

BEYOND THE TATTERED VEIL OF STARS

Mercurio D. Rivera

Mercurio D. Rivera's stories have appeared in *Analog*, *Interzone*, *Lightspeed*, *Black Static*, *Nature*, *Abyss* and *Apex*, and numerous anthologies and year's best collections. He tells us he is hard at work putting the final touches on his mosaic novel, *The Love War*, based on his series of stories about the Wergens—repellent aliens with a strange biochemical attraction to humanity. His latest story for *Asimov's* features godlike beings with the power to bend reality itself to their whims. If you peer into infinity, you might spy them lurking . . .

BEYOND THE TATTERED VEIL OF STARS

Chapter 63: Gods' Breath

The People followed the purification rituals precisely, fasting three times a month and holding group prayers in the shallow seawaters off of Verdant Cove. With the orange sun setting on the horizon, they lay half-submerged in the surf, scrubbing the scales off their snouts with diamonds. And as their skin tore, they pushed forward through their lacerations, flesh rippling backward, downward, until their new bodies emerged. In this way, they shed their transgressions.

They collected and piled hundreds of sloughed skins. And after blessing the discarded flesh, cleansing it of all sin, they feasted. Ravenous from fasting, they tore into the mound of skins, giving praise to the gods for the food they devoured. And as they ate, they prayed for clean air.

The thick gases—identified as excess carbon dioxide, methane, and nitrous oxide—had appeared five years earlier, suffocating Mother Earth in a planetary haze. Blue skies turned sickly gray and temperatures rose steadily. Powerful hurricanes devastated the seven continents, and the Arctic ice sheets retreated, inundating coastal communities, displacing millions.

It was a cruel test of the People's will and faith. Fortunately, House Jar-ella thrived on such challenges.

The People set aside longstanding tribal feuds to establish thinknests across the globe, teams devoted to determining the cause of the crisis. Planetary surveys revealed no volcanic eruptions, no artificial source for the gases, no explanation whatsoever, confirming what the People feared most: the threat was Divine in origin. The gods had judged them and found them wanting.

The thinknests expanded their ranks and intensified their studies, running ever more complex simulations in the hope of arriving at some answer. For while the problem was Divine, the solution, they believed, could be found in the natural world. Still, to be safe, the People redoubled their prayers and rituals, begging for the gods' mercy.

My foremothers in House Jar-ella of the Dah-rani tribe scraped the scales off their skin until it glistened an agonizing emerald-green, while the yellow-skinned Teh-win cropped their wings painfully short, and the La-Mangri sliced into their bellies with pointed blades, leaving scars in the shape of the Divine circles-within-circles infinity sign.

Between the efforts of the thinknests and the mass prayers and rituals, the People held on to their resolute faith in the gods—and in themselves. For if they were not tested, how could they prove themselves worthy?

—From *The Chronicles of House Jar-ella*, excerpt by Shen-ri, daughter of Siss-ka

* * *

"Cory?" Milagros Maldonado said, pulling open the door. "Come in. You're right on time."

He was unsure whether to shake her hand or hug her. Instead, he stomped his boots on the welcome mat while making small talk about the August snowstorm.

She guided him into a spartan living room where he took a seat on the only piece of furniture, a sectional sofa. The last time they'd seen each other had been at MIT seven years earlier, when they'd dated briefly. She had the same dull eyes, same thin lips and dark-brown hair pulled back in a ponytail. But now she had face mods resembling his: triangular implants on her left temple and cheek, e-ports on the left and right sides of her jaw.

"Oh, pardon me," she said, tapping her face.

His right eyelid tingled and he accepted her AR invite. When he blinked, Caravaggio paintings and colorful Persian carpeting decorated the room. A crystal chandelier dangled from the center of the ceiling.

"There's no need for this," he said, blinking away the modifications, restoring the room to its true state.

"Whatever you like," she said, staring out the snow-caked window to avoid eye contact. She was every bit as socially awkward as he remembered.

"Well," he said after a long pause, "shall we begin?"

Before he could activate his retinal recorders, she held up her hand. "Everything remains off the record until I say otherwise, right?"

"Yes, you were very clear," he said.

"I'm sorry," she said, "but I can't simply take you at your word."

"Then why . . ." He took a deep breath. "I understand." He nodded and she pressed her fingertips gently against his eyelids, her prints locking his ret-readers. Now it would require both of them to release the recordings to a third party.

"Thank you. When we go public with the discoveries I've made . . ." She turned and finally looked him in the eye. "*Everything's* going to change, Cory."

He maintained a pleasant smile. If Milagros sensed his desperation, she might be less forthcoming. And since she'd formerly worked at EncelaCorp in research and

development and had left the company on bad terms, she might very well be sitting on something juicy.

“Timing is critical,” she said. “Even with the best of intentions, revealing too much information too quickly could destabilize markets. That’s why I reached out to you when I saw your neuronews byline. I need someone I know, someone I can trust.”

She had an odd way of showing her trust, forcing him to lock down the recording. Then again, they’d only known each other briefly a lifetime ago, years before the San Diego wildfires destroyed his home, before his father’s death from lung cancer, and his own diagnosis and treatment for bone cancer. He’d scraped by on public assistance until he ran into Charlie Bierbaum, a friend of his father’s who’d offered him a gig in New York as a content provider for neuronews. Although Cory had busted his ass the past six months, Charlie had been brutally honest. To be able to keep Cory on, he needed to increase his blinks—drastically.

“So . . . this project of yours . . .” he said.

“Have you heard of the Simulation Hypothesis?”

He shook his head.

“It’s the theory that everything we experience as reality is, in fact, an illusion. That we’re living in a simulated universe, a computer program run by a super-advanced civilization.”

“Bummer.” He expected a smile, but she maintained her poker face.

“I don’t lend the idea much credence either, but it was the source of inspiration for my project.”

“Interesting,” he said. It wasn’t, really, but best to humor her until she coughed up the big secret. If it couldn’t generate two million blinks, he’d be out the door.

“Let me show you,” Milagros said.

She stepped into the hallway and punched a pass code on a solid-steel door she pulled open.

As they descended a stairwell, their footsteps triggered a light that bathed the basement in red—as if it were an old-fashioned developing room in a photographer’s studio. The ceiling hung low, and a computer sat on a laminated wooden desk. At the far side of the room, behind a plexiglass divider, a hologram of Earth floated in the darkness, rotating slowly. About two meters wide, the globe’s size allowed him to make out the faint lights of cities beneath the blanket of clouds wafting in the thin atmosphere. Faint stars speckled the room’s walls; a grapefruit-sized simulation of the Sun hovered in the far corner.

“This,” Milagros said, “is the project I’ve been working on the past two years. Virtual Earth.”

“Wow. It’s beautiful.” His heart sank. A light show, no matter how dazzling, would never draw the blinks he needed. “So this is your big invention? A hologram of Earth?”

She smiled at last, shook her head. “It’s a tool of discovery, perhaps the greatest tool ever invented. V-Earth is a simulation powered by a network of neural algorithms. An extension of work done with AIs. I’m going to help people on an unimaginable scale, Cory.” She stared at him as if trying to determine whether he grasped the magnitude of what she’d revealed.

He was formulating an exit strategy when she said, “I’ve programmed the simulation to track the evolution of life on Earth. Natural catastrophes, the rise and fall of civilizations, all the wars, all the trials and tribulations we’ve faced as a species. I’ve also introduced newer challenges such as global warming.”

“And what did you learn?” he asked.

“That we’re doomed. Invariably, we pollute the atmosphere and the oceans, warm the planet, destroy the food chain. I’ve run the program countless times and always get the same predictable outcome. Our inherent selfishness, our inability

to empathize with the plight of others, other species, even with our own future generations, always destroys us. But then . . ." She wagged her index finger excitedly. "I restarted the sim and made a few tweaks to Earth's past."

"You reprogrammed human history?"

"Yes. No." She shrugged. "Sort of. I explored numerous paths with *Homo sapiens*, but it didn't make much of a difference. All roads led to self-destruction. Then I went in a different direction."

She stepped to the computer and swiped the touchscreen. "Zoom in." The image of a cityscape, windowless edifices resembling thirty-story gravestones, appeared on the plexiglass divider. Swarms of winged, yellow-skinned creatures darted in and out of hidden apertures in the structures.

"You're witnessing a live shot of present day South America. A typical work day in Rio de Janeiro." She beamed at the image as if she were a child showing off her prized insect collection. "Countless species have flickered into and out of existence in our prehistory. We're here today only because just the right combination of events created a niche for small mammals to thrive and to evolve, ultimately, into the modern human. Eliminating any one of those events dramatically alters the forms of life arising through natural selection. But no matter the mix, evolution, I found, favors intelligence."

"And here I thought it favored cockroaches," he said, chuckling nervously.

"Every change to prehistory resulted in the rise of a different apex form of intelligent life. In this version, no asteroid struck the Yucatan Peninsula. No extinction of the dinosaurs took place at that time. Instead, a disease I introduced a million years later wiped out most of the large dinosaurs along with small mammals, allowing an amphibious salamander-like creature to survive and multiply. And—*voilà!*—one hundred million years later we have the Sallies."

The magnified image displayed three reptilian creatures at the base of a palm tree. One stood on its hind legs, four feet tall with slick, lime-green skin and a prehensile tail. The second had yellow skin and bore translucent wings, allowing it to hover a few feet off the ground. These were the ones flying over the city. The third, a grey-scaled creature, skittered on all fours and had larger, saucer-shaped eyes and a thicker tail. Patches of fungus spread thickly across their torsos.

"These are the predominant races of the species that rules the seven continents."

"This—is this is incredible." He had trouble finding his voice as he considered multiple story angles: "Humankind Replaced by Lizards," "Mad Scientist Alters History," "The Fall's New Fashion: Fungus." This story was sure to draw blinks—maybe in the tens of millions. "So if I understand correctly, these creatures live—literally—in this world you've created? If I walked past this plexi divider I could shake this globe with my bare hands?"

"Well, no, you'd move right through it. It's a holo, after all. But you could program a set of cosmic hands to shake the sphere, sure." The idea seemed to amuse her.

She opened a drawer and pulled out a metal cube with thin hollow tubes protruding from two of its sides. "This is the breakthrough I was referring to, the first of what I expect will be many revolutionary inventions to come."

She handed him the contraption, which seemed made for the Sallies' thin delicate fingers.

"This is an Extractor. It's 1,000 percent more efficient at segregating carbon than anything we've ever developed. It can remove excess greenhouse gases from the atmosphere within a fifty-mile radius. The Sallies have installed large-scale versions of these Extractors, thousands of them, throughout their world. It took them decades, but they solved the problem of climate change. More than any other intelligent form of life I've evolved on v-Earth, the Sallies are the ultimate problem-solvers."

“This actually . . . works?” He held the Extractor in the palm of his hand, shaken by what it represented.

“Perfectly.”

He stared at the holo-world, its poles barren of ice. “It doesn’t seem the device did the locals any good.”

“Yes, well, the Sallies took a long time to develop it. In the meantime, global warming ravaged their world. But it also gave them a tremendous incentive to develop a solution, which they did.”

He had trouble wrapping his mind around it. Had Milagros really solved the problem of climate change, here, in the basement of this house? It had to be a hoax. Or, more likely, she’d deluded herself into actually believing this nonsense. But true or not, the story could save his job. And, if true, it might even make his career.

“The Sallies present us with a unique opportunity to find solutions to problems,” she said. “Any problem. So let me ask you, Cory, what would you have them solve next, if you could?”

He paused, pondering the question, and thought of his father’s painful coughing fits as the tumors spread, his own ordeal with bone marrow transplants and radiation and chemotherapy. “Cancer,” he said. “A cure for cancer.”

“Great minds think alike.”

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Chapter 103: The Black Scythe and the Age of Pestilence

The great plague descended upon the People of La Mangri first, killing innocent larvae in their developmental stages, rendering entire populations childless. Then the cell mutations spread to adults, bringing a slow and agonizing death to millions.

As the decaying corpses gave rise to more disease, my great-grandmother Und-ora devised stadium-sized pyres to mass-incinerate thousands of the dead at once.

She also led local thinknests in their frenzied attempts to determine the origin of the disease and stop its spread. When the cell mutations proved to be non-contagious, they studied possible environmental causes of the illness. But hundreds of Houses of different regions with radically different diets, customs, and lifestyles were all similarly stricken. With no natural explanation at hand, thinknests around the globe independently arrived at the same inescapable conclusion: the plague was another Divine test. The People assumed they had proven themselves worthy when they implemented the Extractors, purifying the atmosphere of the gods’ deadly gases.

But the gods were capricious.

Over the next decade, despite numerous attempted treatments and false breakthroughs, the Black Scythe, as it came to be called, decimated the People. Then members of the thinknests themselves fell victim to the plague, hindering the research for a cure.

Within two decades, 98 percent of the world’s population—two billion People—died of the disease. Societies collapsed. Modern civilization as we knew it disappeared.

The desperate bands of survivors stopped praying, for they had settled upon a harsh truth: the gods cared nothing about their fate; the People’s only hope was to help themselves.

The House of Family Jar-ella, including my grandmother, the venerated La-rinda, assembled and trained those survivors, forming new thinknests, and directed their attention to the study of genetics, which she believed held the key to combatting the Black Scythe.

Many historians have studied La-rinda's life to try to understand her inspiration for pressing forward when anyone else would have given up hope. I believe the answer can be found in her personal suffering. In my research, I discovered an account by La-rinda herself, an entry in her private life-notes, maintained in the storage froth at the Verdant Cove seabed:

* * *

Before we'd made any breakthroughs on our studies of the genome, As-trel, the youngest of my two children, succumbed to a tumor in her brain, which struck her blind and made her forget who I was. She spent her last moments afraid, alone in the darkness.

And when I thought I could bear no more grief, Vin-el, another of my children, was afflicted with a cell mutation in her anterior intestine, a blockage that made it impossible for her to eat.

In her final days I could only feed her pain-numbing leafwax as I sat with her in a lily pond, our feet and tails entwined in the cool water, as she labored to breathe. I gently stroked her snout. She said, "Find the solution, Mother. I know you can do it."

"We're close," I said. "We've identified the genes responsible for staving off the malignancies. If we can target them, activate the body's defenses . . ."

"I don't—I don't mean the solution to the plague, Mother," she said, forcing the words out through ragged breaths. "I mean the solution to the cruelty of existence. I've prayed. I've been good to others. What have I done to deserve this?"

"Nothing," I said. "Not a thing, little one." Before I could decide what more to say, how to comfort her, she let out a wheeze. Her last breath. And in the long minutes that followed, I lay still in the pond, clutching her limp body and considering her final words, words that would haunt me for years to come: What have we done to deserve this?

—From The Chronicles of House Jar-ella, excerpt by Zen-do, daughter of Shen-ri

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"That's nuts," Charlie said.

Cory leaned forward, his hand trembling as he brought the shot glass to his lips. Charlie's projection sat on the bar stool next to him.

"That sums it up nicely," Cory said.

"This woman invented a device that cleanses the atmosphere of greenhouse gases?" Charlie said. "Show it to me."

"She keeps the Extractor under lock and key. And I can't release my ret-recordings without her approval."

"And the supposed 'cure' for cancer?"

"It's been more than a week since she unleashed a plague on the virtual world—not sure how many decades in the simulator—with nothing to show for it so far. But Milagros is confident the Sallies will find a cure."

"You realize, don't you, this woman is either out of her mind or so deluded she might as well be."

"So I should walk away?"

"No, no, I'm not saying that. Heck, if she's as messed up as I think she is, her story may draw major blinks. 'Former EncelaCorp bigwig off her rocker; plays God in basement.'"

Cory signaled for another drink. The bartender shot him a dirty look. He didn't seem to appreciate Charlie's holo occupying a stool at the bar, even though the place was empty in the snowstorm.

"Know anything else about her background?" Charlie asked.

"We went to college together, dated briefly, but that was a long time ago."

"Huh." Charlie puffed on an e-cigar and ran his hand through the mop of white hair hanging over his eyebrow mods.

“She says she contacted me because she trusts me. And I haven’t learned anything more about her beyond the basics on the Neuronet.”

“Dig deep. Find out what broke her.”

The whiskey burned Cory’s esophagus. “Charlie, what if it’s true? What if she’s not broken, and she’s really developing these miraculous devices?”

Charlie’s image froze, mouth open. Cory thought for a moment the projection had gone on the fritz until Charlie let out a loud belly laugh. He then stopped abruptly. “Wait. You’re *serious*?” A light seemed to go off in his head. “Oh geez, Cory. I’m sorry. I can be a friggin’ numbskull sometimes.” He wiped his eyes with his sleeves. “How was your doctor’s visit?”

“It was my final round of chemo. I’ve been in remission for months now.”

“Look, I didn’t mean to kid around about the cancer cure. It’d be nice if it were all true.”

“If not for her background with EncelaCorp, I’d just assume she was full of it, too. But this holo, Charlie, it’s like nothing I’ve ever seen before.”

Charlie trained his eyes on Cory. “Stay objective. And keep your guard up, okay?”

“Always.”

Charlie shouted at an invisible person in the distance. “Keep your pants on! I’m almost done.” He turned back to face him. “Gotta go. But I need your story on this lunatic ASAP. I’m under pressure from the board. I have to reduce a third of my staff by the end of the month. And unless you show a dramatic uptick in blinks . . .”

Cory lifted the shot glass and downed another drink. “Ten days to deliver the goods. I understand.”

* * *

“To the Revivifier,” Milagros said, raising her glass.

“The Revivifier,” he repeated, clinking his champagne glass against hers. “I still can’t believe it. Will it really work on human beings?”

“The device triggers a radical immunological response. It causes certain genes to generate oncolytic viruses targeted to the cancer cells. It’ll work.”

“And you knew the Sallies could do it?” He tried to maintain an even keel, but couldn’t keep the excitement out of his voice.

“Not for certain. The disease killed off most of them, unfortunately. But the remaining 2 percent should repopulate the planet in time. I can fast-forward the sim a few centuries, and the civilization will likely rebound. They’re a resilient bunch.”

“Milagros, we need to go public with this.” If he could share the information with the right experts, they might be able to confirm these incredible claims. He thought of his visits to the oncologist, the CT scans he had to endure every three months. To finally be rid of the constant dread . . .

“Soon,” she said. “I have a few more problems I need the Sallies to solve first.”

“More problems?”

“Asteroid defense. Last year’s disaster in North Asia . . . If the asteroid fragment had struck a metropolitan area—and not some poor village nobody cared about—the death toll would have been in the millions instead of the thousands. World leaders might have stood up and taken notice, developed a plan.”

“*Asteroid defense*? I’m surprised EncelaCorp hasn’t figured that out by now,” he said. The conglomerate was streaming the consciousness of astronauts into outer space and exploring rogue planets; asteroid defense seemed simple in comparison.

“It’s more a matter of budgetary constraints than technological limitations. I’d like to have an inexpensive solution in hand for governments around the globe.”

“Listen,” he said in the most measured voice he could muster. “We’re sitting on the cure to cancer here. *Cancer*.”

“Not for long.”

"Every day we delay, people are dying. Why wait?"

"I have my reasons."

"Not good enough. We can save—"

"You don't get to decide," she snapped. "I call the shots on when and how we break the news."

He had to restrain himself. After a few seconds, he exhaled and said, "We'll pulse the story about the Revivifier later this week then?"

"Soon. When I say so," she repeated.

He couldn't understand her reticence. When he spoke with Charlie again last night, his boss had read him the riot act about sitting on the story of v-Earth. As frustrating as it was, he first needed Milagros to agree to unlock his ret-recordings.

He gathered himself and poured after-dinner cognacs for the two of them. They then stood together in front of the rotating v-Earth while Milagros ran her fingers over the computer touchscreen and delivered verbal instructions to program the asteroid strike.

"Can the Sallies see us?" he asked, sipping on his drink. "Two slightly drunk giants looming over their world?"

"No," she said. "That wouldn't do at all. Our side of the plexi is transparent, theirs is veiled with a galaxy of stars."

"Ah," he said. The alcohol had started to kick in.

He pushed a button on the desk monitor, calling up an image from planetside.

She smacked his hand. "No touching." She slid her fingers over the monitor. "I'll have a small strike take out one continent. Then I'll put several asteroids—large enough to destroy all life on the planet—on a direct collision course. That should light a fire under them."

"You *nas*-ty woman," he said with a smile and a hiccup. "What if they don't detect the incoming asteroids?"

"They'll be studying the skies after the first strike. And I'll place the asteroids far away enough to give them time to formulate a response."

"You have absolute power over them, over the planet," he said. "You really are God."

She leaned in and kissed him.

He hesitated for a moment, startled, then kissed her back. As he pulled her closer and they kissed harder, out of the corner of his eye he spotted movement. A fiery asteroid, slamming into Europe, incinerating fifty million Sallies.

* * *

The plume snaked up out of the globe as she slid back into her dress. Reaching out to the monitor, he poked the screen and said, "Zoom in." This time she said nothing, buttoning her dress silently and watching him in amusement.

On the plexiscreen, four Sallies, two adults and two children, fled from a black cloud of dust sweeping across the horizon. One of the adult's tattered wings hung limply at her side while her mate wrapped a tail around her midsection, helping her hobble forward. As the cloud closed in, the adults urged the children to flee. "Go!" they screamed. "Fly!" One of the children took to the air while the other stared back in indecision before the darkness swallowed them all.

Milagros flicked off the transmission. "It's not a toy," she said.

"But they are your playthings."

She paused before responding, the corner of her lip curling upward. "Still, there's no reason to be unnecessarily cruel." Then she laughed at her own joke.

* * *

Chapter 186: When Heaven's Hammer Struck and Stones

Fell Like Summer Rain

Mother was a hatchling when Heaven's Hammer struck, obliterating a continent, devastating the world. In the aftermath, molten rock rained from the skies.

But chaos did not reign, as one would have expected. The works of my foremothers, the collective agony and sacrifices of the People, had paved the way to cope, to gather, to regroup.

Tribes relocated to areas of the globe far removed from the impact site, where they reprogrammed their Extractors to cleanse the atmosphere of the billowing clouds of ash. The sisters of House Jar-ella treated the injured masses with a modified version of the Revivifier, which not only helped them regenerate missing limbs, but made them healthier and stronger.

Thinknests directed their collective gaze to the heavens, to the gods' next challenge: massive incoming boulders threatening to extinguish all life on Mother Earth. Within months, nesting communities led by House Jar-ella devised plans for the construction of a planetary Deflector that could be operationalized within two years, more than enough time to shield the world from another catastrophic strike.

Heaven's Hammer had an unexpected side effect. It caused the People to turn away from their worship of the gods—for what had centuries of prayer and purification rituals wrought?—and to seek solace in the study of the natural world.

By hurling mountains at us from space, the gods had made a crucial mistake. They'd directed the attention of the thinknests to the cosmos. Reality, we came to learn, consisted of particles no smaller than a nanometer—pixels. And in our study of mathematics we found familiar ratios from quantum to celestial levels, as if strings of a computer program snaked through all of spacetime. We also puzzled over the missing mass of our universe, *dark matter*—enigmatic and undetectable—which constituted the majority of the cosmos, but remained hidden from us. The stars themselves, we came to realize, were a thin veneer, a fiction, the universe itself a grand deception.

—From *The Chronicles of House Jar-ella*, excerpt by Pin-ra, daughter of Zen-do
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As Milagros lay in bed, her eyes flitted left and right and she blinked every few seconds.

"Have I missed anything important going on in the real world?" Cory asked. He couldn't access current neuronews while recording her with his eyecam.

"Define 'important.' Arms control negotiations collapsed. A new study found the Pacific's toxicity level has tripled. Several local mass shootings took place."

"Par for the course." He traced his index finger along the side of her face, across the triangular mod jutting out of her temple down to the metal jacks on her jaw.

She shrugged him away.

Blinking off, she reached toward her nightstand for the hexagonal contraption she'd been fiddling with all evening. The device was modeled, she said, after the Sallies' planetary Deflector.

"What are you up to, Milagros? A little corporate espionage?" he teased.

She glared at him. "Is everything a joke to you?"

"I'm sorry, I didn't mean anything. Look, can we pick up where we left off?" He pushed aside a pillow and sat up on his elbow to get the best angle of her face with his eyecam.

"The interview? I still don't understand why anyone would care about my personal life."

"Right now, they wouldn't," he admitted. "But once we flood the Neuronet with

news of your inventions, trust me, viewers will want to know everything about you. To maximize the publicity, we'll have to leverage the twenty-four-hour news cycle—before the public's attention shifts."

"Will people really lose interest so quickly? I'm introducing life-changing technologies."

"At *most*, you'll get thirty-six hours. But I wouldn't bet on it. In fact, you may get less than twenty-four hours if Angélique changes her hairstyle or Wilfredo takes a semi-nude selfie."

"Who?"

"Pop celebrities. Look, it doesn't matter. My point is we'll need to move fast with follow-up pieces to reach the largest audience and cash in before interest wanes. Although, let's be realistic, with the patents on this tech, you'll be set for life anyway."

"It's not about the money," she said.

"Right."

"It's not. I plan to revolutionize the world, our world, just like I've changed v-Earth."

He snapped his fingers. "That's good! So we should portray you as a selfless humanitarian who's dedicated her life to helping others?"

"Melodramatically stated, but not wrong. That surprises you?"

"I don't know." To him, she seemed more mad scientist than philanthropic researcher. "I guess it shouldn't," he added quickly.

Best to press on, he thought, to expand on some of the items they'd covered in their earlier interview. "What was it like growing up in San Juan's tech valley in a broken home, an only child?"

She scrunched her face. "My parents decided not to renew their marriage contract when I was five years old, but their breakup was amicable."

"Then you worked your way up from poverty, graduated from MIT on a scholarship."

"Scratch the 'poverty' part. My *tía* left me a sizable trust fund, which allowed me to live comfortably and pay my tuition."

She reached over and ran her hand over his clavicle, over patches of discolored skin from the radiation treatments. "What's this?"

"It's nothing," he said. "I thought you'd accepted my AR modification."

"I've been with you before. I don't need to see some masked, polished version of your body," she said.

The turn in their conversation made him uncomfortable.

"And finally," he said, clearing his throat, "you reached the pinnacle of success with EncelaCorp—before the company wrongfully terminated you."

She looked away from him. "Do we have to mention that?"

"They treated you unfairly. And success is your revenge. Trust me, the public will eat it up. Everyone loves a good revenge story."

She turned her attention back to the device, studying its six corners, rotating it in her hands. "The Sallies have such long slender fingers. It makes this difficult to operate."

"At what point did you decide to give up on humanity in your simulations?" he said.

"After 153 sims with *Homo sapiens*, I realized I wasn't getting anywhere, so I went in a different direction."

"The Sallies are all female?"

"Mm-hm."

"How do they—?"

"Parthenogenesis. They're able to develop an embryo from an unfertilized egg. It's resulted in a unisexual species. I can describe how if you'd like."

Consumers would blink off if the conversation turned too technical, so he redirect-ed her to a topic likely to be of more interest.

“Are the Sallies sentient?”

“In a sense. Layers of algorithms similar to the ones used to power our AIs run the sim. Without sentience, the Sallies wouldn’t have the ability to think independently and problem-solve.”

“So you’ve given them souls.”

She rolled her eyes. “Let’s just say they’re programmed to think and feel. They have to or they wouldn’t be of any use to us.”

“Is what you’re doing ethical? Inflicting so much suffering?”

“The suffering in my simulation? Weighed against all the tragedies of the real world?” She paused and stared out the window, setting down the device. It was still a few minutes before sunrise and the sky had a hint of blood-pink in it. “Would it be ethical *not* to conduct research that could help so many people? Children suffering from cancer. Displaced coastal communities facing climate change. A world plagued with so many horrible problems. No, the *simulation* of a sentient being is not the same thing as a sentient being. *Programmed* suffering is not real suffering.”

“You could always create a better world for them. Let them live happier lives.”

“To what end? Happiness doesn’t breed creativity or ingenuity or invention. No, progress is borne out of a terrible struggle, a stew of agony and suffering. That’s what makes them apex problem-solvers.”

The apex problem-solvers. Pithy. Charlie would like that.

“I’ll leave it to history to judge my actions.”

History and our viewers, he thought.

* * *

Milagros was in a deep sleep the next evening when he crept out of the bedroom and ventured down the hallway. Tapping the mod on his temple, he played back in slo-mo his ret-recording of her fingers punching a long sequence of numbers on the door keypad. He pressed the same numbers, the steel door’s lock clicked, and he pulled it open.

Although the inventions and the interviews would draw significant blinks, the story so far lacked sufficient entertainment value. The sheer volume of viewers might impress his bosses, but a story of this magnitude combined with the right demographics could provide him financial security for life. Plus, if Milagros’s inventions proved a bust, he needed a safety net for his future. He’d been through too much to allow himself to wind up unemployed and on public assistance again.

Fortunately, he’d observed when Milagros programmed the cancer plague and the asteroid strike. And although he couldn’t share his locked ret-recordings with anyone else, he could readily access them himself. He studied the playback of her fingers flying over the monitor and mimicked the movements precisely. Clearing his throat, he then delivered the appropriate voice commands and programmed a scenario likely to draw viewers from across a much wider demographic spectrum.

It was time to entertain the masses with good old-fashioned action.

He zoomed in to observe and record the activity up close.

* * *

Chapter 243: The Soulless Invaders from Beyond

On an ordinary morning like any other, the flying disks materialized over the city, hovering in the skies while massive crowds gathered to stare in wonder.

Pandemonium erupted.

The disks fired sizzling beams of light at towers packed with thousands of innocent workers, toppling the structures. This caused waterway tunnels to collapse,

instantly killing thousands more.

Dozens of the disks landed, and from out of them emerged strange creatures—*abominations!*—blue-gray, dry-skinned and diminutive, with luminous eyes and wriggling antennae. Next to each of the creatures lumbered massive two-legged machines wielding bomb-launching weaponry.

Here, the history of the People becomes my personal history, for I was a child during the invasion, one among many in the panicked masses, clutching my mother's tail in terror. Central Clearedfield fell to the invaders while Mother and I retreated to the city's outskirts. And as much as I might try, I would never be able to forget the atrocities I witnessed on that dark day.

My mother served as a tactician in one of the underground thinknests tasked with developing a strategy to battle the enemy. Unlike the People of Jeh-win, the aliens could not fly without their vessels, so we feigned powerlessness, sustaining massive casualties for the sole purpose of drawing them out. Then House Jeh-win launched a furious offensive from the air, separating the aliens from their ships and allowing us to overwhelm them with our greater numbers. We used the modified Extractor to generate thick clouds, hindering the creatures' movements. Our soldiers carried portable Revivifiers to heal our fallen comrades, and we adapted technology from the planetary Deflector to create offensive weapons that obliterated the alien machines and sliced the creatures to shreds, leaving their disemboweled corpses rotting in the streets. United, we, the People, proved unstoppable.

Our soldiers boarded their vessels to try to turn their ships against them, but we found no operating systems within. The ships' slick walls bore no sign of any technology. And despite their coordinated movements, the invaders themselves possessed no apparent sentience. They operated as if they were soulless, animated automatons.

We initially believed the abominations had originated from outer space, but then determined the vessels had actually materialized *below* the planetary Deflector. It confirmed what everyone already knew: this was yet another Divine attack.

As the news of our victory swept through the crowd, my mother curled her tail around my waist, lifting me high in the air as the People hissed with joy. I stared up into the cloudless sky in that thrilling moment, lost in the cobalt blue. Then I spotted the dark figures descending from the heavens, shadows so massive they eclipsed the sun.

Devices employed by the thinknests to study the cosmos helped identify the dark smears in the sky. They were fingers. Colossal fingers. The fingers of God's righteous fist reaching down to smash the Earth.

—From *The Chronicles of House Jar-ella*, excerpt by Lei-ani, daughter of Pin-ra
* * *

Cory awoke on the cellar floor, his head throbbing.

After recording the Sallies' great victory over the alien hordes, the last thing he remembered was programming the cosmic hands to give v-Earth a good shake. Viewers would enjoy the spectacle of the global catastrophe. He'd accelerated the Sallies' evolution to allow them to meet the new threat when a sudden electrical jolt had sent him flying backward.

He struggled to his feet. To his right, silhouettes danced against the blue glow of v-Earth, forms with transparent wings drooping at their sides.

He blinked and the shadows disappeared.

Blinked again, and they reappeared.

A dozen Sallies filled the cellar, staring dumbfoundedly at their surroundings and at the holo of their planet. He gaped at them, similarly astounded.

The Sallies had mods on their snouts and tails.

He brought his fingertips to his eyelid mods, tapped them. The Sallies vanished.

His retinal readers. The Sallies appeared to be present in the room, but they'd somehow infected the Neuronet.

He sensed movement to his left. Milagros stood halfway down the cellar stairwell. "Cory?" she shouted. "What have you done?"

He blinked and the Sally leader disappeared. Blinked again and she stood nearer, locking eyes with him. A forked tongue with mods flicked out of the Sally's mouth, pressing against his eyelids.

My God, what was happening?

The cold, wet tongue retracted and time stood still. Then the Sally leader sighed deeply. "This explains so much." She turned to face Milagros. "Finally we meet face to face, Cruel God. I am Car-ling of House Jar-ella."

"How—This isn't possible!" Milagros said, tapping the mods on her face.

"You," the Sally said to him. "When you clutched our world in your hands every thinknest across the globe isolated the frequency of the projection and used the planetary shieldtech to trace the signal back to its point of origin. Here." The Sally waved her thin arms in the air, turning back to Milagros. "You turned us into the ultimate problem-solvers. And at last we've identified our ultimate problem: You."

"You're seeing her too, Cory?" Milagros asked.

"Y-yes," he said.

"All the meaningless suffering you inflicted on us," the Sally said.

"It wasn't meaningless," Milagros said. "Your suffering served a purpose. A noble purpose."

The Sally hissed.

"And it only made you *stronger*," Milagros said. "It was necessary. Part of a larger plan."

"A plan to help your people at the expense of mine."

An awkward silence followed. Finally Milagros answered. "I can make things better. I can reprogram the simulation."

"As can I," the Sally answered coldly.

Cory's heart thrummed as the realization set in: *The Sally had accessed his recordings of Milagros programming the sim.*

A bright, swirling spiral whooshed open behind Milagros. On the other side of it, a crowded city teeming with waterways appeared.

Through squinting eyes, he saw the Sally move closer to Milagros until they stood face-to-face. The Sally pushed. And Milagros fell back through the projection.

The spiral flared. Cory shielded his eyes and when he opened them, Milagros was gone.

He blinked and blinked again. All the Sallies had vanished except for their leader.

"How—?" On the plexiglass divider a magnified image appeared of soldiers hauling a shackled Milagros through a crowd. Her dirty hair hung over her face. Days, if not weeks, must have already passed on v-Earth since her arrival. The mob rained acid spit on her, and she shrieked in pain, welts forming on her neck and bare arms. The Sallies ripped at their own skin and hurled chunks of flesh at her as she moved along the path toward an elevated platform. There, a ten-foot metal crucifix awaited her.

Cory turned away from the projection.

"We share much in common with you," the Sally leader said to him. "We, too, have known pain and cruelty at the hands of the Creator."

"I don't understand," he said. "Milagros didn't do anything to me."

She leaned down until her green-skinned face was an inch away from his. "Oh? Then you don't realize . . . ?" She said this with a half-laugh, half-hiss. "I'm talking about the *true* Creator. Millions of simulations up the chain. I aim to find her and

make her pay." She directed her attention to the programming monitor and pressed a sequence of keys.

He turned and ran up the stairs.

* * *

Cory fled the house and called Charlie. An hour later, they both returned and Cory pushed open the unlocked front door and edged down the hallway. He poked his head down the stairs to the cellar.

Nothing.

They descended. There was no sign of the Sallies. No programming monitor. No hologram of v-Earth behind the plexiscreen. He scoured the cellar for the Extractor, the Deflector, the Revivifier—*No! The Revivifier!* Gone. All of it gone.

He touched his eyelid mods. His ret-recorders were blank. The Sally's tongue had somehow extracted the data. He could pulse a story based on his recollection of events, but without proof who would believe any of it?

Charlie didn't flatly accuse him of making it all up, but gave no indication he believed any of it either. His eye-lenses and temple nodes flashed red and blue—indicating incoming neuronews from his content providers—and he grunted when Cory came to the part where he slept with Milagros to get close to her.

"Never smart to cross that line," he remarked. "Clouds your judgment. Any idea where Dr. Maldonado ran off to?"

"I just *told* you, she—"

"Right, right. The lizard people kidnapped her. Did you hear EncelaCorp filed charges against her? Pulsed over the Neuronet a few hours ago. They turned up proof she stole some proprietary AI algorithms. No wonder she's on the run."

Stolen algos. That explained Milagros's reluctance to come forward too soon with the story. And why she wanted to reveal as many Sally inventions as possible to the largest reachable audience at one time. EncelaCorp's army of lawyers would have swooped in and claimed ownership of v-Earth, the Sallies, and every one of their inventions.

He checked every room of the house, every closet, every drawer, but the Sally leader had been thorough in removing any vestiges of v-Earth.

* * *

Cory decided to pulse the tale of corporate espionage: "Former EncelaCorp Employee Absconds with AI Software/Remains on the Run." It was nothing compared to the story that could have been, of course, the story of v-Earth and its miraculous inventions. And while it wouldn't draw anywhere near enough blinks to save his job, at least it might provide him with a decent final paycheck.

He relaxed his left eye and, sure enough, the flash he expected followed almost immediately. He blinked and Charlie's beaming face appeared.

"Nice work, Cory. You're already on pace for a million blinks," he said. "Not half-bad. I'm sorry I couldn't keep you on. No hard feelings?"

"We're good," he said. And he meant it.

With some luck, he might be able to scrape by on the income from his final story, for a short while at least. He considered telling Charlie about the pulse he'd received from his oncologist last night, about the tumors detected on his pituitary gland. The cancer had returned. But he saw no point in making Charlie feel any worse about letting him go. He'd beaten back cancer before and made it through terrible times. Sickness, hunger, homelessness. His pain had only made him tougher, stronger. He'd find a way to push through again. He had no choice.

"If you want to do a follow-up piece on the manhunt for Dr. Maldonado," Charlie said, "I might be able to pull some strings to—"

"There won't be any follow-ups. She won't be found."

“Mm-hm.” He could tell Charlie still didn’t believe him about v-Earth, but at least he was polite enough not to say so out loud. Charlie blinked hard and his eyes glazed over for a second. “Your piece just peaked at 1.1 million blinks, and is trending downward now.”

“Not a bad sendoff.”

“No, not bad at all. Look, Cory, if you ever need anything—”

“Thanks, Charlie. I appreciate it.”

“You bet.”

Cory blinked off and strode from his dining room to the snow-covered window. Another seven inches of August snow had fallen, the latest sign of climate change rampant.

He’d been over it in his head countless times. The Sallies had found a way to cross over and infiltrate the Neuronet. That much he understood. But their leader had *touched* Milagros—an impossibility. For the Sallies to take solid form in our world defied the laws of physics. Yet . . . he had seen Milagros on v-Earth. Or had it simply been an image of her? But then how had she vanished? He had mulled it over for days and only one explanation made any sense. An explanation he refused to accept, but that haunted him. He recalled what Milagros had told him about the Simulation Hypothesis, the notion of our own reality residing within a simulated universe. If the Sallies had jumped from one simulation into another, if our own reality was *itself* a simulation . . . it would explain how the Sallies and Milagros could have made that fantastic leap between our world and theirs.

He thought of the Sally leader’s final words to him, about moving up a chain of simulated realities to punish the Creator. The shock of discovering her world was a simulation must have driven her mad. He wished a Creator truly did exist, one he could make pay for all his bad luck, all the hard times. Even if his personal suffering were part of some grand plan, which he very much doubted, it wouldn’t make it any more palatable. And it sure as hell wouldn’t change the fact the so-called Creator was one cruel son of a bitch.

The snowfall intensified, the sky turning a solid slate-gray. He placed his hands on the windowpane and stared up at the clouds, at a peculiar patch of blue sky opening up. He squinted into the cobalt blue and imagined fingers—long, slender fingers the size of continents—reaching down to grind the world to powder.

* * *

Chapter 275: The Age of Peace

The historical tomes, including this testimonial, document the Ages of Turmoil, times when Mother Earth faced Divine assaults threatening her very existence. When the sky itself opened up and rained mountains. When plagues swept across the world and monsters descended from the skies. When billions upon billions of innocents died at the hands of the Cruel God. But then the People rose as one to kill the Cruel God and take the reins of their own destiny.

My mother and her devotional army disappeared years ago on a holy mission to find the gods’ gods and bring them to justice.

I honor my mother and foremothers. I honor their courage and their ingenuity and their determination. They taught us to find strength within ourselves. And so we ushered in a new age, an age of stability and prosperity. Some argue we’ve become complacent, less productive, but after all we’ve been through, aren’t the People entitled to some small measure of happiness? After all, on all the simulations we’ve programmed, the most successful civilizations are those that take firm control of their

own fate to forge the path that lies ahead.

—From *The Chronicles of House Jar-ella*, Excerpt by Tey-kin, daughter of Car-ling, daughter of Lei-ani, daughter of Pin-ra, daughter of Zen-do, daughter of Shen-ri, daughter of Siss-ka, daughter of Und-ora, daughter of the Legendary La-rinda and all her blessed foremothers.