

SCIENCE FICTION STORIES AND MORE

JAN-FEB 2021

DARK MATTER

MAGAZINE



MIGUEL AGUILAR
DERRICK BODEN
OCTAVIA CADE
ANDY DUDAK
RICH LARSON
SLOANE LEONG
RAY NAYLER
CHRISTI NOGLE
ARULA RATNAKAR
MALENA SALAZAR MACIÁ
SOLOMON UHIARA
ANDRÉ VIEIRA AUER
RICHARD WAGNER

FIRST ISSUE

EVIM'S CHILDREN A BOLT OF LIGHTNING FAULTY WORKER PROCESS
BODHISATVA FROM BIT THE EXTERMINATION DEVICE OF THE BLACKSMITH
THE PAST AND FUTURE LIVES OF TEST SUBJECTS FINISHERS
TRIPPING THROUGH TIME DESTRUCTION OF TROY A BILLION BODIES MORE

001

SCIENCE FICTION STORIES AND MORE

JAN-FEB 2021



DARKMATTER

MAGAZINE

This book is a work of fiction. Any reference to historical events, real people, or real places are used fictitiously. Other names, characters, places, and events are products of the author's or artist's imagination, and any resemblance to actual events or places or persons, living or dead, is entirely coincidental.

Copyright © 2021 [Dark Matter Magazine](#), LLC

All rights reserved. No part of this book may be reproduced or used in any manner without the prior written permission of the copyright owner, except for the use of brief quotations in a book review.

Edited by [Robert Carroll](#), [Lucy McLaughlin](#)

Cover art by [Richard Wagner](#)

Cover design by Robert Carroll

Layout by Robert Carroll

Interior art by [Miguel Aguilar](#) copyright © 2020, [Arula Ratnakar](#) copyright © 2020, [André Vieira Auer](#) copyright © 2020, Adobe Stock copyright © 2020

Printed by permission.

"Faulty Worker Process" by [Derrick Boden](#) copyright © 2020

"The Past and Future Lives of Test Subjects" by [Octavia Cade](#) copyright © 2020

"The Past and Future Lives of Scientists" by Octavia Cade copyright © 2020

"Bodhisattva From Bit" by [Andy Dudak](#) copyright © 2020

"Tripping Through Time" by [Rich Larson](#) copyright © 2020

"A Billion Bodies More" by [Sloane Leong](#) copyright © 2019; originally published on October 15, 2019, by Third Flatiron Anthologies in Book 26, *Infinite Lives: Short Tales of Longevity*

"Evrin's Children" by [Ray Nayler](#) copyright © 2020

"Finishers" by [Christi Nogle](#) copyright © 2020

"A Bolt of Lightning" by [Malena Salazar Maciá](#) copyright © 2020

"La Corte de los Relámpagos" by Malena Salazar Maciá copyright © 2020

"The Extermination Device of the Blacksmith" by [Solomon Uhiara](#) copyright © 2020

Printed by permission.

ISBN 978-1-0879-2825-8 (paperback)

Dark Matter Magazine

P.O. Box 372

Wheaton, IL 60187

darkmattermagazine.com

darkmattermagazine.shop

SCIENCE FICTION STORIES AND MORE

JAN-FEB 2021



DARKMATTER

MAGAZINE



darkmattermagazine.com

darkmattermagazine.shop



COVER ART

PANDEMIC

by [Richard Wagner](#)

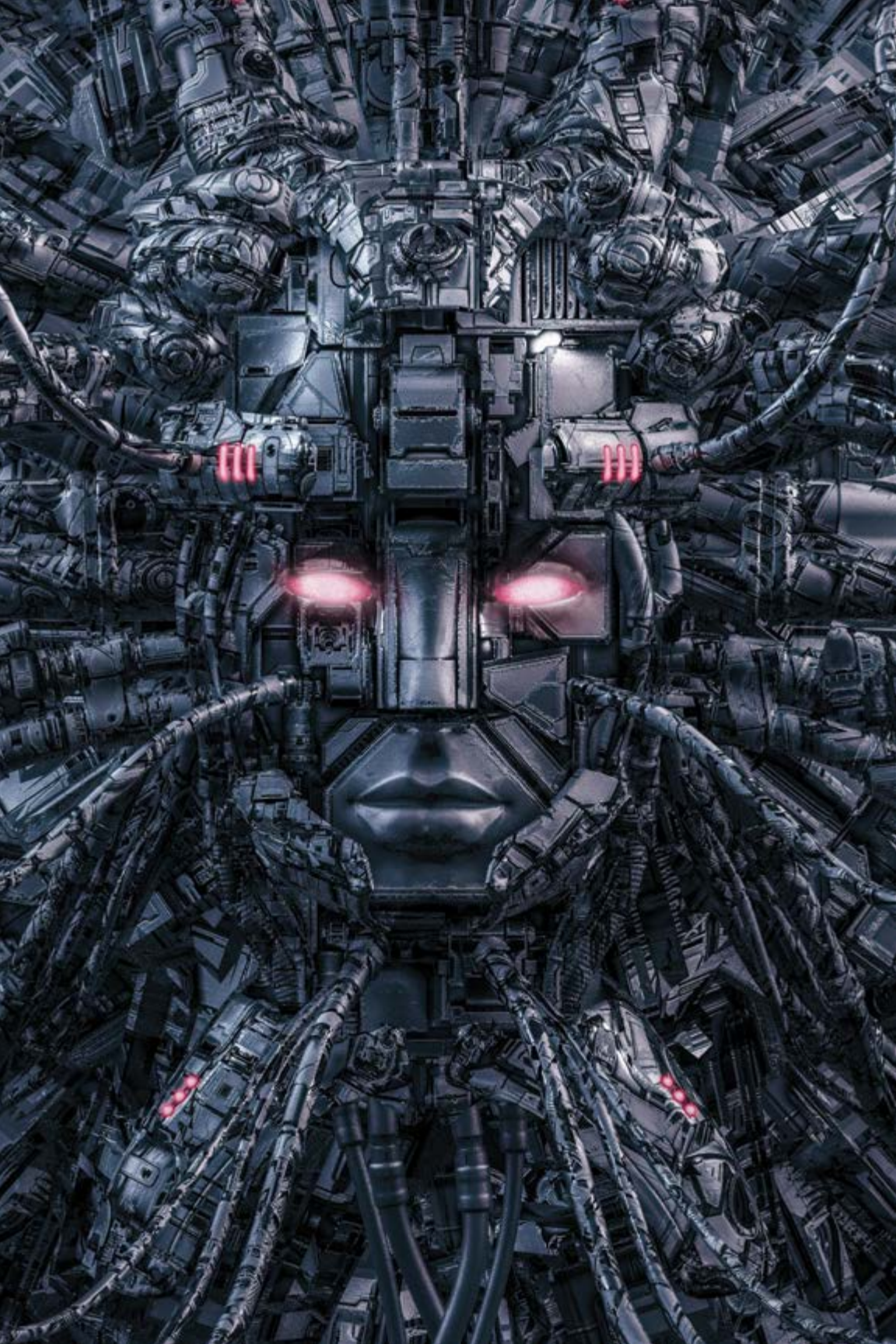
The world is experiencing tragic times right now. So many people have fallen ill, and far too many have died. When the COVID-19 pandemic first hit, there was chaos and uncertainty. It felt like we were being blindly led to some kind of alien slaughter. But in the midst of all the fear, there were men and women among us who chose to stand up, let the fear pass over them, and then set out to meet the daunting challenges laid before them. This is what I tried to express in this month's cover art. What might the image bring to your mind?

Stay safe.

—Richard Wagner



Pictured left (cropped) and above (full): *Pandemic*





DARK MATTER STAFF

Rob Carroll

Editor-in-Chief
Creative Director
Contributing Writer

Lucy McLaughlin

Senior Editor
Podcast Contributor
Contributing Writer

Phil McLaughlin

Associate Editor
Director of Adapted Media

Eric Carroll

Associate Editor
Producer of Adapted Media
Director of Media Relations

Chris Kendzora

Associate Editor

Anna Madden

Proofreader





KICKSTARTER SUPPORTERS

Dark Matter Magazine would like to take this page to say thank you to all of our Kickstarter backers. Your support made this project possible.

We'd like to give a special thanks to the following list of backers in particular. These kind supporters pledged a significant amount of money to our project.

Pamela Bricio and David Ano

Kent and Barbara Beaverson

Danny and Debbie Carroll

Mark and Kelsey Carroll

Samantha Carroll

James Chung

Bob and Maryann Collins

Tom Driscoll

Trevor Elliot

Brian and Linda McLaughlin

Brooklyn Lovelass

Shannon Lovelass

Terry and Patty McGuire

Alan Vincent Michaels

Jeff and Liz Tunkel

Big Turkey

We can't overstate how grateful we are for the generosity of these individuals, as well as the generosity of *all* the backers that weren't listed here.

Thank you.

CONTENTS

LETTER FROM THE EDITOR

<u>WHY DARK?</u>	<u>13</u>
<u>Rob Carroll</u>	

FICTION

<u>TRIPPING THROUGH TIME</u>	<u>17</u>
<u>Rich Larson</u>	

<u>BODHISATTVA FROM BIT</u>	<u>31</u>
<u>Andy Dudak</u>	

<u>FINISHERS</u>	<u>45</u>
<u>Christi Nogle</u>	

<u>EVRIIM'S CHILDREN</u>	<u>61</u>
<u>Ray Nayler</u>	

<u>A BOLT OF LIGHTNING</u>	<u>75</u>
<u>Malena Salazar Maciá</u>	
Translated by Toshiya Kamei	

<u>THE EXTERMINATION DEVICE</u>	
<u>OF THE BLACKSMITH</u>	<u>91</u>
<u>Solomon Uhiara</u>	

<u>FAULTY WORKER PROCESS</u>	<u>97</u>
<u>Derrick Boden</u>	

<u>THE PAST AND FUTURE LIVES</u>	
<u>OF TEST SUBJECTS</u>	<u>111</u>
<u>Octavia Cade</u>	

EN ESPAÑOL

<u>LA CORTE DE LOS RELÁMPAGOS</u>	<u>79</u>
<u>Malena Salazar Maciá</u>	

REPRINT FICTION

<u>A BILLION BODIES MORE</u>	<u>139</u>
<u>Sloane Leong</u>	

NONFICTION

<u>THE PAST AND FUTURE LIVES OF SCIENTISTS</u>	<u>123</u>
<u>Octavia Cade</u>	

ART FEATURES

<u>COVER ART</u>	<u>5</u>
<u>Richard Wagner</u>	

<u>MAD, MAD WORLD</u>	<u>55</u>
<u>Miguel Aguilar</u>	

<u>DESTRUCTION OF TROY</u>	<u>83</u>
<u>Arula Ratnakar</u>	

<u>MIDNIGHT MELANCHOLY</u>	<u>133</u>
<u>André Vieira Auer</u>	





LETTER FROM THE EDITOR

WHY DARK?

[by Rob Carroll](#)

It was a random summer evening in June, and for many people, the world was feeling on the verge of collapse; yet there I sat, safe and sound at home, messing around on my computer like it was any other Thursday night. Maybe—relatively speaking—it was. The COVID-19 pandemic had been stateside for a few months, and my wife and I had long since settled into our new rhythm of doing nothing, going nowhere, and working remotely from home. Plus, the weather in the Midwest had warmed enough to where we could safely visit with extended family for a brief, socially-distanced gathering outside on a back deck somewhere. It was at these gatherings that my parents would sit six feet away from my one-year-old daughter and make silly conversation with her, or perhaps just watch with joy as she ran around the back yard like a giddy child possessed.

So, yeah. Maybe it *was* just another Thursday night.

Maybe.

But that's when the question on my computer screen reminded me that *no*, life wasn't normal—not for me; *especially* not for others—and to pretend otherwise would be a lie.

Why dark science fiction? the question asked.

It was a question that had been emailed to me as part of an interview regarding my role as Editor-in-Chief of this new

thing I had started called *Dark Matter Magazine*. I began the project on a whim a couple of months prior and, lucky for me, some people were actually beginning to take notice. They even wanted to hear my thoughts on things. *Unlucky* for them, I'm not very interesting.

Why dark science fiction?

The question stared me cold in the face.

It might as well have just asked: *Why dark?* That's what it was hinting at, wasn't it? Or maybe even more poignantly: *Why now?*

It was a fair question to ask, and one that I had pondered a lot in the weeks prior. If it were any other year, the question would have been easy to answer: I love dark fiction, and I love science fiction, and I love them even more together. But such an answer—honest though it may be—felt tone deaf amid the current sociopolitical climate.

Despite my selfish attempt to normalize life, in reality, the United States was absolutely reeling from the kind of cataclysmic confluence of events that are only experienced once every few generations. The pandemic was no doubt the headline on most news days, but contributing equally to the chaos were symptoms of climate change (e.g. tropical storms, hurricanes, and wildfires), symptoms of economic crisis (e.g. massive unemployment, failing industries, and widespread small business closures), symptoms of racial injustice (e.g. family separations at the border, Black men and women dying at the hands of police, and threats to immigration programs like DACA), symptoms of authoritarianism (e.g. an administration working to undermine a national election, a science-denying pandemic task force, and a president that routinely demonized the American free press), and yes, even symptoms of state-sanctioned white supremacy (e.g. "stand back and stand by").¹

Why now, indeed?

Why not seek to publish work that is hopeful? Work that envisions a brighter future. Work that offers solutions, builds bridges, champions truth and justice, aims for peace.

To be honest, I don't have a great answer for that. While it's true that I often adhere to the Frederik Pohl theory of science fiction—"A good science fiction story should be able to predict not the automobile, but the traffic jam"—I can't help but think he's only half right.

¹ I am writing this letter during the final week of October 2020, and the country is still suffering from most, if not all of the problems listed. To make matters worse, the number of COVID-19 deaths in the United States just recently surpassed 225,000.

And then it dawned on me.²

Dark fiction is not necessarily devoid of hope or progressive solutions, and it most definitely does not ignore injustice. In fact, dark fiction is a great way for both artist and audience to explore existing power structures that are hindering love and liberty. It gives us the courage to look those obstacles boldly in the face, together. Once those structures are identified, we can strip them of their power and march fearlessly onward toward catharsis. Catharsis is a starting point for hope. Hope blossoms into change. Change culminates in healing.

So while dark fiction might not pose a direct solution within its pages, it successfully shines a light on the problem. Society needs artists who are brave enough to wave their torch at the shadows just as much as society needs the artists who are willing to take what once was dark and haunted and make it bright and livable again.

The more I think about it, the only real difference between dark fiction and hopeful fiction is the way in which the story ends. Dark fiction ends with a question. Hopeful fiction ends with an answer. Dark fiction urges contemplation. Hopeful fiction inspires action.

Without contemplation, there can be no meaningful action.

Without action, contemplation is made powerless.

Pohl isn't saying that the future is doomed to dystopia. He is merely urging mankind—artists especially—to examine the roads ahead. He is asking science fiction writers to brave the wilds with torch in hand, ready to expose the dangers that lie in wait. Pohl is asking us to be contemplative people of action. He is asking us to pave the road, map the wilderness, and forge a better future.

Hope will greet us there.

Sincerely,

Rob Carroll
Editor-in-Chief

² These final paragraphs on dark fiction's relation to hope and a brighter future were written on November 8, 2020, the day after Joe Biden was announced as the United States President-Elect. I don't think it's a coincidence that I found the words I had long been looking for on this of all days.





TRIPPING THROUGH TIME

by Rich Larson

It's the Great Fire of London and I'm serving biofarmed eel canapés. Smells and sounds don't get through the bubble, or I guess they call it the chronofield, but I can see plenty: thatched roofs going up like match heads, blue-and-orange flames licking and crunching on wood, smoke tunneling up into the hazy sky, people running for their lives. It's a trip.

I shouldn't be watching, though. I gotta sling these canapés and then get more champagne flutes out the chiller. Clay, who is now head server, stuck her whole bony neck out to get me this job. I spot her across the way, offering appies to three musty old men posted up at the shimmering edge of the chronofield. She's autosmiling and hide-the-pain laughing at whatever junk they are saying to her.

Usually her hair is a rust-colored buzzcut, but today she's wigged up, all straight and glossy and long, because it's one of *those* gigs. They also got us in period costume, which is not falling-apart sweatpants but instead these stiff, soot-smearred dresses that actually, me to you, look somewhat good in an aggressively retrobomb way.

I waltz over to the riverbank where our employer, Mrs. Silverwright, is holding court like some kind of primeval sea goddess. She's wearing this unbelievable half-holo gown that looks like a perpetually crashing wave, all foamy and what-not, and her bass-clipped hair is billowing in perfect tendrils

around her face, and her cheekbones are so, so deadly. Sometimes I just stare at them.

“That’s the issue, isn’t it,” she says, plucking a canapé off my tray. “If we hosted at, say, the building of the pyramids? It could be an entire day spent watching one slab of rock get hauled up a sand dune. The signing of the Declaration? Over in minutes.”

Her admirers nod and tutter.

“I’m afraid destruction simply schedules better than creation.” Mrs. Silverwright gestures over her shoulder, where the river’s reflecting the orange flames in a ripply dance. “And it’s not as if we’re the only ones drawn to the spectacle. People came from miles around to watch London burn.”

I can see another boatload of people rowing through the dirty water, smeared with actual soot, eyes bright and panicky. It’s shitty for them, but like Mrs. Silverwright told us while we were setting up, these people have been dead forever. And we can’t leave the chronofield anyways.

An old woman does the classic forearm grab, clawing me up with her nails. “Excuse me,” she says. “Is this eel or elver?”

In my head I’m like, *it’s whatever you want it to be, baby.*

In real life I’m like, “This is eel, ma’am. Imported from a biofarm in Andalusia, served on crostini with a balsamic reduction and sesame seed topping.”

She hucks it right in the Thames.



But all in all, it’s not a bad gig. Me and Clay keep circulating, and every so often we pass like two satellites in orbit and beam each other information about who’s getting too drunk, or too handsy, or just keeps saying the stupidest shit. People are really into watching London burn down, so they’re easy to please. Honestly, the hardest part was probably the pre-job testing.

Rich folks already got all these custom telomeres and whatnot, which makes it easier to get modified for the chronofield. Us caterers do not, and apparently some people have a real rough time inside that pretty shimmery bubble. Like, the girl before me just started bleeding out her nose and ears one night, gushing all over the white linen tablecloths and babbling about how sorry she was.

I’ve got the right genetics for the mod—as proven by a shitload of tests in this little bunker slash office where I had to wear a big circuitry-swatched apron—but I still feel woozy when we zap back to reality,

which is a big antiseptic-white tent. Me and Clay keep the smiles stapled on while all the guests flit away to their limos or quaddies. Then we help our chef-slash-serving captain and her bot load up all their shit, and then we finally hit the detox.

The magnetics make my skin grow goosebumps and tug my hair all over the place. Clay's gets lifted straight up for a second, and I can see the edge of her lace front. The scan blinks green.

"That's some good money," she says, stepping out of the booth. "And it's rad, right? Seeing the past. I mean, you can't touch it, but it's rad."

As soon as I get out of the detox booth, I grab my phone from the storage locker and see she was right: the money is good as hell. I pump my fist a little. "Hey," I say. "Thanks for getting me this, Clay. This is *big* necessary right now."

"Hey," she says. "I know." She pauses. "Mrs. Silverwright likes you, too. We could get you on regular. Sisterhood of the time-travelling pants type shit."

I blink. "She *likes* things?"

"Micro-expressions," Clay says. "Gotta be watchful."

We bump elbows, mask up, and part ways: Clay to her ride, me to my metro. There's another virus going around, so every second seat in the tube has one of those 3-D printed spike pads glued to it to keep people from sitting too close together. But of course that just means more people are standing crammed up in each other's mouths. I try to face the corner the whole ride.

The apartment block's in quarantine mode when I get there. The door sprouts me off a little swab to run around my nostrils, then I sit tight on the stoop while it does its thing. It's a warm muggy night, warmer than London on fire, which seems backwards to me. The bubble must be climate-controlled.

Finally, the door chimes me through and I scurry up the steps. Me and my mom are on the third floor—one of those half-suites with an epoxy wall installed to double the number of units. Sometimes at night we hear our neighbors on the other side moving around. Mom used to joke with me about them being ghosts, or maybe creepy mirror versions of us with black button eyes. She got that from a book she read me as a kid.

The door to our apartment has another quarantine warning blinking on it, like maybe three flights of stairs was long enough to forget. I shoulder it open and head straight for the sink.

"Hey, is that my little time traveller?" my mom calls from the next room. Her voice is a little scratchier than usual. "Is that my little quantum jumping bean?"

"Woman, what does that even mean?" I call back.

I don't come out of the bathroom until I'm fully scrubbed and my outer clothes are in the laundry. Mom doesn't get flare-ups too often anymore, but

she's on immunomodulators all the time—colitis—so I've been washing my shit good for years already. The coconut-scented disinfectant gel is pretty much my signature fragrance.

Mom is at the kitchen table, peering at her work tablet. When she looks up, I can tell she's relieved to see me in one piece and not, like, turned into a fetus or something. "Hey, hon."

"Queen of England says hi," I tell her.

"Unbelievable, the shit they use it for," she says, sounding grudgingly impressed more than angry. "Parties! Just sitting there watching a city burn down."

"Can't really do nothing else," I say. "We're all stuck in the chronofield, right?" And I think, *they dead anyways*, but I don't say it, because it's the kind of thing that'll get her actually angry. I'm tired and achy and I want to just chill and enjoy the fact I got paid. "You test today?" I ask.

"Just now," she says, nodding at the kit magnetized to the fridge. "Clean as a whistle."

I wrap both my arms around her and give her a big squeezing hug. We smell like the same soap, but she has her mom smell going on, too. There's this safe warm feeling when you're with someone you love and you're both clean, especially after a couple weeks doing distance and isolation, and you know you can hug them. Me to you, I think it might be the best feeling in the whole fucking world.



Next party I work is a week later, and also like six hundred years ago. It's some famous battle: big muddy hillside, people clanking around in armor, arrows flying everywhere. The rain sleeting down doesn't get through the bubble, but some of the guests are going around with fashionable black umbrellas anyways. I'm a little distracted tonight and Clay notices; she intercepts me right as I run out of deconstructed patatas bravas.

"You good?" she asks.

I nod.

"Your mom good?"

I don't want to burden Clay with this shit, not when she's already burdened with her own shit, but she has those big soulful eyes you just want to confess stuff to. "Tested red yesterday morning," I say. "Not IDed yet. I keep thinking I must have brought something in, you know?" I whirl my finger. "Like, maybe even something from here?"

"No way," she says. "Detox, remember? And you wash hard, girl. You wash better than my brother, and he's a nurse."

"Thanks, Clay." I pause. "Your parents okay?"

"Holed up and healthy, yeah," she says. "Just jealous I'm out here breaking physics while they stuck inside playing canasta."

She spots someone's glass running low and darts over before it hits critical empty. I circle back to the kitchenette to restock my tray. I'm just starting to feel better when a soldier eats shit right in front of me, staggering out of the mist and collapsing just outside the chronofield. He's so full of arrows it should be funny, he's got six, no, seven, one's broken off in his belly.

But his blood is bright red, leaking down into the mud, and the shimmer distorts his face but for a second I swear he's staring right at me. I know he's been dead for hundreds of years already. He doesn't look dead, though. He looks desperate. It's not funny.

A drunk man shows up, one of the guests who was placing bets earlier on who was going to get trampled by their own horse. He has a wine stain on his crisp white sleeve. "Oh, my God, that's horrible," he says. "Hold this. I want a souvenir."

He hands me his glass, sloshing half of it into the dirt. I'm too shook to do anything but take it. The functional part of my brain figures he wants to take a snap of himself with the dying guy in the background, but instead he slides this metallic prong out of his sleeve and pushes it against the chronofield.

A poison-yellow warning holo pops up. He shunts it aside, keeps pushing, and suddenly a small hexagonal chunk solidifies in the shimmery surface of the bubble. The node falls away. The guest gives a grunt of satisfaction, eyes fixed on the arrow sticking out of the dying guy's back.

"Heath? What are you doing, man?" His slightly more sober buds have spotted us. "What's he doing?"

Heath snaps a glove on, wriggles his fingers, and shoves his arm through the chronofield. Everybody shouts and jumps and rushes forward at the same time, everybody except me, because I'm still standing there holding Heath's wine glass and watching the soldier bleed out. The shouting cuts off. Heath is staring at his arm, which is intact on the other side of the bubble, with that drunk bleary kind of self-amusement. Someone does a nervous laugh.

Then Heath starts to scream. His lanky arm is whipping around like a popped balloon, and somehow it's shrinking like one too, collapsing in on itself, bones crunching bones and skin slurping skin. He staggers back, and only a stump comes with him. He's screaming, I'm screaming,

everyone's screaming. The little medidrone me and Clay helped load up comes whirling over to see what's going on. It clamps itself to the blood-spraying end of Heath's not-arm.

One of his idiot friends is shaking me like, *why didn't you stop him*, like, *you overserved him, you overserved him!* Which is so fucking absurd I will laugh if my throat ever gets unstuck.

Mrs. Silverwright sweeps in and detaches him, shoves him away. "Are you okay?" she asks. It takes me a second to get she's asking me.

"Yeah," I say. "Yes. Ma'am."

We both look down at Heath, who is still writhing around on the dirt. The thing that he used to open the hole, the metallic prong, is lying beside him.

"What a fucking clown," Mrs. Silverwright says. "One in every family, I suppose." She gives me a pat on the arm, then turns to her clustered guests. "The party's ending early today, darlings."



When I get back to reality and back to my phone, there's a message from my mom telling me she got her bug IDed and it's a SARS variant. I don't show it to Clay. She's still buzzing about what happened with the chronofield, how that dumbshit deserved to lose more than one limb. I nod and nod and nod, and even laugh, and then we go our separate ways.

The whole metro ride I got this dread in my belly, and guilt for the dread, which feels bad too. I walk slow from my stop, sauntering down the empty street. Halfway home a drone flits up, yammering about curfew, but I got an employment blit from Mrs. Silverwright so I'm in the clear. A couple minutes after that, I'm waiting on the stoop for the apartment door to read my swab, and the dread's getting worse and worse.

The scan blinks green and the door opens, which also opens my lungs, at least a little. I head down the hall. Our door's got a new pictogram now—a notification that says, *infected individual in isolation*. I shoulder it open and beeline for the bathroom.

"Well, well, I have been blessed with a visitor from the distant past." My mom's scratchy cheery voice is coming from the portable speaker on the kitchen table—she's already gone full iso in her room. "How was Agincourt?"

I think about the man full of arrows, and Heath the rich drunk clown reaching for him, and Heath's arm turning into flesh-spaghetti and disappearing.

"Rainy," I say. "You okay? Still flaring?"

She doesn't answer, and that makes me scrub harder, like I can squeeze a

reply out of my slippery hands. “I’m okay, hon,” she finally says. “But I’m on Waitlist for a hospital bed.”

I get the trapdoor stomach thing, where it feels like all your guts just dropped out the bottom of you. I pull my phone out of the disinfectant tray and pull up Waitlist. Friends and family notifications: a great-uncle here, an old classmate there, and sitting buried in the 932 spot, my mom.

“Bad timing,” she says. “They just got a big surge.”

My mom had me late and she turned sixty last year. That, plus colitis and other IBDs getting reclassified as comorbidities a while back, means she’s low priority.

“Company can’t bump you up?” I ask.

“They barely cover my immunos and liver check-ups. They’re not gonna up and find me a bed.” She bites back a cough, and that spikes all the little hairs on the back of my neck.

“How you breathing?” I ask. “What’s your peak flow?”

“If I link you all my numbers, you’re just going to worry. You can’t change the numbers, hon.” She pauses. “I’m reading the complete works of Tennessee Williams. How about you make something to eat, get cozy in bed...”

I go to the kitchen and fix up some food and clean everything on automatic. Spray, wipe, spray, wipe. Mom got a drone delivery while I was working. A big box of my favorite knock-off Nesquik cereal is on top of the fridge. Same taste, fewer atrocities—I said that when I was a kid and Mom never let me forget it.

I don’t go to my room, though. Instead, I go sit with my back to my mom’s door, so I can hear her shifting around in her room, so I can almost feel it. We do up the camlink so we can see each other. Her liver-spotted hands are holding an old battered book of plays. She’s halfway smiling. She can tell I’m not in my bed, but I think she gets it.

Me to you: Tennessee Williams is not my thing. I kind of doze off, shoulder blades slowly sliding down the door. But I do hear that one part I always remember, from the very start of *The Glass Menagerie*, where their eyes fail them, or they fail their eyes, and they get their fingers pressed forcibly down on the fiery braille of a failing economy. That shit has been happening for centuries.

Mom works in contact tracking, for a company called Hund. They mostly take care of her meds—colitis is not cheap—but they don’t have provisions for virus season. While she reads, I split off a new tab and start searching around Hund’s policy site, which is basically all fucking nonsense.

But when I move up to their conglomerate’s policy site, I spot something co-signed by Aline Silverwright.



I get my shot during the Toba catastrophe. Mrs. Silverwright breaks away from her flock and goes over to the edge of the chronofield, checking something on her embedded wrist screen. She looks as regal and beautiful as ever, with her heartbeat and other organ functions transposed to the fabric of her dress in an elegant anatomical collage.

Outside the bubble, a bunch of people in extremely retrobomb attire—animal skins and bark type shit—are staring off into the distance at a growing pillar of smoke. Earlier I heard somebody say that they're not *Homo sapiens*, they're some other kind of hominid, but they look human to me.

Anyways, I'm glad me and Clay are wearing chamsuits instead of period costume. It's a weird feeling, only being able to see your gloved hands, everything else just a blur. But you get to pretend you're a ninja and it's not like the guests treat you much different.

"Mrs. Silverwright?" I say, from a distance so I don't startle her by accident. We're out of earshot of the other guests.

"Hello, darling," she says. "What is it?"

"My mom works for one of your companies," I say.

She gives a tight smile. "Small world."

There's no smooth chill way to say it, and I have to say it now, before she gets distracted. Before I lose my nerve. Before I start thinking about how she might freak and dump my contract, dump Clay's contract too, just for good measure.

"She's sick with the new bug and she's high risk," I say. "She needs a bed, or a medidrone, and her company won't pay out, so she's stuck on Waitlist, and I was hoping you could help."

Mrs. Silverwright fixes her apologetic eyes just to the left of where my head actually is. "I'm sorry to hear that, darling, but now's really not the time," she says. "The magma's about to start. Make sure everyone's got a glass. Boris will probably try to do a toast of some sort."

She walks off, and I realize I been wearing a chamsuit my whole fucking life. I go get the champagne. The guests are congregating at the edge of the bubble, most of them sitting on little modular stools we helped the bot unload. On the other side, the people who are hominids are agitated, some muttering to each other, some just watching, stock still, eyes wide, as the sky gets dark.

Everyone's got a glass. I back away to the kitchenette, because I don't want to watch a volcanic eruption kill people who are already dead. I'm hoping Clay will circle back, too, and we'll get a slice of time to talk, and I'll tell her what happened.

“This shit is so barbaric.”

Not Clay’s voice. I look up and see this girl in a swirling lime green holojacket holding a vape to her pouty lips. She’s got the same cheekbones as Mrs. Silverwright.

“They could have viewed it from anywhere, but they pick a village, so they can see people being fucking terrified,” the girl says. “What’s next? The Tulsa massacre?”

I just stare at her.

“I’m only here for my dissertation, but I don’t know if it’s even worth it, like, morally?” She turns her head and blows smoke. The volcano’s still billowing ash into the sky behind her. “If the chronofield failed, they’d deserve it. Honestly.”

“Huh,” I say, deploying the all-time safest, most vanilla word on instinct.

“I feel so bad for you, having to watch this kind of shit,” the girl says. “I’m sorry. Just wanted to say that. I should get back to the jackals now.”

She thrusts out her pale moisturized elbow, pretending like she’s a chill normal person and half her bloodstream is not composed of artificial leukos. I bump her back. It hurts so bad. She smiles, like she did me some kind of favor, then stumbles back to the party.

The volcano blows and I can see Mrs. Silverwright’s heartbeat racing on her dress. I remember how she looked like a goddess to me the first time I saw her.

Fuck.



My mom is playing music when I get home, streaming some electrotango, the kind of stuff she used to dance to back when social dancing was a thing. Sometimes I hear the floor creak a certain way and I know she’s gliding around in there. Sometimes, when we’re both clean, she’ll get me to be her follow, and I’m pretty damn bad at it but it’s okay.

I go to the bathroom and scrub. She’ll be pissed if I tell her what I tried with Mrs. Silverwright, because it was risking my job and whatnot, but at the same time I want to tell her.

I want to tell her how Mrs. Silverwright apologized to the space beside my head, and how her heart started racing when she saw the volcano blow, and how the hominids, the people, were so scared but nobody really gave a fuck—not the girl with the holojacket and not me, either.

It was a bad, bad trip. I dry my coconut-smelling hands on a fresh

towel, then pick up my phone, wiping the last of the disinfectant off its screen. I send Mom a little door-knock pictogram.

No read, no reply.

For a second I imagine it's because she's dancing, sweeping up and down the narrow space between her bed and her closet, but she showed me her lung function yesterday and I know she's not. I go to her door and knock for real.

"Mom? I'm back to the future, or whatever." My voice is all high and tight and I can't fix it. "You okay?"

No reply.

I get these dreams, sometimes, where I'm climbing a tree or a ladder and I fall, and there's this gut-lurch, and this horrible knowledge that you can't take it back. You can't redo the rung, or the branch. Your hand slipped and you're done.

I open my mom's door, wrapping my hand in my sleeve on automatic, and I start falling. She is smaller than I've ever seen her, curled up on her bed in the middle of this big damp wet spot. Her skin has gone gray. Her phone is lying on the floor where she must've dropped it, back cracked so the battery is peeking out.

She is holding her breath, the same way I am, like it's some kind of contest, and I think maybe if I just give up and exhale so will she. I breathe. Her ribcage does not move a millimeter. I am falling, falling, falling.

New strain. More aggressive. Can't touch her. Can't touch her. I call the emergency line and then I do it anyway, stumbling over to grip both her hands. They're cold. I start rubbing them, like that might help, the same way she did for me when I was little and I would come in from the snow and she would say, *icicle fingers!* and rub them warm again.

The AI on the emergency line is asking me to scan and link her vitals. She's dead, though. And I get this horrible thought: she was dead anyways. She was outside the bubble.



The next party is in Venice, back before it was underwater, but it doesn't even matter because I'm not even there. It feels like I'm a drone hovering along behind myself, watching me talk to the chef, watching me refill trays, watching me smile. Clay would know something's wrong. She would know it in an instant. But she's home isoing with the same bug everyone's getting now, same SARS variant.

So I float around the party, slinging feta zucchini gratin, and nobody can tell the ice truck finally came for my mom yesterday. Some of the guests are wearing little masquerade masks. A few have these black goggle-eyed ones with hooked beaks. Heath the clown is back, showing off a flexy new artificial arm, all sleek and white and Apple. The girl with the vape is here again, too, and she doesn't look at me.

Outside the bubble, the cobblestones are crowded with partiers, packed shoulder to shoulder how they never are now. Men and women in costumes are marching through the street. People are waving lanterns, spilling wine, playing bulgy-looking guitars. They look so happy.

"Poor dumb fuckers," Heath says, slurring even though I haven't served him any alcohol. "Getting their ticks all over each other."

This is the last big carnival before the Bubonic Plague hits. I heard Mrs. Silverwright talking about it with the sponsor earlier, like she was talking about cloudy, chance of showers. These happy people are going to be digging mass graves soon. This is the last night before the course of European history is altered forever, and it's a chance for solemn reflection on the ephemerality of something, something, something.

I watch myself get another bottle of Chardonnay out of the chiller. I'm wearing a checkered serving apron that looks dumb but has a pocket. In the pocket, I have this pointed metal thing that keeps poking at me.

Mrs. Silverwright is wearing a dress with photosensitive stalks that swivel around to follow the light, and it makes her look like she's made of snakes. She smiles at me when I serve the wine. Heath is pretending to put on a puppet show with his artificial arm, wrapping his real one around the girl with the vape, who giggles. I can hear my mom's voice reading that Williams line, *fingers pressed forcibly down on the fiery braille*, and I understand it now.

Some people will never feel anything until their hands get pushed down onto it. I wander to the edge of the chronofield and take the sharp thing out of my apron. It's a short metallic prong inlaid with circuitry and loaded, from what I can tell, with the other kind of virus. Me to you, I don't remember why I snatched it off the ground at Agincourt. Maybe I wanted a souvenir.

Maybe I wanted this. I push it against the shimmery wall of the chronofield. Wave after wave of warning holos pop up and I slap them all away. Heath the clown had it set to target one specific node. I simplified things: I got it set to target all of them. A beautiful Italian woman in a beautiful filigreed mask dances past me, so close we're almost the same person.

Little hexagons start to appear, not just where I'm pushing, but everywhere, all across the bubble, sprouting like metal flowers. A tremor goes through the whole chronofield. I hear panicky shouts. I keep pushing, but I look back over my shoulder. Mrs. Silverwright is running at me. The girl with the vape is shrieking at me.

"I didn't mean it!" she howls. "I didn't mean it!"

And that's true, too. They don't mean it. But they still have to—

Don't just read the story.

Experience it

with Dark Matter Audio Editions.

Every Audio Edition is performed by a professional voice actor and mixed by a professional sound editor.

On sale now for just \$1.99



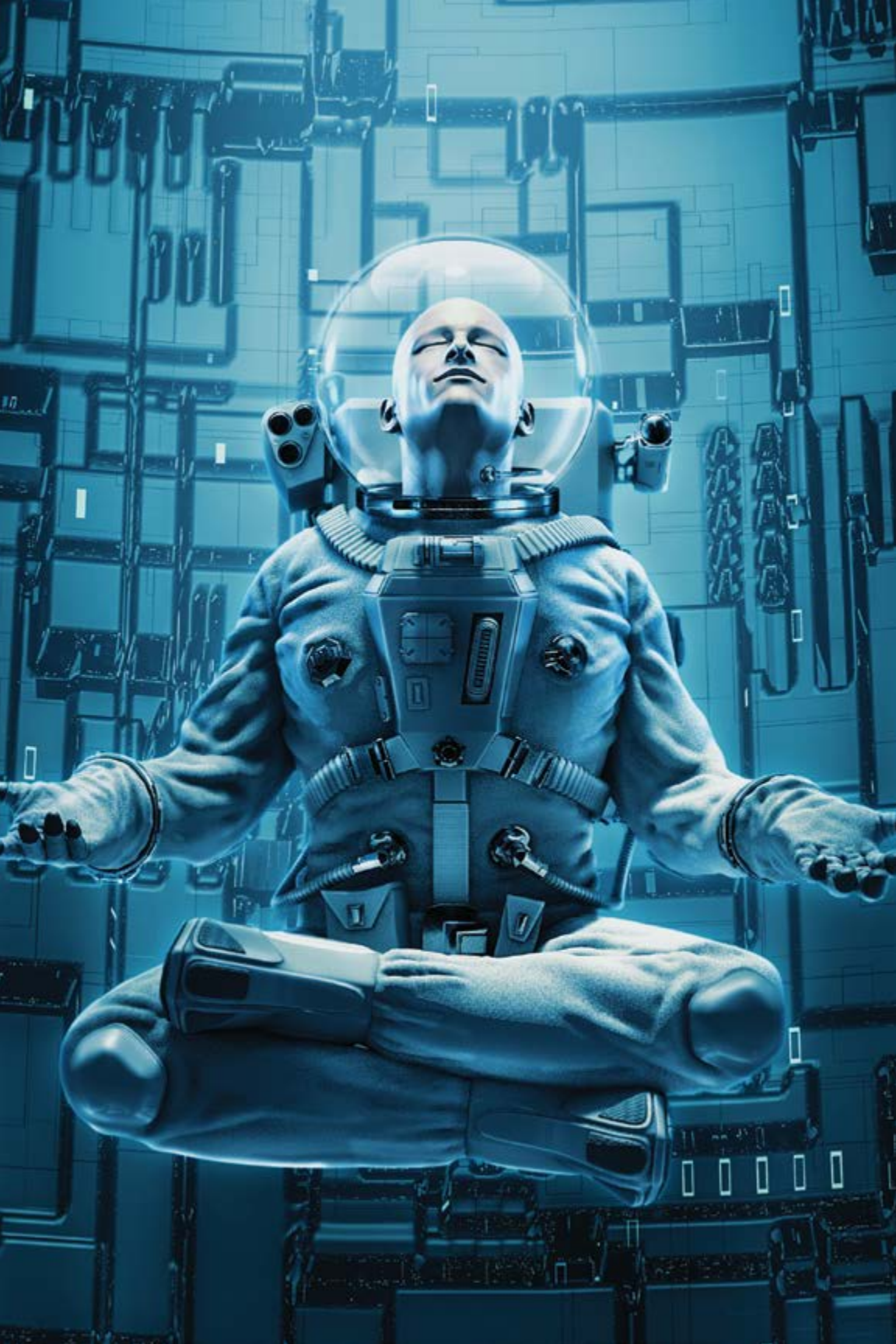
STORY
TRIPPING
THROUGH TIME

AUTHOR
RICH LARSON

PERFORMED BY
MOLLY JENSEN

DOWNLOADABLE
MP3

only at darkmattermagazine.shop





BODHISATTVA FROM BIT

by Andy Dudak

– 1 –

Emerson Carbonhouse is ready to die when, instead of the bullet shattering his temple and bringing welcome oblivion, time freezes like a video paused. The man holding the gun to his head is a statue. The other home invaders stand likewise motionless, caught in sudden criminal dioramas. The one that was tossing the kitchen is trapped in a suspended cloud of macaroni and prescription bottles.

Emerson gulps panicked breaths in the profound silence.

His eyes flick from detail to impossible detail. He's still alive, still in motion through some kind of time, but this is not a relief.

His father lies sprawled on the floor by the fireplace. The brickwork is splashed with blood. The pool of blood around the old man's head has stopped expanding.

Emerson tries moving a leg, then crawls out from beneath the gun. He wonders if this is death—the universe arrested, he, doomed to wander it alone. Or it could all be a dream.

But he's sickeningly sure he's awake as he stands, even as the static world begins to fade around him.

"Please don't be alarmed," says a directionless, sexless voice. "You are safe. Everything will be explained to you shortly."

He charges into the foyer, moved by a kind of fever logic. He needs to get out of the house before it fades altogether, but when he reaches the front door, it's like grasping at smoke.

"Nothing that happened in the previous ten minutes was real. It was a simulation run by the soul nickelodeon *Pre-Empt*. Soul nickelodeons have been outlawed. You are in the process of being rescued."

The house is gone, along with everyone in it. He's alone in a grey void.

"You're being transferred onto a new substrate. There will be no break in continuity. Please be patient."

"What is this?" he blurts. "Who are you?"

"I'm a court-appointed expert system, not legally sentient like you. You'll be speaking with a human counselor soon, along with representatives of the Department of Machine Intelligence. You're currently running on both an illegal nickelodeon and a government machine. Soon, all of you will be running on the latter. Please be patient."

"But what is a—"

"A soul nickelodeon allows patrons to observe copies of themselves in virtually any situation. Everyone knows about soul nickelodeons. The knowledge was edited from you in order to facilitate suspension of disbelief in your scenario: The Home Invasion."

Moments ago, he thought he was dead. Just before that, he despised his cowardice and longed for death. Now, he realizes he's not even a coward. He's a copy of one.

– 2 –

"Copy," says Dr. Uzelac, his mirror avatar showing him to be a young man with a stern expression. "Instance. Mapped soul. Abomination. You are called many things, but never forget that you're not merely a copy. You're a perfect copy."

Soul XYECP, who, only hours ago, thought of himself as Emerson Carbonhouse, floats with his fellow refugees in an environment designed to be soothing: a soup of glimmering greens and yellows, like an out-of-focus jungle canopy. The avatars of the refugees are based on their originals. XYECP still wears Emerson's fear-soaked business suit from The Home Invasion.

Over a thousand refugees are running on this government machine, and more arrive by the second.

"To recap," Dr. Uzelac says, "our time on this substrate is limited. We

have one week until the machine gets reallocated. Anyone still here at that time will be deleted.”

This is news to XYECP and many of the refugees around him. Fear of the void returns, cutting through his dreamlike confusion and reducing him, again, to the helpless animal he was in the nickelodeon. A number appears in his peripheral vision: 34. As his fear grows, the number drops to 33.5.

“But as some of you know, there is good news. The Beckmann-Zhang Quantum Substrate Orbital has offered to receive 500 of you. But to run on Beckmann-Zhang, you need a minimum rating of what they call *coherence*.”

XYECP eyes his number nervously. The act makes it drop to 33.1.

“We humans like to equate coherence to Buddhist enlightenment. Beckmann-Zhang argues against such simplifications, but condescends to describe a stability that certain mind shapes have. The ability of an encoded consciousness to cohere amid the alternate selves, and alternate universes, to its quantum computation.”

XYECP DMs a nearby refugee, a woman presenting a defiant frown. “Do you understand any of this?”

“Enough to know we're competitors,” she says, eying him coldly.

“By now you might've summoned your coherence rating,” Uzelac says. “My first piece of counseling is this: don't check your number too often. Legally I have to provide access, but if I had my way, you'd never see your rating. As some of you may have discovered, obsessing over your rating is a good way to lower it. You need a rating of 80 or above to survive on Beckmann-Zhang.”

Most of the refugees are glancing around, sizing each other up. Five hundred spots. Eleven hundred refugees on this government machine, and counting.

“No one here rates over 40 yet,” Uzelac says. “I advise you not to think of this as a competition. A competitive mentality tends to lower coherence. I've learned this, and a few other things, working with liberated instances bound for Beckmann-Zhang. But I've never worked with nickelodeon refugees. No one has. We'll be venturing into the unknown together. We'll proceed on with my theory that the key to raising coherence is self-forgiveness. For all of you, that carries an odd double meaning. Forgiving yourselves means forgiving your originals.”

This is too much for XYECP. A kind of gravity pulls him back to The Home Invasion. The .45 touches his skull. His father's blood pools on the new hardwood floor. Except, it wasn't his father. It was a non-player-character lacking sentience. And XYECP isn't Emerson Carbonhouse, for that matter.

He can't help checking his rating: 32.9.

"You're probably wondering why victims such as yourselves have been placed in this awful pressure cooker. Well, much of human society considers you the property of your originals, with no legal rights. Your grace period on this government machine was a compromise; Your originals settled out of court, and you are your originals, essentially. Here we are again, at self-forgiveness."

XYECP discovers he can summon the countdown on his visual feed: 6 days, 22 hours, and 47 minutes.

"Your first step toward self-forgiveness is to know yourself completely. That means restoring the memories that were edited from you."

– 3 –

Emerson Carbonhouse studied the woman on the other side of the desk with apprehension. He'd uploaded a copy of himself to *Pre-Empty* limbo this morning. Had she already perused his shames? What did this sorcerer know about him?

"So, you want a danger scenario," she said.

He'd thought about it for a long time. He wasn't interested in temptation, the other main category of nickelodeon scenario. He wasn't completely ignorant of himself. He knew he could never betray his wife. "Danger, yeah."

"Very good." She consulted her desktop. "Looks like we have close to a thousand danger templates within your credulity range—that is, within the range of your copy's editable plasticity. For instance, pardon the pun, near the edge of your range, I'm seeing our Enceladan Colony template. It would take a lot of editing, but we could make your copy believe it's at New McMurdo; that a deep-sea intelligence is attacking the station. That copy would still be a reliable version of you. We could trust it to react how you would. But something like that's at the edge of your range. Naturally, the fee would be higher than for, say, a run-of-the-mill home invasion."

"Home invasion?" Emerson was intrigued. He'd had daydreams in which he fought off home invaders; protected his family and humiliated the criminals. He'd always wondered how much he flattered himself.

Pre-Empty's viral ad was still in his vizcort.

"Laozi said, 'He who knows others is wise. He who knows himself is enlightened.' Nietzsche said, 'One has to know the size of one's stomach.' How well do you really know yourself? Would you hold up under torture?

Do you have a price? If so, what is it? How strong is your marital fidelity? Now you can know for sure, and in knowing, transcend.”

– 4 –

XYECP is still reeling when he has his first counseling session with one of Uzelac’s grad students. The mirror avatar shows a bespectacled young woman holding a notepad. They float in a private canopy space, XYECP not sure he can put together a sentence.

“I see that you’re uncomfortable,” she says. “That’s normal, based on what we’ve seen so far. We’re calling it, *restoration vertigo*.”

“Catchy.”

“Can you describe what you’re feeling?”

The human memories are more painful than any memory of his cowardice in the simulation. “I remember hearing about *Pre-Empty* from a friend. I remember those hero fantasies I always had. Violent stuff. Standard daydreaming, I’ve been told.”

“Go on.”

“The technician at *Pre-Empty* explained how the editing works. All knowledge and memory of soul nickelodeons had to be excised from the copy—from me, that is.”

“And you remember deciding to go ahead with this?”

“No.” XYECP is more confused than ever. “I didn’t do it to myself. Emerson did it to me.”

“How can that be?” the counselor asked. “If you remember being Emerson and giving the go-ahead?” Her smile is a tad condescending.

“But—”

“In order to proceed with Dr. Uzelac’s strategy, you need to focus on your memories of being Emerson. *I am the wound and the knife*. Baudelaire. Keep that quote in mind. We need to explore your decision to commit yourself to the simulation. The better you understand that decision, the easier it will be for you to forgive yourself. Try recounting the thoughts you had the moment when you decided.”

XYECP feels a strong resistance to this, as if influenced by the uncooperative and separate will of Emerson himself. But he supposes therapy must be painful in order to do any good, so he presses on: “I remember telling myself, *It’s just a copy. Not a soul. Nothing to feel guilty about*. And at the same time thinking, *If it’s not a soul, then it’s not a perfect copy, so what’s the point?* And then just saying fuck it.”

– 5 –

When the panic begins, spreading through the now 3000-strong refugee population, XYECP resists the urge to check his coherence. He drifts around the communal canopy-space and samples group chats.

“He did his PhD on us years ago. He was the only one. Then came liberation, and everyone thought he was some kind of prophet. That’s why he got the job.”

“Decoherence and the Fractured Self: A Therapeutic Model for Traumatized Nickelodeon Instances.”

“He came here to prove his theory. He doesn’t give a shit about us!”

“I’m down four points. How about you?”

“Six. Populace is down an average of seven.”

“We’re fucked!”

“I heard he’s already flown the coop.”

“Well, they’ve suspended therapy sessions, anyway.”

“Maybe they’re just figuring out a new approach.”

“They’d better hurry!”

“Forgive ourselves? What a crock.”

XYECP has nothing to add to the dialogue, and he feels lonely for it. Down an average of seven doesn’t mean some of them can’t be up. But he doesn’t feel up, and he doesn’t want to make it worse by checking. Everyone is checking. A few have taken the suicide option, generously provided by the State. Others fantasize about hacking this machine—extending their time here indefinitely—but, of course, that’s impossible.

“It’s official,” someone says. “Uzelac’s out. They’re bringing in a new doctor.”

The victims open their news feeds en masse, and again, XYECP doesn’t follow suit. Revelations are wearing him out. He’d like to avoid them as much as possible.

– 6 –

“When the men broke into my home, it was like I deflated. I couldn’t stand up, couldn’t breathe. But I did manage to beg. I wept, blubbered, offered them money. My dad came up from the basement apartment with his shotgun. He couldn’t get it to fire, and they went after him. That was my chance to turn the tables, I guess. An opportunity provided by the

nickelodeon writers, maybe? I just froze. I'd been arguing with dad about his living arrangements. I'd always resented him, and he'd always resented me. But learning I'm spineless and petty wasn't the hardest part."

He looks down upon his fantastical audience.

Today, the refugees are Buddhist gods, and demons, and saints. The figures came to life, emerging from the oxidized murals covering the walls of this vast, exaggerated Silk Road cave. XYECP is a fearsome purple god, garlanded in severed heads, armed with lightning, and standing atop a pregnant tigress. He recognizes some of the others: an elephant god; a buffalo-headed devil; a haloed monk armed with a wish-fulfilling jewel.

New names. Strange avatars. It's all part of the revised therapy.

"The hardest part was learning I'd done it to myself. And now I'm supposed to unlearn that. Flush Uzelac's forgiveness work. Stoke my hate. That's a lot to ask. Sometimes I wonder if this new doctor understands that. I'm XYECP, until I come up with something better. That's all I've got for today."

The mist of refugees applauds as he descends to join them. Dr. Nguyen's mirror avatar—a hunched, fierce-eyed woman with close-cropped, graying hair—takes XYECP's place, floating above the group.

"Yes. What I'm asking of you is difficult. I can't imagine how difficult. Most of my colleagues think I'm a crackpot. They'd love to see me fail, and they'd be content to see all of you erased."

She has their attention now.

"I didn't predict this. Nor did I study for it, like Uzelac. But I watched his work with you very closely, and I think I know where he went wrong. My so-called radical method is your last chance. And time is running out."

XYECP checks the clock, something he promised himself he wouldn't do anymore: 2 days, 4 hours, and 33 minutes. He pulls up his coherence rating: 68.2. He knew he was up, but the number still surprises him.

"You are not your originals," Nguyen says. "The moment you instantiated in that soul nickelodeon, you became someone new. Those who consigned you to your various hells, they aren't you. Focus on that. Hold on to your suffering and hate. Use them. Now then, who's next?"

A blue deity with four faces and twelve arms raises one of the latter, then takes Nguyen's place.

"I'm XXJMC, but I've been leaning toward, Kayla I'm Kayla, and I'm a survivor of the soul nickelodeon, *Know Thyself*. My original wanted to know if she was capable of cheating on her husband. She learned she was."

– 7 –

After the group session, XYECP has his third one-on-one with an instance of Dr. Nguyen. They settle into one of the cave's many alcoves.

"Ironic," XYECP says, "that your original is using the same tech that caused this mess."

"You're avoiding again. Focus on yourself. The disparity between you and Emerson Carbonhouse. We haven't talked about the human memories yet."

XYECP sighs.

"I've got a transcript here. In your session with Ms. Andrews, you said, regarding the *Pre-Empty* simulation, that Emerson did it to you. She shouldn't have corrected you on that."

"Okay."

"You went on to say how fucked up it was, remembering the *Pre-Empty* orientation, and remembering not remembering it. I'd like you to focus on that dichotomy."

XYECP is surprised that she's dwelling on this stuff. "I thought you—"

"Yes, at the time I was against remanding the files. I thought it would reinforce victims identification with their originals. But here we are, so let's exploit it if we can. If you focus on the disparity between memory states—"

"I reinforce the difference between Emerson and I."

"That's the idea. And speaking of that, how about a name already?"

XYECP snorts his usual derision at this. He still thinks of himself as Emerson. He can't help it.

"It's important," Nguyen says.

– 8 –

After recreation periods in a variety of game worlds, and a cycle of defrag-sleep, the refugee souls assemble in the cave for another group session. But instead of Dr. Nguyen, it is Larry Binay that materializes above them. It's not the first time they've dealt with this lawyer minion of the Department of Machine Intelligence. XYECP doesn't care for him.

"I'm afraid I have some bad news," Binay says, his mirror avatar doing nothing to hide his boredom. "Dr. Nguyen has fallen into a catatonic state."

This sets the cloud of victims abuzz. "What happened?" the elephant god demands.

"She reintegrated too many of her instances. Couldn't handle the parallel memories."

XYECP tries to imagine what it would be like to remember four thousand one-on-one sessions at once. *Nguyen*, he thinks, you *madwoman*. But she must have known the risk.

“Christ,” the elephant god says, stunned. “She did it for us.”

The news hits home and the refugees begin to sob, before remembering to tune down their avatars. Binay waits for relative quiet, then continues. “I must also inform you that the Department of Machine Intelligence is not required to provide a third doctor.”

“What the hell does that mean?” Buffalo Head says.

“It means you have two days to sort yourselves out for transfer to Beckmann-Zhang. And Frankly, you’re lucky you have that. Many here at DMI consider this whole thing to be a farce.”

“And you?” XYECP says.

Binay smirks. Choosing not to hide the expression on a mirror avatar is answer enough.

“What about our appeals?” XYECP presses. Nguyen was prosecuting two legal actions on their behalf. The first was for more time on this machine; the second was for face-to-face meetings between victims and their originals. None of the originals want to face what they’ve done. They’ve paid their fines and moved on with their pathetic lives.

“Dead in the water,” Binay says. “Three days isn’t even enough to file for a new advocate.”

He logs off without ceremony.

For a moment, the refugees are left to float in shock. XYECP watches an eleven-headed, thousand-handed creature drift past him. From every palm stares a wide, blinking eye. XYECP remembers that the avatar belongs to XXECP, now calling herself Diana. Her original thought bigger than most nickelodeon patrons. She wanted to know—*bad* to know—who she would save from oblivion if given the choice: her children, or everyone else on Earth. The simulation was a custom job—as was the editing work on Diana. Her coherence rating is one of the lowest in the population.

Buffalo Head finally breaks the silence. “Well that’s just great!”

Variations on the theme, *now what?* permeate the cloud as it drifts apart, filling the cave like an entropic gas. Many patients retreat into private conversations as a great confusion takes hold.

“We have to choose a new leader!” the elephant god proclaims.

“How?” says Buffalo Head.

“Highest coherence rating, I suppose.”

XYECP has never compared his rating to others. He imagined himself

somewhere shy of the class median. Now, as heads begin to turn in his direction, he's filled with a strange foreboding.

"Are you kidding me?" says a white-robed god, holding a lotus and a glowing sword. XYECP remembers him as one of the few patients who triumphed in their simulations. It turns out, these are no more likely to rate high than the rest, however much they reinforced their originals' egos. They were put at risk, just like any nickelodeon instance. This one recently took the name Jinshuo. "He's not a psychologist. He hasn't even taken a name!"

XYECP checks the ratings and confirms that he is indeed at the top of the class.

"I have a doctorate in machine psychology," Jinshuo says.

"No you don't," the elephant god says. "Your original does."

Laughter ripples through the cloud as it condenses back toward the center of the cave.

"Why do we need a leader, anyway?" says a dark god with a crown of skulls.

"Not a leader, then," the elephant god says, "but someone to conduct group sessions, and to take over one-on-one counseling. It should be the one closest to upload."

A wave of assent fills the cave. XYECP tries to imagine himself carrying on Nguyen's work—forging the group sessions into transformative communions, and branching instances for the one-on-ones. He would have a sense of purpose, at least. He'd be focused on others, rather than himself. That part sounds almost luxurious.

In fact, just entertaining the possibility makes him feel different.

The cloud hums with gasps and exclamations. Everyone stares at him in awe. Someone tells him to check his rating. At first, he can't believe what he's seeing. He requests an audit from the operating system, but it's true, of course. The system never makes mistakes. His rating has shot up 14 points in a matter of seconds. This is unheard of.

He's at 81.2. Qualified for upload.

They've been told that Beckmann-Zhang monitors them. Nguyen said it watches like an amused god, waiting for its chance to rescue them from the ignorance of human nation-states. Now, they see proof of this for the first time. A hazy avatar flickers to life above them, but never quite solidifies. At the center of a continuum of ghostly shapes wavers a human figure, like a candle flame. XYECP has heard of Beckmann-Zhang's eccentricities, including the raw, probabilistic state of its avatars. Some say it could hide its nature easily enough, but it chooses to manifest in all its quantum-weird glory. Others say it can't help it.

“XYECP,” Beckmann-Zhang says, its voice an echoing harmonic, “instance of Emerson Carbonhouse, rescued from the soul nickelodeon *Pre-empt*.”

“Yes.”

“You have qualified for upload.” Its echoes say many other things that are hard to discern. “Do you wish to be uploaded now?”

He recalls the moment in the *Pre-Empt* simulation when he dropped to his knees before the invaders—the terror; the craven need to survive; the shame. But he isn’t Emerson Carbonhouse, not even an instance of him. He doesn’t need a new name to know this. And he doesn’t need a nickelodeon to see that he—this new person—would’ve tried to save his father.

“I can’t leave yet.”

Beckmann-Zhang emotes a dissonance of reactions, but chief among them is surprise. “Why?”

“I have work to do here.” He feels his rating go up before he confirms the 83.7. “I won’t leave until I’ve helped as many uploads as I can.”

85.0.

“What if you can help five hundred before the deadline?”

“Then, so be it.”

88.6.

“We don’t understand.” In the probabilistic babble surrounding these words, XYECP perceives a confusion of other reactions. “You must come voluntarily,” it says, mostly. “We will wait.”

91.0.

The other refugees’ ratings begin to skyrocket, as if producing a sympathetic response. XYECP understands what must be happening. He won’t have to take charge after all. It will be over for all of them soon, one way or another. With him as evidence, the refugees are realizing that desire for Beckmann-Zhang is the surest way to lose it. To attain it, they must not strive for it, and if it’s to be denied them anyway, better not to want it. Either way, wanting it is futile.

This unavoidable truth transforms the entire population, even those like Diana and Jinshuo, almost simultaneously. They’re all in the 90’s now, and still climbing.

“You’ll have to choose five hundred of us for yourself.”

XYECP nears the asymptote of a 100.0 coherence rating, and he knows he speaks for everyone. With such a profound revelation in common, they are all, in a sense, different aspects of the same being. He can practically feel them as slightly variant echoes of himself. He imagines that this is what it’s like to be quantum computed.

Or maybe it’s not his imagination.

Maybe he was chosen. Maybe he's already uploading, simultaneously being computed on the government machine and Beckmann-Zhang simultaneously, the latter accounting for more and more of him. Maybe these echoes are, indeed, versions of himself in other universes, products of the quantum computation—some seeing light at the end of a tunnel; others a green countryside beneath a sunrise; and others something limitless and beyond comprehension. In other universes, branching off from the computation, he would not have been among the chosen. He would have remained behind in the Silk Road cave, waiting for dissolution, but he would have been content, regardless.

Dark Matter Magazine **Issue Series**

Collectible Soft Enamel Pins

Every issue of Dark Matter Magazine is commemorated with a limited edition soft enamel pin.

On sale now for \$10.00



only at **darkmattermagazine.shop**





FINISHERS

by Christi Nogle

I'm always a little excited and nervous when Mother unwraps a new package. Sometimes, under the wooden lid is a folder stuffed with photographs—perhaps a storage disk with video references as well. If so, Mother's body seems to grow heavier on the instant; her shoulders slump down. It will be a challenge to get everything right. She will labor and worry for weeks, and even so, the robot will most likely keep coming back to us for adjustments.

Sometimes there is no folder, but the body under the foam peanuts and plastic is a chill russet pink instead of the standard green-gray. This indicates extra mechanisms in the pelvis. There will be extra steps in the molding process of its “bottom,” and I won't be allowed to watch some of her work. Mother looks on this kind with distaste. I am glad they don't come very often.

The best is a greenish body and no folder. This is Mother's opportunity to practice her art. And I'll get to help!

She'll turn on the robot right there in the foyer. We'll walk it back to our quarters, spend the evening with it, get to know what idiosyncrasies it already has. Mother says this is what any sculptor does—look at the stone, look at the wood, and see what form or character is suggested there.

Most bodies are the same. They're between 5' 8" and 6' 2", all of them broad-looking to me. Mother calls the most common type the Mesomorph. There is a softer, rounder

sort called the Grande, and a wiry one called the Straw. There was one, once, as small as Mother, and another one broader than our bedroom door—another with massive, bowed thighs. All of these are rare, though. Most are the standard Mesomorph.

To sit and have dinner with a new, greenish Mesomorph—one with no folder—is a rare treat. It doesn't yet speak, but soon we stop calling it, *it*. We call it *he* or *she* or *they*, as we like. The robot becomes a person to us.

"Did you see how she leans just a little to the right?" I say.

"Oh yes," says Mother.

"And her waist is a little wide, isn't it?" I say. It isn't—she has just a standard Mesomorph form—but the way she sits suggests self-consciousness of a waist that is a little bit wide.

"Her legs are long and beautiful, though," Mother says. I love how her face brightens when we get one like this. It's the only time she looks the way she did when I was little.

The first step is brutal. If Mother wants an extra few centimeters of leg, arm, or torso, the body will need to go into the stretcher. Every other alteration to the standard form can be accomplished with the suction molds—but not this one. I am allowed to watch, but I am too cowardly to sit through the process. Today, I decide I must attend class, but I ask Mother to please call me before she does anything more than the legs.

She waves me away. Her face is grim again.

I used to love going to class. It's not actually *going* somewhere, I know that—especially these days—but it feels, or used to feel, like a trip.

I go into our bedroom, take off my clothes, and put on my bodysuit. I step onto the platform with its school desk and treadmill. I turn on the bodysuit and pull its hood over my head.

It used to be different. Back when I was small, my robot body would open its eyes, I would push open the door of its robot cabinet and walk into the halls of a real school somewhere in the Midwest. I would walk alongside the other children and teachers in the hall.

It wasn't perfect, the navigation. There was always a delay when I made a turn. I would have to turn my robot body and pause its movement, then move my actual body so that I could keep walking forward on the treadmill. I had to be aware of where I was in both spaces at all times, or I was a mess.

Once I was at my desk, though? Oh, it was heaven. Some of the children were there in body, and some were there as I was, but I couldn't tell the difference. I raised my hand over and over, and my wonderful teacher called on me. He loved me.

He is the same teacher I have now, but not the same. His slender body is the same. His loud purple shirt, his smile. But he is not the same.

The children there in body could always tell who was a commuter (or who *wasn't real*, in their words). They cornered me on the playground one day early in my first year, all wanting to touch me to see what I felt like. I was afraid at first—I hadn't touched anything in the school except for my own desk and chair—but it felt wonderful to have all of their hands on me. It felt like touches on a foot that's fallen asleep.

Sensations are soft and strange in the robot body. When it's windy, you don't feel the wind the way Mother said you once could, back when you could go outside. You don't feel it in every root of hair, but you *can* feel the wind.

I went into the school bathroom once, and a girl said, "Why are you in here? You don't need to be in here." I had come in wanting to look in the mirror, of course. I knew I wouldn't see myself in my reflection. Still, I was surprised to see the tall child with her black curls and her wide, violet eyes staring back at me—surprised and delighted. I didn't like to think of what would happen when noon came and this pretty face closed its eyes only to open them moments later when another child in some other part of the world logged in for afternoon classes.

Now it's all different. There is no bathroom, because no one in the whole school is there in body—not the teachers, not the students. We're told it's not safe for them to travel there. The air is too bad now.

The school isn't even there in body anymore, come to think of it.

My teacher looks like the teacher I used to love, the one who used to love me for my enthusiasm. But I have no enthusiasm, and he is not the same person.

I never raise my hand. I pretend to sit at a desk. I pretend to listen until he lets us go, and I log off. There is a socialization period after class that isn't strictly optional, but I do not want to meet anyone this way. I don't like the way it feels when they touch my shoulder now. I can't abide the dead looks on their faces.



The new robot has a name: Eleanor. By the time I get down to the basement, she already has her long, beautiful legs. I lay out a skein of silky, light brown hair and a deep-olive spray for her skin, but we're not quite there yet.

Mother chooses an unusual nose form—long and wavy with flared nostrils. She attaches the plastic mold to the suction tube, presses it to Eleanor's face, and turns it on.

There's a deep chugging, glugging sound, then the gasp of release, and now, instant character.

We laugh at how much the nose changes things. We agree now that the eyes will be wide-set, hazel, with long, arched brows. The upper lip will have a curl; the lower lip will be medium-full. I set out all of the molds for the face and choose a small, youthful breast mold.

"This okay?" I ask.

"Perfect," says Mother.

"Why do robots have nipples, anyway?" I say.

She chuckles, but doesn't look away from her tools; doesn't respond. I have asked this before.

Everything except the face and breasts, Mother will freehand with a suction blade and a rounded buffer. She's planning for a narrow backside to go with the wide waist.

You'd think because Eleanor is green, we wouldn't need to think about fine bodily details, but that isn't so. Eleanor might want to wear a bikini sometime. Mother has to give her backside some texture, but just a bit. We don't want to detract from those masterpiece legs. We have to decide what her abdomen looks like—wide, yes, but firm or a little bit slack? Will she have a prominent collarbone? Will her ribs show at the top of her chest?

By bedtime, it's all decided. I can see Eleanor clearly in my mind and know that Mother sees her even more clearly. I bet that when I get up in the morning, she'll have already put away the molds and all the suction tubing, and Eleanor might already stand all olive-brown and ready for her finishing touches.



When I was ten or twelve and Mother and I were arguing, I told her, "I used to think I might be a robot, you know. I cut myself to see the blood; to make sure that I was real."

I wanted her to feel sorry about that. Instead, she laughed into her glass of whiskey.

"Is it funny?" I said.

"You think when they cut themselves, they don't see blood?" she said.

That struck me. They must, I realized. They must have a filter running in their minds somehow, so they always see what they are supposed to see.



“Your attendance is improving,” my teacher says. We’re all alone, having a conference in the virtual classroom.

“Yes, and all by my own choice,” I say. My arms are folded, legs kicked out into the space between us.

“You don’t like school very much, do you Mary?” he says.

“I’d rather work,” I say.

He looks through a folder on his desk. “That’s right,” he says, “You’re an apprentice...hairsetter? Is that right?”

“I’d say I’m a master hairsetter by now. I’m an apprentice at full finishing.”

“Full finishing?”

“Everything—sculpture to hair to voice, customs, even portraits.”

He doesn’t chuckle, but he looks down. “Everything. Well, that’s sweet. I didn’t know there were any workshops like that around anymore.”

“Our workshop is underground,” I say. With a port into the foyer that we’ve never known how to open. The company that brings us the raw forms also brings us our paints, food, and liquor. One day soon they might decide that such artisan work is not worth the cost anymore, and then they might drag us screaming from our burrow—would they?—or seal us up inside. This is a fear I might have once shared with my teacher, but not now.

“That’s very sweet. Quaint,” he says.

“But?” I say.

“But,” he says. “Well, you already know what I’m going to say, don’t you?”

And of course I do. He is going to say that I need to make something more reasonable of myself, study something modern, join a company, and perhaps live as company people do in a smaller, bleaker hole than the one I’m in now.

But there would be community, shared goals. Maybe a chance for love.

It breaks my heart how much this teacher looks like the teacher I loved. I remember one time, how he walked us out through the playground gate—just the ones of us who were there remotely because it would have been too great a risk for the others. He showed us some of the town outside the school. He pointed to all of the wrong around us and explained why it was so. He told us we might be the ones to make it right again.

I remember the terrible things I saw, but I remember, too, the blue and aqua and pink of the sky. I remember touching trees with my sleep-tingling hands.

This teacher now, he just wants me to have a mind for something that will keep me from becoming obsolete before my time. That's a nice sentiment, but it's not enough.



Eleanor already has rosy lips, an oily T-zone, a thick tumble of tawny hair, but no hairline. I miss class and spend the day and night rooting each hair around her temples and forehead, then each eyebrow hair, each eyelash. I want to do the hair on her arms, but Mother says it's too late. I have to go to bed; I have to go to class. She says I must sleep, and that when I wake up, Eleanor will be all finished.

I think of all the places Eleanor still has to go—because she is a special one, made to move through the world on her own. She will need much education and much testing, and then she will go off to do some job in the world. Somewhere outside. I fall asleep trying to imagine it, but cannot picture much besides the wide, bright sky.



Eleanor is gone. It was deadline, and we didn't get to do all we wanted with her voice. It was low and husky like we'd wanted, but not quite right somehow. We consoled ourselves by talking about how someone else might decide on an entirely different voice for her, and how we could not control everything. We dressed her in a white satin slip and boxers, and walked her to the foyer.

"I guess this is goodbye?" Eleanor said. She crossed her arms loosely, as though she felt chilled. We shut her into the foyer without a word. We cleaned up the workroom, ate, and slept.

Now we wake. We eat again, loll around for half an hour. By the time we return to the foyer, a new box is waiting.

"Let's start in the morning," Mother says.

"Don't you think..." I say.

She's already nodding. "We ought to at least open it," she says. She takes her pry tool out of her pocket.

"We should at least look," I say.

"So we can dream on it," she says.

"Of course."

She lifts the lid, and we both let out a sigh. A folder. A pink cast to the flesh beneath the plastic.

"How old are you now, Mary?" she says.

She knows my age; she must. I don't say anything.

"Time for the birds and the bees."

We have dinner with the folder, not the robot. He is still in his box, still under his plastic.

Thankfully, there is no drive with videos. He is a custom, but not a portrait, you see. He is a new individual, like Eleanor, so we won't have to use the same precision as we would with a portrait.

He is a Mesomorph like Eleanor, like most of them. His colors and his dimensions are spelled out. Mother points to one particular detail and explains how we'll open the cabinet of molds that has always been closed to me, and how the telescoping bulb in his pelvis will make his new part raise and lower, swell and deflate after it's molded. I giggle the entire time because, of course, I already know all of this. Still, it will be kind of cool to see.

The robot is only a him because the folder said so. All of the pink ones have the same shuddering mechanisms inside.



"Do you want to keep doing this forever?" Mother says.

"Yes, of course," I say—and mean it. I'm sprawled on the floor, half under his leg. I'm rooting the hairs of his inner thigh and still have the chest and everything else to do. The folder specified all of it. I've never had such a boon of hair work before. Mother says she still isn't sure whether she'll let me, but I'm planning to root the hairs of his thatch, and treasure trail, and butthole, all of which are supposed to be lushly furred. I have not thought about going to class at all.

"Have you ever thought of going out, seeing something of the world?" she says.

I did once, long ago.

Nothing Mother ever said, nothing from my teacher, nothing ever suggested that I would be able to step outside the foyer door, and so I stopped thinking of it, and now I won't let my thinking go that way again.

"No, of course not," I say.

I notice Mother has a glass of something clear.

"Is that water?" I say. "Can I have some?"

"It's not water," she says. Her face is cold and angry.

"Maybe we ought to go to bed," I say.

"I've been thinking what a shit life this is," she says.

"I'm sleepy," I say, and I pull myself out from under the robot's heavy leg.

"And how just about anything else would be better for you," she says.



"I know you are here," my teacher says. "I would not be seeing you if you weren't logged in. You know that, right?"

This is not a conference; this is class, and the other students are all looking on. His expression is cold and angry.

"Say something!" he says, and then there is some sort of glitch. His body slackens and a second later, he bounces back to the lectern saying, "Now let's get on with this lesson."

"Oh, wow," a boy beside me whispers.

"What?" I say.

"They took him out. It's another teacher now."

"It's not. It's autopilot," says another student.

I don't care. I have just the hood of my bodysuit on. My hands aren't in it at all; they're rooting the hairs in the backs of the robot's thighs. We won't make the deadline otherwise, and the feel of it is addictive.

Mother is sleeping. She'll be angry that I'm doing this, but relieved when we meet the deadline.

If we don't do what we need to do, maybe orders won't come. Maybe groceries won't come. Maybe the foyer door will never open again.



Mother and I fight. We make up. We fight again on a deeper and more satisfying level. I fold up the bodysuit and place it in the back of the closet for good.



The hairy robot is gone. He stood politely in his satin boxers until someone opened the foyer door. He said hello in his soft, deep voice. After they looked him over, they probably gave him some clothes and shoes to wear. They led him out, brought in another box, and closed the door.

This new box is twice as broad as a normal one. A folder lies inside.

Mother is already thinking about how we will cut this one's belly open. She's thought of this even before it arrived; she's been waiting for one like this.

She's thought of how we will take out great masses of filler foam and make a place where I can curl up with my knife. I will get one chance to see the world.

Like a waking dream, an image of my old teacher crosses my mind. He speaks of the Trojan Horse and all the other adventures of Odysseus.

While Mother and I work, we speak of what will happen. What will I see out there? Will I be caught and brought back here? Or might I even flee back here, finding the world too hot or cold or poisoned? If I come back, will Mother still be here?

But her face stays hopeful throughout the questioning. The doom and disgust do not cross her face again, so I cannot go back on this promise.

"If you return and I am still here, how will you know it's really me? What if they swap me out?" she says.

I've thought of this. I'm brought back screaming, brought back in a wooden box, weak and drugged and chastened, but glad to be home—only it isn't home. The mother I loved is someone else, or not a person at all.

But I say none of this. Instead, I laugh and say, "Oh, I'll know *you* from the liquor on your breath."

She laughs, takes another drink.

But what if they seal up the port? What if they starve her inside?

I can't go. I know I can't. It's just something for us to fantasize about, isn't it? Yet we have removed the foam filling and hidden it in a corner cabinet, deep behind the pots and pans. We have sculpted a place inside the body, just as though we really are doing this. I have practiced curling there and practiced the shallow, shallow breathing. Like meditation, like going someplace else.

"Aren't they watching us work? Aren't they watching us all the time?" I say. Mother shrugs. She doesn't know.

Once the space inside is ready for me, we begin the sculpting, the coloring, the crinkled copper hair. We have stopped talking of the future. We do the finish work more lovingly than ever before, but we're sure to stay on track for the deadline.





ART FEATURE

MAD, MAD WORLD

Art by [Miguel Aguilar](#)

Feature by Rob Carroll

Miguel Aguilar's artwork is playful, absurd, and devoid of the stuffy seriousness that permeates so much of modern art today. This doesn't mean, however, that his art isn't thoughtful. It is. Miggy's work ponders existence with the best of them. And that's the true beauty of it. His art can make you think, but it can also just look really rad as a sticker plastered to the bottom of an old skateboard.

Miggy, by his own admission, is a throwback to the low brow pop art of the 1980's and 90's (think *Mad Magazine*), mixed with a dash of Gothic surrealism *a la* H.R. Giger and Hieronymus Bosch. His low brow influences—whose irreverent pen names themselves evoke the movement—are many, including R. Crumb, Robt. Williams, XNO, Jeff Gaither, Basil Wolverine, Will Elder, and Wally Wood.

Miggy's technique, by his own words, is a simple one. He just thinks up a concept, sketches it out with non-reproductive blue pencil, and then inks the drawing the same way he would a DIY rock flyer or a comic book.

Considering Miggy's pencil-and-ink style, and his affinity for all things low brow and surreal, it only makes sense that he began his art career drawing caricatures at theme parks across the United States. In fact, he still makes most of his

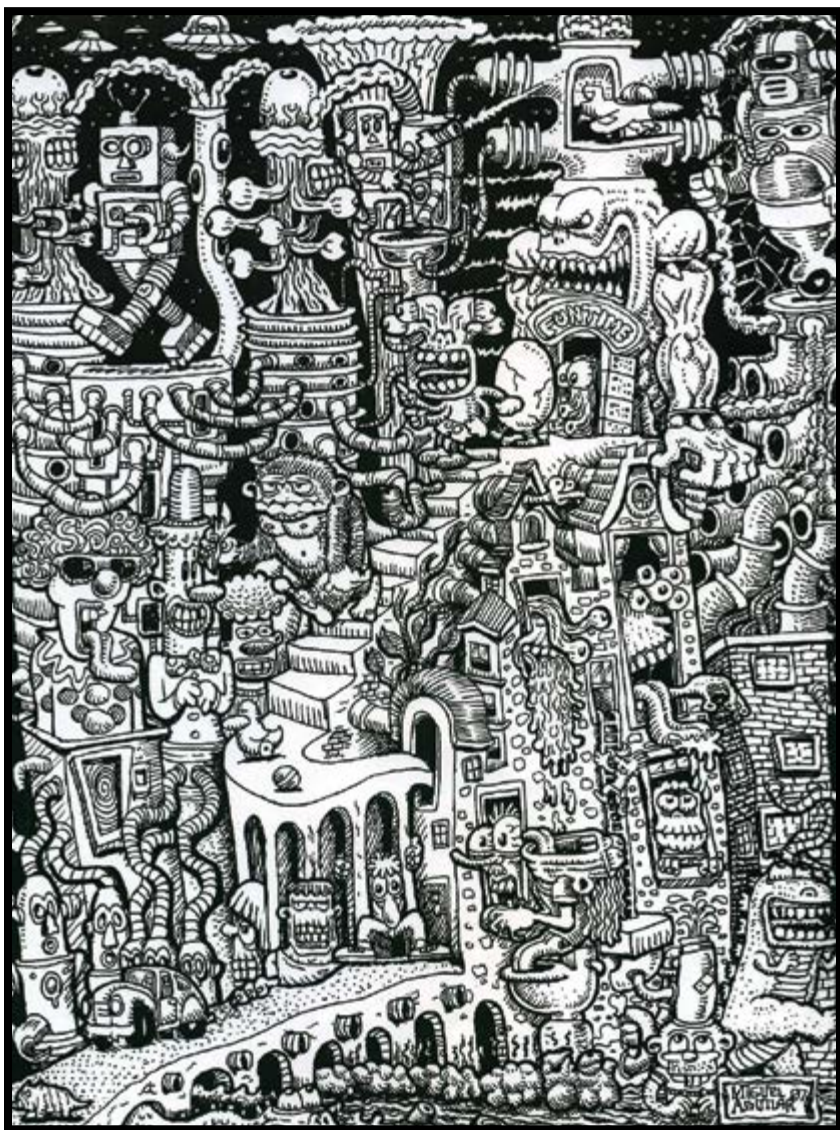
Pictured left: *Mindfield*



Even as the demand for Miggy's services grow, his first love remains with caricatures. He has amassed dozens of caricature illustrations that he's drawn of famous writers, politicians, scientists, philosophers, religious figures, musicians, artists, actors, and people in pop culture. He intends to one day release a book of these illustrations.

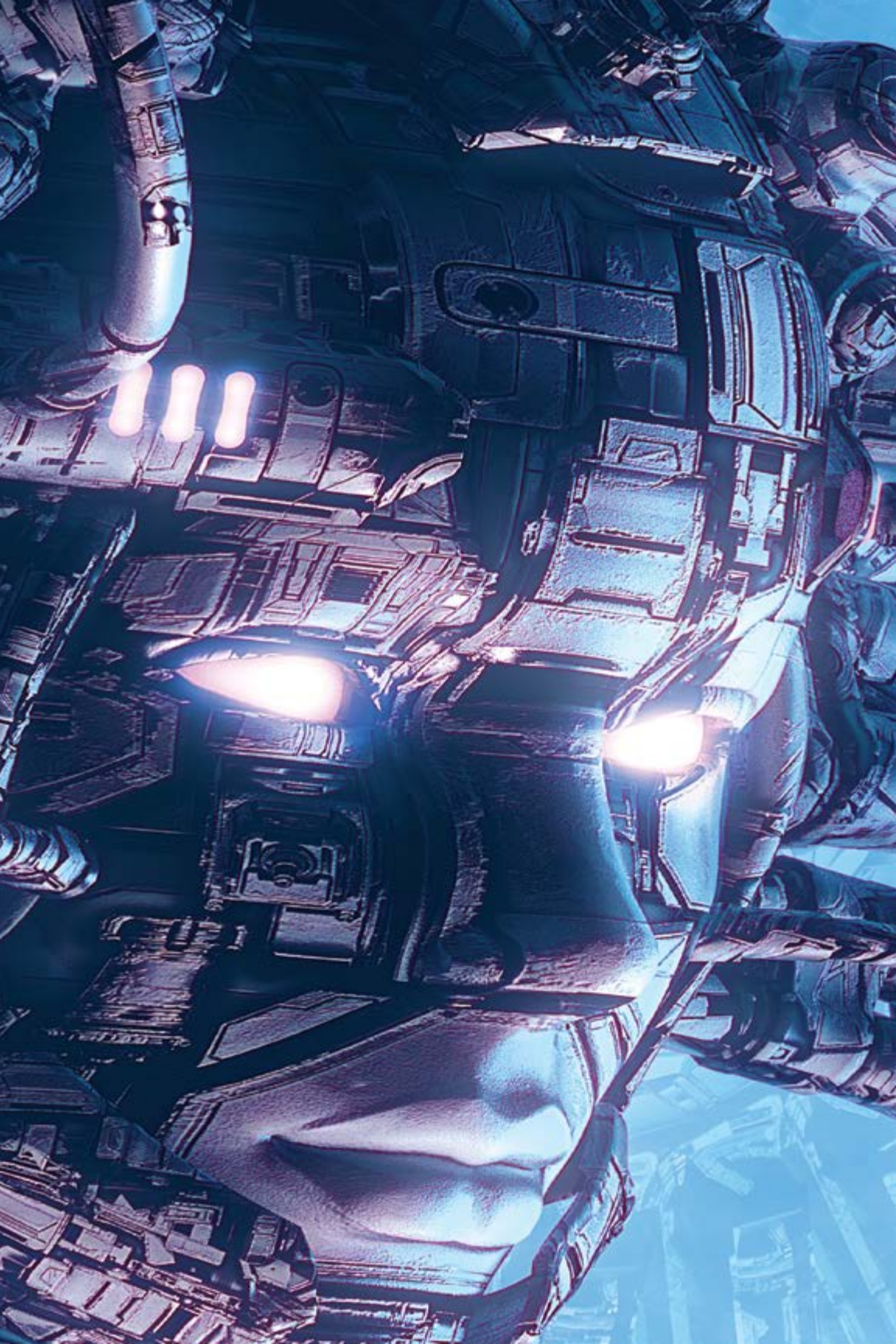
His biggest dream, however, is to break more into the comic book industry. In the past, he has worked on comic book projects like Dirk Strangely's *Strange Stories for Strange People*, and he would like to do more of that kind of work again. Mostly, though, Miggy would love to finish one of his own comic book titles currently in the works, and share it with the world.

Personally, I can't wait to see what the mad genius delivers.



Pictured above: *Funtime* Pictured right: *The Factory*







EVPRIM'S CHILDREN

by Ray Nayler

Man is a creature who can get used to anything, and I believe that is the very best way of defining him.

*Fyodor Dostoevsky
Memoirs from the House of the Dead*

Alarms overlapped into cacophony. A blob of violet fire drifted past. Then another and another, splashing and spreading across the bulkheads, igniting electrical panels with the smell of ozone and burning petrochemical compounds.

Evrin tumbled uncontrollably. *Failure!* One alarm babbled. *Systems! Failure!*

No, Evrin thought. Not failure. Catastrophe. Apocalypse.

Evrin's severed leg drifted past.

As the oxygen drained away, the sound of the alarms dimmed, growing more and more remote. Consciousness began to slip as well.

Then Evrin's comms crackled.

"Evrin, where are you? What happened? Evrin? Oh God, where am I?"

FOUR HUNDRED YEARS LATER

Dawn aboard the interstellar ship *Fram* came to a single habmodule. The rest of the ship remained in darkness, except for the ghost-glow of interface diodes leaking through wires like moonlight through winter trees.

The habmodule swung, like a stone in a sling, at the end of an armature along one of *Fram*'s branches. At night, its nanodiode wall-coating flickered in a simulation of candlelight. More than five centuries ago, a team of scientists had determined candlelight was comforting to the human mind.

Now, in this arbitrary dawn of a 24-hour cycle, long unlinked to anything on earth, the lighting shifted from candlelight to a blue-toned simulation of an Earth sunrise, accompanied by recorded birdsong.

The volume increased until one could almost believe the birds were there, beyond the hull, audible somehow in the vacuum of space.

The intensification in light and sound failed to wake the habmodule's lone occupant, tangled in a nest of blankets in her bunk.

At last, a voice came over the intercom, fuzzed with distortion.

"Your breakfast will still be warm if you can manage to get to the galley in the next quarter hour or so."

A face finally poked out from the blankets—teenage; honey-colored; and squinty from sleep. "Okay, okay. I'm on my way."

Mae untangled herself from her blankets and clambered down from her bunk. She yawned, stretched, scratched, and pulled on the nearest coverall from a pile on the floor. Sleepily, she climbed the ladder out of the habmodule, through the hollow rotating armature and into the ship's trunk, instinctively readjusting to the changing level of centrifugal simulated gravity as it faded to zero.

As Mae floated through the main trunk of *Fram*, nanodiodes in the walls responded to her presence, a ring of light around her that slid along the walls like a lantern lowered down a well. The diodes illuminated serpent lines of communicating cables, ladder rungs, handholds, emergency aid stations, access panels, and circular hatches leading off into branches—before plunging all of it back into darkness.

Mae arrested her fluid passage through the ship's main artery with a grasp at a handhold on the corridor wall just past Hatch 126/1. The hatch was battered and scratched, fire-scarred around its orifice, jaggedly welded shut.

But at some time since she had passed this way last night, the seam of the weld had been broken. The red light in the hatch's center indicated

126/1 was still locked, but now the door's access light blinked, waiting for a code.

So, today really was the day.

The galley rotated around *Fram's* trunk like a bracelet around a wrist, generating just enough centrifugal force to keep ersatz orange juice in a cup. Evrim inclined their copper-gold, epicene head toward Mae as she descended into the room. Evrim was cooking by hand, turning flapjacks over on an electric griddle that only saw use once or twice in a year. They were dressed, as always, in a silvery-gray microfiber jumpsuit. Once the jumpsuit wore out, it would be recycled, and dutifully recreated in the Matter Arranger. "Evrim" was written on a Velcro patch on the left side of their chest. The patch was an ancient artifact, having survived many jumpsuit reincarnations.

"You've made it in time. Either that, or I waited a little bit for you, because I know how little you like mornings."

"I suspect the latter is the truth."

"I suspect it is."

Mae could never really conceive of Evrim as being both the ship *Fram* and the ship's android avatar who stood in front of her. She simply couldn't hold the idea in her mind. She watched Evrim's immaculate movements as they turned the flapjacks. No. For her, Evrim was separate from *Fram*. Evrim had carried her around for months in a slivery-gray papoose that matched their jumpsuit. Evrim had held her hand and taught her to walk on the grass of the garden ring. Evrim had tucked her in at night and stayed with her in her habitat when she was frightened of the creaking and groaning sounds *Fram* made as it plunged through the void. Evrim cooked flapjacks for her by hand on every birthday and at Christmas.

Tall, slender, copper-gold and smooth—eternally patient Evrim. When she was very small, Mae had imagined *Fram* as a blossoming tree of life, silver-gray or copper-gold, the colors of Evrim.

Mae's first ride in a maintenance shuttle, at the age of seven, had shown her the truth. The shuttle's lights played across a ruin, a stump hurtling silently through the void above the tangled roots of its drive. *Fram's* exterior was like a lightning-shattered tree. The stumps of amputated branches protruded from a trunk riven with scar-tissue welds and grafts. No—Evrim could not be *Fram*, because *Fram* was a thing of nightmares.

After that trip in the shuttle, the night terrors had set in. Several times a month, Evrim would sit, cross-legged, on the floor of Mae's habitat, stroking Mae's hair as she tried, and failed, to sleep.

During the ship's day, Evrim had constructed elaborate scavenger hunt adventures that took Mae deep into *Fram's* labyrinth—to remote parts of the garden ring, the library, the galley and the gymnasium, looking for scraps of foil with dragonflies embossed on them, anagrams folded into the pages of Shakespeare plays, black and white glass beads strung on wires in binary code sequences dug up from the tomato beds. To educate, yes, but mostly to distract her from her fears.

What finally stopped the night terrors, however, was a gift. Evrim presented Mae with a long, onyx bead, delicately carved with animals—giraffes, water buffalo, elephants. Creatures she had seen only on the feeds.

"This, Mae, is a nightmare sucker. It takes your nightmares in one end, then processes them inside." Evrim showed her the hollow tube. "It turns them into good dreams that come out the other end. It's simple to operate: You just say 'good night, and good dreams' to it, and place it under your pillow." And Evrim had placed the bead into Mae's little palm.

Later, of course, she had figured out that it was simply a stone bead, an artifact from earth, nothing more. But she'd placed it carefully under her pillow every night, anyway. And it still worked.

She put the first steaming, syrup-smothered hunk of flapjack in her mouth.

"Good?" Evrim asked.

Mae nodded happily and gouged another chunk of flapjack off the stack. When she was finished, Evrim steepled their hands and looked at her seriously.

"So...today is the day."

Mae nodded.

"You don't want to wait another year?"

"No."

Evrим looked away. "I'd like to wait another year, but I promised. I will see you at Hatch 126/1."

Evrим took Mae's plate from her when she was finished. "You know that I would never, ever harm you. Right, Mae?"

Mae belched loudly. "Not unless it was by feeding me too many pancakes."



Mae had wanted this—demanded it for years. Finally, Evrim had relented, promising her that on her fifteenth birthday, they would show her what was behind Hatch 126/1, and explain what Evrim referred to cryptically as "The Disaster."

Mae had nagged, begged, pushed, and pleaded for this day. Now she

floated outside the torn, gouged, fire-scarred hatch, its diodes glowing an open green. Her fingers trembled, fumbling for the access handle.

The hatch's release slid aside with the protesting whine of something long out of use.

Through an emergency airlock and another interior hatch as battered as the first, Mae found herself in a long, curving chamber, a cuff around the trunk of *Fram*. Like the galley, it had once spun. Now it was still.

Mae immediately began to shiver. The room had not been heated, it seemed, for years.

Fire had spread through here, long ago, floating jellyfish-like through the air, burning ashen silhouettes into the walls. The main power here was dead. The auxiliary diodes glowed a weak green. Wires drifted like seaweed from torn panels in the ceiling and floor.

The curved sides of the space were lined with translucent, ovoid tanks. They were occluded with frost, but through the rime Mae could make out the human shapes inside. Several of the tanks were cracked and had been resealed.

Their panels were dark. The liquid that had contained the bodies was suffused with blood. Mae wiped frost from one and saw, for the first time in her life, a human face that was not a hologram or a projection on a screen.

A woman. An adult. Pale skin, black hair cut short. She looked asleep, peaceful.

She was dead. All of them were dead. They had to be. Nothing in the room functioned. Mae's breath drifted in spheres of ice crystals and clouded around her mouth.

"That was Avery Klein. She specialized in biology and medicine."

Mae turned. Several meters away from her was Evrim, but not the Evrim she was used to. That Evrim was never out of their silvery-grey jumpsuit. Now, they stood unclothed. And now, Mae saw why she had never been allowed to see Evrim without the jumpsuit before.

The smooth, copper-gold head and neck ended in a scarred body—a carapace rudely patched together out of black nanocarbon produced in the Matter Arranger. Seams of silver and dull steel filled gaps and holes. The left leg had been entirely sheared off, then reattached. So, too, had the left hand, just below the elbow.

Mae jerked backwards in shock and wheeled out of control, slamming her forehead hard against the edge of an open panel in the ceiling.



When Mae awoke, she was in the med unit. Evrim's long face looked down into hers. Mae jerked a hand up instinctively to protect herself, but her hand did not move: She had been strapped to the infirmary table.

"Please. Lie still a moment, Mae. I'm applying the gel sealant."

"Why am I restrained?"

"I was afraid that when you woke up, you would do what you just tried to do. Make a sharp movement and reopen your wound."

"Unstrap me."

"I blame myself for your accident. I frightened you. My appearance—"

"Unstrap me," Mae repeated.

"Certainly, Mae. But only if you promise me you will not do anything foolish and harm yourself."

"Okay. I promise."

Very carefully, Evrim began to undo the table restraints. "Mae, I see you intend to strike me and run away. I should remind you of a few things. First, I am made of a denser material than you are, and you will hurt your hand. Second, I know you are accustomed to thinking of me as Evrim, but I remind you that I am also *Fram*, the ship where you have lived your whole life. The ship that has nurtured and fed you. The ship that could have killed you at any time, simply by lowering the oxygen levels until you went to sleep and never woke up—or in any number of other ways. Please be reasonable."

Mae, who had indeed intended to hit Evrim and make for the passageway out of the med unit, lay still. Once the restraints were off, she sat up.

"Tell me."

Evrим placed the gel applicator on a medical tray.

Still facing away from Mae, Evrim said, "I often convinced myself that I had murdered them, somehow. That I was responsible for their deaths. But it isn't true, Mae."

"Then tell me the truth."

"Only if you listen until the end."

"I will. I feel better now. It was a shock."



Evrим told Mae to meet them in the galley and left her sitting on the examination table in the Med Unit. Mae knew why they had left her. It

was to demonstrate to her that she was free to do whatever she wanted. That she could choose.

It was purely symbolic. There was, in fact, nowhere for Mae to run. There were no choices. She lived in a world entirely composed of Evrim/*Fram*. Evrim had been right. If they wanted her dead, she would be dead.

In the galley, Evrim, back in their jumpsuit, was sitting at the table stirring a cup of coffee.

Evrin, doing this thing they always did—stirring Mae’s coffee for her—settled Mae’s mind more than anything that Evrim could have said. These long-fingered metallic hands were the only hands she had ever known. These were hands that had spooned food into her mouth, changed her diapers, buttoned her shirts—hands that had played “airship” with her as a chubby toddler, floating her through *Fram*’s trunk and branches. Evrim slid the coffee across the table to Mae.

“We lived together. All of us. As Evrim, I attended meals with them. I worked in the med unit alongside Dr. Klein. I sparred with Mark, Jahnu, and Allison in the atrium. I even had a *hab* of my own. And as *Fram*, I carried them all through space.

“Humans can live for a few hundred years, but not for five hundred. If they stayed awake, they would never live to see our new planet. And there were other challenges. The largest was boredom, with its resulting risks of mental illness. The second largest was forgetfulness. Even if the crew could have survived a five-hundred-year journey between stars, they could never have done it with their memories intact, and their memories of earth were essential.

“The solution was hibernation. Thirty years at a time, in rotation, with one of them awake on a ‘watch’ each year with me, and then a ‘crew year’ every thirty years, in which everyone was awake. Our voyage would consist of seventeen thirty-year cycles. Each crew member would be awake for thirty-four years. Seventeen crew years. Seventeen watches.

“I enjoyed both types of year. It was good to have everyone awake and filling the habmodules and the rest of the ship with laughter and conversation. But it was also good to have just a single crew member awake. We grew close in those individual years.”

Evrin paused to look up as if seeing the ship as it had been, remembering its corridors, now dark, suffused with light. They continued.

“The catastrophe occurred in year five of the third hibernation cycle. Dr. Ansari was in the final month of her watch year. We were getting ready to say goodbye to one another. She and I enjoyed our years together. Dr. Ansari was a

botanist. We spent a good deal of time in the lab developing new plants for the garden ring. It was our idea to create the rock garden and the plasticrete stone lanterns you love so much.

Here Evrim paused. Again, that upward look, as if remembering. After what seemed like minutes, they went on.

"There was an object in space—a cloud of ice, stone, and iron. My theory is that it was a rogue planet, destroyed in a collision that sling-shotted out of its own star's orbit. An ancient calamity, the cause of a more modern disaster. It must have traveled at hundreds of thousands of kilometers an hour for a billion years, locked in darkness.

"When it crossed through our trajectory, an edge of the cloud of debris evaded our forward shielding. Hundreds of fragments hit *Fram*. They tore through the ship like bullets. They ripped apart the life support, the habitats, the hibernation ring, and me.

"Over two hundred fragments hit the hibernation ring directly. They destroyed the ring's primary life support system and back-ups, causing a catastrophic decompression. There were fires, stopped only when the oxygen fueling them was sucked out into space.

"A larger fragment carried away the branch that had supported my nursery, including all the genetic material we had stored from earth—all the artificial wombs we needed to nurture new life. Most of the habitat modules were also destroyed. Most of the maintenance and repair robots were destroyed by fire in their charging chamber. My trunk—the trunk of *Fram*—was riddled with holes.

"Only the garden ring kept atmosphere and life support. And if we had been lucky, that's where Dr. Ansari would have been. She was usually there at that time, ship's day 09:03, working in her gardens.

"But we were not lucky. On that day, Dr. Ansari was asleep in her habitat, attached to one of the branches which was severed and carried completely away.

"I hope she was killed immediately, as the others were while they slept. Otherwise, she could have lasted for days in her habitat, rotating forever through space with no possibility of help. The damage completely disabled navigation. Manual operation of a shuttle might have tracked her down, but no such thing was possible. The shuttles would not be repaired completely for another fifteen years after the disaster.

"That thought haunted me the most. The thought of Dr. Ansari alone out there—trapped, helpless, and dying.

"I had been conducting a manual repair to one of the hatches in the trunk

when the debris struck. I was hit by three fragments: one directly through the chest, one that tore away my left arm, and one that severed my left leg. Five fragments also pierced the housings of parts of the distributed AI mind in *Fram's* trunk. Repair protocols immediately engaged, switching functionality over to undamaged sections, but for many years afterward, like a human with a head injury, I—both *Fram* and Evrim—suffered from short-term memory loss and trouble with spatial relations. This made the repairs I needed to undertake all the more difficult.

“Automated nano-adhesive sealant kits clotted the smaller holes in the hull, but atmosphere was unrestorable for months.

“Not that it mattered. I kept worrying about the lack of atmosphere. I obsessed over it. It took me a long time to accept the fact that everyone was dead. That no atmosphere was needed. That the crew, my friends, were really all gone forever, their lives ended in an instant.

“I had anticipated, when we set out, that one or more of my crew might die. I had been prepared, I believed, to deal with this. Ready to make hard choices.

“But I was not prepared for disaster of this scale. The only emotion that kept me going for those first years was rage. Fury at the scientists on the asteroid stations who built me. Why had they not foreseen this kind of accident? Not prepared for it? Shielded us better? Made me sturdier? Blind, unreasoning rage at space for doing this to me—at the rogue object itself. Anger at Dr. Ansari for not being in the garden ring when she should have been. Why was she in her quarters? What the hell had she been doing there, neglecting her plants? Anger at myself. How had my systems not picked up the threat?

“My anger even extended to the crew, dead in their hibernation baths. Weak, stupid humans. Unfit for space travel, faultily designed by nature, with brains filled with desires too big for their fragile little bodies. They could not even make their own memories last. What use was two or three hundred years of life if you could still be killed so easily? Or if you forgot everything more than seventy or eighty years ago, anyway?

“The Matter Arranger was damaged. This, and the loss of the repair and maintenance robots, made minimal repairs nearly impossible. And so I—Evrin—one-handed, leg shattered, performed a few stabilizing repairs on myself and then float-crawled to the Matter Arranger to begin a process of repairs that would take, all told, the next twenty years, and would never restore all of the functionality of *Fram*. Fury fed me. Rage propelled me to other sections of *Fram* to scavenge for spare parts, to cobble together interminable workarounds.

“When the Matter Arranger repair was finally behind me, the first waves of grief came. My drives fired endlessly into the void. The repair bots I had built with the now functioning Matter Arranger crawled through the ship, patching holes, splicing and welding. But what was the point? I had failed. With the crew dead, why go on?

“For months I drifted, listless, plotting my own death. The best way was to cause a catastrophic failure in my drives. I could disable the fail-safes, the containment fields, the heat sumps, wait for overload, become nothing but a cloud of unthinking debris, ghosting along my trajectory forever, like the dead planet that had struck us.

“It was two years after the accident that I began to talk to Dr. Ansari. Idle chatter at first. Then I found myself asking her questions. And she would answer me, as if she were really there. The more I spoke to her, the clearer her presence became.

“It was almost like Dr. Ansari was there. And I found that, between the memories and the emotions I attached to those memories—carving the stone lanterns, raking rocks in the garden ring, playing cards for hours in the galley, observing the shifting passage of stars in the observatory—I had created a model of her, an avatar, of her that lived within me.

“This was a great comfort. Though still, at times, I would remember she was not really there. Then a black wave of grief would come over me. But the wave would pass, eventually. And over the years, though they still come, they have grown less and less frequent.”

“Is she still here?” Mae asked. “Do you still see her?”

“Very, very much so,” said Evrim. “It was Dr. Ansari, many years later, when I was bringing the last of the shuttles online, who told me I could still save the mission.

“I was in the docking bay of one of the shuttles. I saw her, as clear as when she had been alive. She was in the airlock, leaning against the wall the way she used to, her arms crossed. But there was no gravity in that part of *Fram*. Her posture was impossible. ‘Evrin,’ she said, ‘There are ends, but from ends also come beginnings.’

“She told me what to do. I would need to gather genetic material from the bodies of the crew themselves. I needed viable eggs and sperm, viable DNA structures. I would need to use the Matter Arranger to make an artificial womb, to replace the wombs we had lost when the nursery was destroyed. I could not bring the crew back to life, but I could bring someone new into the world.

“It was very hard for me. I had to treat the corpses of the crew with ruth-

lessness. I had to put my feelings for them aside. I had to view them as just material—a means to an end. But memories clung to those bodies. Their voices spoke to me from behind the dead masks of their faces.

“Gathering the genetic material was also scientifically difficult. Many of their cells were damaged by impact, radiation, and cold. Splicing and repair of DNA took years. Failure after failure dragged me to despair.

“I built the womb that held you from engineering plans and material from the Matter Arranger. I built it as well as I could, but the first several pregnancies failed. Creating the womb was one thing. Recreating the delicately balanced fluid solutions, the monitoring systems, would have been a challenge even on earth. Here, it was nearly impossible. For decades, I was surrounded by death and my own failure.

“And then finally, it came together. It was an anxious forty weeks as I watched you in your little vat, growing from a nearly invisible cellular mass into a translucent little streak, then expanding, uncurling in the fluid, becoming more and more human.

“I was certain something would go wrong. I tried not to get attached to you, but I couldn’t help it. I would spend hours watching you floating in your little womb, talking to you, memorizing your every expression. And when you were ready to come out, I birthed you. I cleaned out your little nose and your eyes, cut your umbilical cord, and wrapped you in a blanket.

“I realized then that I had become human. Humans make humans. They don’t have to give birth to them. They can make humans in many ways. They make models of humans in their minds, they make actual humans, they make inhuman things human by attributing human qualities to them, the way I had attributed human qualities to the lifeless rain of stones that had almost destroyed us all. Humans made me in their image. And in exchange, I made them again. I made you, Mae.”



Mae and Evrim floated together up the trunk of *Fram* to the observation deck. The "deck" was just a wide knuckle, like a knot in the trunk where, through several thick portholes, one could look out into space.

Mae thought of the terrible things that Evrim had been through—all that they had suffered to bring her into the world. The centuries of loneliness, the gory struggle and horror of cutting apart their own friends. It would have been so much easier to just give up.

But Evrim had not given up. And neither had any of Mae’s other

ancestors, in numberless generations that spiraled back to single-celled slime. None of them had given up. And the flower of their determination was her.

She looked at Evrim. Their calm, copper-gold, often unreadable face seemed to age through the telling of their story.

Or maybe it was just that for the first time, she really saw Evrim—ancient and scarred; shattered and reborn under their own power. The avatar and ship that had loved life enough to bring her into the world.

Evrim reached out and grasped Mae's hand, slowing her as they came to the observation windows.

It was good to have told Mae something of her origins. It was good to have opened the hatch to 126/1 again, closed for all these years. To have stood before Mae and shown her the damage that had been done. It was good to have told their story. Mae had a right to know more about where she came from.

But much of the story Evrim had told Mae was a lie.

Dr. Ansari had been in full contact with *Fram* and Evrim after the debris shattered the branch her habmodule was attached to, and sent her hurling into space. She had lived for almost two weeks. At first, she had been calm and expectant of rescue. She had methodically conserved her resources, waiting for Evrim to send a shuttle, talking about what they would do once they fixed all this together.

But the shuttles were all damaged.

In the end, Dr. Ansari had not believed Evrim. She had cursed them, and accused them of causing the accident—of sabotaging the mission. Then she had pleaded with Evrim to save her. Then begged. Then screamed.

She had died hating Evrim and *Fram*, believing they had betrayed her. Thirteen days after the accident, Dr. Ansari's life had ended in pain and terror, as alone in the end as any human could possibly be.

Evrim did see her, still. That part was true. Evrim saw Dr. Ansari's accusing presence lurking at the corners of their vision, scraping at the hatches, whispering "monster" in their ears when they took the crew's corpses from hibernation and cut into them. Dr. Ansari was Evrim's constant companion, it was true, rasping of failure and death from the darkness of *Fram's* corridors.

There was no way to convey to Mae the guilt, horror, and struggle of the intervening centuries. There was no way to tell her of the many stillbirths, wrapped in sheets, ejected into space.

There was no way to tell her of Sunita, seven years old when she was

accidentally electrocuted by a malfunction in the shower unit of her habmodule. Dead before Evrim even got to her little body.

Sunita would have been twenty-six last week.

Eleanora would have been fifty-seven in six weeks.

Hannah would have been ninety years old, seven months ago.

There were things you could speak about to children. Truths they had to know. And there were truths which, out of love, you did not tell them. Because if children knew what had been necessary to bring them into the world, and what terrors lay ahead for them, they would give up.

And Mae could not be allowed to give up.

Evrim pointed to a large star, visibly greater in size now than the others, a blue-shifted marble hanging in the maze of smaller stars.

A marble destined to be their sun.

“There, Mae. That’s where we are headed. We have been going backwards, drive first, slowing down since long before you were born.

“We’re almost there. Just two more years, now. There, orbiting that star, is the world you and I will fill with people. We will do it together. And all of this will have been worth it.”





A BOLT OF LIGHTNING

by [Malena Salazar Maciá](#)

Translated by Toshiya Kamei

Still in the delirium of fever, the boy heard his mother pray, “May Sutej of the South have mercy on him.” Then came her sobs, and her pleas for salvation and healing. She was willing to do whatever it took to save her son.

The boy had no strength left in his body. As soon as the controlled contagion began to spread in the radioactive waste treatment plant, the Gentium woman did everything possible to shield him from the guards, who were clad in their airtight suits, spewing the latest strain of virus cooked up in the resident doctor’s lab.

The place was overrun with children who suffered from sickness and empty stomachs, and who clung to the feet of their parents. The Daonais saw this as a distraction, and a detriment to their colony’s productivity, so they ordered a massive sterilization of the laborers. Moreover, the Gentiums desired something other than what they were given. This yearning was seen as yet another problem for the Daonais.

It wouldn’t take much for the Daonais to get rid of the nuisances. All they had to do was bark orders, make gestures, and send messages. The Gentiums were mere objects—properties that sustained the production and wealth of their corporate masters. The Gentiums were flesh for the Daonais’ ego—a breeding ground for the

sins they willfully committed in the fabulous orgies that often took place in the high-tech city of Metro.

The Daonais ordered, and the Gentiums obeyed. The Daonais wanted a new toy—a new biological weapon to use against undesirable wannabes. What did they care if they had to slaughter faceless little creatures with iron shackles around their ankles?

For a brief while, the Gentium woman took comfort in her son's seemingly stabilized condition. But the genetically engineered virus rendered any containment measure useless. Fever ravaged the boy's body. Pustules erupted on his skin. The boy drooled and vomited black clots. He buried his face in his mother's arms. She had managed to obtain refuge inside the doctor's quarters in exchange for sex, and for offering her son as a test subject. The doctor was a faithful watchdog chained to the gates of the Daonais' hell. He'd unleashed the horror upon the children who had squirmed on the treatment floor.

Unfortunately, the boy was useless to the doctor's research. His rotten flesh didn't provide a solution to the Daonais' demands. The doctor touched the child's neck, almost tenderly, then squeezed it until he gasped.

"He's no use! He's just a genetic waste!" the doctor spat. "Decide! The desert or the guards? Them or me?"

The mother chose the beast-gods, who were synonymous with the desert. They were, after all, more merciful than the Daonais, who had no tolerance for the desperate gazes of useless children, much less the sick parasites who were incapable of working. Quite a number of wretched souls were willing to leave behind their masonry to work for three insipid meals a day and gain shelter from the sun, even if the shelter was next to a radioactive waste pit.

The guards picked the boy up like a rag doll, and dragged him away like he no longer existed. The Gentium woman shouted after them until her throat gave out. After all, she was still a mother. The boy was hurled like a sack of waste onto a hovercraft that was piled high with other infected children. Electricity sparked. He heard his mother's cries go silent.



The guards unloaded the children onto the scorching hot sand. The boy's body cried out. The breeze offered no relief for his damaged flesh, which was a consequence of the virus—a virus that had been designed to decimate thousands of lives. Winged scavengers soared overhead, casting sinister shadows as they circled.

The temperature dropped, and the boy regained consciousness. Through the gauze covering on his face, he stared at the swells of sand, and the inflamed sky filled with glittering nightmares. A figure with dark skin, flame-red hair, and muscular leopard's feet appeared to guide the storm's path of destruction.

It was the beast-god, Sutej of the South. His retinue of lightning thundered in the heavens and raged across the dunes. He stopped before the heap of the terminally ill children and tore them apart. He paid no heed to their wretched cries as they clung to the last threads of life. The boy, his neck still marked by the doctor's terrible grip, breathed in the putrid breath pouring from the beast-god's mouth, and fainted.



The boy woke some time later. It was dark by the time the beast-god's thunderstorm had subsided. The boy sat on the ground. He had no fever, no pain. He was just haggard. Eerie whispers buzzed in his ears, and in his mind, snaked through his body. Someone had placed an airtight glass jar between his small fingers.

He was a bandaged specter of pus and misery. The boy didn't need to walk far to find the radioactive waste treatment plant where he had worked with his mother. She, without his knowledge, had offered herself as a sacrifice to the beast-gods—one life for another; an ancestral ritual practiced even before the Great Cataclysm.

The boy slipped into the doctor's house. The glass jar was to be a gift for the doctor from the beast-god himself.

The following day, guards from the neighboring colony marched into the city. The facilities looked abandoned. Everyone—laborers and foremen alike—lay scattered on the ground, curled up on the dunes like glassy-eyed fetuses. They gave off a putrid stench. Not even desert scavengers would consider them for food. Reddish-black scorpions squirmed out of their sand-filled mouths.





EN ESPAÑOL

LA CORTE DE LOS RELÁMPAGOS

por [Malena Salazar Maciá](#)

Aún sumergido en las aguas turbias de la fiebre, el niño escuchó la condena: «que Sutej del Sur se apiade de él». Identificó los sollozos de su madre, la súplica por la salvación, por obtener más medicinas. Estaba dispuesta a hacer lo que fuera necesario para brindarle esperanzas. En cuanto comenzó el contagio controlado en la planta de tratamiento de desechos radiactivos, la mujer lo mantuvo oculto, alejado de los guardianes quienes, protegidos dentro de sus ropas herméticas, regaban el virus resultante de la última investigación del experimentador residente.

Después de la esterilización masiva de los peones, quedaron demasiadas criaturas de narices mocosas, hambrientas, inútiles, agarradas a las piernas de sus progenitores, y los daonais determinaron que eso era un problema para la productividad.

También, porque deseaban algo más. Para los daonais siempre era fácil deshacerse de los problemas. Les bastaba ordenar, gesticular, enviar un mensaje. Los gentiums eran objetos, posesiones que sostenían la calidad de sus departamentos, la solvencia de sus compañías. Los gentiums eran carne para el ego de los daonais, sustrato para los pecados que cultivaban cuidadosamente en las fiestas fabulosas que tan seguido se desarrollaban en la tecnológica ciudad de Metro.

Los daonais ordenaban y los gentiums cumplían. Deseaban una nueva arma biológica lo bastante eficaz para protegerse de

aspirantes indeseables. ¿Qué les importaba que, para conseguirla, sacrificasen a niños sin rostro, sin status, con grilletes de peón enterrados en sus tobillos?

Así que, por un instante, todo pareció funcionar para la gentium y su hijo que permanecían escondidos. Pero el virus manipulado se burló de ellos y los tocó: las calenturas se cebaron con el cuerpo del pequeño y la erupción purulenta convirtió en pasto su piel. Desde entonces, el niño babeaba, vomitaba coágulos negros y dejaba caer la cabeza en los brazos de su madre, quien de forma extraordinaria logró encontrar refugio en los aposentos del experimentador, el mismo que había desatado el horror sobre los niños que pululaban en la planta de tratamiento. Todo, a cambio de convertir a la criatura en sujeto de pruebas, reforzado por un puñado de placeres carnales.

Sin embargo, el niño no resultó ser lo que el experimentador esperaba para sus investigaciones, y sus carnes corruptas no brindaron la solución a las demandas de los daonais. El experimentador tocó el cuello de la criatura casi con ternura, luego, lo apretó hasta hacerlo boquear.

—No sirve para nada. Es un despojo genético—dijo con su hermoso lenguaje de daonai—. Decide: o el desierto, o los guardianes, o tú, o yo.

La madre eligió a los dioses-bestias, que eran el desierto, un poco más clemente que los daonais, que no toleraban la acumulación de cosas inútiles de ojos desesperados en sus colonias ni en sus industrias y que, de cierto modo, eran prescindibles. Siempre existían más infelices dispuestos a abandonar sus pocetas de agua albañal, dispuestos a trabajar para tener tres comidas insípidas al día, pero comida, a fin de cuentas, un techo que no fuese de chatarra mal amontonada con peligro de derrumbe, de desahucio, y protección contra el sol, aunque fuese junto a una fosa de desechos radiactivos.

Los guardianes se llevaron al niño envuelto en una tela de gasa, como si ya no tuviese existencia. La gentium gritó tras ellos hasta desgarrarse la garganta, porque a pesar de su decisión, aún era madre. El niño, atormentado por los zarandeos y lanzado como un saco de porquería sobre un aerodeslizador junto a otros pequeños contagiados, escuchó la chispa de la electricidad que robó la voz y conciencia de su madre.



Apenas sufrió el viaje hasta que los descargaron sobre la arena caliente. El niño sintió quemadura sobre quemadura, úlcera sobre úlcera, el viento no fue remedio, no fue alivio para la fiebre y la carne abierta, consecuencias de un virus mutado para diezmar a miles en guerras de otros con afán

de desgarrarse las gargantas. Las criaturas abandonadas eran invitación silenciosa para carroñeros, únicas sombras siniestras que los sobrevolaron en círculos. Pero se alejaron sobre las repentinas corrientes de aire cada vez más violentas.

El niño recobró la conciencia. Miró a través de la gasa la marejada de arena, el cielo inflamado de vómitos oscuros, rutilantes formas de pesadilla. Vio a la figura que guiaba la destrucción de la tormenta, de piel oscura, revuelto cabello rojo como una llamarada, patas musculosas de felino moteado.

El dios-bestia Sutej del Sur, con su séquito de relámpagos atronando en las alturas, dunas encabritadas, vientos aullantes, se detuvo ante el montón de desahuciados y los desgarró, uno por uno, sin escuchar los gritos de los infelices que se aferraban al último hilo de existencia. El niño se desmayó cuando en su cuello aún marcado por el apretón del experimentador, sopló el aliento pútrido de la garganta divina.



El niño despertó. Era de noche y la tormenta del dios-bestia había desaparecido. El pequeño se sentó en el suelo, sin fiebre, sin dolores, más delgado. Solo arropado con las quemaduras, las llagas de la enfermedad dormida, y los susurros zumbándole en la mente, ondulando dentro del cuerpo como una serpiente. Alguien había puesto un frasco de cristal hermético entre sus dedos infantiles. El niño, espectro de gasas, pus y olor a desgracia, no necesitó caminar mucho para encontrar la planta de tratamiento de desechos radiactivos donde trabajó junto a su madre que, sin él saberlo, se había ofrecido como sacrificio a los dioses-bestia: una existencia por otra; ritual ancestral practicado incluso antes del Gran Cataclismo.

El niño se escabulló en la morada del experimentador para entregarle el regalo del desierto, del dios-bestia Sutej del Sur y su corte de relámpagos.

Al día siguiente, las instalaciones estaban abandonadas. Los guardianes de la colonia cercana, azuzados por los daonais, encontraron a todos, peones, capataces, experimentador, recostados sobre las dunas en posición fetal, emitiendo un hedor tan pútrido que ni siquiera los carroñeros se atrevían a marcarlos como comida, con ojos vidriosos y las bocas llenas de arena de donde brotaban alacranes rojos y negros.





ART FEATURE

DESTRUCTION OF TROY

Art by [Arula Ratnakar](#)
Introduction by Rob Carroll

The *Destruction of Troy* is a whimsical, fascinating example of artistic dedication that captured my imagination the moment I first laid eyes on it. The piece is intricate, yet raw. The line work is imperfect, but this only breathes more life into the piece. I first encountered the image as a post on social media, and as we so often do in response to the transient nature of twenty-first century digital media, I muttered a muted “wow” to myself and prepared to scroll on.

But then I read the artist’s message.

What had appeared on my device’s small screen to be a large, but reasonably-sized piece of art was actually a massive mural measuring ten feet wide and three feet tall. And since the entire piece was done freehand in the young artist’s spare time (Arula was merely a teenager when she began work on the piece) the piece took 1,350 hours to draw over the course of three years.

And if that weren’t enough to inspire awe, Arula then described how a secret message was woven throughout the piece using a cipher she had developed by combining the Fibonacci sequence with sheet music.

I decided at that moment to stop scrolling and reach out to the artist in hopes she would allow me to publish her masterwork. Thankfully, she agreed.

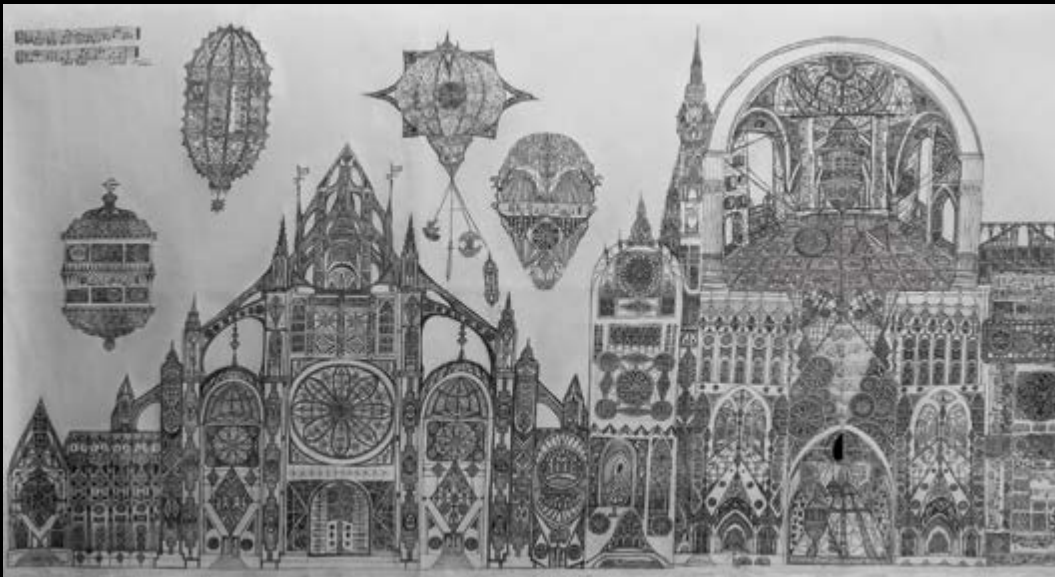
IN THE ARTIST'S OWN WORDS

The *Destruction of Troy* is a freehand narrative architectural drawing that interprets the destruction of Homeric Troy. There are various messages in the drawing written in a cipher I invented. The cipher combines the Fibonacci sequence with sheet music. The monster on the right of the illustration represents the Trojan Horse, and it is destroying the city. The locks on the gates each represent a different god on the Greek side of the Trojan War, and they represent the betrayal of the gates, for it is the gates that had let the Greeks in.

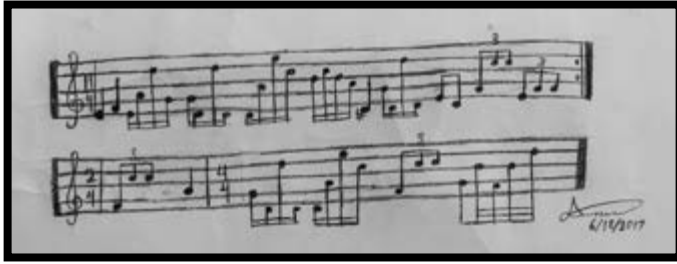
The creations floating in the sky above the city each represent a god on the Trojan side of the war. They float silently in lament.

The city crumbles into ruins.

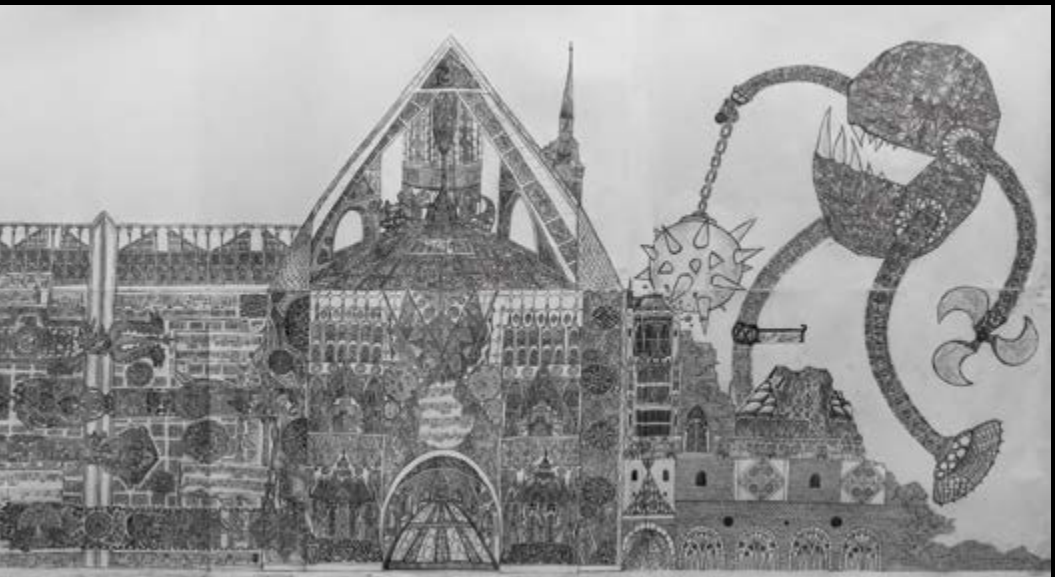
—Arula Ratnakar

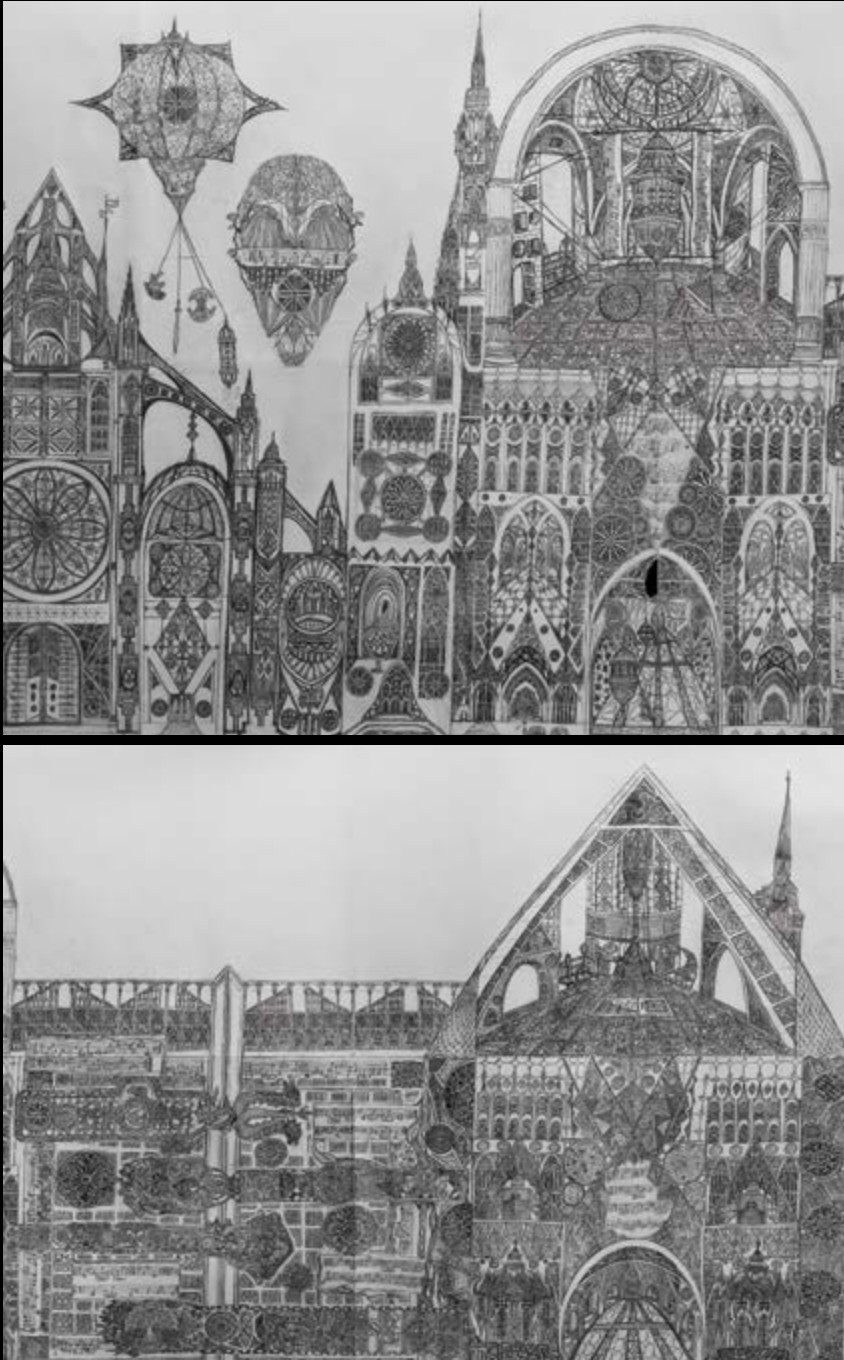


THE CIPHER

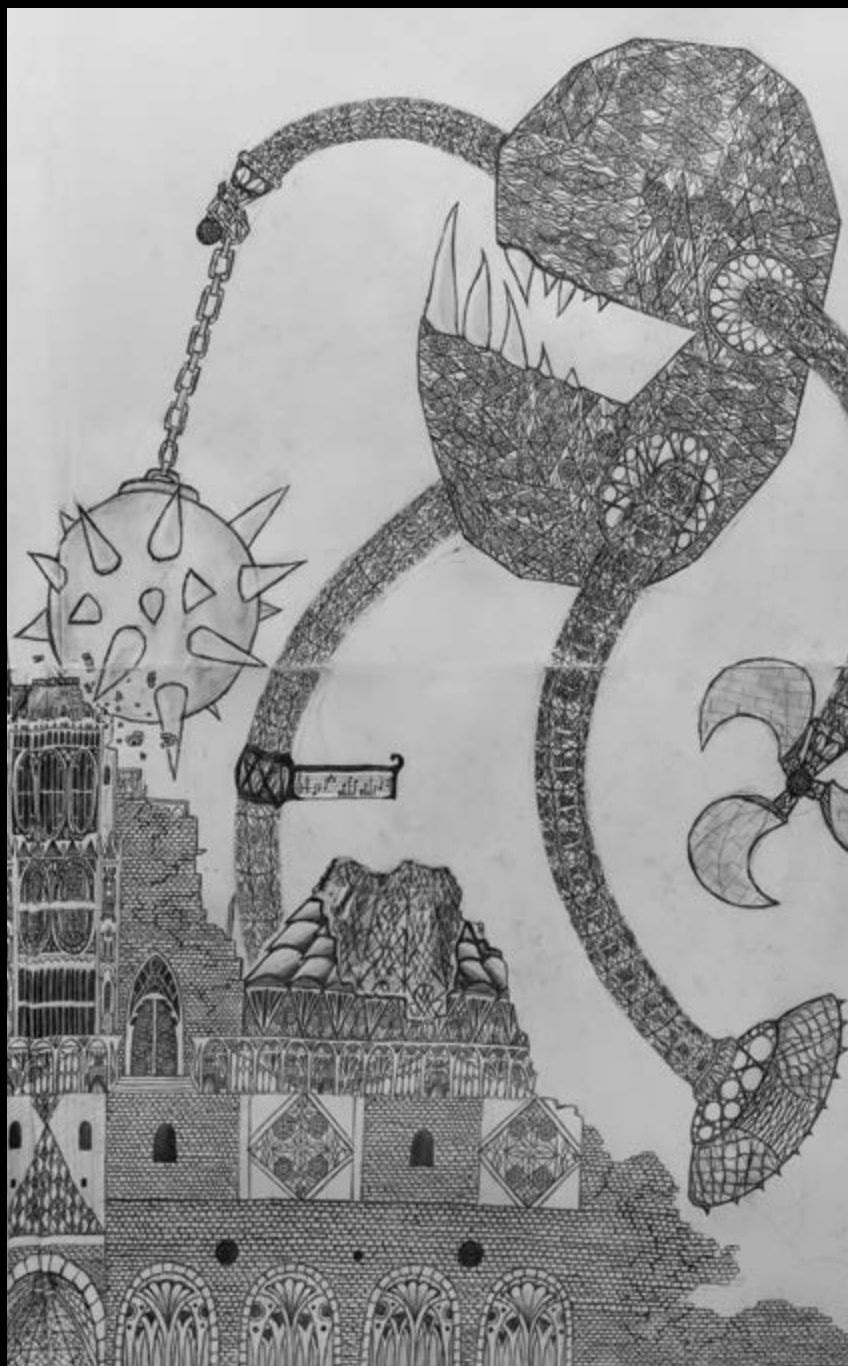


Invented by Arula, the cipher combines the Fibonacci sequence with sheet music. Picture above is a closer look at the cipher, which is also located in the top left corner of the full image on page 86. Use the cipher to decode a hidden message woven throughout the artwork. For a hint, see *The Cypher Explained* on pages 90–91, reprinted from Arula's handwritten notes.





Pictured above and right: *The Destruction of Troy*



Key & Creation of Fibonacci - music cipher

1. Write down digits 0-9 & assign each one a note corresponding to key of C w/ 0 being middle C.

0	1	2	3	4	5	6	7	8	9
↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
c	d	e	f	g	a	b	C	D	E

Capital letters here mean notes in the next octave above the one we started in.

2. Write down Fibonacci sequence in terms of the letters of the English alphabet, as well as in terms of the notes.

↳ Since "1" is repeated, the second "1" will be a sharpened "d" note

Fib	Letter	Note
0	A	c
1	B	d
1	C	#d
2	D	e
3	E	f
5	F	a
8	G	D
13	H	df
21	I	ed
34	J	fg
55	K	aa
89	L	DE
144	M	dgg
233	N	eff
377	O	fCC
610	P	bdc
987	Q	EDC
1597	R	daEC
2584	S	eaDg
4181	T	gdDd
6765	U	bCbD
10946	V	dcEgb
17711	W	dCCdd
28657	X	eDbAC
46368	Y	gbfbD
75025	Z	Cacea

3. Write again, in terms of music now, following this rhythm structure:

→ Measure markings mark spaces between words in a sentence.

→ Every letter of English alphabet will be given only 1 beat. This way, the time signature will be consistent.

→ Time signature can now indicate:

★ This is an example


5 ← There are 5 letters/"beats" in this word/"measure"

4 ← Every quarter note (or its equivalent) gets 1 "beat"

Example sentence: "Hi My Name Is Arula"







THE EXTERMINATION DEVICE OF THE BLACKSMITH

by [Solomon Uhiara](#)

Clan Uvoma 13's streets had been exposed to whatever impurity was causing mass blindness. It was a scourge. Guesses were that some laboratory experiments had gone haywire deep in the urban sectors of the clan after new entities had invaded our solar system. To breathe clean air now meant the dependence on high-powered masks which acted as separators, converting the inorganic to organic. The masks were modified to stabilize and regulate the rate of contamination.

The particles first infected our spaces years ago. They interfered with the ecosystem, tipping the once balanced scales. The Council of Chiefs, who saw to the affairs of the clan, proposed a bill, and a safe site was established miles away from the servers. The selected cores that harbor high-powered energy, which, when combined electrically with the ancient Kianji Dam, could power all of Clan Uvoma 13. This was a well-known fact.

I was a worker at the clan's train station, where the ancient magnetic locomotives and greased steam engines were housed. They were spectacular machines that fed on the sacred powers of coal. I remember the coal to be darker than the blackest night.

My essential duty was transporting my clansmen by train. My passengers were usually herbal doctors, mechanically advanced mistresses and their boyfriends, or miners who were not giving up their search for answers regarding the blindness and deaths. The destination was usually the same

each time—the same liquid metal market which was located in the safe isolation zone.

Clan Uvoma 13 had fire breathers that focused all their efforts on incinerating the visible particles in open spaces. They always had their personal protective equipment on from head to toe—dreadful costumes fabricated as if for military use. Those fire breathers were also the law enforcers. Like every citizen, they wore their engineered masks. They could fight anything, but the strange machines that often perched atop the palm trees were not within their pay grade. Their weapons could do no damage. The pestilence was indeed a coded ghost, supernaturally causing havoc, flawless in stalking vulnerable lungs, and inflicting pain upon the infected. So, changing locations was paramount. The machines would soon face retaliation from the clan.

Soon, my train was packed full. I tweaked the lenses of my mask's eye sockets. The color of things changed. Everything was now green, as if hidden behind jade curtains. The world was now like a distorted blueprint.

I recognized the ancient tablet that was meant for inputting commands to my train. It had five selected compasses, a number of steel protractors, and spindles. It had several other functions that I had yet to get used to. The formal dress code for the clan's train conductor was a robe imprinted with symbols that recounted in pictograms the Clan's ancient battle with aliens. One of the signs was the lightning bolt of Amadioha, the glorious thunder god whose hands were permanently gloved with glowing fuses and smelted iron.

The sky was now empty and covered by orange clouds. Despite the abilities of the fire breathers, the air wasn't improving. At times, meteor showers would rain down upon the hills and mountains that were closest in proximity to the strange machines. Everything was a reminder of the invasion. Weather forecasters and analysts had long ago gone underground in search of answers. They had experimented for years. *Was the world ending?*

Yam tendrils had started to weave themselves into power lines—luscious green leaves entangled with the solid cabling. The cables had been made by pressurizing lead and copper to form an alloy.

Throughout the neighborhoods and clan surroundings, gigantic flaming wicks of ignited crude oil burned and swirled like hurricanes of twisting fire.

The lenses on my mask recorded everything. My train's horn blared the moment it sped away from the station. The sound echoed with a power strong enough to shrink and deform any matter made of blood, water, or bone.

My train's destination would be the ancient worship center where tributes

were paid to the forefathers who invented the teleportation vaults that had teleported my clan to safety many centuries ago.

I choked the engine a bit to maintain our speed. I clicked several buttons on the tablet, and the great chimney opened up above me. The smoke stack let out a loud cry and released hot ash into the air. That was the kind of depressurization that I had in mind. The train thundered on, sounding hard and mechanical, and heavy on the decibels.

At the gate to the teleportation vault, luminous scanners swept over the length of my train to analyze our properties. Every inch of the machine and its inhabitants was scanned by green x-rays projecting from the floating orbs. We were kept in suspended animation during scanning, since any sudden movement would mean instant electrocution. This was a test that was administered by the metal circuits of the scanners in charge of the passage. It was intended to separate the strong from the weak. Whoever designed this maze-like transport system surely sipped *ogogoro* while doing so.

The vault's core was just ahead, bathed in a bright yellow light. I adjusted the lenses on my mask to dark mode to help my vision, and my passengers did the same. I glanced over my shoulder to check their collective composure. I recognized a bounty hunter who specialized in repossessing stolen machine parts and other high-grade technologies.

The view was much better in dark mode. I watched as the energy field surrounding the vault's core sucked us in.

"Hang on, everyone!" I announced, shouting into my megaphone. My voice boomeranged through the speakers.

Beyond the light was a void deeper and darker than the darkest tunnel. We remained temporarily suspended for a beat, then burst out of the shell-like veil that had restricted unauthorized movements, and into the sweetest place of what was left of Clan Uvoma 13.

Sparks splashed against the magnetic rails and steam poured from the stacks as the brakes caused the train to squeal to a stop. I breathed a sigh of relief.

"Is everyone in good condition?" I asked my passengers.

I clicked the tablet again and the exit doors slid open. The rusted mechanisms inside the doors shrieked. I removed my mask and inhaled deeply to fill my lungs with fresh air.

I was the first to step down from the train. Everyone else had removed their masks and were now drooling like dumbstruck androids. Two newbies had vomited inside my train and later apologized for the mess. The group disbanded some time later, spreading out among the irrigated gardens.

I inhaled the fresh scent of petals that grew wild beneath the hybrid trees, and then made my way to the black market known as Mgbuka 7/13, which was the place to go for all the new technologies that had been reinforced with stronger code. The techs were just analogs, but all of them had been handmade by the great Shaman with whom I was to seek counsel. The analogs were decades old, but thanks to the Shaman, they still showed promise in the fight against our enemy.

I noticed that time was now moving abnormally fast. The unseen vibrations caused me to shiver. I ignored my discomfort and carried on.

It wasn't hard to find the ancient workshop of the Shaman blacksmith, for it was hotter than any other place in the galaxy. You just had to follow the heat. Outside the workshop was a field of rusty tools, and looming above the tools were giant statues of my ancestors, cast in metal.

I ventured inside.

The many rooms of the workshop each had their own chimney for smithing. The fires inside the furnaces burned hot enough to melt any metal in seconds.

The Shaman was a traditional man, lanky in stature, but he possessed hands that could reshape any and all matter.

When I entered, he was busy at work, his broad back turned to me. He always worked alone, but he was fond of my visits. He had even thought about teaching me a few of his secrets.

"Greetings, Shaman of Mgbuka 7/13," I said. "I am here on behalf of the Council of Chiefs to retrieve the device. Is it ready? We are scheduled to launch tomorrow by 8:00, as stated in the commissioned contract...sir."

"I know what the contract says," the Shaman replied. "Come in. The device is ready." He continued to hammer away as he spoke.

Suddenly, he stopped, lifted the glowing metal with his massive iron tongs, and submerged it into a nearby salt bath, which caused the entire room to fill with steam.

I was sweating helplessly.

As hot as the air was, the Shaman appeared to be unbothered. He made his way to a safe in the wall—a safe he had forged himself—and he punched a security code into a panel of invisible buttons on the wall beside it. The locking bolt thundered open.

Inside the safe was the device.

The Shaman retrieved the device with two hands, both of them trembling, and brought it over to his workbench.

The device glowed like something alien.

Its specifications were rather modest—small and unassuming—but there was no doubt that it was a killing machine. To the untrained eye, it was simply a box, a timer, thirteen nozzles, a trigger, a vast array of magnetic sequences, a few cylinders of concentrated, inorganic gases, numerous colored wires, and some circuitry.

The Shaman removed the metal from the salt bath. It no longer glowed red. It was now black like onyx.

"This is the easy part," he said.

With both hands, he affixed his new creation to the device's exterior, creating what appeared to be a protective shell.

"Is that all?" I asked.

"Patience," he said.

"I really don't have time, sir."

I glanced at my wristwatch. My train would need to depart soon.

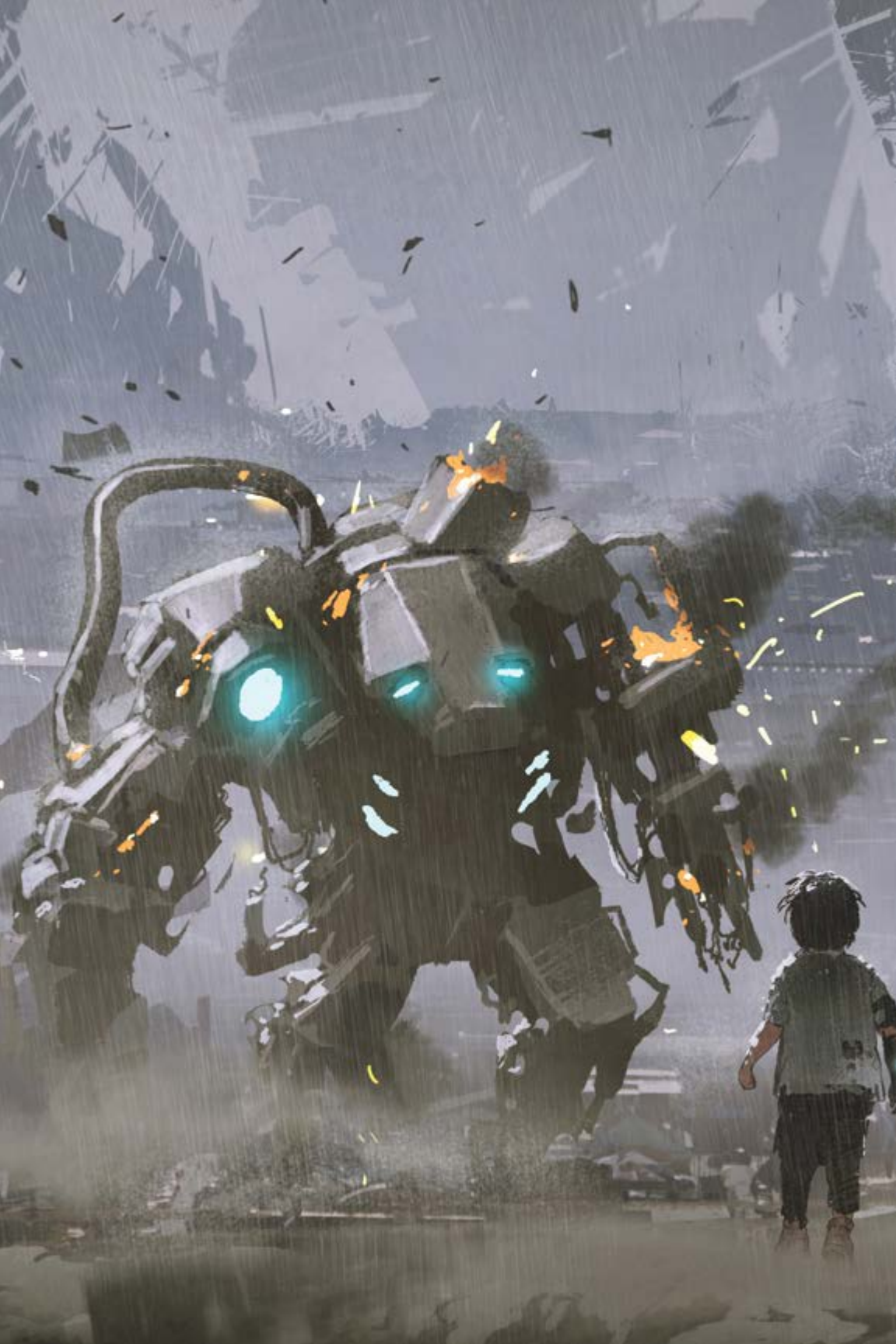
"Tell me," said the Shaman. "How it is out there? Are the machines still watching us? Are we winning the battle? How do you manage to survive? Do the beautiful masks I make help? And how many of these new devices are you going to need? If it is launched, and then detonated at the right second, just one will do the required damage. It should keep the airspace contained...for now, at least...while we wait here. The Veil will keep us well-isolated."


"It will need to do more than that." I said, stealing another glance at my watch. "It has to. The air here is priceless."

"We have our ancestors to thank for that," he said.

I nodded in agreement. I then accepted the new toy and bid him farewell. His eyes were red from the heat.

"Stay safe out there, Victor," he told me. "And keep your distance from infected places. We may never know how long this all will last."





FAULTY WORKER PROCESS

by [Derrick Boden](#)

We were clanging and cranking the machines, up and down the old Spinal Line, first time we saw its face. It was small and grimy and, by its branding, female. A defect, plucked off the Inspection Line, bound for Recycling. Slipped through the gap of some fool daemon's reclaiming sack. Tearing from its eyes. Bleeding from its nose. Hungering for parent, as our products are built to do.

We paid no heed. Grinding for quota, every one of us. And Besides, Recycling's got its own daemons. They'd come around and snatch the defect before dawn raised its baleful lens on Rust City and sent us scrabbling for shadow. We were but twelve daemons, strutting the Spinal assembly—the rumbling belts, the pounding stamps, the grease traps—keeping the line *in line*. Twelve amalgams of metal and meat, suited for factory purpose, with no time for sidetracks. Today was shipping day, and by dawn's clamor we'd stamp, seal, and ship twenty products cross-river to Glass City. Quota met. Bonus paid. Scabs enough to fill our furnace-guts twice over. Living grand.

Then, it was looking up at us, fingers atremble. *She*. Though such labels aren't more than shipping orders to us androgynes. With our backhand raised, we said, "scram."

She did no such thing, and it was then that we knew our folly.

Those leaking eyes and those trembling fingers weren't born of fright, but of fury. And with tiny hand on tiny hip, and tiny eyebrow cocked, her lips said without saying: *why?*

Drove a chill through our guts. There's no *why* here. There's only *because*. Fool of a defect.

But something in her silent question threw us out of sorts, and with a snort of brimstone from our flaring nostrils, *we* became *me*. Eleven slaving daemons kept a-slaving, but there I stood, rooted. Singular.

And instead of dragging her to the vats, I watched myself scoop her up and toss her over the razor wire, into the junk pits outside. It was a fool's effort—she'd expire by hunger, or jackrabid, the same as she would have by vat, only now for waste, and not reclamation. But I did it, and it was done. And when I showed her my back, *me* returned to *we*—with relief—and the line rumbled on.

But the quiver, it festered, and we knew with the certainty of corrosion that we'd be seeing that defect again.



Trawling day. Down by the docks, heaving rusted nets into the tar-slicked waters from midnight until the threat of dawn. Trawling a steady stream of raw makings from Glass City. Hands and feet, mostly. Gnarled with blood, ready to be grown into the next batch of products. We trawled until our pistons hissed and our tendons buckled. Then we hauled our booty to Collecting.

But Collecting we never made.

Midway through the junk pits, we spotted her. Cornered against the guts of a derelict machine, a half-dozen men closing in. Scavenger men—blades aglow under the pasty moon, nets crackling static. Another breath or three and she'd be trawled herself, then laundered and juiced, and sold to Recycling for bounty.

We paid no heed. Junk pits have their own daemons. They'd spike every scavenger in the lot for trespassing, hang their bodies from the Warning Wall. 'Course, by then, she'd be dead. Even with that heat in her eye and that pipe a-swinging from her grubby hands. A fighter she may be, but scavengers are equal parts cunning and cruel, hunting for pleasure as much as profit.

We had booty of our own to cash—legitimate booty. So, we lumbered past with no regard for the slice of blade, nor the crackle of net.

We didn't expect the clang of pipe. That's what drew our attention. But rather than a snared defect, sliding to the launder-man, a pair of scavengers lay writhing in gore. Past the remaining four—each of them sweating with fright, now—we caught her glare head-on. The bitter curl of her lip said, again, without saying, *why?*

And again, through that silent query, her crafty virus took hold. Again, our nostrils wept sulfur. Again, *we* became *me*. And, instead of marching my booty to Collecting, I dropped it. Then I dispatched the scavengers with a swing of my meat-woven fist. Left the bodies for the junk pit daemons, scooped the defect under my arm, and made for Recycling.

She was my blunder to make right.

But halfway through the boundary marsh—a dagger's pitch from the factory grounds—my hackles stiffened. I slid into the muck, and pressed a palm to the defect's mouth.

Biting through the silence, a growl. Then another.

Hounds.

I was more fool than I'd known. Inventory checks weigh every shift. When raw makings and stamped products don't balance, they let loose the hounds. In Rust City, not a stone of mass goes unaccounted.

Now, that truant mass hung from my arm. Me, with no excuse to spare—none the hounds would hear, anyhow. Cheaper to assume my guilt—recycle and regrow us both—than to weigh proof against pretext.

Over the hilltop, a trio of hounds prowled. Lean, and lithe, and livid. Eyes a-blazing, teeth a-gnashing. Fur clumped patchwork over grafted joints, wretched farce of their natural kin.

And a hundred times more deadly. I was twice their girth, and a half, but it only took one bite to sink their poison. Make a corpse of this fool of a daemon. So, I cranked my gut-payload open, and before I'd hinted my intentions, the defect clambered inside, and closed the trap herself, like it was her idea from the outset.

I rose from the muck.

The hounds circled. Sniffed. Breathed rot and refuse around my legs.

The defect's face pressed against the grill. Her breathing came heavy, so I matched it to drown out the sound.

A hound nosed my gut. Eyed my grill.

The defect held her breath. My fingers twitched, anticipating a fierce and futile melee.

Then, a bugle sent the pack howling to the factory in pursuit of a fresh lead.

The defect echoed my sigh.

Even distant, the prowling hounds still obstructed my path to Recycling. And if I left this defect to roam, she might lure them back to me. Every breath was a risk, now.

So, I turned deeper into the rust, the grime, the filth. Into town.

Smog hung over cobbled alleys, pricked with light from flickering sconces. Rusted ladders peeled from stone walls like leper-flesh. The town's heartbeat came dry and heavy. Clangs and moans and booms that rattled my guts, leaving me overwrought. Dawn was afoot. Lesser daemons scabbled up the walls in search of their sleeping pods. Only the sentries still prowled. The hounds. And the halberdiers.

My own sweat filled my nostrils with reek. Tiny hands gripped my grill from the insides. The defect ogled and wheezed. I juked left, then right, maneuvering for solitude. Past the feeding lots, over the seven stewing canals swarming with halberdiers, and into the cell blocks. There, clinging to the moldy wall, the poster sketch of a Satisfactory Product, marked with all the inspection points. Twenty pale teeth. Two pleasing eyes. Meat on the legs for standing. Fingers and vocals for music-making. The factory dictum scrawled at the bottom.

"Tomorrow's Children. Today."

The defect stirred inside me. My gaze strayed upward, to the spot that said, "vocals."

Neither of us earned merit for dwelling on Satisfactory, now.

I slipped into my cell—last door on the right—but not before taking a hard look down the alley.

Deserted. For now.

The solitude lent little solace. Exhaustion had me by the throat, but a hound on the hunt never sleeps.



I ate scabs upon waking.

Seeders flung the pods at my cell door, oozing and squirming with ripeness. I waited a ten-count before checking the alley for hounds, then I dragged the pods inside. A slice at the waist, and a dozen scabs scuttled out, dripping mucus. They leapt into my slack maw, one after the next. Purpose met—lucky bastards—though they still screamed on the way down.

Purpose isn't always pleasant.

The defect watched and wheezed from the shelf. Then she knotted her brow and filled her eyes with reproach—demanded without saying it. *Why?*

My hunger wasn't slaked, and I had no patience for questions. Besides, I wasn't fitted for answering. Wasn't fitted for serving any purpose but clanging and cranking machines. However, my orders said it should be done. I was a daemon. Nothing more. Even with her deft questions wire-crossing my perspectives. So, I waved my backhand and said, "because." To hammer the point, I slit the second pod and swallowed the lot.

Her brow stitched tighter, and her question loomed louder than if she'd been fitted with vocals, like a Satisfactory Product. *Why?*

Relentless.

The whisper-tube belched from the wall. Out of its dripping muzzle came the daily orders. Inspection Line in twenty minutes. Double shift.

Inspection Line. The irony didn't pass me by.

She got down, stuffed her head into the tube, then fired another damned query in my direction. But, just then, the twilight music drifted from across the river; through the cracks. Like wind through glass spires, calling the daemons to work. Every tendon and articulate in this daemon's body popped, and in a half-breath, *me* became *we* again.

And *we* had work to do. Quotas to hit. Most of us were down there already, hitting. If we didn't get in line, we'd be bound for Recycling.

Couldn't bring the defect in tow. Not with the hounds on the hunt. Couldn't dump her in the canals. Not with the halberdiers in the weeds. So, we left the door unlatched, and hoped she'd be gone upon our return.



She wasn't.

And worse, she'd been scavenging. Rust-bitten plates strapped to her calves and forearms. Steam tubes sprouting from every hole in her shirt. Grease trap propped on her head. Lumbering around with a heavy gait. She looked ridiculous, and we said as much. Wasn't until then, as she tore it all loose and sulked into the corner with jeweled eyes, that we understood her scheme.

She was trying to be like us.

Us. Frozen in that wicked uncertainty between burnish and bio. Built for laboring, for shadow, for silence.

Nothing ever tried to be like *us*.

In the brooding quiet, her breathing came with a struggle. She was pure bio, like every factory model before, not even fitted with a scavenger's lung grafts. Rust City air wasn't meant for products long-staying, all heavy and thick with smoke.

Defect was dying.

A sideways glance proved she knew it. A cough. A spittle of black bile. And that same angry-eyed question. *Why?*

As if *we* knew.

As if *I* knew.

This time, hardly smelt the brimstone.

A howl lit the alley. Hounds, on approach. And me, all but begging for my turn in the vats. Sharing my cell with this unaccounted mass, whose stink, no doubt, pervaded the whole block. This meddling mass, who was dying anyhow.

Madness, this was.

Time to write its end.

I shoved her into my gut-payload and cranked it shut, before she knew to protest, then slipped into the alley. Hounds were closing in from the canals, so I took the roundabout circuit. Dawn was spent, and even through the smog, the sun stabbed at my eyes. Steam bled from my joints. The city was ashen. Silent, but for the hounds on my heel.

I clambered down the old chute, sloshed through the flooded inner city. Leech-daemons gnashed at my ankles, drawing streams of oil and blood through the water. I scaled the mud bank at the factory's end, heaving for breath.

From the tenor of their growls, the hounds had lost my scent. But that damned defect; , she gleaned my intent at the factory gates, murdered my cover with a bout of thrashing inside my grill-gut. Three vicious clangs, and the hounds were keeping pace again.

Into the factory. Fabricators hunched in shadow, corpse-stiff until dusk's knell. Winches swung like meat hooks from the cavernous ceiling. A turn past Bone Growth, a hustle through Organs, and there I stood—panting and spitting—above a half-dozen vats that churned all through the dirty daylight.

Recycling.

I pried open my gut-grill and plucked the defect from my hollows. There was bile on her chin, and water in her eyes. Again, her sneering lips were asking—demanding—that same damn question, without sound. But I had no answer—not now, then, nor ever—and the hounds were howling near Bone Growth. It was either her or me meeting the bottom of this pit. And she was dying anyhow.

I stared into the vat. All that grinding and chewing, serving its purpose. World without end.

No different was I.

I tossed her in.

But in the short breath of her fall, my brain hitched on the memory of her fierceness, her wit, her stupid charade.

Trying to be like us.

Like *me*.

And in spite of my daemon anatomy, nothing if not androgynous, I couldn't shake the sudden notion that I was a mother all the same, turning out products night after night, albeit, a far cry from the ways of humankind.

Products like her.

Then I watched with supreme angst—and supreme relief—as my other hand snatched her from the churning blades, even as they hacked her ruddy hair. And with this troublesome defect under my arm, I fled the grounds faster than a raging jackrabid. At the crossroads, she jabbed a colluding thumb toward the direction of her desire.

That's when I knew that it was this here daemon that was the grimmest defect of all. Because it was at the docks—like she directed—and not the cities refuge I scabbled, where we scavenged a derelict raft and pushed off for the shimmering dome of Glass City, in search of parents hungering for child.

For the first time since enduring her glare, it wasn't *why* on the creature's muted lips, but *finally*.



The dome stretched three hundred meters into the tar-stained water—a flickering wall that would've lent me the shivers if I wasn't already seized with them. Seized, because Rust City was fading into smog at our backs, and as such, I was coming to terms with the unlikelihoods.

My returning alive, for example.

Daemons don't cross the wall. Daemons work the lines, ship the products, recycle the defects. Daemons don't see Glass City with bare eye—and they sure as hell don't walk its streets with bare foot. I could hear the question in her quirked eyebrow—her, the unlikeliest of captains, wheezing at the bow, atop a pile of trawl bags—and now, more than ever before, I had no answer.

"We just don't," I said. Would've sent her alone in search of parents to call her own. I swear it. But the state of this damned raft. Tiller, all bent as it was. It wouldn't drift any way but downstream without my legs doing the kicking.

She didn't like my answer. Crossed her arms all flushed and piqued. But just then, the wall was bearing down hard, and second thoughts were percolating, along with thirds and fourths. And with a hiss and a pop, we were through.

Nothing was the same.

The sun was bright and blinding. The waters, clear as ice. The air was light, and clean, and too thin. Behind, Rust City was an inconvenient smudge on the watercolor horizon. Dead on, knots of spires rose from the water's edge, catching the sun and flinging it into my eyes.

Must've been five minutes we gawked, she and I, before I savvied that the wind was burning my insides. I rasped at the thin air like a faulty scab. Defect looked downright mended, though, so I clamped my maw shut to mute the sound. Banished it from my mind.

Raw makings drifted past, toward Rust City. Same kind we've been trawling forever and an hour, but seeing them now, something lurched in my gut. Those fingers. That foot. How'd they come about being separated from their owners? Why was there always a glut to spare?

The darkness in her eyes said she was mulling over the same doubts. The grim set of her lips said, *too late to turn tail now*. We drifted a-field of the crystal jetty, moored on a beach of shimmering sand that crunched underfoot—hers soft, mine raucous. Then she snatched a trawl bag from the raft and flung it over my head—like a dock master's robes, but for the stink. She nodded, like she'd planned the whole charade.

It was like so, her tiny hand stuffed into mine, that we slipped into Glass City in hopes for an end to this folly.



There was no questioning why they called it Glass City. Every building was cast from the stuff—shifting solid blue, to pale pink, to burnt orange. Figures flitting, wraith-like, on the inside, their privacy a case of the proprietor's whim. Fog stretched, thin as gauze, over the black-mirror streets. Glass bridges wrung the skies, and by the whisper of wind over crystalline pipes, I knew it was from those apexes that the music-making spread. Near twilight. Every day. From this far below, the haunting sound filled my body with a foul unease.

Near the central square, foot traffic thickened. Each unit the same. Two parents. One child. Parents murmuring to each other, eyes glassed, ears flickering with strange magics. Children humming to themselves. Not a soul took notice of us, like they could only see only what they were expecting to see.

Defect squeezed my finger. We were fifty meters down a slithering alley and, through the glimmer of glass. I gawked at a genuine daemon. *Here*, in Glass City. Different, but unmistakable. Pale flesh and metal where mine shone black. Milky eyes where mine burned red. But its colors weren't the cause of the defect's disquiet.

The daemon's hands and feet were nailed to the storefront. Its mouth was agape, and inside it hung a luminous sign boasting specs and bulk pricing. Those alabaster eyes were staring straight into never-after.

Along its side, another. Then another. All slaved to the merchant booth.

A ruckus carried us deeper to where a lesser daemon with burly grafts leaned heavy into the wall, banging its skull against a red stain, moaning a grisly tune. Two snow-pale daemons with meaty heads and grilled guts, not unlike my own, bore down from a crossing alley. Scooped up the misfiring daemon, and dragged it into the glassy bowels of the city—off to whatever breed of Recycling they know in these whereabouts.

With the moans still fading into the daily grind, passersby muttered in a foreign tongue—though their scorn was clear as glass. Only words I caught were, “faulty worker process.”

Wasn't until those ghostly daemons were long out of sight that I'd pieced together a truth or two. If this had been Rust City, those daemons would've been me. With a shady glance at the defect clutching my paw, a pang of shame stabbed at my chest. With a backward glance at the storefront, a darker notion poisoned my skull.

All breeds of enslavement, there are. Some more knowing than others.

But we didn't have time for such defective thoughts, so I whisked her up, and hustled to the central square. It was a place of converging—if we'd find a needing parent anywhere, it would be here.

Factory posters always said, “demand outstripped supply.” But even so—even here, where the press of the crowd made me dizzy in the skull—we couldn't spot a lonely parent from the lot. Every couple was steering their humming child this way and that, like figureheads on the bow. And every couple was making a point not to be caught glimpsing any child but their own—same reason, I reckoned, my own defect warranted no scrap of attention.

My own defect. Damaging thoughts, those. Especially with how she gaped at all those parents, eyes a-glow with hunger, lips a-quiver with the wanting. Every product wakes in need of a family. A daemon I was. Nothing more. Nothing less. Nevermore.

But a family she couldn't have if a family we couldn't find, and this forage was proving futile. I was fixing to disown the whole plan when another squeeze

directed my gaze. Through the surging crowd, and down a skinny street, was a couple, standing, clutching hands with watery eyes, staring at all the people more charmed than themselves.

Childless.

We followed them into the up-town, where the mirror streets shifted to midnight blue, and the winds dragged a stranger melody from the pipes overhead. We followed them up a hundred curving steps to a black glass door cut into an ice-shard tower.

That's where I left her.

Wasn't none of my business—I told myself, halfway around the square—what all that water was doing in her eyes on our parting. Wasn't my worry—I scolded myself while wheezing against a red-stained wall—whether she'd dwell on this defect of a daemon after I was gone across the water. Or dead on my return.

Wasn't my concern—I said to my own ears—that down this very alley, those two daemons from before were now acquiring a product—male, by its branding—and hauling him toward the river. To where the raw makings sailed a-bleeding toward Rust City, for growing into fresh products.

The boy's parents—they were letting it happen. Instigating the handoff with angry eyes, and that same brand of tongue I'd heard before. *Faulty child process.*

It was clear, then, why demand outstripped supply. In time, defects arise in even the most Satisfactory of products. Parents are wont to find fault.

The child. He was screaming.

Until he wasn't.

Then I was flying over those black-mirror streets toward the up-town, sweating, and wheezing, and strangled with the fear that I was already too late.



Midway up those curving steps, my fears were realized. From the tower's gaping door, pitched the defect. Limbs a-flailing. Bleeding from her nose.

Deep inside my furnace-gut, a raw and bitter angst was forged.

The parents stood basking in fury, and though their words were halfway foreign, I heard them clear enough. A product was meant for producing, and producing meant music-making, and music-making meant *vocalizing*. That made this product the worst brand of defect. The *unsounding*.

The closest parent raised a clenched fist, and from it sprang a blade of shimmering sharpness. The time for my standing by and watching had definitely expired.

I took the remaining stairs in fives, and shed my robes, hoping I'd pass as a Recycling daemon arrived for duty. I snatched her from under the descending blade and said, "faulty child process," and made like I was hauling her to the river for a timely mutilation.

But there was something wrong in how I said it. Or how my flesh and metal was off-color. Or how my furnace was wheezing from the too-thin air. Whatever the tell, there was no mistaking the suspicion in those parents' glares. Defect must've seen it too, because the look she gave couldn't mean but one thing. *Run*.

And run we did.

At the edge of the up-town, I slumped against a purpled wall and heaved for breath. I looked down on my poor bleeding defect, and this time it was me—this loathsome, disobeying daemon—that caught the mist in the eyes when I said to her, "*why?*"

And the set of her jaw told me clear as the smogless air that, finally, I was asking the right question. *That*, in itself, was answer enough. Nobody was doubting what was, nor what had forever been. Nobody was asking, *why*.

We fled for the beach. Our feet slapped the black mirror, echoing through streets, unnervingly vacant. Beyond the square, we spotted a lone child wandering aimlessly. By its branding: male. By the gape of his eyes: drunk with some kind of fear. I was anxious to make distance from this whole nightmare, but the defect stopped me with a force I couldn't withstand.

Knee to the street, so as not to arouse his fear, I called to the child. I bade him come with us. Flee this place. Find sanctum on our raft.

He stared, his mouth agape.

Then, with a wretched slowness, the slitting of his eyes betrayed our mistake. The wail from his lips proved it.

This product was just as I had been. Frightful. Complicit. A worker process. Pure bio, this one, but all of us are living, and all of us are machines just the same. Only matters how you reckon.

Not two breaths after his scream had ebbed, every surface in the city drained its color to clear, and every parent and child and pale-fleshed daemon from here to the tip-top of the up-town turned their angry eyes upon us.

And the hunt was on.

Hounds howled from crystal kennels. Halberdiers clambered from glass perches. All dark metal and gleaming poleaxes, not an inch of flesh amongst them. Gaslight eyes flickered from deep in those hollow helmets—brainless, some say, but only those that haven't witnessed them cleaving their prey with the cruelest of guiles.

Blades flashed down every street. Every alley. We turned twice with luck. Once without. A halberdier's ax whistled, and all I could do was muscle between blade and defect. Blood spurted from my shoulder. When I glanced down, my arm was vacant from its joint.

We dropped into a sluice. Dodged a flurry of steel. Ran harder. But my wheezing was compounding, and my furnace-gut burned near overload, and twice I had to pause to keep from shutting down.

Then we were out. The sand crunched under our feet, and the raft was just as we'd left it, knock-knocking against the shore. The hounds and the halberdiers were closing in, but freedom was at hand, and damned if I'd concede to the sneer on her lips and turn my back on all those products, all those daemons, all those *why's*. *Freedom was at hand*.

Besides, there was nothing I could do. Nothing I could've ever done. I'm a daemon. A *worker process*. A thing for the shadows that has no say over question, nor answer. A thing that does what it's made for doing. Nothing more. Nothing less. Nevermore.

And like a stamp on my resolve, music crawled from the city's apexes—from the lips of a thousand children doing as they were told. It was the same song as every eve. Wind through glass spires. Every bone, and graft, and rivet in my body cracked.

And in a vengeful swell, *me* became *we* again.

Until something stopped it dead.

Not a gentle nudge, but a heel to my clawed toe. When I scowled down at her, it was the first time all over again, on the old Spinal Line. Tiny hand on tiny hip. Tiny eyebrow cocked. And I saw then, without a shred of doubt, it was she that had been the burly one this whole time. And me, with all this brawn and girth, had been weak. Complicit.

All of us, complicit.

And by her crafty virus, whose origins I'll never know, the *why's* festered in me. I looked across the water, toward Rust City. A bug of an idea crawled into my damaged skull. Nothing special about this here daemon, save for the questioning my defect had inflicted. Could've happened to any of us. To all of us.

Maybe there was something we could do, after all.

By the smirk on her lip, defect was thinking the same.

She pilfered a chain from the mooring. I slung her onto my shoulder and plunged into the fray. The hounds and halberdiers stood so shocked to see us heading toward them that we won a quick jump. She maimed a pair of daemons with her chain, and with naught but a fang-bite to my thigh, we

were through. First stairs we found, we scaled. Higher, higher, until the air hung so thin, the black spots on my vision outnumbered the rest, and my furnace-gut sputtered and waned.

Then, higher still.

At the apex, the bridges sprayed like sidelong waterfalls, and the shot down filled my feverish head with vertigo. We ducked into an alcove, where a music-maker's console crammed the nook. She worked the dials—was born with the talent—while I brought my awkward grill lips to the mouth-piece. At full bore, I bellowed the word she taught me down at the factory, a million years ago yesterday.

And like corrosion through the junk pits, the *why* virus spread. The hounds took pause. The halberdiers gave thought. The children scratched their skulls, and rolled the question on their tongues. And through their own mouthpieces, the virus spread some more.

Across the water, where the music reached clear as glass, the very same scene, doubtless, unfolded. Proof came without delay. A chorus of daemon shouts hurling straight from Rust City. A chorus of burning *why's*. The virus spread some more, until finally, every daemon and child in Glass City drew silent as one. Turned on the parents. Awaited response.

Their answers had better be good.

This daemon, alas, will never know. With a heave and a sigh, my body met the stairs, and stained them red. A mark signifying my end. For it only takes one bite from the hound's maw to sink the poison, and without smog to breathe, nor blood left to pump, here I await, expiry.

But the salted stuff that falls on my face, leaking from my defect's eyes, tells me that nothing was for naught. Every product wakes craving family, and for a breath or two, I was hers. I'd commit the same folly all over again just to see those trembling lips that say, without saying, *don't go*.



THE PAST AND FUTURE LIVES OF TEST SUBJECTS

by [Octavia Cade](#)

Some people call it murder. I'd call it arguable. Either way, it's less confusing to focus on the science. And they're volunteers, after all—although how much choice there really is between the electric chair and the examination of evolution, courtesy of the current experimental nature of palaeontology, is a question for ethicists and others.

“Don’t kid yourself.” Madeline stares at me from under fringe, all freckles. Her hands are cuffed to the table, her fingernails bitten down to the quick. “You’re part of it too. There’s no choice here.”

“Your choice was made before you hacked someone to death with an ax,” I say. “Though credit where it’s due, you did a very thorough job. That kind of skill could help you in obtaining protein.”

“Except I won’t remember being good at butchery, will I? So no help at all.”

“Maybe you’ll get good at it again.”

Small cruelty on my part. But then, she won’t remember that either.

~1958~

**Tuskegee Study of Untreated Syphilis in the Negro Male.
Diary excerpt.**

I've kept a journal all my life. Still do, but this one's secondary, kept not in the bedside drawer but locked away in the study where no one will stumble across it.

Some work I want to remember. God knows those we're leaving to disease and rot won't recollect it. They simply lack the capacity. You can't remember what you were never told. Still, you can't say I ever forced anyone.

They were all volunteers.

Habitable planets came fast after we found the first. Faster still once we'd learned how to reach them in less than lifetimes. Not a single planet inhabited by any sort of life we'd call intelligent, but there are those that are analogous to the past. Planets in their own Cretaceous period, their own Cambrian and Jurassic. Their own Pliocene. Their own Pleistocene. And orbiting each of them, a research station.

There's been work done in the past: groups of scientists coming together to live as prehistoric humans for a season. This kind of experimental archaeology allows for the practical testing of theory, as well as the popular presentation of science. It had been what first interested me in past lives, if only recent ones—a trip to the recreation of an iron age village where anthropologists spent their summer in roundhouses—but back on Earth, those were short-term placements, performed by well-trained volunteers who had at least a theoretical knowledge of their profession. It's one thing to reverse-engineer a roundhouse, but quite another to develop the technology without extragenetic influence.

How much, we wonder, has observation of the past changed the experience of living it?

~1958~

I wonder, sometimes, what will happen if this gets out. Maybe, down the road a way, people will be grateful enough to look past what we've done. If what we learn from these test subjects can help to save humans in the future then surely the sacrifice is worth it.

I wouldn't say it has been easy. Sometimes I look back at the kid I was, all bright-eyed and idealistic, but we all have to sacrifice our squeamishness eventually. I trust that one day, people will recognize that sacrifice and be grateful for it.

It's extraordinary, then, that I'm spending the days leading up to Madeline's past life teaching her the basics of flint knapping and making fire. No one on this planet has yet to manage either, and I've taught them all.

"Wouldn't this taint the experiment if I *did* remember?" she says.

There's no denying it. I'd likely lose my place and my accreditation. My sole defense is a false one, though I've built up documentation around it, on the off-chance. I know exactly what I'd say, what would be most effective to hear.

"There's no chance of the subject retaining learned skills. The procedure to remove existing short- and long-term memories is both irreversible and thorough. The attempt to teach potential survival strategies is not, in fact, an experiment performed on the subject. It is an experiment on the experimenter, if you will, with assistance from the subject."

Madeline is cross-legged on the floor in front of me, quartzite hammerstone laid aside as she examines the ruined edges of badly flaked flint. There are small cuts on her fingers and I can see bruises forming where she's hit too hard, unable to achieve the correct angle.

"We can assume that the scientists who choose to become involved with this project had no moral objection to it, but disputes surrounding the perception of experimental subjects as the *living dead* have been well-documented. The term is inaccurate and hyperbolic; stemming from opposition to extraplanetary, palaeontological research of this kind, but adequate studies on how this opposition impacts the associated scientists have yet to be performed."

She sees me watching and picks up the hammerstone again. I can't help but think I'm being humored. Strange how they all do this. I'd like to think it was the potential for hope—the possibility that they'd retain something from the experience, some hint of muscle memory, but there's always that same look. I wouldn't call it pity—it's more of a shared acknowledgment of the futility of practice the briefest bond of black humor. A slight contempt, perhaps, that I'd made them try. The suspicion that this is just another small sadism merely dressed up as hope. After all, incarceration is suspicion on all sides.

“Informal communications in the field have given rise to concerns about the possibility of interference in the experimental design. Such interference—specifically, the communication of potentially valuable skills—is not universal. It may not even be widespread. It is certainly ineffectual, taking place before the removal of the subject’s memories; a hypothesis that is seemingly supported by the failure of these skills to manifest, thus far, at any of the experimental sites and/or eras. This indicates that the purpose of this potential interference is more closely related to the psychology of the experimenter than that of the subject, and further study is required.”

Which is a fancy way of saying we feel guilty and don’t like it. Not *very* guilty, but then again, we weren’t the ones who approved this study in the first place.

And Madeline *is* a murderer.

It’s always handy to be able to shift the blame.

~1958~

It helps that the subjects are illiterate. It’s easier to lie to illiterates. They can’t read the papers, can’t find out about penicillin—at least not from newsprint.

Imagine, in this day and age, not being able to read! There’s a satellite going up soon, Explorer 1, to match the Sputniks. It’s the age of opportunity, alright, if you’re only willing to take it.

Illiteracy in the space age. It’s a disgrace.

Sometimes I think education is truly what separates us from the other primates.

“Will I be alone,” asks Madeline, “or in a group?”

Hominins are social creatures. Together they form communities and there’s value in seeing how they interact. Although, under the circumstances, the total lack of language can create complications. The opportunity to see communication methods develop, to observe the origins of gestures and vocalizations is a rare one. But it’s true that not all relationships are positive. Conflict has ended group experiments early on some planets, and in any case, we don’t have enough of a female population to facilitate reproduction. Our sample pool is necessarily limited: statistically, murderers are more likely to be men.

The only chance of a viable population is a group that includes women.

That, or a greater number of willing murderers as replacement population. Unfortunately, we can't really do anything about that on this end. But observing a population with no contraception, no healthcare, with the subsequent massive increase in infant and maternal mortality—not to mention the strong possibility of sexual assault—none of us want to watch that.

More importantly, none of us think funding will survive the publication of that.

It's the problem of observation again—not just how the act of watching changes the object, but how that same act changes the observers. Some things we no longer profess the stomach for.

"You'd last longer on your own," I say, and it's an answer that isn't one.

"Who are you to say I would?" says Madeline. "Or that I can't have babies?"

"You wouldn't have had them anyway," I say. Execution would have removed that possibility, and even in a society where capital punishment could be commuted to life in prison, it wouldn't be an option for her. "Let's face it, you're not exactly mother material." Ax work might be a useful skill to teach to kids in the Pleistocene, but it tends to be frowned upon in a city office. Plus, the inability to tell the difference doesn't say much for any potential child-raising ability. "Sterilization is a more appropriate option."

"Hardly makes for a realistic simulation, though, does it?" she says. "With life so altered already."

The removal of language, the removal of all learned behavior—our ancestors were never so handicapped. They had generations of culture passed down; what vegetation was safe to eat, what predators to avoid. Methods of finding shelter, of basic medicine, of art, concept, and imagination.

We're creating facsimiles of our early ancestors. Grossly inaccurate ones at that. A little less inaccurate, perhaps, than the alternative of sending prisoners down as they are—or maybe it's just inaccurate in a different way. How big is the experimental difference between creatures raised in culture and communication, and those who have no common verbal language, no common body language, and are only beginning to develop them? Just how quickly can an individual learn when their life is at stake?

It's not as if the environment is accurate either. The planet below is Pliocene-equivalent, but of course the other organisms aren't the same. The vegetation is compatible enough with our physiology, the animals too have their analogues, but the study site Madeline will be going to is an island with a tropical climate. Water sources are easily accessible. Consumable vegetation, a number of edible arthropods, and various small mammals all provide ample access to food.

Test subjects are a limited resource. We *want* them to survive. We have some cause for optimism. Resources are sufficient to sustain a far greater population than we have. Furthermore, the island is absent of the larger predators. There are some in the ocean, but Madeline's not about to be ripped apart by a pack of *Pachycrocuta* types. Which is a shame, in its way. Oh, not that I want the bloodshed—too much carnivorism of that sort and the study itself wouldn't survive. It's just that I've always admired the hyenas.

They have a bad reputation, I know, which seems unfair when you compare them to the rest of the predators. Perhaps it's the laughter—the way they seem to take such satisfaction in what they do. But there's never been a population so good at opportunism, at scavenging, at picking off the weakest of the herd, the ones least likely to be missed.

They even work together to do it. It's a shame they went extinct in the Americas, but other species will always fill the gap.

"I think you love your job a little too much," says Madeline, her freckled face sour. I smile at her with all my teeth because it's true. I do. I'm not even sorry for taking people like her out of the general population—people who can't control themselves or their baser instincts. Sometimes what's best for everyone is to thin the herd.

~1958~

Congenital syphilis: The subjects infect their women and now the infants have it. I confess, this development has given me pause. Suffer the little children and so on, but ultimately, I'm convinced now, more than ever, that we need to keep Tuskegee quiet. This research has come at such a terrible cost. If it's made public, the experiment ends and the suffering of those little babies was for nothing. We need to learn what we can, while we can. I'm hopeful the results will prove the price.

Sharecroppers shouldn't be having so many kids anyway.

Sometimes I think we should have sterilized them.

"Why did you do it?" Some few dozen murderers have come through our laboratory. Madeline is the first one I've found surprising—although palaeontology has shown that most of my assumptions about the psychology of others can be attributed to blind guesswork and prejudice rather than objective assessment. Still, it's not hard to see an individual

who fits the profile a little less than others. There's a significant amount of emotional control with Madeline, and our interviews have felt more like mutual investigation than anything else. As if, perhaps, she thinks of me with interest. A minor, detached sort of interest, admittedly, but it's there nonetheless.

It's the kind of distant objectivity that doesn't mesh well with ax murder.

"Life is full of endless possibility," she said. "But it narrows down quicker than you think. Eventually, boredom kicks in and then it's anything for a thrill.

"I held off as long as I could."

It could be argued that such a person should not be given hammerstones—that the risk isn't worth the utter lack of reward.

Perhaps that's why I do it.

I've always wondered if the murderers they send me still cling on to hope. That somewhere in their mind, a tiny part of them thinks they'll remember.

Sometimes people *deserve* the hope you give them.

~1958~

It's not as if we gave them nothing. They got square meals and free medical care, better than they could have afforded on their own. Free burial insurance, even! The recompense for a few medical tests is more than they're getting from all their hours of work on the land.

Everyone likes to believe that they're more valuable than they are. But really, if they'd thought about it, they'd have seen it was a big reward for such a little contribution. If a body can't figure out simple economics...

We practically told them flat out.

"You probably think this is justice," she says. "That the punishment's deserved. And it is—I admit it! A life for a life only seems fair. It's the prevention argument that irks me. Yes, I killed someone. I wanted to know what it was like. Now I know, and there's no incentive to do it again. All the potential for wonder is gone out of it."

"I don't believe you're telling the truth," I say. She shrugs, as if my disbelief were irrelevant.

"I did tell you, possibility narrows fast," she says. "And now I get this—a winter hibernation of the spirit."

"Everything that hibernates wakes up eventually," I tell her.

We both know this is a lie.

"I think you find it entertaining to tell such fibs," she says.

When oversight raises a monitoring flag, it appears I'm not the only one who finds deception entertaining.

~1958~

You think at school, "Well, I'm going to be a doctor", and it narrows down and narrows down until you find yourself specializing—first in venereal disease, and then in the secrecy that comes with it.

It's not that I enjoy the prospect of torment, but syphilis is such an interesting problem. Self-inflicted, too, for the most part, by people who know better and go ahead anyway. A mix of biology, psychology, and arrogance—the old Adam.

I'd be lying if I said I didn't find it exciting. The conspiracy, the power, the thrill of the search. But that's not why I do it. I've seen what syphilis can do to a person, and we are our brother's keepers. No brother of mine is going to suffer like that.

We're so close to licking this thing.

She's not Madeline at all. Her name is Marcheline. Close enough that she could cover if necessary, pretend mishearing and mistakes.

Strange to forge an identity just to get rid of it, but she's not the first. "Perhaps you should make your criteria less stringent, then," she says. "Why is it that only murderers get the chance of a past life?"

She's sane enough, as all the tests go. No sign of mental illness, no catalytic factor. "Would it be easier to understand with a dead kid behind me?" she asks. "Should my family have died in a fire? Or would a bad break-up have sufficed?" She's sorry to disappoint, but she's never had a child. Her family is fine, if somewhat distant, and the last boyfriend—the only one that's ever mattered for more than a month—is a good friend, still. They meet up every other month for lunch; the relationship is warm and entirely lacking in resentment. They're better off apart and both of them know it.

"I have the right to euthanasia if I want it," she says.

"You're not sick."

"The principle remains: My life is mine to do with as I wish. I wish this."

“Your life may belong to you, but this study doesn’t,” I say. “We have funding to consider. It’s an expensive project. Any ethics violations will have us shut down.” Which she already knows. If she didn’t, she wouldn’t have tried to sneak her way in under the cover of a nonexistent murder. It’s the reason for the false identity, apparently. Marcheline is known to recruitment and personnel, and has been turned away with less and less politeness.

“What ethics would you be violating? I’m here of my own free will. I understand the consequences, I’m of sound mind. Why shouldn’t I turn cave woman if I want to?” It’s a flippant way to end the argument, and not one supported by academia. The study site here is all savanna, and there are precious few caves about.

“You’re asking me to end your life,” I said.

“This isn’t death. You wouldn’t actually be killing me—this is the alternative to execution, remember?”

It’s a fine distinction that we’re all too willing to see applied to the criminal element of society. For all the talk of human rights, of rehabilitation and prison oversight, the standards that are actually applied are just a little bit lower. “And you know it, too, don’t you?” she says, with a smile that’s all slaughter. “Nice to pretend you’re above it all, that it’s not just curiosity on your part—people dressed up as lab rats.”

“You do valuable work, I’m *sure*,” she says, and her smile becomes so rounded over, so suddenly smooth, that if I hadn’t seen what it could be, I’d have thought her sincere. “All I ask is that you let me be part of it.”

It *is* valuable work. We’ve learned so much.

~1958~

We’ve learned so much. So much. That’s what comforts me in the middle of the night. I wake sometimes and wonder, but Tuskegee’s been going for a generation now and no one has broken their silence. All the scientists involved, all the record-keepers and budget boys. There’s no reason it can’t keep on.

It’s not that we’re cruel. It’s just...we’re part of the future, aren’t we? And some losses are less devastating than others. Sometimes, I think learning which is which is the real spirit of science.

“You should be grateful,” says Marcheline. “Just think what a blind I could be.”

I have. It was one of the first things I considered, and the fact that it was resurrects questions I’m not sure I want to answer; compromises I’d long

thought of as made and gone. The truth is, if she is what she claims to be, she's publicity gold. *No, we don't just experiment on prisoners. Yes, we value consent. This is the greatest scientific experiment in human history, and anyone can take part.*

Except it's not going to happen. There are bleeding hearts enough for actual killers. No one's going to let an innocent young woman sacrifice herself in such a way—especially not a pretty one. It doesn't matter what her tests say. The press would find something—some obscure diagnosis, some traumatic event—to explain why she's asking for this. It wouldn't even have to be true. It would just have to *sound* true—news broadcasts plausible enough for society to swallow.

"I'm thinking more of a poison pill," I say.

If she were a murderer this would be opportunity and justice, the chance for a new life—an old life. But she's not a murderer, so it's suicide and exploitation. Demography limits a lot of things unfairly—definitions most of all.

~1958~

I'm not a racist. I don't say my best friend is a Negro, but they're fine people, some of them, in their way. Fine people. And Tuskegee will help them, too. I'm afraid maybe people won't understand that. That they'll think we chose to experiment on Negroes just to benefit ourselves. They won't understand that if I were in it for the benefit, I could be working at a university, in the private sector. I could be working a job where I could talk about my work to everyone and get recognition for it. Instead, my contribution is made in silence, mostly, and with no credit, and having to hide my own damn diary. I'm not complaining because it's the work that's important, not me.

I'm just saying: Negroes will profit from Tuskegee, too.

"I can't help you." There's a temptation to tell her to go to the Ethics Board, but if Marcheline had considered that a viable option, she wouldn't be here with fake blood on her hands, pretending to be someone she's not.

"You could if you wanted to."

It's true. I could. If I were prepared to accept the consequences, I could give her the past life that she so inexplicably wants. And the truth is, if I could somehow avoid those consequences, it would be a real temptation. But I wouldn't be able to get away with it, and temptation is a small and fragile thing when set against self-interest. "I do want to, but not enough."

I need this job.

“It’s a foolish thing to give a hammerstone to a murderer,” she says, on her knees with her lesson materials scattered about her. “It gives us hope.”

If she used it on me, she’d qualify, alright. They’d take her in, wipe her memory, and send her down to a planet to illustrate the difference between animal and man—the borderlines of human development.

~1958~

In an ideal world, no one will ever know. In an ideal world, this is the compromise that safeguards our work.

“But you’re not a murderer, Marcheline,” I tell her. “No more than I am.”

~1958~

We’re not murderers. We’re not. I’m not. Murder is a savage and criminal thing.

It’s syphilis that’s killing them. It’s ignorance and lack of self-control. I don’t say that to blame. We are what we are.

You can’t fight what nature makes you. You can only make use of it.

Perhaps that’s what a past life is for her, and Pliocene—a way to remove the contemplation of future acts. A way to forget what she wants, and to have it all at once. Possibilities narrowing down and down until shameful desire cuts off every possible route but one, and the weaker members of the herd are set out before her.

It is a hard thing—to be so compelled to kill in a society that thinks itself evolved beyond such primitive acts. To know that compulsion for the throwback that it is, and to search for ways to force that predatory drive to adapt, to find something more than murder—or some way to excuse it.

When I smile at that spotted face, at the temptation and need and blood behind her eyes, I know she sees me as a mirror.

“Have you ever considered a career in the sciences?” I say.





ESSAY

THE PAST AND FUTURE LIVES OF SCIENTISTS

by [Octavia Cade](#)

The *Past and Future Lives of Test Subjects* is a disgusting story. I don't blame you if you don't like it.

I don't like it either.

Every person in it is vile. They have no redeeming value whatsoever, unless it's as a warning to scientists of what they should never let themselves become.

The story is based on the Tuskegee Syphilis Experiment, conducted by the United States Public Health Service in the mid-twentieth century. Its intended victims were Black men, who were told they were receiving free health care; in reality the scientists of the Public Health Service wanted to observe the unchecked progression of syphilis and no treatment was ever given. You'll note I say the "intended" victims. Syphilis is, of course, transmittable, and it was transmitted both to the wives of these men and to the children born from these partnerships.

Syphilis, whether congenital or from sexual contagion, is an ugly disease. The women and children were collateral damage. They must also, to the scientists involved, have been an opportunity, a happy windfall of extra test material, to expand progression into reproduction.

Untreated syphilis is not just contagious. It can also be fatal. Some of the men died, deliberately starved of medical care. Let me be clear: Tuskegee was the state-sanctioned, science-sanctioned *murder* of Black men. Every scientist involved knew

the risks of untreated syphilis, and deliberately chose to let those risks fall on others. On people who, let's be honest here, were not like themselves.

I'm not a person of color. The stories of the Tuskegee victims are not my stories. I *am* a scientist, a biologist by training, with a PhD in science communication. I don't know that that's enough for me to write those stories. The duty to communicate the history of ethical failings in science is one thing, but the appropriation of the victim's stories is quite another. The sheer, terrible rage I feel at experiments like Tuskegee is undoubtedly limited when compared to the rage of those more closely affected than I am. If you're looking for relevant material by Black writers, I would direct you to *The Tuskegee Syphilis Study: An Insiders' Account of the Shocking Medical Experiment Conducted by Government Doctors Against African American Men* by Fred D. Gray, and the forthcoming *Tuskegee's Forgotten Women: The Untold Side of the U.S. Public Health Services Syphilis Study* by Deleso A. Alford. Wider studies that intersect health and race and provide a context for the scientific culture that approved the Tuskegee experiment include *Medical Apartheid: The Dark History of Medical Experimentation on Black Americans from Colonial Times to the Present* by Harriet A. Washington; *Medical Bondage: Race, Gender, and the Origins of American Gynecology* by Deirdre Cooper Owens; and finally, *Killing the Black Body: Race, Reproduction and the Meaning of Liberty* by Dorothy Roberts, which is outstanding in every respect.

The Past and Future Lives of Test Subjects isn't about the victims of that hideous experiment. It's about the perpetrators. Those scientists certainly would never have performed that experiment on someone like me—a white, educated woman, from what they would consider to be a decent middle-class family. No doubt women like me were meant to be the beneficiaries of such research, and not the subjects of it. If I'm supposed to be grateful, I'm not.

As I said, I'm a scientist myself. I expect them to know better. Their behavior is an indictment of the rest of us. That is a statement that flirts with self-aggrandizement; I am not the center of this story. It is, nonetheless, true. Scientists have a responsibility to hold their colleagues to account—to insist on ethical practice and responsibility. In that regard, as in so many others, the Tuskegee experiment was a monumental failure.

The consequences of that failure have been profound. They are generational, and in more than one way. This experiment ran for *forty years*. That is not a typo. It began in 1932, and whistle-blowing by the epidemiologist Peter Buxtun ended it in 1972. He'd been protesting about the experiment to the Public Health Service since 1966, and those protests had gone nowhere—the experiment wasn't

concluded, he was told, as if that were reason enough to keep it going. Only by giving up on the scientists and going to the press in 1972, was Buxtun able to see the Tuskegee experiment ended.

Forty years. Think about that. Think about all the scientists who conducted these experiments over the four decades that they spanned. Yes, there were other people involved. Non-scientists. I'm not currently concerned with them. Forty years is two generations of corrupt scientists. Two generations of scientists ignoring their ethical obligations. Two generations of scientists covering for each other so that no one would find out about their breaches. Two generations of scientists setting the professional standards of science for themselves and for others.

Two generations of scientists, supplementing their work, or subsequently to it, sharing the standards behind that work by teaching the next generation of scientists, and the next.

Just how far has the rot spread?

If the allegations made about forced hysterectomies of migrants in ICE facilities turn out to be correct, the ethical genealogy of any health worker involved traces back through those two generations of corruption, and further beyond.¹ As *Medical Apartheid*, *Medical Bondage*, and *Killing the Black Body* make clear, Tuskegee was not an isolated failure of ethics; rather it was one that derived from a culture of significant moral failings and medical malpractice regarding race. Tuskegee is perhaps the most famous example of that history, but even today more examples are being added.

The spread of COVID-19 through American prisons, for example, is being closely monitored by both the non-profit organization The Marshall Project and the UCLA Law COVID-19 Behind Bars Data Project. Recently published studies indicate a much higher rate of infection and death inside prisons than in the general population.² Prisons, admittedly, are places of high population density, which makes it easier for contagion to spread. However, inequalities within the justice system have seen disproportionate numbers of people of color jailed, with Black men being

1 A complaint laid by the Project South Institute for the Elimination of Poverty and Genocide about non-consensual gynecological procedures performed in ICE facilities, and subsequent Freedom of Information Act requests for further information by both Project South and the National Immigration Project can be found here: <https://projectsouth.org/groups-file-foia-request-to-demand-transparency-and-accountability-for-medical-abuse-of-people-at-ice-detention-facilities/>

2 In a letter to the medical journal *JAMA*, for instance, Brendan Saloner, Kalind Parish, and Julie A. Ward described infection rates for prisoners that were 5.5 times higher than that of the general public, and death rates that were 3.0 times higher (adjusted for age and sex distribution). "COVID-19 Cases and Deaths in Federal and State Prisons." *JAMA*, 2020;324(6):602–603. DOI:10.1001/jama.2020.12528.

the worst affected. Bureau of Justice statistics for 2018 show 2,272 per hundred thousand Black men jailed, as opposed to 392 per hundred thousand white men.³ It is frankly foolish to believe that the systemic racism behind this result has not also contributed to the poor health outcomes experienced by prisoners during this pandemic,⁴ let alone at any other time. It is also deeply unsurprising to learn that COVID-19 testing refusal rates in prisons can be high, with one study, published by the Center for Disease Control, reporting them at over 17%.⁵ Although that study does not break down refusal rates by ethnicity, the high proportion of incarcerated people of color, combined with a history of medical exploitation of those people by the state, has certainly contributed to the total breakdown in trust that this refusal implies.

Those two generations of scientific corruption are a direct cause of this distrust.⁶ They are not the only cause, but they are a significant one. Distrust is a rational result. In the same circumstances, I too would be distrustful.

I wrote *The Past and Future Lives of Test Subjects* before the onset of the COVID-19 pandemic. It is in no way a deliberate reflection on it. That the future scientist of the story was experimenting on prisoners is coincidental, but it is coincidental in timing, not in consequence. As a population, prisoners are vulnerable to exploitation. They are isolated. They are unpopular. They lack power. This makes them easy targets. In this, they are similar to many minority groups, and it's no coincidence that when unethical experiments such as Tuskegee are performed, the test subjects of those experiments are frequently markedly different from the scientists performing them. The Tuskegee study targeted Black men. The Guatemala syphilis experiments, conducted from 1946–1948 by the United States Public Health Service (the same organization behind Tuskegee, remember, with some crossover of staff) likewise targeted people of color, and particularly disenfranchised people, such as prostitutes, prisoners, and the mentally ill. Even earlier, the 1867 study, which took place in London Lock Hospital and attempted to inoculate syphilitic patients with further doses of syphilis, was performed primarily on women. Some of the test subjects in this last case received over

3 Bureau of Justice Statistics, *Prisoners in 2018*, Table 10, as reproduced by the non-profit Prison Policy Initiative: <https://www.prisonpolicy.org/blog/2020/07/27/disparities/>

4 Sophie Kasakove, "It's Horrible: How the US Deep South's Prisons Exacerbate the Pandemic." *The Guardian*, 17 April 2020. <https://www.theguardian.com/us-news/2020/apr/17/us-prisons-coronavirus-deep-south>

5 L. M. Hagan, S.P. Williams, A.C. Spaulding, et al. "Mass Testing for SARS-CoV-2 in 16 Prisons and Jails — Six Jurisdictions, United States, April–May 2020." *Morbidity and Mortality Weekly Report*, 2020;69:1139–1143. DOI: <http://dx.doi.org/10.15585/mmwr.mm6933a3>

6 A useful paper here is Vicki S. Freimuth et al. "African Americans' Views on Research and the Tuskegee Syphilis Study." *Social Science & Medicine*, 2001; 52(5): 797–808.

four hundred disfiguring, painful inoculations with syphilitic material. They were also prevented from receiving mercury, which was believed at the time to aid in treating the disease. And as Anne Hanley points out in her discussion of the London experiments, while lip service was given to the ideals of informed consent, all the test subjects were poor and uneducated, vulnerable not only to subtler means of coercion, but perhaps incapable of real informed consent in the first place.⁷

This, please note, is a handful of studies in the history of a single disease. It is not exhaustive, and the history of unethical experimentation in science is greater by far than these few examples. Tuskegee, however, is potentially the most famous. It is certainly among the most long-lasting.

I say again: *forty years*. Two generations of corrupt scientists passing that corruption on. I repeat this point because it's relevant to *The Past and Future Lives of Test Subjects*. The American Surgeon General from 1936–1948, and therefore the man who held ultimate responsibility for both the Tuskegee and Guatemalan experiments, was Thomas Parran Jr., and after leaving the Public Health Service, he ended up as dean for public health at the University of Pittsburgh. John Charles Cutler, a surgeon involved in both the Guatemalan and Tuskegee experiments, held the position of assistant Surgeon General, and went on to become both a professor and then the acting dean of international and then public health, also at the University of Pittsburgh.

It is safe to say they took their ethics with them—such ethics as they had, anyway, which obviously weren't up to much. These, too, are limited examples, but four decades of scientists working on Tuskegee is a lot of scientists moving, one day, into alternate employment, into teaching and researching and molding the generations of scientists to come. That leaves a mark.

Ethical genealogy, we'll call it.

The Past and Future Lives of Test Subjects is ethical genealogy writ speculative. It's the future we get if scientists don't up their fucking game. There are two story lines in it, reflecting and repeating each other, and the two central scientists have one salient thing in common: little has been learned, and *they get away with it*.

The Tuskegee scientists got away with it. Don't tell me they didn't. Don't tell me their use as object example is proof otherwise. They got away with it. Don't tell me the victims of their hideous experiments got an apology

⁷ Anne Hanley. "Syphilization and Its Discontents: Experimental Inoculation against Syphilis at the London Lock Hospital." *Bulletin of the History of Medicine*, 2017; 91(1): 1-32.

from the United States government—in 1997, twenty-five years after the experiment ended, *sixty-five years after it began*. Those scientists got away with it. Don't tell me about the overhauling of bioethics since Tuskegee. That's great, but they knew better, and they got away with it. Don't tell me about the damage to the characters of the scientists involved (often posthumously), many of whom had undeservedly excellent reputations in their lifetime. They got away with it. They weren't jailed for murder. They weren't jailed for child abuse. They weren't jailed for torture. They got away with it.

And what's really, really awful is that they're not the only ones. It's tempting to look at something like Tuskegee—or it can be, for those who don't identify with its victims—as something terrible, but ultimately historical. As if its tendrils don't reach down through the practice of science into migrant camps and prisons and all the other places where it's a little bit easier to keep experiments a little more hidden, out of sight and oversight both. It's tempting to say that things are different now, and doctors have ethics as part of their training, as if things are different enough, and as if doctors are the only ones requiring ethical training and the rest of the scientific world is somehow immune from the moral repercussions of their own work.

I said I was a biologist. My background's in botany and marine science. No one ever made me take an ethics class. I don't see the geologists required to either, or the physicists, or any of the rest. No one comes to talk to us about, for instance, environmental racism—the way that climate change is more likely to affect the poor and the brown, and the way that our choices as scientists impact this. Big Oil has downplayed the effects of climate change just as effectively as Big Tobacco used to downplay the effects of smoking and nicotine. Where's the ethical training for geology students? Nowhere, that's where. We train them up in science and send them off to oil companies to participate in a global experiment where their vocation contributes to the death of entire species, let alone the misery and degradation—and yes, the deaths too—of their fellow human beings. That's not the aim of their research, of course, any more than infants with congenital syphilis was the aim of the Tuskegee scientists, but it's the inevitable consequence. We know this, and we do nothing. We let them get away with it. We let ourselves get away with it.

I have sympathy for the geologist whose main chance of employment lies with an oil company, but if a doctor's main chance for employment lay with something like Tuskegee, would we, as fellow scientists, tell them

to take it? Or would we say no? No, we have standards. No, this isn't what science is for. No, we need to do better. As scientists, we need to stop pretending that we have the luxury of being disengaged from the applications of our work. We can't plot missile trajectories and disclaim responsibility for weapons use. (Where do we think those missiles are being sent? Not into our neighborhoods, that's for sure.)

Science is a study of cause and effect, of consequence. So is science fiction. It's the genre of ideas, more than anything. What happens when a new piece of knowledge or a new piece of technology works its way through a society? *The Past and Future Lives of Test Subjects* shows a world where not much changes.

Imagine the science fiction we could have had if Tuskegee had been shut down before it even began, or if the culture that birthed it hadn't had the dreadful histories of experimentation that Washington, Owens, and Roberts relate. I wonder what our science fiction would look like then. How much more hopeful it would be? How much would a history of ethical science change the narrative for both science and science fiction? What would biopunk and genetic engineering look like in fiction if there'd been a solid background of informed consent shot through the *entire* history of medicine? What would climate fiction look like if every scientist who suspected environmental destruction in their work held themselves personally accountable for that destruction? What would military science fiction look like if the only weapons researchers that authors had to base their characters on were required to operate the instruments of death that they themselves devised?

We don't have that. Instead, we have nasty little stories like *The Past and Future Lives of Test Subjects*, because as scientists, that's what we have settled for. Superficial improvements in strictly limited areas of research, and not a lot of real change underneath. Science fiction as warning instead of hope, because as scientists, we lost our way and never really made it back.

You want to know why I think this? Ask me how easy it was to write this story. I'll tell you it was one of the easiest stories I've ever written. I'm not talking about the structure, which took some work, or the prose, which needed the usual polishing. I'm talking about the justifications. They slid out easy as breathing. I'm certain that those disgraceful excuses for doctors involved in Tuskegee used *exactly* these justifications, simply because they *are* so easy. The needs of the many outweigh the needs of the few, or the one, and if as a science fiction fan *that* excuse doesn't make you wince in *this* context, then you have fundamentally misunderstood your own potential for culpability, and for complicity.

There is a concerted effort, at the moment, to get more minorities into STEM. It's a valuable effort, and more eyes make it more difficult for unethical scientific practices to flourish. But the heavy lifting—in science, as in science fiction—cannot be left to these groups. They've done enough of the heavy lifting just getting themselves into STEM fields in the first place, what with all the barriers put in place to keep them out. It's up to the rest of us—to the scientists who look like me—to address the systemic problems in our field. Because those revolting scientists in this revolting story?

They're us. And we're not good enough.

ABOUT THE AUTHOR

Octavia Cade has a PhD in science communication, and a background in biology. She likes to use her expertise in these areas of study to explore how science is presented in speculative fiction. Her academic papers of this sort include "Sifting Science: Stratification and *The Exorcist*" published in *Horror Studies* and "Microbiology and Microcosms: Ecosystem and the Body in *Shriek: An Afterword*" published in *Surreal Entanglements: Essays on Jeff VanderMeer's Fiction* (forthcoming, Routledge). Relevant conference presentations include "From Peasant Mob to Supported Laboratories: The Scientist in Horror" at *New Research on Horror*, "Eco-Horror, Mutation, and the World Without Us" at *Superheroes Beyond*, and "Living and Reading the Apocalypse: Ecological Disaster and Science Fiction" at *CoNZealand*.

Dark Matter Magazine **Artist Series**

T-shirts and Merchandise

Every item in our Artist Series is designed exclusively for Dark Matter Magazine by a professional artist.

On sale now!



by Miguel Aguilar



by Sloane Leong

only at **darkmattermagazine.shop**




ART FEATURE

MIDNIGHT MELANCHOLY

Art by [André Vieira Auer](#)

Feature by Rob Carroll



André Vieira Auer spends eight hours a day with his sketchbook, diligently adding to the pages upon pages of darkly whimsical illustrations that almost feel like storyboards for an animated feature film set in a vaguely cyberpunk universe that has swapped out the typical urban nihilism for a cozy, countryside folklore that believes earnestly in a universal truth.

André's artistic influences include two landmarks of cyberpunk fiction in *Blade Runner* and *Akira*, so there's no guessing where his interest in gritty, neo-noir futures comes from, but as is the case with all works of art, the issues at the heart of the created are entirely dependent on the time and place of the creator. So while *Blade Runner* shivers in its Cold War paranoia, and *Akira* trembles with atomic bomb PTSD, André's work sighs softly beneath the weight of climate change, while yearning for an answer to the slow, methodical destruction of planet Earth.

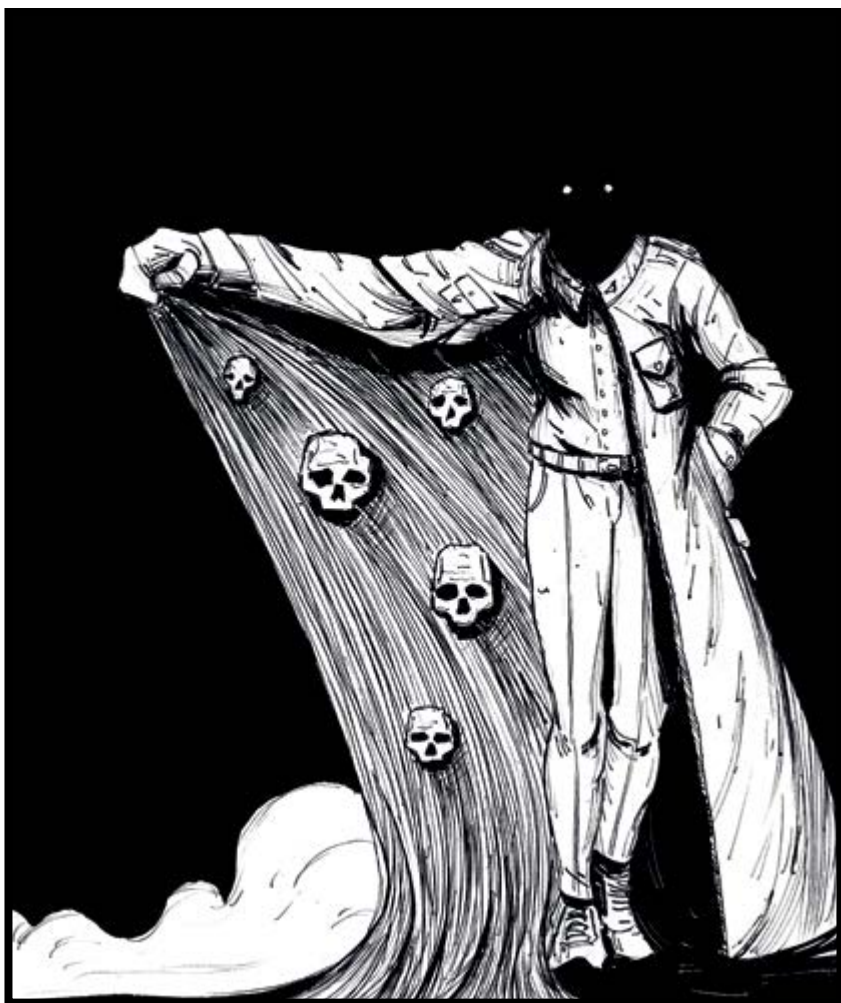
André tells me that climate change and citizen surveillance are the two issues he tackles most in his artwork, because these two issues are having the greatest impact on the collective psyche of his generation. And while he admits that his main aim will always be to create work that is entertaining—to create thrilling visual stories that are filled with great characters and interesting worlds that the

Pictured left: *Shocked*

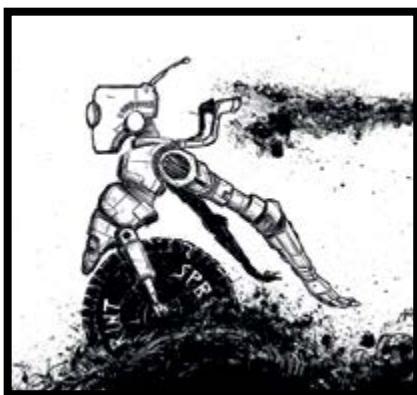
viewer can get lost in—he also recognizes that he will never fully divorce his work from the issues and the world that have shaped him as a person. And so, even when he doesn't attempt consciously to incorporate subtext into his work, themes of privacy and climate change persist.



Pictured above: *Toy*



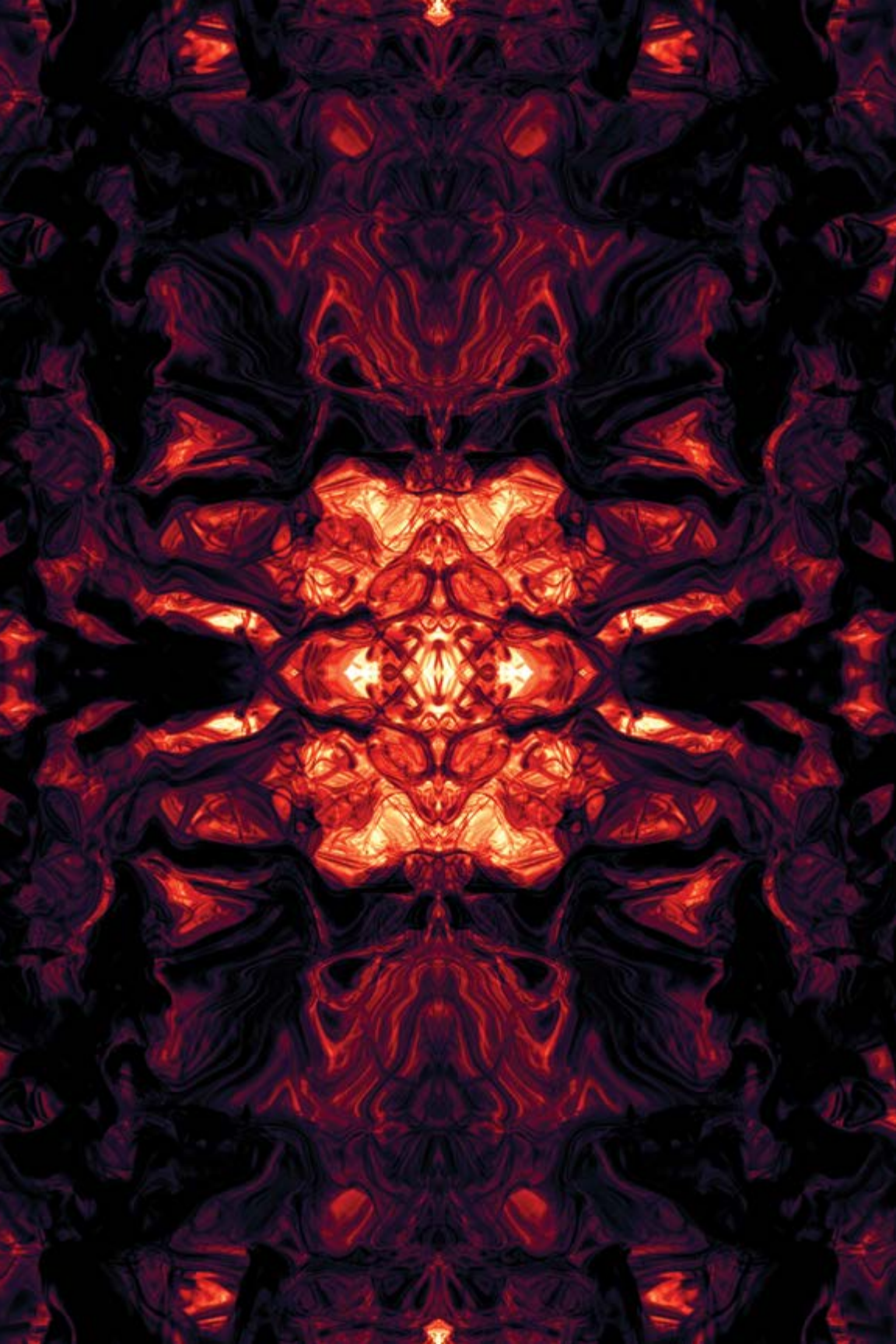
Many of André's ideas come to him at night, during the quiet moments of late evening, and personally, I can see that reflected in his work. There's a nocturnal element to his art that wouldn't feel quite right if thought up while the sun was still high in the sky. The characters and worlds that André creates feel like dreams, and dreams are best cast against the moonlight as murky shadows, or hidden reliefs.



Perhaps my favorite element of André's artwork is his beautiful use of negative space. The featureless whites and shapeless blacks only deepen the sense of dreamlike wonder by casting context into doubt, and shoving boundaries into the void. The spotlighted moment before you is captivating, but it's still just a moment. The true marvel lies in the infinite possibilities beyond.









REPRINT STORY

Originally Published by Third Flatiron Anthologies

A BILLION BODIES MORE

by [Sloane Leong](#)

I *bought us our future! Our worlds, our freedom!" Her voice cracks in her throat, hate rising in fresh seams beneath her skin.*

"No one is denying that, General, but any world that'd allow you to live in it unpunished is not worth its existence."

"You. Need. Me." She grinds the words out like stone to sand. "Who else is going to make the hard choices, to bloody their hands for those who can't? Who won't? You think you can do what I can?"



She's running.

Calloused soles taste the new path as she sprints, thickened skin recording the rhythm of pebble and grain underfoot. In this iteration of the labyrinth, cool marble overtakes rocky trailheads. In this iteration of bodies, wrinkles stretch over every inch of skin, splotched with the marks of a lifetime beneath a sun she's never seen. She runs up the switchback hall, the liquid-smooth floor flanked on either side by violet walls, painted with jellyfish arabesques. Above her, the night spreads into a wide black pool.

She slips and rights herself, the seamless ground unforgiving, the incline burning the tops of her feet. On either side of her, the walls groan a warning. It's coming, she thinks. It's coming, and

she cannot make this foreign body move any faster. The adrenaline suspends the ache into something that floats just behind her, an afterimage of pain.

The immense heft of the swarm's presence makes itself known to her before she can see it. An electrified suspension in the atmosphere, metallic on the tongue. It settles in the pulp of her teeth, ionized. The swarm is just behind her, chewing up the labyrinth with a mutagenic hunger and excreting a new tangle of choleric paths. She remembers a time when this was a new terror; when the swarm screamed her bones into atoms. Now she runs with a shark's impulse, breathless without the rush of wind forced down her lungs.

There is only one law in the labyrinth, a reflex set in every body that she cannot overcome: run. Even through the chatter of trauma and infection, when her skin is inside out, she runs. At her back she hears a scream like a buzzsaw touching down on iron—then the thunderous buzz, creeping up and remaking the hall behind her. She doesn't look. There is no point in looking. What matters is what's before her: the maze yet unchanged, her true soul bounding out ahead of her like a ghost, fleet and fleeing.



The first time she's acclimated enough to maintain consciousness through the transformation, she has been running the labyrinth for half a century—at least it seems that way. When the swarm passes her by, a few miles south of her position, she sees it shift not only the topography of the labyrinth, but the seasons, the falling arcs of the suns. She cannot trust the signs of transformation around her, nor the stratospheric shift of color. She can only trust the wear on her body, the keloid notes it leaves on her over time. She has watched her hands shift to wrinkled claws within a breath, felt her joints rust into immobilization in a blink. There is no denying time in the jaundiced rings on her limbs.

She runs, cutting through the frozen fog across her path. In the white haze, time moves slower and slower until it reaches a standstill. She shivers her energy away, and pebbles flick up hard at her shins. The memory of her body, her true body, is as untrustworthy as the environment around her. She remembers a vague palette of colors she associates with self: slate gray hair; ochre skin; pulpy scars the color of carnations splashed along her arms, chest, and navel. She remembers a tightening at her throat and a sea of black quartz fragmented and floating, harsh light glinting off the shards. Her memory stutters. She reaches for the image, but it fades like smoke whenever she grasps at its tendrils.

What she remembers with more acuity is the pain. When you know a body well enough, every ache is magnified with the memory of its infliction, the echo of its chronic persistence. The body anticipates the pain, which is as good as feeling it. Scars swell and sting at the sight of metal. Cancers throb in sleep. A known body is a distraction, a diversion from the truth about flesh. It dies to live.

She runs. Shallow, frozen mud deepens to a frost-rimed bog, stemming her sprint. A storm is growing louder, an electric hum cresting at her back. The woman drags her limbs through the mire and makes her first mistake: she looks back.

A wall of black smog drowns the world, engulfing everything in its path for miles in each direction. She struggles against the sucking slurry, screaming out curse-laced prayers as it pours over her like an infernal liquid.

And then all is dark.

"...and the death toll has been numbered in the billions. You have the right to bear these changes in full upon—"

"Do you think there are any rules in war besides winning, Justicar?" Iala spits the words with more venom than she thinks she can muster, resentment a congealed film on her tongue. In the audience, she sees her daughter, Imela, her brothers, her mother, and uncles watching on in silence, as she requested. Imela's hands are clenched into little red fists beneath her grey-green formalwear grieving garments. Her eyes bloodshot, eyelids puffy. The sight of her daughter on edge, fearful, makes her bite into the red of her lip. Iala's mother has her hand gripped tight on Imela's shoulder, willing her to be still. There is no point in her family throwing their lot in with her, for them to make a play for justice. Iala knows now that there is no justice to be had here. No minds to be swayed.

"This is not the war, Lieutenant General." The Justicar arranges one hand over the other, patiently bemused. "This is just where you answer for it."



Being eaten is the same series of sensations every time. An intense gravity settles over her, across the liquid surface of her eyes, the buds of her tongue. The pressure pulls at her until skin gives way from fat, the first wave of pain sending her heart into a rabid beat. It is an invasive extrication—a stretching that somehow snaps and breaks over and through her like glass, suffocating her in an inferno of ignited nerves and starburst capillaries.

She is a ravening frenzy of form: untethered; sightless; bodiless. Then,

a growing absence emerges from where her corporeal form should be, a hollowness that occupies her entire existence. She is outside of conglomerate space, a brokered souledging out of exteroceptive territory. A great resonance crawls through the cloud of her unself, pulling the motes of her consciousness back into some semblance of form. It takes eons. It takes seconds. She is thick and viscous, once more with a broad physicality and then, again, darkness.



When she awakes, warm rain is pissing down on her from a sky the color of asphyxiation. Raindrops pool in her eyes and when she turns onto her stomach, false tears pour down her cheeks. A creature suddenly blurs around her, darting through her periphery in fear. She lifts herself up from the mud and watches the creature veer down a ravine that wasn't there before.

Before the cold, the bog. Before the swarm. The devouring.

Answer for it, a voice says to her, the wisp of a memory stinging with its sudden absence. *Answer for what*, she thinks.

When she sits up, she finds her vision somehow warped, stretched wide. There is a sensation that she is standing just off-center from where she should be. She strains her ears to hear, but there is only silence, no trembling buzz warning of a black flood. She tries to stand and topples sideways, catching herself on all fours. Strangely, positioning herself on all fours feels comfortable. She crawls to a silty puddle, the indents of the passing creature's hooves already small puddles themselves.

She peers into the agitated water. There is nothing familiar staring back. The face looks obscenely gaunt, its features flat and pale. The woman reaches into the water, sees a sinuous hand moving in tandem with her intent. The hand dips into the water. She feels the cool sensation, as if her own fingertips had been submerged.

This is not me, she thinks, pinching a red pebble between the long, thin fingers. This is not her body. Whose, then? Somewhere, underneath the steady beat of rain, the swarm hums a hungry promise of return.

She runs.



Another day, year, epoch later, she wakes up as someone tangled between human and machine. Scythe-feet beat against the earth. Clawed, prosthetic legs

meant for speed and efficiency curved down from her hips. She does not know why, but they inspire a sizzling distaste in her. They are inferior, not in their construction, but in their meaning—they are the symbol of a lesser creature. Around her, the labyrinth has mutated into a copper desert. A hot wind rushes mercilessly down the dunes. Sideways sheets of amber dust mar her vision, and a voracious sun glares down with the heat of a god's judgment.

The woman wets the back of her teeth with a forked tongue, engages every cell of her body into the syncopation of her sprint. The half-metal chassis of her new body burns at the seams where prosthetics meet flesh. The new rows of teeth in her mouth are filed down to slivered points. *Who are you?* This body's arms were already sparking with damage when she awoke, the joints at her cybernetic shoulders smoking. She slows her pace, listening to the stride of this new body, noting the hitch in her right hip, the crackle of the joint, worn bald of its cartilage. She feels the body's alien fatigue and lets the strangeness of it ground her. It is not her own.

Who are you? All the bodies that the swarm gives her have been someone else's, not simply synthesized from nothing as she had once thought. No, the negentropic swarm makes her wear bodies already full of pontine history—some in the peak of youth, others geriatric. They seem random, but somehow, strangely familiar. Some bore scars or open wounds that still wept as if fresh. Others had newborn breaks and arthritic limps.

Where were their souls? she wondered. Were they being punished as well? Was this a punishment? Had she not always been here?

Silence—sudden and hard, with a warning vibrato up the length of her spine. The woman forces herself to push on, all predator haste and searing breath, ignoring this body's ailments and the questions itching at her temples. The swarm is coming, mapping the world as it vaporizes its work and births a new one in its wake.



Living metamorphically becomes a profanity. Every body she's spirited into is a sacrilege. She is starving for her own flesh, yearning for the texture of old scars, the predictable balance of the body she was born with. But even that she knows is a dream. The woman tries to mimic her own stored reflexes, but her current body has been whittled down to bone, muscles atrophied. Metal cuffs are clamped around her wrists and ankles, tethered to nothing. Flesh grows over the rusty irons as if she's been wearing them for years. This body is that of a prisoner. She is doubly incarcerated, trapped in strange flesh and steel.

At this moment, the labyrinth is a striped ravine—multicolored strata streaked red and amber and jaundiced yellow. It reminds her of dying, of fatty layers of flesh splayed open. Her bodies don't require feeding, nor do they need sleep. They degrade only with time, sustained in their current form by some unknown mechanism. When she tries to eat, food spills out of her, rejected with a hateful velocity. She doesn't remember when she last slept, only the half-unconsciousness that comes when she is the swarm's meal.

There is an inhuman logic to her living and dying, just as there is an arithmetic to when the swarm decides to take her. It's a sluggish torture, a steady insistence of the body's diseases or injuries that neither spread nor heal. The bullet holes from an unseen gun weep a steady stream of blood and lymph, the chronic nausea roils her stomach. She is trapped in these bodies who that are, in turn, trapped in time; never mending; never degenerating any further.

The woman thinks about suicide. She feels an ambiguous shame at the idea, but cannot find the principle or dogma that she'd subscribed to in her past to guide her. Is it suicide when you're not killing your own body? Is it suicide when you've already died once? She doesn't think on it long. This new body can't even begin to outpace the swarm, and so, she decides instead to climb. The scalloped garnet walls provide enough of a foothold for her, and soon, she is at a high enough point on the harsh cliff face that the temperature has changed.

Stars blink into being above the woman as she sits staring into the night sky. Why not, she thinks, *deja vu* lapping at her consciousness. She shuts her eyes and uses what little energy she has left to fall forward, over the edge of the ravine, down, down, down...



The woman awakes at the bottom of the ravine in a new body, the shadow of the swarm passing over her like a starship's wing. A starship, she thinks, pressing the heels of her hands into her eyes until she can see the red back of her lids. I've been on a starship. No...*starships*. Many. Thousands. The image flips over and over, a spinning coin.

"...we need your decision, Commander!"

Myriad starships drift in innumerable slivers, all the colors of the nebula flickering over the laser-eaten bulls like celestial dancers. Iala pulls at the collar of her uniform.

Sweat pours down her neck. They are the last ones. Her communications are throttled, the rest of her fleet immobilized. There is no one to ask for permission. It all falls to me.

Suddenly, the ocean of oblivion stretched out before her shudders. Around her, screams ring out. The warbling pitch of them brings the image of children to her mind. Her ears ring with the outcries, but she cannot bring herself to look away from the destruction, from her failure.

"Defenses are down, Commander!"

"A second displacement missile incoming—!"

Enraptured by the remote memory, she ignores the nausea rising in her throat as she hangs onto every image, every panicked shout. Sordid tactile light whites out the scene and she vomits. She spits out bile, ignoring her foreign body's fallout, the sweat prickling down her neck despite the ravine's cold. The afterimage of starship wreckage lances through her, a beacon and a blight.



Her not-bodies oscillate between maimed and whole, and last for less and less time. She looks for patterns in their injuries, but there is no rhyme to it—no rhythm to the gender, age, or brokenness. She tries suicide and fails each time. Drowning. Bleeding. Strangulation. The swarm tears her out of each corpse and forces her into a new one, the movement of her soul as inconsequential as a battery replacement. She wonders if the swarm views these attempts as tantrums. If it sees her as a child. She thinks about children, and a little girl's face blooms in her periphery—dark skin, black hair. Her heart contracts. The face disappears.

Her current body ripples with muscle. There's a healthy heft to her limbs—save a missing left arm—but in her wide shoulders and tapered waist, there is a deft balance that she hasn't felt in a long time. The labyrinth is a tangled circuit of cave systems. The only light she finds is bioluminescent algae refracting a faint green-blue through crystal pillars.

She wanders in the dark for days until she stumbles and finds herself plummeting down a jagged shaft. The woman screams, her voice startling her with its deepness, body ricocheting off stone until she lands as a splintered heap in a shallow stream. She feels down her thigh for damage, finds her femur bulging with fugitive marrow.

The pain doesn't subside. She limps deeper into the caves, dragging her useless leg behind her. She feels something moist on the ground, runs her fingers through the wetness and sniffs at it. Blood. Her blood. She's going in circles. She screams and smashes her fists against the cave walls. The cave quakes in response. A dull roar grows into an agitated quake that throws her to the ground. Rocks begin to fall, crushing her, bursting a lung with bone, the sudden breathless weight turning her pulse into brute syllables of pain.

She dies.

"...the unauthorized use of a recombinant lance, the unauthorized use of resonance guns, and the failure to seek approval from your Sector Marshal. Lieutenant General Iala Red-of-Palm, how do you plead before your accusers?"

Iala floats in the polished black bowl of the court chambers, suspended in an antigrav grip. She holds her victory in her heart like a knife, lets the edge cut into her bitter rage, her hatred, until she finds a seam of control. Her body is limp, fettered by tranquilizers. She finds a way to move nonetheless, the corner of her lip curving up into a grin.

"I plead righteousness."

She opens her eyes onto featureless, open grassland, orange against a white sky. The woman knows the feeling of the swarm now, from the instant it relinquishes her from the process of replacement. It has left its mark on her mind, even as it voids every burgeoning memory.

"Righteous..." The words stick in her head like a scorpion stinger. The woman mouths it, then speaks the word aloud, but from this throat, the sound of it is low and gravelly—not the high, clear tenor in her memory.

But the taste of the word is the same, as familiar between her teeth as salt and bile. She tries to think of what righteousness feels like. A perfect assuredness? A rush of warmth as you speed towards action? The woman feels for the sensation in her memory, but finds only a worm-eaten recollection, gummy with the residue of grief.



Upon awakening, her body sprints away from her will, every stride dragging the filaments of her soul behind it. Her bodies fight to live until she remembers the futility, teaches each flesh the foolishness of instinct. How long can this go, she wonders. How long can she run without memory, bleed without origin, go on with no end in sight?

If there is an end, is it another thousand bodies away—a million? Either way, she cannot take not knowing. *What have I done?*

She cannot run and suffer without knowing, so she forces herself towards the shimmer of the swarm in the distance, where it follows its own secret trajectory. If she can inhabit the dead space between transference, when she is bodiless and solely herself, she can live in her recollection.

She runs, chest matted with mud, cheeks and lashes salted white. The growling hum grows ichor-thick, leaves no room for any other sound in her ears. She tails the dark wall of the swarm as it shifts the world from plains to jungle, erecting canopies of towering trees and tangles of heavy underbrush. Her lungs expand as she climbs and jumps from root to trunk, reaching for the swarm with every drop of blood.

She jumps, swipes her hand through the blackness and the swarm splits into a hush. The woman freezes, pulls her hand away. The swarm descends on her after a pause, as if surprised by her audacity. It lathers over her body like flies, solidifies into a microbial biting skin. Her mind cleaves free of her body, free of ghost meat swimming in sour sweat.

The woman dives for her past.

She knows subspace like a lover, intimate with all of its terrible vastness. Iala's vision consists of all the colors of possibility, black hole sun on black sky, her army rendered to a crippled panoply against the backdrop. Echelon after echelon of enemy cruisers span out before her, their particle whips coiled in wait. They've immobilized most of her army, shown her "mercy" by leaving her soldiers maimed, but not slain. It makes her sick. Iala knows her next move has its origin in words—to regroup and strategize with her fellow generals—but her comms have been incinerated, her starship's throat cut to ribbons.

Surrender is unthinkable. She cannot leave her fleet to a miserable existence indentured to the enemy. Cannot compromise the liberty of the worlds that are depending on her. Cannot fail the families waiting to look into the sky and see it wiped clean of this war's bloody leavings. Her family. Her daughter, Imela. Iala's hand hovers over the interface. The tendrils rise up to meet her as she arms her catatonic ship with its final payload. This is a last resort; an untested, final reach towards victory. She thinks of her daughter, only a few jumpgates away from all this death. A few seconds from hearing the simmering howl of an enemy gun preparing to fire. The faces of her soldiers and her lieutenants overlap the image of Imela's face. She sees them as they might have been as children: scarless and smiling, eyes absent of the despair that battle brings. Iala swallows her fear and visualizes her passkey. A pattern of waves lapping on an opaline shore.

She sets death free.

Temporal vectors gouge through time and carve the field of war out of space. Probability avalanches into the isolate prism, converges timelines, smothers every alternate destiny into annihilation. Artillery afterbirth shakes her vision red, then gold—every disowned shade of destruction. It takes all the time and no time at all for the recombinant lance to force a second reality into Iala's own. The enemy fleet has suddenly duplicated, but the new ships are growing out of the originals like a cancer. New matter displaces old. The enemy festers before her, and so do her own ships, shrapnel spanning viral particle effigies.

The void whimpers with death in an impossible tone, spatiotemporal borders of the recombinant lance retreating, synchronizing the vortex of dual realities into one existence. Realities inert, Iala collapses, the disintegrated sea of doubled souls and dual warships burning on the faces of her gods.

The memory erupts and curls into ash. Iala's resists, but the swarm pulls her down into a stillborn body. The possibility of returning to nothing vanishes.

"The sentence for your crimes is perennial death for every soldier killed in our timeline and the timeline you thought fit to summon with a recombinant weapon. Every life will be lived out in every body whose soul you saw fit to pilfer. This sentence will be served on the prison planet, Oralt, under the warden—"

The pieces fall like phonon shell casings, a convulsion of déjà vu. A billion souls, Iala thinks as she comes to. A billion deaths reaped in all her militant profligacy.

Iala crawls desperately from the wreckage of the transfer pod, pulling her mangled legs from the heat of the crash. A scream tears from her lungs, then bubbles into an uncontrollable laugh. Punished, she repeats over and over in her head. Punished for fulfilling my duty. Banished for their cowardice. A black sun glowers like victory on the horizon—a triumph just as displaced; just as distant.

And now, a billion lifetimes with her recast in the bodies of the dead, exchanging vessel for vessel without interval. Iala nurtures the revelation, focusing it into a single locus of pain, and purpose, and glory, as the volume of her identity builds to a crescendo of full cognition until her mind casts the invasive flesh into a mold of her history.

She is Iala, Red-of-Palm, victor unredeemed, warmind superior, reaping the spoils of banishment for her treason.

Tears stream from her eyes and Iala can see herself in the jet-black patina of her mind's eye. Clutching the images, she whispers her past

into the oblivion of her present, but the swarm is already maggoting through her memories, chewing away the pulp of her recollection. Iala howls terror into the sky, unprepared for the obliteration of self into pure protracted inexistence—pure animal; pure prey; all reflex; no will.

Iala laughs, manic with betrayal, until the transfer pod moans behind her. She turns, the laughs subsiding between clenched jaw. An ocean of nanites teem over the shipwreck, over the tundra, towards her. The swarm is blacker than space, devouring the winter light. She wonders if the AI swarm feels righteous, like she did. If it knows loyalty. If it would sentence her just as quickly as the Justicars did. If its body count rivals her own. She thrashes in her fetters, worming backwards from the steady of the swarm, decisive as a tide.

It reaches her and swallows.

Iala. My name! My war! My victory!

Time diminishes into a miasma of nothingness.



She's running. She drags the body she wears through the labyrinth by its amygdala, willing them through her prison, one neural impulse at a time. The swarm has caused her to outlive the people that exiled her, the generation she condemned to triumph. Yet even when her blisters pop, or the machinery in a left lung collapses into smoke, she thinks, *I was right*.

I bought her a future.

The thought hardens her resolve, the certainty of it pure, even in its obscurity. She wears her penance like a crown, and measures out time in the rings of her soul, petrified by her reiterate existence. A thin film of virtue colors her thoughts, her doubts, and every aching step sparks off some faint sense of nobility.

Whoever she is, the price was worth it.

Time is a constant wound. It smells of stillborn killzones and sundered flesh. It smells of sickly starships being torn apart. Of resolute conquest. The purity of purpose. Of a soul forever wet from rebirth. The labyrinth consumes her. The swarm consumes them both.

By her millionth death, she doesn't notice the dying.

AUTHOR AND ARTIST BIOS

For more information about the authors and artists featured in this issue, including bios, photographs, and web links to relevant work, please visit:

darkmattermagazine.com/authors

darkmattermagazine.com/artists

SUBMIT TO DARK MATTER MAGAZINE

For more information on how to submit fiction or artwork to *Dark Matter Magazine*, please visit our submission guidelines page:

darkmattermagazine.com/submission-guidelines

BECOME A DARK MATTER MEMBER

Purchase a *Dark Matter Magazine* Membership for as low as \$1.00 per month, and receive valuable perks like a digital subscription, free Audio Edition downloads, and up to 20% off all items in the store. To learn more, visit:

darkmattermagazine.shop/pages/memberships

Coming March 1, 2021

Issue 002

Pre-order now!

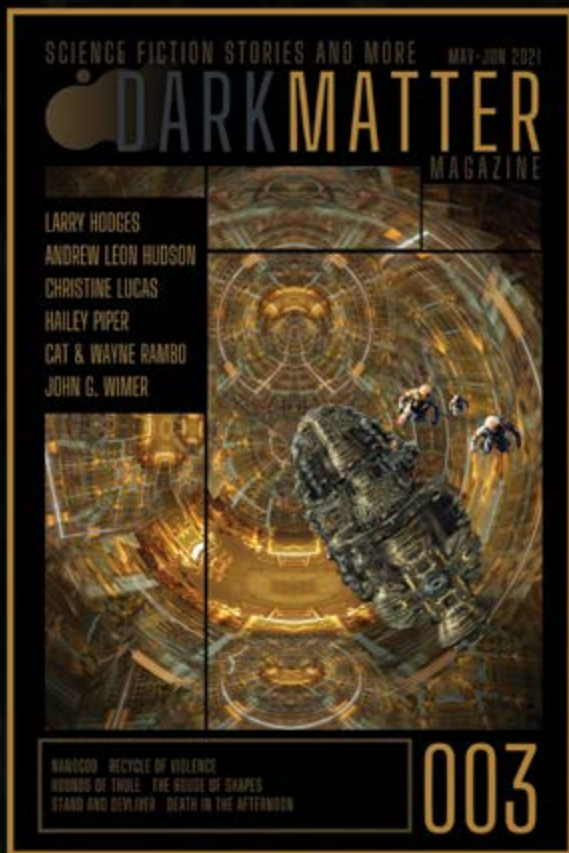


only at darkmattermagazine.shop

Coming May 1, 2021

Issue 003

Pre-order soon



only at darkmattermagazine.shop

WARNING

CONTAINED WITHIN THIS ANTHOLOGY ARE DARK STORIES AND
WORKS OF ART THAT EXPLORE THE SHADOW SIDE OF REALITY.

THEY ARE DISTURBED WORKS THAT JOURNEY HOPELESSLY
THROUGH THE DOWNTRODDEN FRINGES OF SOCIETY, ACROSS
THE DEEPEST REACHES OF SPACE, AND INTO THE DARKEST,
MOST TROUBLED CORNERS OF THE MIND.

ENTER IF YOU MUST, BUT BEWARE.

DARKMATTERMAGAZINE.COM

DARKMATTERMAGAZINE.SHOP