these?

Family is great subject matter. So are, for that matter, adolescence and awkwardness. The working title for my next collection is *Get in Trouble*. Because that's a type of story (and character) I'm eternally interested in.

You have taught short story writing at Smith College, and have taught at a number of other institutions. What do you enjoy about teaching? What do you find most challenging about teaching writing, specifically with a focus on short stories?

Actually, I'm not teaching anywhere at the moment (someone, anyone, feel free to go make that correction on my Wikipedia entry), but I do love teaching better than almost anything. Why? Because it involves reading fiction, talking about how it works, and how it could work differently.

The most challenging thing about teaching writing is that you can give feedback that would absolutely be useful for yourself, but might be of no use to the person who has written the story. Help isn't always helpful.

Many of your stories have received great acclaim. What advice would you have to writers who love this genre and hope to find their work as well-received one day as yours?

You can't aim for awards, or reviews, or sales, or any of that. All you can do is write stories and then take pleasure in figuring out how to make them better. Write the kind of story that you want to read.

Who are some other short story authors whose work you consistently admire? Anyone you look to for inspiration?

Near to home, it would be Holly Black and Cassandra Clare (we often work together at a café). Slightly farther from home: Karen Joy Fowler, Maureen McHugh, Joe Hill, Peter Straub, Margo Lanagan, M. T. Anderson. I'd like to read more stories by Ben Rice (I think there are only two out there).

Lightspeed Assistant Editor Erin Stocks's fiction can be found in the Coeur de Lion anthology Anywhere but Earth, Flash Fiction Online, the Hadley Rille anthology Destination: Future, The Colored Lens, and Polluto Magazine. Follow her on Twitter @ErinStocks.

Author Spotlight: Sarah Langan Earnie Sotirokos

"St. Polycarp's Home For Happy Wanderers" is the sixth part of the Family Teeth collaboration you coauthored with your husband, J.T. Petty. Was transitioning from the previous story in the series difficult?

It was pretty natural. We'd both talked about which aspects of the story we planned to cover. I knew I'd be taking the story from the grown daughter's perspective, while J.T. covered her father as a young man.

Did you decide on a strict blueprint of the narrative beforehand or just play off each other's ideas as it progressed?

We shot around a lot of ideas, but it's all just talk until it's on the page. So I read what J.T. came up with, and started from there. I had a fair amount of freedom in where I took the story. It's eight or nine parts, but each explores its own generation.

Werecoyotes are certainly one of the lesser known entities in the supernatural world. What made you want to pursue them for this project?

Coyotes are cool. They're smarter than wolves, better at observational learning than dogs, and tend to survive even in places that are populated by humans. They're also mean—their packs are small because they fight amongst each other. Finally, they can mate with wolves and dogs . . . maybe humans?

The characters in both stories can never quite get comfortable in their current situations. Why were they so self-destructive?

I don't see my character as self-destructive. She's a kid. That's the tyranny of childhood. Adults do bad things to children and children have no choice but to tolerate it. When they grow up, they're drawn to that same abuse, either by their own hand or someone else's, because it's what they know. I'd argue Susannah's the opposite. She's a survivor despite mammoth obstacles. That's why I like her and felt she was worth writing about. She's slowly worn down, but ultimately triumphs.

Your story is aesthetically different from your husband's. Was that on purpose?

I wrote in my own voice and J.T. wrote in his own voice. I'm not sure how readers will like having to adjust to that, but we're both such strong writers that it didn't make sense for either of us to mimic the other. You lose something when you do that. Take the awesome *Looper*. Joseph Gordon Levitt tempers his natural charm in order to seem a little more like young Bruce Willis. The movie is so good it doesn't matter, but I did find myself missing Levitt's Fred Astaire brand of buoyancy. So, for Family Teeth, I'd rather hope the reader indulge in something less consistent, in exchange for a more interesting ride.

This is our first real collaboration—with the exception of a radio play for the Tales From Beyond the Pale series. He directed, and I wrote. This time, we both wrote. It was fun—the work came quickly and naturally. I'd like to do it more often, for bigger projects. So I'd love to hear peoples' reactions, both what works and what doesn't.

What can we expect from you in the future?

Nightmare Magazine has a short story coming out from me in a couple of months—my second. It's a real treat to

work with John Joseph Adams. He pays, he promotes, he edits, he's respectful. It's rare.

I've also got a story in the *Mammoth Book of Ghost Stories by Women*. In addition, I've just finished a partial of a YA series called Kids, and over the next six months, should also have finished a screenplay called "Glen Cove," a collection of short stories (*We Have Never Lived Here*), a partial adult science fiction series (Rapture), and my fourth adult horror novel, *Empty Houses*. So, those should be out in the next few years.

Earnie Sotirokos grew up in a household where *Star Trek: The Next Generation* marathons were only interrupted for baseball and football games. When he's not writing copy for radio or reading slush, he enjoys penning fiction based on those influences. Follow him on Twitter @sotirokos.

Coming Attractions

Coming up in January, in Lightspeed . . .

We'll have original science fiction by Matthew Kressel ("The Sounds of Old Earth") and Jonathan Olfert ("Lifeline"), along with SF reprints by Maureen F. McHugh ("Interview: On Any Given Day") and Theodora Goss ("Child-Empress of Mars").

Plus, we'll have original fantasy by A.C. Wise ("With Tales in Their Teeth, From the Mountain They Came") and Kristine Kathryn Rusch ("Purity Test"), and fantasy reprints by Jeffrey Ford ("Daltharee") and Daniel Abraham ("The Cambist and Lord Iron").

For our ebook readers, our ebook-exclusive novella will be "The Fear Gun" by Judith Berman, and of course we'll have our usual assortment of author and artist spotlights, along with our feature interviews.

It's another great issue, so be sure to check it out. And while you're at it, tell a friend about *Lightspeed*. Thanks for reading!