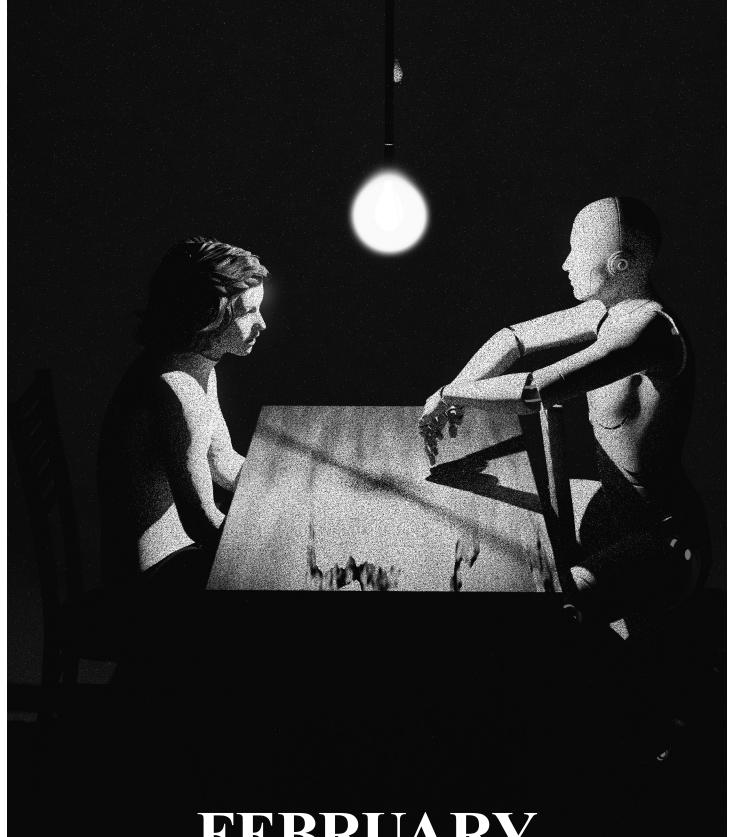


HOLLY SCHOFIELD DAVID BARBER CARMEN LUCÍA ALVARADO

AND MORE!



FEBRUARY 2020

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LETTER FROM THE EDITOR

S THE FIRST issue of the 2020, dear reader, let me wish you a Happy New Year! The journey so far has been tremendous and every issue brings with it delights and challenges. Our December issue was poorly read, which is unfortunate because we had some of our best writing (so far as science-fiction adventure stories are concerned) yet. Still available, I highly recommend you pick up a copy as to not miss out.

The February issue itself is filled with an excellent variety of work. Its focus in part is on that of environmental issues, which seem more than pressing in the wake of the fires ravaging Australia (which have estimably burned through 10 million hectacres or roughly the size of England and killed off more than a billion animals) and one of the hottest Januaries in New England on record. In my lovely home state of Connecticut it reached a whole 70 degrees Fahrenheit one day. These are best captured by our stories Wicked Problems, One Man's Trash, and Awakening and can also be reflected in some of our poetry.

Sprinkled throughout the issue are other gems, such as the ponderous Numerous Enumerations of Nurah or the cute genetically engineered animals in Margaret Kamazin's My Familiar. The other stories, What the Good Must Remember, by David Barber and The Goodness Bug by Ahmed Kahn are both strong and delightful reads and for the best way to start and end our short story section.

The poems are as they always are –an amazing representation of the talent out there. Of particular interest in this issue are the bilingual poem of Carmen Lucia Alvarado and the long poem Jungle Secrets by CJ Carter-Stephenson. But each poem carries with it strength of voice and charm and are all worthy of their place in Utopia Science Fiction.

As we head into the rest of the year and the (hopefully) many more editions of out magazine, I remind readers that though a mostly digital magazine we do have a Merchandise Store featuring the cover art of all of our issues. It provides the perfect chance for you to bring a piece of this wonderful publication into the real world. You can find posters, notebooks, cell phone cases and a lot more all featuring the various cover art. Purchases there are greatly appreciated. Having bought a few notebooks myself, I can personally attest to the quality of the work. Not only do they look really awesome,

but they're useful too!

As always we deeply enjoy hearing from you about what you think about our magazines. What you think is important. It helps us to craft our magazine and improve ourselves. Please let us know what do you like about the stories and the artists? What do you not like? What do you want to see more of? Together we can make this the best science fiction magazine in publication. We are always in need of poems and science articles so if you know a writer (or are a writer yourself) we encourage sending in a few pieces of your finest work for us to consider for publication.

One last bit of exciting news before I sign off, we are in the process of creating a small podcast which will hopefully be released soon. In it we will read a story from one of the issues and discuss various points of science and writing interest. When it's available, we highly encourage you to listen in. Follow along with us on Facebook or Twitter to keep up with the latest news.

Expressing deep gratitude for your continued support, I am very happy to introduce our first issue of 2020. Let us go boldly onward. Forward through the marvelous, the wonderful, the awe-inducing!

Sincerely,
Tristan Evarts
-Chief Editor

WICKED PROBLEM

by Holly Schofield

he rain dogging them all the way from Vancouver had lightened by the time they hopped out of the helicopter onto the tiny island. Marie pushed Livvy's head down, well below the copter blades, and held her by the elbow as they hunched-ran across the meadow into the woods. The collection case banged against her leg with every step and she muttered a curse word in rhythm.

The pilot, Hank, tapped his Canucks cap in goodbye, and the Bell 206 began its *whup-whup-whup*. Marie leaned the daypack against a large storm-heaved cedar as the copter whirred away toward the British Columbian mainland, sending curled brown alder leaves skimming across the meadow.

"Nice, Mom," Livvy said as soon as it was quiet. "The F-word, I mean."

"You'd swear too, if you had yet another storm predicted in ten days and this short collection window."

"Hey, like my new sweater? Cathlyn got it for me to wear today." Livvy put her hands on her hips and twisted at the waist like a model, exposing light brown skin above her jeans. At fourteen, she couldn't bring herself to refuse the inappropriate gifts that her other mother kept giving her. The maroon knit was some kind of synthetic: the very opposite of socially-responsible bush gear. It had to be expensive—which credit card had Cathlyn overextended to pay for it?

"What's it made from, a purple puppy?" Even before Livvy's face fell, Marie regretted her words. "Sorry, kiddo. I'm an insensitive monster and you should hate me like all good teenagers."

"Yeah, that's what Cathlyn says." Livvy's mouth quirked. Post-divorce, all three of them were still finding their way.

Marie fought a sudden wave of guilt. Did Livvy know how torn she felt? How her all-consuming job kept her from being the parent she wanted to be? Today, bringing Livvy on the research study was an exception to the usual impossibility of combining both roles.

"Is that the antibacterial goo over there?" Livvy gestured across the meadow where early morning sunshine gleamed on wire fencing.

"Yep, an area smaller than our backyard but as valuable as, what? A day off school?" The clay was so rare and so ancient that Marie had received a small grant to study it. She'd already delayed the trip here three times

due to poor weather and postponed her overdue sabbatical. Time to get busy. She pointed at the far left side of the meadow. "Keep away from the river mouth over there. It's...not healthy."

"Got it. Don't drink the water."

"More like, don't eat the fish." No need to tell Livvy about high mercury levels after a Grade Six project on saltwater fish contamination several years ago.

"The salmon are spawning late this year, right?" Livvy asked, starting off at a trot.

"Right, spawning disease mostly." Was she doing the right thing by exposing Livvy to her own black humor over Canada's worsening environment? If she'd sheltered Livvy more, in keeping with the traditional Chinese ways of her own Mama and Baba, would the kid be better off? She picked a stalk of grass and began to chew on it. Having kids late in life made a person introspective. And tired.

"Come *on*, Mom!" Livvy was nearly to the gate already.

Marie picked up the case and the daypack and loped after her silently, saving her breath for the running.

The F-words would have to wait.

HE ANTIBIOTIC CLAY must have existed eons before the 10,000 years of aboriginal collective memory, but it was anybody's guess how much longer before erosion washed the quarter hectare away. Climate change-caused storms were reshaping the BC coast, including here on at the remote tip of Quaternas Island.

Lately, the media had eased off from their previously constant reports of failing ecosystems everywhere, but Marie suspected climate change—and its underlying causes—never got far from the general public's mind. Even Hank the pilot had brought it up. He'd been grumpy about the unexpected passenger. "I'll need to charge extra for the kid," he'd said just before lift-off. He had the deep brown skin and stocky build of the indigenous Coast Salish peoples. He studied her from under a fringe of hair as thick and black as her own. "Every person costs more."

"No shit," she'd replied as she thumbprinted the extra charge to the university on her tablet. "My undergrad thesis was on over-population."

He'd grinned at that and, as they'd headed up the Salish Sea, he'd turned into a sort of tour guide, pointing out known whale migration routes and seal colonies, much to Marie's surprise and Livvy's delight. Once, he jabbed a finger toward the grayed edges of a long, narrow peninsula. "That used to be my ancestor's village, long time ago. Flooded now."

Marie bobbed her head in sympathy. "More flooding to come."

"Yup. When we were kids, we saw the weather getting warmer. If only those damn politicians would enforce the carbon emissions laws, eh?" He swerved the Bell past Gilford Island, one of the outliers off the much larger Vancouver Island, and headed north.

"It's hard to see problems that creep up on you," Marie said, adjusting her mike.

"Reminds me of a story that my grandfather used to tell." Hank's weathered hands gentled the Bell's controls.

Marie shot a look at Livvy behind her, signalling with her eyes to pay attention. She made a mental note, as well: when Hank was done, she'd ask permission to transcribe it for a friend of hers in the Oral History department. Whether he was of the Penelakut, Lamalcha, or Hwlitsum First Nations communities, such stories were rare and to be treasured.

Hank twisted and caught Livvy's eye, too, his expression unreadable. "Put a frog in a pot of cold water, then put it on the stove. That frog'll just sit there and—"

Marie snorted and Hank raised an eyebrow beneath his headset. "Expected a traditional story, did ya? I'm a member of Tsawwassen First Nation. I grew up in Vancouver. Probably went to a bigger high school than you."

"I'm sorry," she said and laughed at herself. Of course he was part of the larger world, just like her, and had all kinds of childhood influences.

"Dumb frog. It could just jump out." The eyerolling was audible in Livvy's voice.

"Yeah. Too bad human-caused climate change isn't that simple, kiddo." Marie slowed her words. The mike was a bit crackly and this was important. "Everything's so interdependent, every solution creates another scenario that might have its own problems. Plus, the liability for mistakes is so huge no one person or country wants to take the lead. It's what logisticians call a 'wicked problem'."

"Wick-ed!" Livvy said, drawing out the last syllable.

"Hah. Not like that. Difficult. Hard to solve."
"Wicked as a witch, all right," Hank said. "Look

at the scum down there." Below, on a shell beach, dark yellow sea foam lay like ribbons of vomit.

"Eww." Livvy stared in fascination.

"We could clean that up, but it'd only be treating the symptoms." Marie tried not to use her university lecturing voice. "It comes from a hundred different small decisions impinging on natural cycles." She didn't bother to go into "least bad" decision-making processes and other methodologies she'd been hearing about at conferences her whole academic life.

"Along with general indifference," Hank said. "Which your blog is changing, Mom," Livvy said. "The indifference I mean."

"Hah! Three whole hits this month." Her environmentally-messaged website sat in the doldrums of the internet, full of long convoluted truths that nobody wanted to hear.

Quaternas Island hove into view, its rocky shoreline formidable to boats and even hovercraft. Marie rubbed her palms on her thighs. Hopefully, Livvy would remember this trip for the rest of her life. The Bell swooped lower toward the spreading mouth of the Quaternas River as green points of trees became more distinct. Winter storm damage was readily apparent, swathes of old growth Douglas fir having gone down like bowling pins.

Hank pointed out the landing field. "I'll be back at five after my Bella Coola run, weather permitting. But just in case I'm not, there's a cabin over there, beyond the blackberries." Near a patch of darker green, the lime-green rectangle of a small mossy-roofed building stood out.

"We should be able to collect enough samples today." Marie leaned forward, grasping her shoulder harness.

Hank set them down gently, flattening the golden October grasses. He looked right at her and said solemnly, "Take care of the clay. It really is damned special."

Marie's preparatory research had revealed that the clay had been revered by the First Nations people for its antibiotic properties for generations, probably since the beginning of the Anthropocene epoch. Today's sample collection was by special tribal reserve dispensation allowing the university to begin a long-term study evaluating its medicinal properties.

"I'll do my best," she told Hank and meant it.
Hopefully, the clay would remain through
Livvy's generation, and the next, and the next. Papers
from her study would add to the world's knowledge base
and encourage people to act on climate change.

It was all still possible. Sure it was.

RANGE FLAGGING TAPE dangled from the wooden stakes First Nations volunteers had placed when they'd collected preliminary clay samples, sending them to Marie in old jam jars and baby food containers. Curiously, the clay was almost free of ground cover, a gray mass sloping downward to the river. Livvy knelt by the nearest of the sampling holes and Marie set down the collection case beside her. The hole was a half-meter in diameter with a skim of muddy water just below arm's reach.

"It looks like any old clay," Livvy said, shoulders slumping.

"Yeah, it does, doesn't it? Like gray plasticine. But even the most innocuous things hold amazing pharmaceutical properties." Her voice was hushed. She'd meant it when she'd told Hank it was a true privilege.

"Sure, Mom. You go ahead. I'm just gonna walk around a bit." The kid's enthusiasm blew hot and cold these days. Marie could remember how that felt—being on the cusp of adolescence, finding your way in the world. A day of contemplation and introspection would do the kid good—and the island had no bears or large predators of any kind.

As Livvy wandered away, Marie opened the collection case's lid. The test tubes stood in their cushioned rack like tiny soldiers. She had to do this right. Every step recorded, every action documented, every test precise. Along with her peers, several levels of government and a couple of interested corporations would be reviewing her chemical analyses and journal papers.

She carefully scooped tiny bits of the remarkably uniform material into tubes, labelling them with time, date, and GPS coordinates. From somewhere to the north, an eagle gave its high-pitched cry.

Eventually, Livvy reappeared and squatted down to help. Marie put her to work capping test tubes and sticking on bar codes.

Before long, a strong breeze took the clouds away and the spots of rain on her jeans dried. Several American robins had an argument in the alders lining the river bank. The sun grew hot. If the weather window held, they could get this done. For several hours, they worked methodically.

Finally, Marie stood and arched her back. "I'm feeling my age, kiddo."

Livvy leapt up. "Let's take a break! I'm starving!" "Fine." Her fingers were beginning to cramp anyway.

"Let's check out the river, Mom."

Marie handed her one of the tofu-and-pickledvegetable buns in her daypack and followed Livvy along the top of the steep river bank toward the ocean.

Automatically, she identified the riparian ground cover as she walked: foamflower, alumroot, English daisy, the harsh yellow of ragwort, some coltsfoot, and a newly sprouted sprig of Scotch broom. Out of six plants: four invasives. Figured.

The smell hit before Marie reached the river bank. Like sewage with a tang of rotting fish and an overlay of burned plastics. Probably a combination of tanker spills, pleasure craft sewage, and increased ocean temperatures. Marie gave a snort, blowing the foul air out of her lungs Asian-style.

Livvy had already jumped down onto a silty shoal. In the water, salmon leaped and swam upstream, with only a few dead floaters amid the scum. "It doesn't look that gross, Mom."

And she was right. The presence of some corpses was only natural: west coast salmon died after spawning, unlike their eastern counterparts.

But the stench was overpowering. Marie squatted at the edge. "When I was a kid..." She trailed off. The kid had heard environmental nostalgia her whole life; maybe thinking this river wasn't so bad was actually a good coping skill.

Livvy didn't even glance over, swallowing the last of her lunch as she drew simple manga characters in the shoal's silt with a stick.

But, no, keeping silent was wrong—the river really did reek unnaturally and the kid needed to know that. Otherwise, how would her generation maintain the desire to fix it?

A fish leaped nearby, a silver arc catching the sun. Gorgeous. It landed back in the water with an awkward twist, splashing Livvy's legs, soaking her jeans. "Ew!" Livvy took a step back.

Marie headed down the rain-slick bank, picking her way slowly. Clouds had obscured the sun by the time she reached the halfway point where a leaning ocean-spray bush slowly slid downward in the oozing soil. She paused to catch her breath.

A few meters below, another fish bellied up onto the shoal next to Livvy, desperate to find gravel-lined shallows. A glittering mass of tenacity, still moving its tail despite being marred with lines of leaking pustules. With a surprisingly clumsy flip-flap, it nudged up against Livvy's boot. She poked her stick at it, but the rotten alder cracked in two.

Marie gasped as Livvy pitched forward just as

the fish squirmed sideways again. One of Livvy's hands sank into the muck. Her other hand shot out, landing on the twitching silver head. "Oh!"

Marie skidded the rest of the way down the bank.

Livvy was staring in horror at her palm, red lines limned with yellow goo. "What should I do? Should I wash it in the river?"

"No, better not." She took a shaky breath. "Why are your palms bleeding?"

"I found some black raspberries when I took that walk. At least, I think they were. Only bigger and pricklier."

"Those are the Himalayan kind, the invasive ones that have bigger thorns and larger--well, it doesn't matter now, does it." Marie let loose her irritation, mainly to hide her growing terror. It hadn't been more than twenty seconds, but blisters were forming on Livvy's palms; yellow pustules along the scratch lines. "Let's go back to where the water bottles are. We'll just wash it all out, shall we?" Marie kept talking, matter-of-factly explaining how slowly bacteria grew. Her voice had steadied by the time they reached the top of the bank.

The zipper on the daypack fought back, but she got out the two-liter water bottle and poured most of it over Livvy's crusted hands as the kid sniffed back snot, then she used the entire package of antiseptic handywipes to scrub her hands again and again. Finally, after dumping out the contents of the tiny medical kit, she smeared on a whole tube of Polysporin.

Livvy's voice was low. "Will I be okay?"

"You'll need a full course of antibiotics. But there's lots of time to get it in your bloodstream, a day or two. Infections don't spread that fast."

Usually. But it was only one o'clock. Hank wouldn't be back until five.

And only then if the weather held.

Marie looked up. While they'd been wasting time, dark clouds had crowded the sky. Wind was sending ruffles across the meadow grass.

The tube of cream crumpled in her fist.

"I don't think Hank can get us today, kiddo."

"So, now what? There's no cell signal. Or *anybody* close by." Livvy whimpered like a much younger child and Marie gave her a careful hug, avoiding her palms. Now what, indeed?

"We'll be okay." Beyond the kid's shoulder, the collection case was visible through the fencing.

Livvy must have felt her raise her head. "But we do have some antibacterials, Mom, don't we? Right over there."

"Well, we haven't proven that, not yet."

Not yet, and not nearly.

It began to rain heavy, cold drops; an instant chill.

THE CABIN HAD ALL THE ESSENTIALS. A woodstove, dry kindling, wool blankets, and only a thin layer of dust. Marie laid the daypack on a handmade fir bench with a sigh of relief. She'd have to remember to thank Hank and the other members who maintained the place year-round.

"Do we have food?"

"Sure we do, kiddo. I wouldn't leave home without it." Marie kept her voice cheerful as she pulled out her waterproof matches and crumpled up a yellowed newspaper. A cheery fire made them both feel better.

Reconstituted dried chicken biryani and the last bun didn't taste so bad although some chili oil would have improved both. No coffee, just a few stale teabags from the bottom of her pack. The last litre of water filled the teapot. Marie insisted Livvy drink most of it. The pack held a supply of water purification tablets so they could drink river water tomorrow if they had to, although her stomach roiled at the thought. Rainwater would be cleaner and there was a newish tarpaulin covering the woodpile out back that would make a good rainwater collector except they also needed the tarp to keep the wood dry for themselves and for future visitors. And this storm could last days. Wicked problems, without end.

"What are you muttering about, Mom?" Livvy lay on the bare mattress against the rolled-up sleeping bag.

"I should have...never mind. I'd be better at this if it wasn't my first time here. Wanna repeat this adventure next week?"

"Mommm!"

Marie sprawled on the wicker chair by the hearth. The rain increased its tempo and trees creaked in the wind. There'd been three separate "storm of the century" instances this year already. Another could erode away the remaining unique chemicals in the prehistoric clay bank, sending grey sludge swirling away into the river and out into the Pacific. She'd been right to do this trip in the short weather window. She had!

In the hearth, flames leapt and sparked in counterpoint to the beat of the rain on the cedar shingle roof and Marie watched them until her eyes smarted.

It was near dawn when Livvy's voice woke her. "Mom? I don't feel so good."

Her tiny headlamp illuminated Livvy's flushed

face and hollowed eyes. Marie's imagination defied logic as she pictured staph germs, anthrax, even cholera swimming like sharks through the kid's blood.

She swung the headlamp across the cabin, past the daypack, the useless medical kit, stopping at the rack of test tubes she'd brought in for safekeeping overnight. A choice that was no choice.

The mud spread on, cool and soothing to Marie's hands. She could remember her own mother doing the same with calamine lotion when Marie had had chicken pox as a child. Mama would have said that the *yin* of the clay was counteracting Livvy's excess internal heat, reducing her overabundance of *yang*.

Livvy squirmed deeper into the bag, muttered, "That feels good," and fell back into a slumber. Marie continued to slather Livvy's hands and partway up her arms for many minutes, as if her fingers were a spatula and Livvy was so much birthday cake. Her hands looked ghoulish now in the dim light of the headlamp. Was this how a First Nations mother felt when she'd used the clay to treat her children for everything from cancer to broken bones? Hoping against hope that it was helping and not harming?

She wiped her hands on a sheet of newspaper and clicked off the headlamp.

In the darkness, it was as if the ghosts of a thousand First Nations people wept with her.

Livvy to such polluted places that she almost died?" Cathlyn hissed at her from the chair by the IV stand. After Marie's quick phone call, she'd instantly left her meeting and met them in the emergency room. Her gray eyes had flashed with hostility even then, hours past now, and even as she asked Marie to pay for her taxi.

"How could you even think that!" Marie reined it back so it came out a whisper. Livvy was sleeping fitfully, face sweaty, hair mussed. "And keep your voice down."

But Cathlyn hadn't finished. "You said yourself that there's no such thing as benign neglect. Just neglect."

"I was talking about the spread of giant hogweed at the time." Marie heard the scorn in her own voice and winced. How had they gone from sharing the joy at Livvy's birth to this, fourteen years later?

Cathlyn thrust herself out of the chair and stalked the two steps to the window. The harsh fluorescents silhouetted her against the darkness outside. Her slender figure, reflective of the inner strength that had

first attracted Marie, now seemed gaunt and brittle. "How much, Marie? How much you gonna give to your career at your family's expense?"

"I'll pour my blood on the fucking ground if my research gives Livvy's generation a better adulthood. Do you really think the human race can just stand by? I'm doing it *for* her, don't you see?"

But, clearly, Cathlyn didn't. Her job as media consultant for large corporations was something she could leave behind at the office each day.

The nurse came in and frowned at them. Marie stepped away from the bed and watched as he started fussing with Livvy's horrific white bandages. She picked at hangnails until he'd left. Cathlyn remained by the window.

After the IV pump's low monotonous thumps had filled the silence long enough for Marie to swallow several cries of despair, she reached over and adjusted Livvy's blanket. It was better than doing nothing.

The kid's eyes opened. They looked bruised, as if she'd been beaten in a boxing ring. "Mommy? Cathlyn?"

"It's okay, kiddo. It's going to be okay." Marie stroked her hair then pulled back so Cathlyn could lean in and give Livvy's flushed cheek a firm kiss.

Livvy looked up at both of them. "Did the clay work? Is it fixing me?" She gestured toward the IV tube snaked into her arm.

Cathlyn straightened and gave a harsh laugh.

Marie cleared her throat. "Those are prescription antibiotics in the IV. We don't actually know what the clay did, if anything."

By the time the paramedics had met them at the heliport, Livvy's angry scratches had faded from sunset red to a faint pink. But that didn't prove much. The odd behaviour and distress of the fish would need as much study as the clay before anyone could be reasonably sure of anything.

Livvy nodded and closed her eyes again.

After a long moment, Cathlyn's eyes met Marie's. "I almost think you planned the whole thing," She folded her arms. "Isn't it grant season? Drama like this can only help with your pandering to the university board—"

"If I'd planned this, I only would have slathered mud on one of Livvy's arms. That way I'd have a control sample."

Eyes still closed, Livvy snickered.

"Sorry, kiddo, you shouldn't have to hear your parents fight."

"I'm not fighting," Cathlyn said stiffly. "I'm pointing out facts."

Livvy shifted on the bed. "But, really, Mom, public awareness can help get you more funding, right? I can go on your blog and tell people and show them my hands?"

"Kiddo..."

"Let me do more than slap on barcodes." Livvy looked up at Marie. "Wicked witch, remember?"

"But..." Marie stopped. Maybe Livvy was right. To solve a wicked problem you had to try all sorts of convoluted complex solutions. Including public awareness. And she couldn't protect Livvy forever. And the incident *had* been dramatic. "Maybe we can work something out." She touched the kid's shoulder through the thin hospital gown. "You just get better."

Cathlyn scowled. "Marie, what are you up to? You've got that appraising look in your eye. That critical look."

She probably did. She had an idea but to pull it off was going to take more than her own efforts.

More than Livvy's, too.

She turned and faced her ex-wife. Cathlyn might not be willing to help Marie with her goals and dreams but she'd help Livvy. All things considered, she really was a good parent.

And—suddenly, equally important—she was also a good media consultant.

for once, but reporters and news drones still clustered around the clay field. The turnout was even better than Marie had hoped--Cathlyn had done well. She tried to ignore the fact that the carbon footprint to get the reporters, the sound and light crews, and the media interviewers all the way to Quaternas was seven times more than her own expedition had cost three weeks ago.

She stepped up to the mike under a hastily-erected tarpaulin. "Dedicated research dollars can protect the value of the antibiotic properties of the Quaternas clay bank. We don't *know* that it works..." The cameras followed her as she pointedly turned to look at Livvy who stood off to one side. She couldn't stop a smile forming. Livvy had worn the purple sweater, sleeves shoved high, despite the gray stains that remained after washing. "...please meet my daughter, Olivia."

Livvy beamed at the use of her full name and raised both hands, turning them to present the thin stripes of shiny scar tissue to the murmuring reporters. Marie bent to the mike and continued, "In fact, it may *not* work, but I think we can all agree we need to find out. Let's find a way toward preserving it. One start is

to sandbag the shoreline, preventing not only erosion but also more contamination from the salmon." Sandbags wouldn't really do all that much but Cathlyn had pointed out they would be a good visual in the gifs and memes they hoped would follow.

Marie explained slowly and clearly about the terrible problems with the salmon, trying to keep the reporters focused. A colleague last week had figured out that the salmon suffered from more heart and muscle skeletal inflammation than ever before. Lesions due to the somewhat-studied piscine reovirus had formed along the fishes' lateral line, the sensory organ that detects water currents. Plus, *Lepeophtheirus salmonis* sea lice had been attacking the salmon's protective mucus. Compounding *that*, ocean-dumped pesticides had given the salmon a cochlear problem causing vertigo that made them twitch and misjudge their jumps. A steady drip was falling off the tarp and splattering her feet by the time she'd finished.

"The fish went crazy due to a virus," a raincoatclad reporter spoke loudly into his handheld.

Marie bit her tongue. If the complexity was lost but the meaning was conveyed, well, that was better than completely ignoring the problem. "Are there any questions?"

"What should be the very next step in fixing climate change issues?" Cathlyn called out from the crowd, right on cue.

"A naïve question," Marie answered gravely, with an inner grin. It had taken a bit of convincing before Cathlyn would let Marie make her look the fool but the question served its purpose—several reporters' heads jerked up at her tart answer. "There isn't just *one* step. The real problem is partly legislative and partly the community not pulling together. There will *never* be a clear overarching goal—and we need to realize that. Self-awareness is key here."

She let the crowd murmur a bit, then she waved Livvy over.

The kid was also on cue, opening up a large piece of cardboard on which she'd scrawled a URL in purple marker. It instantly became the focus of the camera crews and drones. "What's that?" asked a young ecoblogger with facial tattoos.

"Look for yourself," Marie said, figuring that would result in more hits than saying that the website address was her own blog. Posting on it and adding new articles would take far more hours than she had, hours that would cut into time spent with Livvy, but less sleep was a small price to pay.

After a few more questions, all of them about

potential solutions, the hired choppers came to take the reporters away. Hank gave her a cheery wave as he lifted off, boom mike poles clipped to his landing skids.

The rain had finally stopped but a brisk breeze came off the ocean, giving her goosebumps. It would be a long wait until Hank returned to get the three of them along with the reserve's supplies he'd been forced to pile in the meadow this morning to make room for the reporters. Livvy was sitting next to Cathlyn on a fallen log. Cathlyn glared at Marie, a lioness protective of her cub. Marie couldn't blame her. Would the upcoming media zoo, with Livvy squarely in the spotlight, be worth it? Who knew? All anyone could do was try.

A bitter gust of wind coursed across the field. Livvy crossed her bare arms, hugging herself.

Marie picked up a thick blanket off the pile of supplies, walked over, and wrapped it around the kid's shoulders.

One problem, fixed.



My Familiar

by Margaret Karmazin

PLEASE THINK THIS THROUGH," warned my dear, nosy friend Gabriel who occupied the loft under mine. "They're not your regular doggy, kitty or whatever, hon. They're as smart as a chimp and not just any chimp but whichever one is head of its class. I could so tell you stories about people who got them. And they're impossible to get rid of if things don't work out. The shelters won't take them and you'll go to prison if you try to unload them unofficially. Getting one would be like marrying some horrible person in a third world country where divorce is not permitted."

"I'm just tired of being alone, Gabriel."

"Just sayin'," he said, tossing his head so that his glossy hair temporarily flipped out of his eyes. "These animals have knowing eyes. I've seen a couple and...well, *ick*. Can't you just get a boyfriend or whatever – hell, *rent* one or something?"

I sighed. He was probably right but I was thirty-six and tired of the hunt for a partner. Tired of trying to appear interesting when clearly, I wasn't. I just wanted to come home from work and have someone or something reasonably intelligent meet me, listen to me bitch and accept my caresses before I settled into my chair and turned on the holo. Although maybe not the holo after designing the damn things all day; maybe just a novel and a martini. A regular dog or cat might not fully qualify.

"I've already applied and made an appointment," I told him. "It's tomorrow. I'm taking off."

He dramatically groaned. "What do you have in mind?"

"Not sure, possibly an encat or endog or maybe, just maybe, an endat."

"Seriously? You are seriously going to buy an abomination and bring it home here?"

Maybe I was asking for problems, but the idea of an enhanced, genetically engineered combination dog-cat just blew me away. I'd seen many 3D pics of such but never one in person.

"It would combine the best of both worlds," I said. "The adorable fuzziness of a kitty with the devotion of a dog. What could be better?"

"Oh my God," Gabriel said. "You are not who I thought you were, you're insane."

"I freely admit to being insane," I said. "Please promise me you're not going to ditch me as a friend."

"No, but it will be tempting," he said.

NFRIENDS WAS A HALF GLASS, imposing structure on the other side of town and I worried all the way there if whatever I came home with would be comfortable in my two person Subaru. "Make room," I told it as it took the most direct route to our destination. The passenger seat whirred back. Would the animal come in a little cage or would it roam free and scare the crap out of me?

"Ah, Ms. Pratt-Winslet," purred the attendant after the satin smooth receptionist sent me down a long hall to her office.

"Just call me Coral," I said.

"Well, Coral, I'm Marita. Please take a seat and would you like a glass of wine? Or lime water, perhaps?"

The woman had a harried, anxious look and I wondered what she was so nervous about. She was quite attractive, possibly Cuban, with large, exotic eyes. I felt a little sorry for her. I chose the water, preferring to have all my faculties intact while I met my new roommate.

"We have combined your personal information and wishes into a composite of what enhanced animal would be most suitable and you are correct - an Endat is the right match. You've read our brochures and so should understand what this animal will entail, but do you have any questions?"

"Well," I said timidly, "exactly how smart *is* this little being? I mean, can you put an IQ number on it?"

Marita frowned slightly, which hardly made a dent in her own "enhanced" forehead. "That might be difficult to do since the intelligences of a dog or cat differ from our own. A dog, for example, enjoys an entire world of odor that we can't even imagine. It also seems to possess the ability to know when its human companion is on her way home without the use of communication devices. A cat can practically read your mind, as you may have noticed if you've ever had one and it's goto-the-vet day. It will mysteriously disappear somewhere in the house. But, I understand your question and with our genetic and cyber enhancements, I'm going to give you a rough estimate. In street-smarts, your Endat will have about the intelligence of a six or seven-year-old human, though without what we'd call intellectual learning. By that I mean that its understanding of spoken vocabulary will run to maybe eight hundred words, but

it will not be able to write or add and subtract, though there are exceptions. Tonipaw, the Endat of Demi Long, the Olympic long jumper, has performed extensive adding and subtraction."

"Will it know what I'm saying to someone else? I mean, will it listen to my conversations?"

She smiled "Possibly. Would there be things you don't want it to know?"

I laughed, "Okay, let's get this show on the road then."

That was apparently a bit abrupt for Marita as she winced, but I was the customer and her job was to make the company money. She leaned over her desk, spoke into something and soon a door slid open and a white clad assistant carried a startling baby animal into the room. I couldn't take my eyes from it.

"This is your new friend," said Marita. She set the animal on the floor and patted its furry little rump, sending it happily scrambling about. "Go ahead," she said to me. "Don't be shy."

The little fuzzball had kitty ears and a round kitty face but a longer puppy snout. The large eyes were slightly slanted, hazel with a round pupil and glossy with long black eyelashes. The paws were doggy-like and the tail thick and kitten-like, though it wagged wildly. Its fur was caramel with vague brown striping and thick like that of a Birman cat. It opened its wee mouth and said, "Meeeeuufff."

I was instantly in love. Forget humans, forget puppies and kittens and baby bunnies and baby anything, this was better! This was for *me*.

"I'll take it," I said. "Just give me the forms to sign."

ABRIEL SEEMED TO FORGET all about his former attitude and gushed baby talk all over the animal.

"May I assume then that you'll look in on her while I'm at work tomorrow?" I said.

"No problem," he said, his face buried in the Endat's fuzzy belly. "A client is coming at ten but who cares?"

What Gabriel meant by "client" I was never quite certain. He performed various types of massage – Swedish, Shiatsu, Deep Tissue and more and his clients were all men. Did he limit his administrations to just massage or did he embellish? He seemed to enjoy a mysteriously high income. I never asked and didn't much care. He was a great friend and would continue to be as long as he didn't imagine he was part owner of my Endat. Already I was becoming crazily possessive about her. I could tell

right off that the animal was way smarter than a regular pet. Immediately, she used the litter box (within a week, she'd be using the regular toilet) and she remembered where and when the food was. She looked at me expectantly and seemed to understand my voice tones. She had no objection to bad moods and joined in when I turned on loud music to dance.

WORKED FOR REALASYOU where I designed holocommercials, the kind you watch in the air over the road as you ride in your vehicle and probably curse at. Or maybe you like them. Mine was the giant croc promoting clean swamps, the hyper blue alien in love with Splash swimwear, the belly dancer flipping Ferber chocolates on her stomach and the intellectual blue jay recommending Crowell Investment.

Soon as I arrived for the day, Tyrus Chang appeared by my workstation as if by magic. "Hey kid," I said.

He was actually thirty-five but I enjoyed rubbing in my slight age superiority, though by now he had surpassed me in the design department. I was losing interest in it anyway and considering a change of profession, to what I wasn't sure. Currently, he was working on a giant female dancer who was to leap and pirouette over Philadelphia if the client approved the specs. Tyrus was looking rather attractive this particular day, which prompted me to butt my nose in where it might not be appreciated. "How come you're not attached?" I said.

"Why aren't you?" he shot back.

"I'm weird," I said. "You didn't notice that yet?" His crow's wing of hair hung over his eyes and I

noticed his fingernails were slightly dirty, which seemed oddly endearing. "Are you a mechanic on the side?" I asked.

"Why would you think that?" he said, completely confused.

He was quite good-looking; I don't know why I habitually pretended that he wasn't.

"No reason. How's the dancing girl going? And what is she going to be wearing? I mean, since her legs will be spread over the city."

His golden face turned salmon. "Underpants, of course. A little flippy skirt. Nothing will show, trust me."

"Oh, I do," I said. "You're very trustable, I can see that." Why did I give him such a hard time? Was I just a mean person?

"Tyrus, guess what I just got."

He looked at me expectantly. His mouth was rosebud-ish for a man. Was he gay? I was pretty sure not,

though he'd never mentioned any women and displayed no photos in his workstation. At office parties, he arrived alone.

"An Endat. A baby one."

His dark eyes widened and eyebrows shot up. "OMG, I've always wanted to see one in person. They cost a fortune! What made you-"

I interrupted. "Yeah, a small fortune. But I don't spend money on much."

"You live in a loft in The Expanse. Only people with trust funds live there. Hell, I live with my parents in this huge old monster of a house out in the Glen. And why the name *The Expanse* for the place? It's weird."

"It's called that since the land it sits on was called that for some reason. I don't have a trust fund; my grandmother gave the loft to me. She never lived there but bought it as an investment and, being old fashioned, after she saw that apparently, I was never going to 'get a man,' she decided someone needed to take care of me and signed it over. She even set up a fund for the yearly taxes. So not many expenses for my pad. Oh, and your parents live in a Victorian *mansion*, not a 'monster,' so don't bother complaining about your digs. I know about the wine cellars. Did you forget I've actually seen the place?"

He rolled his eyes. "So tell me about the Endat. Did you take a holo of it?"

"Not yet, no. You can come see it if you like, but give me more time to bond with her first. Although Gabriel is trying to steal her affections from me."

"Who's Gabriel?" he said sharply.

"My gay downstairs neighbor," I said just as sharply.

He nodded brusquely, mumbled, "I definitely want to see that Endat," and returned to his creation of the giant dancer.

The name for my pet came to me: Rowena. A witchy name but maybe this Endat would be my familiar. I could use one of those - didn't a familiar perform favors for its master? Bring its master good things? I could use some of that.

In spite of my flippant demeanor towards Tyrus, I was seriously lonely and gloomy. My parents had moved to Spain without a backwards glance once my brother and I were away to university. Brother now lived in Argentina. My freshman year of college I had a short, intense affair with my roommate's twin brother, which ended badly. At twenty-one, I began a three-year thing with my married advisor at university who'd claimed his wife had cancer. Turned out, she was robustly healthy.

Three years after that I had a fling with a fish-

erman while visiting my parents. Nothing serious. Between then and now, there was nothing but a longish friends-with-benefits thing with Gabriel's physical therapist friend, Jacob, but he had just gone and gotten himself engaged. That was my romantic life in a nutshell. I had grown to accept the fact that I was difficult to love. Adopting an intelligent, superior pet seemed to be my best option for steady companionship.

Gabriel brought Rowena up to my loft as soon as I got home and buzzed him. He was cradling her while cooing and kissing her little squirming head. "I am definitely her godfather," he announced. Reluctantly, he let me pry her from his arms.

"It's a deal," I said. "Her name is Rowena."

"Ooooo, witchy, I like that. I think she likes me more than she does you. Look how she keeps turning to look at me."

"Don't get any ideas," I said. "I need to trust you not to run off with her behind my back."

"Hmmmm," he said.

Like doting parents, we sipped wine while watching her chase and try to bite her little tail, but it was too short to catch. When she tired, she crawled into my lap and sucked on my arm. I experienced a heart-breaking love that I'd never felt for any human and when I looked at Gabriel, I saw the same thing in his wet brown eyes.

Rike a good dog, she fetched with aplomb, was instantly alert to potential intruders, sniffed at everything, and seemed to worship the ground I walked on. Like a cat, she cleaned herself all over (no need to bathe her), purred happily on my lap, and napped frequently. When I awoke in the morning, there she was staring at me. While I brushed my teeth, made breakfast, folded clothes, did anything at all, there she was. If I told her to go somewhere else, she reluctantly would, but soon returned. Should I come home upset about work, she laid a paw on my knee while staring into my eyes. "Now, now," she seemed to be saying, It was a bit like having an adorable, intensely loving grandma.

"Rowena, get me my reading glasses," I said, and though she was only three months old at this point, she darted to the kitchen counter, hopped onto a bar stool and carefully took one of the glasses' arms in her mouth. As I took them from her, she regarded me with a bright, confident gaze. I had no doubt whatsoever that inside that little body, a soul resided. I swooped her up to cuddle and smother her with kisses.

She knew how to open cupboards, turn faucets

off and on and flush the toilet. She quickly absorbed the names of things and could go to whatever object or place I suggested. She recognized herself in the mirror and I swore she said a word, though her throat was not constructed with a voice box. "Who's at the door?" I asked once. She glanced at the wall screen and I'm certain I heard her growl-say, "Gabrullll."

She was fast becoming the center of my universe. I was no longer very lonely. Not much anyway.

Tyrus came over to meet her. It was his first time in my loft. "Why on earth did I never have you here before?" I asked him. "But then I hardly have anyone over, mostly just Gabriel."

We shared a couple of beers and ordered a pizza while Rowena studied him closely, using her eyes, ears and nose and a soft paw on his knee. After she decided he was all right, she jumped onto the sofa next to him and licked his face and neck.

"She has a rough cat's tongue," he said dreamily. I was looking at his appealing golden column of a neck. Tyrus was definitely delicious looking when he wasn't talking.

"You like her, huh?" I said, but he had his head thrown back and his eyes closed while Rowena continued licking and didn't bother to answer.

At one point, Rowena paused, turned her little head and gave me a long look, which I understood perfectly.

SATURDAY MORNING, my door announced the arrival of Marita Esposito, the rep who'd handed Rowena over to me at EnFriends. Her face flashed on the wall screen. What on earth did she want? Spying on me for the company? Uneasily, I let her in.

She looked a wreck. "What's up?" I said.

"I've come here to warn you," she said. "You might not have heard about the new legislation yet."

"What legislation?"

She glanced behind her like a secret agent in an action holo. "It passed Congress late last night and the President is expected to sign it. Several religious groups put the pressure on some congressmen. This has been going on for some time, an increasingly organized opposition to any genetic engineering, including that to prevent disease. EnFriends is closing down and they're rounding up the animals, which the crusaders refer to as 'abominations.'"

"What?" I really needed to keep up with the news better. "How do they have the right to do that? I *own* Rowena! She's *mine* fair and square. What do they plan to do to her?"

Marita large dark eyes shot me a look I understood immediately.

"They're going to put her down? No, no, no!"

"That's why I'm here at the risk of imprisonment. You need to put her somewhere till the storm passes, and even after that you might have to keep her hidden indefinitely. They'll come to interrogate you; you'll need to plan what to say. You might claim that you put her down yourself rather than let them do it. But I don't know how you'd prove that if there is no body to identify."

I couldn't seem to take a deep enough breath. "But where can I hide her? She has a chip. They'll bring police, right?"

"Definitely Animal Control. You'll have to remove the chip yourself somehow."

"Oh my God," I said, looking around wildly, buzzing for Gabriel. I wanted the woman to leave so I could get moving.

"This administration is too easily led by reactionary forces, you know what I mean. I'm risking everything to come here," she added. "You're not the only one I'm warning."

I was in a panic. "How long do I have?"

"Two, three days, maybe? They have to gather their forces, send reps out to the various owners or get word to police in other areas where the owners took the pets. It might take longer. But you live only two kilometers from the company. You'll be among the first."

"Yeah," I said, rubbing my forehead, desperately thinking. Meanwhile, as if reading our minds, Rowena had backed off into a corner and was quietly whimpering. I rushed to her and gathered her into my arms. "We'll figure out something," I assured her, but I was anything but confident.

Gabriel appeared at the door and used his own iris ID to open it. "What's going on?" he demanded, glancing at Marita. "Who are you?"

After Marita's explanation, he suddenly turned commando. "We can get her out of here in my massage paraphernalia. I have Valium or things like it. We'll knock her out, dig that thing out of her, pour anything antiseptic we have on it, then put her in the car."

I swear he bulked up right in front of me. "Take her where?" I said. "Hate to burst your

"Take her where?" I said. "Hate to burst your bubble, but..."

"And prison is involved if you get caught," reminded Marita.

I did not want Marita, even if she was ostensibly on our side, to know where we were going.

Gabriel and I stood there silently waiting for her

to take the hint and leave. I knew she was kind to have warned us but I just wanted her gone.

"Well, thank you for this warning. I appreciate the risk you took," I told her, closing the door behind her.

"Be right back," snapped Gabriel and I stood there like an idiot until I gathered my wits enough to pack a bag with clothes and toiletries.

Rowena looked around anxiously. Her big hazel eyes questioned me and she whimpered.

Gabriel reappeared with a bag and drop cloth, threw the cloth on the floor, and laid out instruments. He took out a hypodermic needle and motioned for me to bring Rowena to him. She struggled but he had the hypo in her before she could object further and she was out in a couple of minutes.

"Where the hell did you-?" I asked but he waved me to silence.

"Lay her on the cloth," he ordered. He took his phone from a pocket, waved at it and held it over Rowena till it beeped. "This is the place," he said. "Hold her while I-" He didn't finish but picked up a razor, buzzed off her fur there, rubbed the skin with alcohol and in the flash of an eye had cut out the chip. Soon, he had her bandaged and ready to go.

"I am literally awed," I said. "Did you work for the CIA?"

"We gotta get going," he said, zipping the bag shut, standing and slipping it over his shoulder.

"Lord, if only you were into women. I am so turned on now."

Ignoring this, Gabriel said, "I know a guy up in the mountains. Lives by himself, one of those survivalist types. We'd have to signal him somehow or he might shoot us."

Rowena whined. I looked at her adorable face. No, no, pleaded her eyes.

"Anyone else?" I said, madly thinking.

At that moment, a shadow crossed the window and a giant woman's leg passed by. We ran to see what it was and to my amazement there was Tyrus' colossal dancing girl twirling about over the streets, parks and high-rises. She wore flying red dreadlocks and had long tan legs and arms that swirled like snakes. Her little black skirt flittered in the breeze and as Tyrus had assured me, none of her private parts were visible. Classy job, Tyrus.

"Wait...TYRUS!" I said.

"The guy you work with?" said Gabriel. "The kid?"

"Well, he's not really a kid; he's only a year or

so younger than me. His gargantuan mansion has wine cellars and lots of hiding places. It's right over the border in the next county, about a half hour from here. His parents are super rich or something. Not sure what they do, but they own a giant place with many rooms for an Endat to hide in. Tyrus hosted an office party there once."

"But why would normal people we don't even know what to risk imprisonment for an illegal animal?" "Just a feeling," I said. "Let's go.

Gabriel kindly cancelled his client and we grabbed our stuff and jumped into my Subaru. It was Sunday and possibly Tyrus was home.

YRUS IS RUNNING AN ERRAND," said his tiny and very proper looking mother. She was wearing what looked like a modest cocktail dress in the house though apparently not planning to go anywhere. "Dr. Chang is upstairs doing his workout." She hesitated. "But do come in and what do you have there in your arms?" She moved closer and stuck out a child-sized, manicured finger to touch.

I opened the blanket I'd wrapped around my little darling. "Meet Rowena," I said. "If I don't hide her, they're going to kill her."

Mrs. Chang stepped closer and turned her concerned little flower face up at me. "Who, dear? Who is going to kill her?"

Tyrus burst in the door carrying four bags of groceries and let one slip to the floor when he saw Gabriel and me. "I thought that was your car outside! What are you doing here?"

And then he saw Rowena and I let her down to the floor. She darted right to him, he scooped her up and she resumed licking his neck as if no time had passed.

"I think it's outrageous to kill something sentient after they themselves created these animals," Dr. Chang said that evening at dinner after we had explained everything. "Why not let them live and just not make more, if that's the law, but —"

"Zealots on the warpath," explained Gabriel.

"They want blood, not just of the animals but of those who created them and those who harbor them."

"I abhor this current administration," said Dr. Chang. "Bunch of anti-science idiots."

"We have a state of the art protection system on this property," said Tyrus. "Tell 'em, Dad. You half designed it."

"And you did the other half," he said to his son. Leaning forward, Dr. Chang described a system like something a James Bond villain might employ. "All you need is a moat with crocodiles," said Gabriel. "And some boiling oil, maybe."

"She'll be safe here," Dr. Chang concluded.

"An additional problem is will I be safe when

"An additional problem is, will I be safe where I am?" I said. To be honest, I was terrified.

"We have an incinerator," said Dr. Chang. "I will obtain some sterile ashes, take some of your endat's fur and nails, burn those down and mix that through the ash. We'll claim that you put her down yourself in a little ceremony and had her cremated privately. Give them the cremains. They may test it for her DNA and if so, they'll find it. Get a lawyer and tell him the same story. Stick to it no matter what. I don't think they'll keep harassing you after checking your residence a few times, possibly keeping a watch on you to see if you show up with the animal. And I suggest you appear to be seeing my son socially or however you want to call it, so you have an excuse for visiting here."

Tyrus and I shot each other sly looks while Gabriel chuckled. I kicked him under the table.

"I can't tell you how much I appreciate this," I said.

"I do have an in with a certain senator," continued Dr. Chang. "I'll make a phone call after we're finished with dinner."

"I don't know you, Dr. Chang, but I could kiss your feet."

He blushed but said nothing. Mrs. Chang reached over and patted my hand.

I felt I was losing Rowena forever and that she would forget me and bond to Tyrus. I wasn't certain if my developing feelings for him were true or if they contained a bit of duplicity.

While he silently chewed his food, Rowena placed a gentle paw on his arm, a polite request for a bite of whatever he was having.

Y LOFT SEEMED EMPTY NOW, as if everything I did in it echoed from one end to the other. How had I not noticed this reverberation before? No one greeted me when I got home from work. I rebuffed Gabriel when he invited me to join him and ate in silence while nothing adorable placed a paw on my leg or looked up at me with adoring eyes. Nothing warm pressed against me while I slept; no one listened with interest when I answered a call. I ought to become a meditating hermit, I thought. Just sit and stare and let myself feel nothing.

But I did feel something and it wasn't just despair at losing Rowena.

My door buzzed and I checked the camera.

Tyrus stood out there, looking uncomfortable and repeatedly pushing his hair off his face.

I whipped the door open and snapped at him. "Hello, evil person who stole the heart of my endat! I hope you and she are enjoying your romance!"

Travis ignored my outburst and waited to be invited in. I silently held the door open. He was wearing a tucked in navy T-shirt and slim dark jeans. He'd let his hair grow a bit and it was thick and shaggy. For some reason, he smelled like melon. I didn't know how he really felt about me and didn't care. I grabbed his hand and pulled him across the loft to my bed where, as they say in certain kinds of novels, I ravished him.

"Well, that was interesting," he said afterwards. "Especially considering that I came over here to ask you if you might want to move in with me."

He saw my mouth drop open.

"I know how much you love this place but maybe you could rent it out and then you and I could... well...be a couple and live at my parents and you could be with Rowena all the time. My parents would give us an entire wing and wouldn't bother us, it would be our own apartment. You could have your own bedroom if you want."

"But wait, why would your parents approve of their only son shacking up right under their noses with someone like me? They don't even know me!"

He looked sheepish. "Coral, I am thirty-five years old and single. Their only son. Even though they come off as cool and modern, I know that it eats at them. And what do you mean 'someone like you'? I've was attracted to you the minute I started working at RealAsYou."

I sat straight up in the bed. We were still naked. "How was I supposed to know it?" I snapped.

He shrugged. "I'm not a very demonstrative person."

Just then there was a knock at the door. We looked at each other. I quickly pulled a long T-shirt over my head and ran to it. Outside stood two cops.

"It's them," I whispered to Tyrus who had come up behind me.

One was male and sinister looking, the other a beefy, blonde woman. "You're on the list," the woman said.

I was ready. Like an Oscar winner, I managed to work up a teary face and said in a choked voice, "I got rid of her."

"How?" said the male cop.

"Put her to sleep with too much Valium and burned her up in a friend's incinerator. Here are her ashes." I had a clay pot with a lid ready and handed it over. "Happy now?" A perfect tear rolled down my cheek. Tyrus put his arm around me.

They took the pot, gave me a stern look and said, "They will be tested."

I nodded and closed the door behind them.

YRUS AND I LIVE in a beautiful apartment in the east wing of the Chang's estate where Rowena joins us. She has her own soundproof room to escape to should the need arise, easily accessible and behind one of the walls. The sliding door to it is invisible, once safely in place and Rowena knows how to use it herself. My loft has been rented to Gabriel's friend, my ex Jacob, and his wife and their two very normal Siamese cats. I miss seeing Gabriel every day, but Tyrus more than makes up for it. We got married a couple of months ago without any fuss, not wanting to call attention to our living situation with its soundproof room and all. Fortunately, we never heard back from the cops.

POETRY

JUNGLE SECRETS

By CJ Carter-Stephenson

The jungle sprawls from coast to coast
Like a living cloak of multifarious green.
Its trees have stood for countless years,
Finger-like roots gripping the soil —
An army of lush and leafy giants
Piercing the heavens with their shaggy tops.
Hung from their branches, snaking round their trunks
Are sinewy vines, bulging with sap —
Streamer decoration for the animals and insects,
Ever-spreading, evergreen, sun-hungry mass.

Paths meander in all directions,
Bordered by ferns, carpeted with mulch.
Some play tricks on hapless explorers,
Twisting, turning, then petering out;
Others lead to abandoned structures,
Crumbling relics of cultures lost —
Cracked altars encrusted with blood,
Carved faces of forgotten gods.
Yet there are places the paths do not pierce,
Where foliage walls repel and conceal.

Somewhere here, a secret is hidden, Look within, look within...

In a clearing, chimpanzees frolic,
Wrestling, rolling, chasing and chased.
Grinning, mischievous, like kindergarten kids,
They clamber across a makeshift toy A climbing frame of latticed branches
Arcing over something unseen.
It has sides like slides, hollows to hide,
Myriad ways to have a good time.
But there is one who plays a different game –
Plucking a jewel from the alpha's harem.

The cuckold's face turns to granite,
He bellows in rage – motion to war.
The jungle stills in anticipation,
And battle begins, frenetic, ferocious.
Razor-edged shrieks shred the silence Attack, attack, adrenaline fueled!
Fight for supremacy, fight for your life,
They fight till the leaves are stained with blood.
The defeated Don Juan scrambles downwards,

Grasping fingers tearing the leaves.

The secret they hide is thus revealed, Look within, look within...

Glimpse of something between the branches, Glinting faintly in the dappled light – Calcareous surface of an armoured plate, Beetle iridescent, scorched and scarred. One of a hundred thousand segments Overlapped, overlapping in orderly ranks – Rotting shell of a celestial behemoth, Bioengineered on a far-away world. An unidentified fallen object, Answer to a question, a modern obsession.

Children of earth you are not alone,
Witness the tomb of a kindred race.
Centuries ago, trailing acrid fumes,
It met its fate, its final destination;
Hit the ground in brutal penetration,
Burrowed deep into fertile earth.
Its boosters spluttered, died, grew cold,
Pointing impotent at its starry home.
Plants thrust tendrils through doors and vents,
Lashing it down, taking possession.

Hatches were breached, cracks became holes, Look within, look within...

A gentle breeze rises, invades,
Gusting down a musty corridor,
Perfumed with a flowery fragrance –
Breathe of life in death's domain.
Silent, strange skeleton vessel,
Part biological, part technical.
To the left, impromptu cemetery
Of cryo chambers and withered remains;
To the right, the husk of the hub,
Look within, look within...

Curving ribs over metallic floor Stark white frame where flesh once hung Lights gone dark, silent speakers,
Banks of screens like lifeless eyes.
Ahead a viewport of panoramic design
Blinded now by the jungle's embrace.
The ship's dying scream hangs in the air,

Agony, anguish for the death of its crew. It cradles still the one it loved best In her hanging bubble chair of command –

Her body is stripped of muscles and skin, Look within, look within...

The bones of hands, if hands they were,
Are lustrous white, cleansed by time,
Yet stains remain – indelible, red –
Parting gift from those in her care.
For she was the flaw, the cause, the killer,
Cells infected by a fatal disease.
As reason fled before nightmare visions,
Contagion spread through her link to the ship.
Impervious to drugs, impossible to stop,
It lingers still to ambush the chimps.

Death to humanity, virulent vile, Look out one, look out all!

Unappreciated Journey

By Ken Poyer

You round the phantom Universe Not worth noticing, alive With expectation, confidence, One breath from non-existence, Sole representative of your species In this dimension where square Suns center triangles of trapezoid Worlds and for one moment You balance generosity, Ponder if it has gravity at all.t

Science Corner

Happy Anniversaries

By Stan Powel

2020 is an exciting year. Not only is it the start of a new decade, but it also brings with it some exciting anniversaries that might intrigue the scientifically curious. Here are some noteworthy ones.

1. It's the year of Roger Bacon's 800th birthday. Roger Bacon was an interesting man. Though no one is exactly sure when he was born, there's an increasing argument that he was born in 1220. He was a Natural Philosopher and among first people to advocate scientific experiment and investigation of nature. He believed in the ability to use mathematics to calculate and understand the world. Bacon was considered by many of his contemporaries to be a powerful wizard.

2. Electromagnetism turns 200

The first primitive battery came about in the year 1800. It launched a flurry of investigation into the phenomena of electricity and magnetism, though not until 1820 was it discovered that they may be one and the same. Electromagnetism was discovered by Hans Christian Oerstead (not to be confused with Hans Christian Anderson, though the two were reputed to be good friends). Oerstead was also the brother of the famed Danish Jurist Andres Oerstead, one of most important Danish jurists of the 19th century. Perhaps it's no surprise, given his connections, Hans Christian Oerstead should become famous himself.

3. The discovery of X-Rays

125 Years ago, a man by the name of Wilhelm Röntgen made an illuminating discovery – X-Rays. For his discovery he became the winner of the first Nobel Prize for physics and became known as the father of diagnostic radiology. After the discovery of X-Rays they were put to use almost immediately in the medical field to find bullet wounds and diagnose other injuries.

4. Florence Nightingale – 200!

Florence was born on May 12, 1820. Not only was she a remarkable figure in the medical field she was also involved in early English feminism movement, writing some 200 books and pamphlets on the subject over the course of her life. She rose to prominence during the Crimean War when she instituted a policy of sanitation to reduce the spread of disease and infection. She was

a gifted mathematician as well. Florence's early letters – which often included lists and tables of information, meticulously catalogued flower specimens, transcriptions of poems, shell and coin collections – demonstrate that she had a natural skill for classifying, analyzing and documenting data.

SCIENCE TRIVIA

For the curious and well informed this magazine provides some trivia questions. Some of the answers can be found in stories and articles in this issue. Others we've answered on our Facebook and Twitter feeds. Still others will have to be given some thought. The answers will be provided in the next issue.

Answers for December Issue

Question One:

Who was the first person to discover that our galaxy was one of many?

Edwin Hubble was the first to discover that our galaxy was one of many. Though he was not the first to consider the possibility. In 1920, four years before the discovery by Hubble there was a debate between Harlow Shapley and Heber Curtis about the nature of the universe in which Curtis wondered if the spiral nebula were not in fact some distant universe like the Milky Way. The proof did not come until Hubble's discovery in 1924

Question Two:

Which Apollo Mission was struck twice by lightning while taking off

Apollo 12 (which recently celebrated its 50th anniversary) was struck twice by lightning as it took off. It knocked some of the machinery offline, but the crew was unharmed and able to carry on with their mission to the moon.

Question Three:

How many flowers must a honey bee visit to make one pound of honey?

About 2 million flowers must be visited by a honey bee to make one pound of honey.

Question Four:

What does Zeno's Achilles and the Tortoise paradox state?

According to Aristotle - In a race, the quickest runner can never overtake the slowest, since the pursuer must first reach the point whence the pursued started, so that the slower must always hold a lead. It is one of several paradoxes by Zeno which deals with the impossibility of motion across an infinite (or infinitely decreasing) distance.

Question Five:

Who is the founder of anthropology? Franz Boas is considered the founder of modern Anthropology.

Questions for February Issue

Question One:

What novel creation did University of Vermont researchers create from the embryotic cells of frogs?

Question Two:

Who is the only person to have won two Nobel Prizes in separate sciences?

Question Three:

What comic strip is considered the first to introduce science fiction to the masses?

Question Four:

What are Wicked Problems?

Question Five:

What is the Golden Ratio?

THE READER SPEAKS!

In this section we will post a few comments submitted to us by our readers, allowing them to share their opinions (what they like or dislike) of past stories and to ask questions about points of scientific interest in regard to a story of the past issue, a trivia question or article, or just general curiosity. Hearing from our readers, like you, is one of the most rewarding parts of working this magazine. We welcome your thoughts, critiques, or praise to our writers. Please submit any comments through our website at utopiascienceficiton. com or e-mail us directly at utopiasciencefiction@gmail. com. This is a small section and we will only select a few comments or questions with which to fill it in and then, only with the commenters permission. Feedback is important to us and there is nothing more exciting then hearing back from our readers, so please do send us a message

I re-read two stories!

Dear Editor,

Please pass on to the authors of Defective and The Joker's Handbook how much I enjoyed reading their stories. I don't re-read things usually, but I reread both of theirs. I found myself wanting to dive back into the universes both authors have created and really hope you'll publish more stories like theirs in the future. Thanks! Ian Jackson, Galway, Ireland

Dear Ian,

Thank you very much for the high praise. I was particularly excited for those stories as well. It's always great to be able to find a story that can drag you in and hold your attention. I'll be sure to let the author's know. Thank you for letting us know, we are sure to look for similar stories or more stories by those same authors for publication in the future.

-Editor

Artwork

Dear Editor,

I've read several issues of Utopia Science Fiction and plan to keep reading them as they come out. I know it's said often, but I felt like I should repeat – the artwork in these issues adds a really nice touch to the magazine. The December Issue artwork was some of the best, I particularly liked the work that went along with the Library of Life, The Joker's Handbook, and Defective stories. Keith Garamond

Dear Keith,

We hear back frequently regarding the artwork and am happy to say that we never get tired of hearing about it. Our artists are very talented and the work they provide to the magazine is always appreciated. We're glad you plan to keep reading our magazine. Thank you for your patronage.

-Editor

Contributing Authors

David Barber

David Barber lives in the UK. His work has appeared in Daily Science Fiction, New Myths and Asimov's. (He framed the cheque) His ambition is to write.

Holly Schofield

Holly Schofield travels through time at the rate of one second per second, oscillating between the alternate realities of city and country life. Her stories have appeared in such publications as Analog, Lightspeed, and Tesseracts, are used in university curricula, and have been translated into several languages. She hopes to save the world through science fiction and homegrown heritage tomatoes. Find her at hollyschofield.wordpress.com.

Margaret Kamazin

Margaret Karmazin's credits include stories published in literary and sci-fi magazines, including Rosebud, Chrysalis Reader, North Atlantic Review, Mobius, Confrontation, Pennsylvania Review, The Speculative Edge and Another Realm. Her stories in The MacGuffin, Eureka Literary Magazine, Licking River Review and Mobius were nominated for Pushcart awards. She has published a YA novel, REPLACING FIONA, a children's book, FLICK-FLICK & DREAMER and a collection of short stories, RISK

Gustavo Bondoni

Gustavo Bondoni is an Argentine writer with over two hundred stories published in fourteen countries, in seven languages. His latest books are Ice Station: Death (2019) and The Malakiad (2018). He has also published three science fiction novels: Incursion (2017), Outside (2017) and Siege (2016) and an ebook novella entitled Branch. His short fiction is collected in Tenth Orbit and Other Faraway Places (2010) and Virtuoso and Other Stories (2011).

In 2019, Gustavo was awarded second place in the Jim Baen Memorial Contest and in 2018 he received a Judges Commendation (and second place) in The James White Award. He was also a 2019 finalist in the Writers of the Future Contest.

His website is at www.gustavobondoni.com

Donald Norum

Don Norum writes things; sometimes they are published. If it would help you survive a zombie apocalypse, it's probably one of his hobbies.

Steve Ullom

Steve Ullom watches life and writes from the middle of a continent with his wife and two dogs. His writing can be found at or is upcoming in Quail Bell Magazine, Allegro Poetry Magazine, Foliate Oak Literary Magazine, The Ravens Perch, Light – a Journal of Photography & Poetry, Walloon Writer's Review, Ascent, and Utopia, as well as in the anthologies The Colours of Refuge and Mytho.

Ahmed Kahn

Ahmed A. Khan is a Canadian writer, originally from India. His works have appeared in various venues like Boston Review, Murderous Intent, Plan-B, Strange Horizons, Interzone, Anotherealm and Riddled With Arrows. His stories have been translated into German, Finnish, Greek, Croatian, Polish and Urdu. Links to some of his published works can be found at ahmedakhan.blogspot.ca. He has social media presence at twitter (twitter.com/ahmedakhan) and facebook (www.facebook.com/ahmed.a.khan.140).

Sukarma Rani Thareja

Dr Sukarma Rani Thareja is an Associate Professor(Retired) of chemistry from Christ Church College, CSJM Kanpur university, Kanpur, UP, India. She did PhD Chemistry from IIT-K, India. She is passionate about poetry, art, science. Her works have been published in National/International conferences/Journals...

CJ Carter-Stephenson

C.J. Carter-Stephenson was born in the county of Essex in the United Kingdom. He has recently completed an MA course in Creative Writing at the University of Southampton, has been a Writers of the Future finalist, and has had three books published. Other publication credits include stories and/or poems in AE: The Canadian Science Fiction Review, Aesthetica, Möbius, Dark Horizons (the former journal of the British Fantasy Society), Murky Depths, Illumen, Youth Imagination, The New Accelerator and The Fifth Di.... He is also the narrator of Back of the Bookshelf, a monthly podcast of classic genre fiction. Find out more at www.carter-stephenson.co.uk/

Carmen Lucía Alvarado

Carmen Lucía Alvarado is a poet and editor based in Guatemala City. She is the author of the poetry collections Imagen y semejanza (2010), Poetas astronautas (2012), and Edad geologica del miedo (2018). She is currently working on her fourth poetry collection Pangea Muerte. Translations of her poems have appeared in venues such as Abyss & Apex, BFS Horizons, Samovar, and Star*Line

Thomas E. Simmons

Thomas E. Simmons is a professor at the University of South Dakota School of Law. He teaches courses such as Trusts & Dakota School of Law. He teaches courses such as Trusts & Dakota School of Law. His legal scholarship has been published in numerous law reviews and journals. His poetry has appeared in Corvus Review, North Dakota Quarterly, and Nebo. Find him at https://www.usd.edu/faculty-and-staff/Tom-E-Simmons.

Ken Poyer

After years of impersonating a Systems Engineer, Ken has retired to watch his wife continue to break national and world raw powerlifting records. Ken's two current poetry ("The Book of Robot", "Victims of a Failed Civics") and four short fiction collections ("Constant Animals", "Avenging Cartography", "The Revenge of the House Hurlers", "Engaging Cattle") are available from Amazon and elsewhere. www.kpoyner.com.

Stan Powel

Born in Almira, Washinton, Stan Powel has had a busy career working as a mailman, newspaper editor, science teacher, librarian, insurance salesman, and English teacher. He has always had a fascination with history and science and believes things connected with numbers are easiest to remember.

Toshia Kamel

Toshiya Kamei holds an MFA in Literary Translation from the University of Arkansas. His translations have appeared in venues such as Cosmic Roots & Eldritch Shores, The Future Fire, and The Magazine of Fantasy & Science Fiction.





NEXT ISSUE...
FEATURING:

LIZZIE NEWELL

RICH IVES

JOHN GREY

AND MORE!