

# Aftermath

cleanwhiteroom

Title: Aftermath

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Warnings: Don't let this be your only exposure to Voltaire.

Summary: Reminders, remainders. All that comes after. And, of course, the math.

## **2030 (One – Untangle This)**

Five years out from the day the world didn't end—with no stakes, no looming destruction, nothing more strenuous hanging over him than a short drive made twice a day, the preparation of meals and of lectures—still Hermann finds the rain trying.

More than trying.

In the distance, lightning fans through the cloud cover. The rain pools in the low-lying areas of the parking lot. The air carries the smell of ozone, wet asphalt, and the sea. Trespasser's ghost roams somewhere to the west, traversing water, land, sky.

Don't think of the war.

Easily done. He won't. He can't. He's busy. Having an argument. With Newton.

"Well," Hermann snaps, "if someone hadn't insisted on making the cross-campus walk and had, instead, used even a scrap of his ungodly—"

"Oh, give it a rest," Newton says, irritated, irritating, and vexingly—vexing. Could the man not have waited? In his lab? For Hermann to get the car? Is that really asking so much? The wind blows briskly off the bay, and Newton raises his voice to be heard. "I had no idea this was going to happen."

"You give it a rest, Newton," Hermann snarls, losing what tenuous grip on his temper remains. "You."

"Okay. You were right. You were so right, Hermann. You were so so right, and I was so so wrong." Newton is speaking with egregious hand gestures and a mockingly conciliatory tone. "We did not make it to the car before it started raining. I'm sorry."

He does not sound sorry. He does not sound sorry in the least. Hermann glares at him. They walk in silence as the rain turns drenching. By the time they reach the car, they're both soaked. Clothes, skin, bone.

Hermann hates the rain, and hates Newton in it.

They're going to have a terrible night. A terrible one. He already knows just how it will go—has seen it play out in too many iterations—and even if Newton is incapable of learning based on past experience, well, Hermann is not. None of this, none of this, is fair. It is not now, has never been, and never will be fair. His anger, still molten, is already turning to guilt, even before it cools.

"Hermann," Newton shouts over the wind and the driving rain, with that oh-so-reasonable prosody that Hermann loathes, "I can see you getting progressively pissed by the minute. Will you relax? It's rain."

This is not Newton's fault. The man does not, in fact, control the weather. This knowledge puts no dent in Hermann's anger; he cannot help his responses, keyed as they are to a past without a certain future, to memories of distress and despair. He tries to contain the fallout by speaking as little as possible. Newton does not take well to this. He's never taken well to this.

"I'll make it up to you," the man says, his glasses streaked with rain, his hair dripping.

"Make it up to me?" Hermann shouts back at him. "Make it up to me? Unless you can reverse the arrow of time, Dr. Geiszler, that's a categoric impossibility."

"Oh I'm sorry," Newton says, slowing his pace and therefore prolonging their time in this deluge. "Did I violate some law of interpersonal thermodynamics that you worship on your Neoplatonist Altar?" He spreads his arms wide as if, in the space between them, a consecrated table lies.

Hermann throws up a dismissive hand and increases his pace. The car isn't far, though it hardly matters, given how thoroughly soaked they are. Five steps or five hundred steps, the damage has been done. He unlocks the car remotely, wrenches the back door open, deposits a soaked bag and a soaked cane, slams the back door shut, opens the driver's side door, and gets in. Newton follows suit, but slowly, as if unprepared to commit to a ride home. He takes whole extra spans of seconds to swing the passenger side door open, hours to get in the car, years to shut the door, decades to buckle his seatbelt. "Hi Hwi," he says, epochs later.

"Hello Newt," Hermann's car replies.

Hermann backs the vehicle into a tight and rapid arc. He accelerates out of the parking lot.

Stop driving," Newton snaps. "'I'm trying to have a fight with you."

"Best of luck." Hermann's consonants crisp with their own frost.

"I've figured you out, you know."

"Have you," Hermann replies. "Have you really, Newton. Because—"

"Yes, actually." Newton speaks over him. "Yes, I have, Hermann—"

"Well then by all means enlighten me." Hermann escalates to shouting. "Tell me what it is—"

"You are impossible," Newton shouts right back. "Will you just—"

"If you tell me to chill so much as one more time, in our lives, so help me God, Newton, I will—"

"Oh yes," Newton says, deploying his sarcasm to its theoretical maximum. "How dare I insinuate—"

"I will throw you out of this car," Hermann informs him. "I will do it at highway speeds."

There is a quiet chime that stops both of them, and Hwi says, "Doors will not open during transit."

"Well at least someone's thinking critically," Newton begins again, "even if it is your car."

"Do not—"

"Oh right, because this is my fault."

"You—"

"I SAID I WAS SORRY."

"DO NOT APOLOGIZE," Hermann shouts, maximum rage, maximum volume.

"Well I don't know what you want me to do." Newton moves straight from righteous outrage to forlorn defeat within the span of a single sentence. Perversely, this ratchets Hermann's anger and attendant guilt up to mind-destroying levels. "I want to do whatever it is you want me to do, but I don't know what that is. You have to tell me."

"I have to tell you," Hermann repeats, unable to keep the ice out of his tone, the contempt. Of course, these feelings are misdirected, as they have always been. They are for himself. Not for Newton.

"Or not, I guess," the man says. He removes his glasses and tries to clean them with a soaked shirt.

## 2025 (Two – The Omen Coming On)

The hour is late. Hong Kong glows with the light of continued celebration. The crack of fireworks punctuate the roar of distant traffic and the murmur of dark waters. Hermann stands on the cement platform of the deployment dock.

Right out at the end. The place Dr. Lightcap would have chosen, had she lived to see the Hong Kong Shatterdome.

He can almost hear her whistle. Piercing and pleasant, true of tone, always one of Newton's songs. Hermann tries to picture her, finally, at rest, but her ghost paces behind him, stalking a semicircle around this spot that should be hers.

He can feel her eyes upon his back, his neck, the side of his face. If she could speak, Hermann knows what she would say. Coward, she would call him. Say what you like about me, Gottlieb, but at least I knew how to love people. I'd have never let him take whatever fall he's taking for you in there. If you had any guts, any at all, you'd be using that decade-old torch you've been carrying for him to burn this place to the ground. You don't know these people, this foreign team! Stacker's blown to hell, Mako's heart is broken, most of the people I loved are dead or gone—there's no one to protect that baby-faced little bastard but YOU. She's screaming at him now, stepping laterally, foot over foot over foot. AND YOU PROMISED ME, Gottlieb, you PROMISED. The word tears itself out of her throat, frayed and furious. I know you didn't like me but I thought you'd keep your word about this much at least. You're such a fucking disappointment.

You're right, he thinks. You were right about more than I ever gave you credit for. He swallows, with difficulty, in a tight throat.

Lightcap's life is over. Her days are spent.

But his time upon this earth is not yet done.

He has dreamed of the ending of the world for a decade. It will not proceed in any manner he had envisioned. It will not end at all.

Hermann straightens his jacket. He takes several deep breaths, borrowing a bit of Newton's boldness, a bit of that unselfconscious bravery. He searches his memory, casts back, looking for a time of gold light, hot days, suffocation. He recalls sitting, his back against a brick wall, gasping in turbid and contaminated air, feeling the burn of Kaiju Blue trace every breath he takes, coat delicately his airways. He remembers shutting his eyes, thinking of Alaska, a place that he has never seen and, now, he never will. Even as his colleagues find him, pull him to his feet, he's crafting a list. Things I Should Have Told Him. The memory is a decade old. It isn't even his. But it gives him the resolve he needs.

He turns, and Lightcap's presence is so powerful that he can see her silhouette, dark against the lights of the Shatterdome. There you go, Gottlieb, she whispers. I knew you had it in you.

## 2028 (Three – Like an Ill-Sheathed Knife)

Newton is up and out of bed before Hermann wakes, but, to Hermann's immense satisfaction, the man isn't staring at the Wall. He has, instead, made a mess of their kitchen table. Two laptops are open, a tablet brightly displays an mRNA heatmap, a scattered collection of printed articles are marked up with pen. Hermann counts two empty mugs, undoubtedly for coffee, notes the remains of breakfast cereal.

Newton is, at this precise moment, chewing on a pen cap, giving the screen in front of him a look of savage concentration. After a brief interval, his brow relaxes. He takes the pen out of his mouth and writes something in a margin, smiling faintly, as though he's scored a victory, knows it, but has no intention of resting on his laurels.

Hermann leans against the doorframe with crossed arms, attempting to savor the moment. Newton is putting together a Nature paper, his first in four years. His hair is growing wildly out of its most recent cut, he's wearing a white dress shirt, that green sweater that Hermann particularly likes; his jeans are black, his feet are bare. He looks healthy.

He's lost that quality of the brink he carried with him for so long.

The man looks, now, like something that will endure the span of a normal human life. More than that, he carries about him that *je ne sais quoi* of scientific safety and intellectual promise that attracts graduate students and post-docs like flies. If the man isn't careful, his lab population is going to explode. Already, he turns away more people than he takes. Already, those he has selected feel elevated, part of an inner circle. As, of course, they are.

It has always been this way with Newton, but never so much as now, when he is famous independent of his academic work, when he is driving neuroscience forward in that relentless way he has, when he is still so young but with a track record so old. Papers from twenty years ago, when the man was in his teens, are classics in the field of tissue regeneration. Over the course of their acquaintance, Hermann has vacillated between astonishment, envy, admiration, outrage, pride, and frustration at the man's prolific output. Now he is, simply, grateful.

"Someone's had a productive morning," Hermann observes archly.

Newton looks up at him and smiles, quick and with an element of roguishness, as though he may or may not have been aware of Hermann's presence but will never tell. He drops his head to finish documenting his thought, then looks up, watching Hermann approach.

It occurs to Hermann that in those middle years of the war, when happy endings seemed possible, if unlikely, he had imagined moments like this. Small gems, hidden away, emerging in the darkest hours.

This is not a dream, he tells himself, as he draws Newton to his feet. The other man, understanding what he wants, pulls Hermann into an embrace, receptive and slow. Hermann had always known the man possessed these qualities—this careful study, this intense focus, this profound steadiness—layers and layers down. If he hadn't, he wouldn't be the scientist he is, and Hermann saw and loved the science first.

This much, Newton has come to understand: that Hermann craves, in physical touch, what Newton has always been able to do with his mind, or with a multi-channel pipette

and a 96-well plate. He has learned to translate that, somehow, to the physical. He presses Hermann back against the table, sweeping pen and papers to the floor, smiling as he does so. There is no urgency in the motion, it is just a manifestation of the man's peculiar panache. Hermann sits on the tabletop. Newton steps between his legs and kisses Hermann with the same attention to detail that, moments ago, had been devoted to manuscript preparation.

This is not a dream, Hermann tells himself, still not sure it's true. The golden light of morning seems a fiction in December; they've gone so long under cloud cover. Newton's arms, solid, wrap around his shoulders. Hermann pulls him further forward, and Newton, accommodating, deepens the kiss, turning it slightly too risqué for a weekday morning. They had better stop now, or they won't be stopping at all. Hermann pulls back to contemplate the other man. Newton smirks at him and quirks an inquisitive eyebrow.

"You're terribly quiet, Dr. Geiszler," Hermann murmurs.

Newton clears his throat, leans back, shoots Hermann an apologetic look. "Didn't want to ruin the moment," he says, ruining the moment. His voice has an unmistakable rasp, he's clearly congested, and that brightness of eye that Hermann had taken for scientific verve—

"Newton," Hermann snaps. "You sound very much like you are developing some kind of viral illness."

"I knew you were going to react this way," Newton says, trying to kiss him again, unsuccessfully. "I'm sure it's the ragweed."

"This is not Massachusetts," Hermann says, with overt disapproval. He pushes Newton back a step, then slides from the table. "I doubt ragweed grows anywhere within five hundred miles."

"Okay, well, you're probably wrong about that," Newton says. He's still smiling; it's offensively charming. "Doesn't ragweed just sound like a thing that grows everywhere? I do admit though, that this is not the season for ragweed, and, in retrospect, I should have chosen mold."

"You will stay home today," Hermann informs him.

"I won't," Newton says, firm, "but if I start feeling bad, I will come home."

"You will let me know," Hermann says, punctuating each word with two fingers, pressed to Newton's chest.

"I will let," Newton says, kissing him quickly. "You." Another quick kiss. "Know." And a third. "C'mon," he says. "I've got to get this paper out. I'm gonna get scooped."

"Does that really matter?" Hermann asks.

"Yes, Hermann," Newton explains patiently. "This isn't a beautiful temple to higher math, okay? This is biology. It's a rat race. To be good at science, one must be good at science."

"Your H-index is higher than Einstein's," Hermann says, cross. "It does not matter, in the slightest, if you are 'scooped'."

"What about Jake?" Newton asks. "It matters for him. Grad student, first paper, first author?"

"Jacob," Hermann says, "would agree with me, I'm sure."



## 2017 (Four – Until Our City Be Afire)

It's extremely unusual for Ms. Mori to appear in his doorway. In fact, Hermann is certain it's never happened before. The Shatterdome is quiet. Lightcap is still recovering, and the entire contingent of able-bodied PPDC personnel is out extracting Crimson Typhoon from beneath the toxic remains of Reckoner. Perhaps the near emptiness of the Shatterdome is what draws Ms. Mori to his door. He cannot picture her seeking him out but for limited options.

The girl bows to him and says, "I am sorry to disturb you, Dr. Gottlieb. May I have a moment of your time?" She is not so polite with Newton, but Hermann finds himself charmed by the courtesy she has consistently shown him.

Some days, she seems to be the only one in the Shatterdome inclined to offer him any respect at all. He makes a consistent effort to return the favor.

He waves her forward, indicates the chair before his desk. She looks ridiculous sitting there. Her feet barely touch the floor.

"What can I do for you, Ms. Mori?"

She hesitates, fidgeting, like the child she is. He endeavors not to look impatient.

"What happens if you breathe the air outside?" she asks.

Hermann looks at her, eyebrows raised, unsure whether she means air generally, the contaminated miasma that surrounds a decaying kaiju corpse, or the turbid air in the city right now. He's also not certain whether she's speaking about him in particular versus asking a more general question. He splits multiple differences.

"The air in the immediate area is uncontaminated," is the answer that he settles on. "However, it is best to stay indoors until the cleanup effort is done; it's difficult to predict when and how the winds will shift."

Ms. Mori nods, impatient. He's telling her nothing she doesn't already know. That is hardly his fault. She needs to learn to specify.

"But the people doing the cleanup," she hesitates. "They will be fine?"

"Yes," Hermann says. "They wear respirators with a small filter size, this prevents them from breathing the toxins in the air."

The child does not look satisfied. "The air is cleaned by the respirators?"

"The air passes through one filter," Hermann says, holding up his hands in a grid, "which removes large particles. Then it passes through a mixture of chemicals that neutralize most of the poisons. Then it passes through a filter with extremely tiny holes, before it gets to the lungs." He mimics each stage with his hands.

She contemplates this, sitting very still, fixing him with a dubious look. "The air is not one hundred percent clean? Not like new?"

"No, Hermann says. "It's not like new, but it's safe to breathe."

"For everyone always?"

Hermann sighs. "Well, Ms. Mori, you will find there are usually exceptions to rules."

"I found that already," she informs him.

"Well, that's because you're obviously precocious. In any case, you are correct. The air wouldn't be safe for everyone. It would be dangerous for people with underlying lung diseases."

"Underlying?"

"Lung diseases that don't cause symptoms all the time. Like asthma, or emphysema. It wouldn't be safe for people who have an allergy to a component of the contamination that isn't removed by the filter. No one knows for certain if it would be safe for children or the elderly. Those people are advised not to go outside when the air quality is poor."

Again, Ms. Mori fidgets, her face expressing concern. Hermann feels an abrupt spike of sympathy. Dr. Lightcap suffered a horrible injury less than two weeks ago—this cannot help but remind the girl of all her past trauma. He clears his throat. "Marshal Pentecost will be fine," he says gently. "He has undertaken many similar missions in the past. He has never suffered any ill effects."

"I know," Ms. Mori says.

Hermann represses a sigh. He is terrible with children, where is Newton when you need him?

The stray thought stops him cold.

Yes. Where is Newton?

Why has this child come to him?

Lightcap is here in the Shatterdome, certainly. Newton should be here. Ms. Mori sees the change in his face, and, as if she can interpret it, her expression changes from cautious hope to overt anxiety.

Somehow, she knows about Manila. She knows. How she knows, Hermann can't say, but the man must have told her, must have let it slip at some point.

"You're asking about Dr. Geiszler, aren't you?" The words are sharp. He's already rising from his desk. Of course Lightcap would send him out, of course she would—she would want to be there, feel the horrible need to be there, but in the absence of that she would send the person she trusted most to do her job in her stead, to be her eyes, her ears, her hands, her mind—

Mako nods, relief, concern, and hope all mixing on her face. "Dr. Lightcap sent him to help with Crimson Typhoon."

"Stay here," Hermann snaps, holding up a finger. He picks up his cane and heads for the door.

## 2015 (Five – Chimes at Midnight)

Manila is yellow gold and half crushed. Visibility is poor. Shells of buildings well on their way to ruins appear and disappear as gusts of wind shift the turbid air.

Newt's on his knees, sweat in his eyes, so hot he's almost cold again, pulling air through a mask of his own design, thank you very much, buried up to his elbows in the left hind-limb of the kaiju with the TBD name. His mask is digging into his skin, his protective suit is stained with alien exudate, he's dehydrated to the point of possible danger, and he's wielding a scalpel.

Yup. Just another JET-Force Tuesday, no big deal.

He's not loving this, but he's kind of loving the experience of not loving it?

Dr. Newton Geiszler, king of the anatomies of alien monstrosities, has located the kaiju equivalent of the femoral artery and is following it up toward the pelvic girdle when, buried in some unobjectionable looking viscera, he finally unearths (unfleshes? ewwww) what he'd been looking for. Kaiju lymphatics! Well, not really "lymphatics" in the terrestrial sense; it's the transit system for Blue. But hey. It runs where lymphatics run and it looks kinda like lymphatics look, so even though it's not really equivalent at all—waaaaaaaaait.

Or? Is it?

Okay. Um, this is kind of making sense to him? This could be the dehydration talking, and (against all odds) he's not an immunologist, BUT what if Blue was conceptualized more as Immunological Aggression—rather than acting as pathogenic defense for the kaiju it's more like proteolytic offense? Angry little enzymes unleashed upon the world, chewing shit up?

He stops moving, all currently burning sugars in his brain shunting directly to his cerebral cortex, because, because, because—that's exactly what it is! What's immunity other than a chemical and cellular defense of a host's genome? What's Blue but a chemical and cellular offense against terrestrial genomes? This means something, this means more than he's already intuited, because it's weird they're so entirely alien and yet in some ways similar, why do their arteries and their nerves and their lymphatics all run together? That has to mean something too, that implies—what? What does it imply?

The wind shifts. He can see the shards of a skyscraper. He almost has it. People are working on kaiju comparative anatomy. There's an International Anatomic Dream Team that's got paleontologists on it, even. He should contact them? They're missing something. He should stop obsessing about this right now, but they're missing something and he almost has it. There's a faint yellow coating over the face-shield of his suit. He almost has it. His eyes burn. He almost has it though. He can feel his clothes plastered to his skin with sweat and he almost has it. He's staring at the rope-like length of tissue in his hands and he almost has—

Ah fuck.

He doesn't have it.

What he DOES have, with shocking suddenness, is a face full of Blue. Pressure shifts in a dead and damaged alien war machine, a small weakness in the lymphatics, and now he's dead, probably. On a Tuesday that, damn it, had been almost successfully over.

As usual, his brain, distracted by genius-level insight, catches up to real-world problems in slow motion.

This is not good.

This is not good at all.

This is, in fact, quite bad.

His new filters are good, but they're now coated in Blue; the chance they block absolutely everything is zero.

The question is probably not if he's going to die, but when.

He's breathing too fast. He tries to slow it down.

Newt gets hit by an intense wave of cold. Whether that's emotional dread or heat exhaustion or Blue-induced autonomic instability is anyone's guess.

He skids into panic, then straight past it, because this is how he dies, most likely. There's not a whole lot he can do about it. Panicking isn't going to help, and so, like a boss, his cortex shuts his midbrain down (to the extent it's appropriate) and steps up to the metaphorical lectern.

That arrow of time, he'd said, not so long ago to his adorably earnest German pen-pal who loves talking about camaraderie with Thucydides, it comes for us all.

So it does, and here it is.

He's unusually aware of his physical body right now; that's weird, he doesn't like it. All of a sudden he's questioning everything he feels. Is he losing focus? Is the world supposed to look this way? His muscles ache, had they been doing that thirty seconds ago? His throat is slightly sore; is that because he's dehydrated or is that an early effect of the Blue? He has a headache—that's normal with dehydration, right? He needs to cough. No he doesn't. Yes he does? If he can avoid it, that would be best. Wouldn't it?

Hey, his cortex says, perched atop the lectern it should be standing behind. Quit it. Even if you got a lethal load it'll take days to kill you. You have some time. Practically? In this moment? Try not to cough. It will create pressure differentials across the filter that will make matters worse. On a more theoretical note, do your best to keep in mind that this is, after all, your profession. It's not like you haven't prepared yourself intellectually and emotionally for the possibility of your own death. In the moment, it may feel a little more terrifyingly acute than you imagined, but that's not surprising. If you die, it's fine. Everyone does. This is what you wanted, anyway. Doing science, right to the end. Not a bad way to go.

He closes his eyes, opens them, and, yeah, Blue is still all over the face shield of his Biolevel Five suit. This is really happening. He takes a slow breath in. It burns. Faintly now.

What would Hermann have to say about this? Probably he'd say that Newt's not the first or only person to be taken out this way. He won't be the last. He can feel his spectral company; other people have made similar choices, shared a similar fate—the California team that died six months ago because no one yet understood Blue, what it could do to the lungs; those poor bastards in the late nineteenth century who didn't, couldn't know the true nature of radiation; the doctors who worked on diseases that killed them—all of them are here with him.

And that's how he keeps it together.

Louis Slotin, Canadian ghost in aviators and short shorts, screwdriver in pocket, steps out of the crowd to hold Newt's metaphorical hand from beyond the grave. This was the deal, Slotin doesn't exactly say. You always knew it was. Something slips, maybe it's your fault, maybe it's bad luck, maybe it's both. That's how it went for me. You're not alone. Welcome home, buddy.

How long did it take you to die? Newt doesn't need to ask him.

It was nine days.

He reaches up, wipes enough Blue off his face shield to be able to see, and then backs himself against the nearest brick wall. He calls for some assistance on the short wave. Already, he can feel a subtle burning, deep in his chest. He decides to sit.

"I was almost done," Newt whispers.

But it's always late in the day. It's always when you're about to finish, Slotin says, sliding down next to him, back against the wall.

And yeah. Of course it is. Tragedy power hour.

You really aren't alone, Slotin's spirit tells him, spinning a screwdriver adroitly through his fingers as they sit and contemplate the turbid sky. You never were. You never could be. Not when you're a part of an effort like this. He sweeps his screwdriver in an arc that spans the city.

"Thanks," Newt says, as swallowing turns painful in a burning throat. He looks up at the poisoned sky, thinking of Alaska, his friend who maps the quantum foam, and the Things I Should Have Told Him that Now I Never Will.

Slotin, contemplating the monstrous corpse in front of them, says, Hell of a demon core, though, Geiszler, I'll give you that.

Later, after Newt has made a few Quarantine Friends, taken a shower, and been given a nice set of clean scrubs, he does what he can with his phone. He cross checks some of the data on Blue and compares his symptoms to the published case series from UCSF.

His subconscious was right on the money, picking Slotin for company. Newt probably has about nine days to live. Plus or minus an entire lifetime.

Maybe he'll be lucky. No point in giving up hope entirely. He's young, he has no health problems, he's in great shape. He had the best possible filter on the literal planet between his airways and the amount of Blue that, yeah, unfortunately, pretty much drenched him.

He can get a lot done in nine days.

Well, he probably has more like five functional days.

He can get a lot done in five days.

Newt thinks about his adorkable German grad student. Too bad they won't ever meet. Newt probably should have tried harder to arrange that.

"Dear Hermann," he dictates into his phone. "I'm ah—"

Ugh. He's already short of breath. His vocal chords are irritated and not super excited about being used. Dictating is going to be a pain. Literally. Maybe best to compose something mentally, rather than just extemporizing, as per usual.

Dear Hermann, what's going on with you? Alas, I got a face full of Blue this afternoon and I'm now quarantined and under observation. The good news is I was wearing a top-of-the-line filter of my personal design. The less good news is I got hit with a huge load of toxin, and the filter corroded. I had some exposure; probably about a 50% chance of survival if I'm optimistic. I'm attaching some files, hang onto them for me. Feel free to take a look, mostly half-finished papers. Maybe, if you don't hear from me —

"Well that's terrible," Newt murmurs to himself. Maybe improvising is the way to go after all.

"Dear Hermann. Tell me about Alaska already, will you? It's cold there, right? Sounds nice. I could be into that. My day wasn't the best. I'm in quarantine now. Under observation. I ended up with some Blue exposure. Not bad. Well."

Um, that is also terrible.

"Damn it," Newt rasps, his voice cracking. He lets his head fall back against his pillow. He glares at the ceiling. It doesn't help.

Hermann's just a kid. A super brilliant kid with a penchant for math and historical chronicles detailing the fall of civilizations. Newt has a strong instinct to protect him from all of this. But a) he can't do that, and b) Hermann has signed up for the freaking Jaeger Academy, which Newt still maintains is the absolute worst idea in the history of Mathematicians with Bad Ideas and if he successfully makes it through their frankly ludicrous training program without brain damage then he'll be rewarded with a TERRIBLE LIFE EXPECTANCY AND AN AWFUL DAY JOB.

Also? People should probably try to learn about kaiju and not necessarily karate them to death immediately.

Focus, Geiszler. He's getting sidetracked from the extremely depressing job of telling Hermann that he's probably not going to make it out of Manila.

Newt stewes about how to word things. He googles "breaking bad news." All sources agree that doing this over the phone would be better. Theoretically, sure, but praxis-wise using the phone introduces all kinds of problems given Newt sounds terrible and they've never talked before.

The one useful thing he does hit upon in his searching is that there can be real value in doing a good job of communicating something intensely awful. He can, maybe, help this kid out a little bit. It's a nice thought.

"Dear Hermann," he begins again. "I have some bad news. I got exposed to Blue today. I'm currently in quarantine." He takes a long, very slow breath in, saving up his air for the next part. "My best back-of-the-envelope estimate says I got a dose hovering right around the human LD50."

He does some compensatory breathing to pay for that long, multisyllabic, comma-free sentence he just accomplished.

"Based on my demographics, I'm hoping my odds are a little better than that. Maybe a 55% chance I make it?"

God, it had been a lot for the filter to take.

"A lymphatic duct exploded right in my face. The filter took care of probably 99% of it. I stand by that filter design. But it's a real exposure—I could feel it, shortly after it happened. Right in the airways."

Newt coughs, quite a lot, drinks some water, and watches his oxygen saturation level drop to the low nineties and slowly climb back up. It takes its sweet time.

"It took maybe thirty minutes to get back to the base. And through the decon. I'm in quarantine because I'm still coughing up detectable Blue. We'll see what happens. I was thinking of you because—sorry. These sentences are gonna get shorter. The albuterol is wearing off. I was thinking of you."

Newt takes a break, contemplates this next part.

"You reading about the war. Between Athens and Sparta. Your historical friend-making. It got under my skin I guess. It helped me. In that moment, standing there. What a personal disaster, right? Definitely a catastrophe for me. And yet. Also. What a relief to share an experience like that. With other people. Even if those people are dead. Even if they've been dead for a long time."

The waxing moon glows overhead, lighting the thickened air outside with an ethereal gleam. He tips his head back, shuts his eyes, breathes for a while.

"Anyway, how's Alaska? Tell me about it maybe."

Newt undertakes another arduous coughing journey, then tries to calm his vocal chords down by breathing slowly and evenly. He'd better wrap this up soon.

He hopes that, even though this letter is going to be short, he'll get a ridiculously epic missive in response. Something that would span pages and pages if it were to be written out by hand. He hopes it's full of math and philosophy and detailed descriptions of the Alaskan countryside.

He'd really like to be in Alaska right now. Alaska sounds incredible. Cold dry air would be much easier to breathe, for one thing.

"Over the next few days," Newt continues, when continuing is possible, "I'll be trying to work a lot. Quickly. I assume Anderson will try to get me out. To an area with more resources. I don't know how possible that will be."

"My phone isn't in great shape. If it dies, I'm really lost," Newt whispers. "In case it does die. Please. Continue to pursue the quantum cartography. Your idea. It's good. Very few people do what you can. So just—do that. Instead. Not the Jaeger thing. Consider it."

Newt tries for a few deep breaths in a row. He coughs, recovers, and ponders how to finish his letter.

"Almost time to go. It's been great. Strange, but epic, like the times themselves. Never did get around to the Rilke. But it always. Would have been something. Love forever, Newt."



## 2030 (Six – Untangle This)

Hermann flips the car into self-driving mode. It's safer anyway, in this torrential rain. Dark clouds turn darker as the sun sets unseen. He crosses his arms against the cold. "You don't understand," he says.

"Well no shit, man." There is a catch in Newton's voice, though whether that's because he's shivering or because he's close to tears, Hermann can't say with confidence.

"I think you have no idea how much it is that I love you," Hermann whispers.

"Oh I think I do." No hesitation.

"You're wrong," Hermann smiles faintly.

"I'm not wrong," Newton says. "I'm almost never wrong."

"I would do anything for you," Hermann whispers. "Anything."

"Yeah," Newton says, voice cracking on the word. "I know. You have."

"And it does not feel like enough. It will never feel like enough."

"Stop," Newton says, still and always trying to explain. "Stop. You don't need to do this —this is not my point. My point is that I'm sorry I didn't let you go get the car, drive back, and pick me up. You're worried that I'm going to get pneumonia, somehow, from rain, which doesn't happen, Hermann, and then you're worried that I'll get a fever plus or minus a seizure or two and it will be horrible for you. That's why you're pissed. Because, best case scenario, I just consigned you to at least a week of anticipatory dread. Don't go taking this whole stupid non-argument argument and twisting it into some way that you were bad for ten years. You love to do that. Cut it out."

You do not deserve this, Hermann thinks, watching him shiver in the passenger's seat. If I had it all to do again, I'd have protected you as you were churning out unrelated brilliance to your heart's content. Until the day we would have died, in 2025.

Rain beats against the windshield. Hwi navigates by infrared. Even now, after all this time, there are things that remain to be said. Once he says them, he will need to keep saying them, again and again, for at least the next decade and a half, presuming they both live so long.

It is well past time to begin.

"After we met, I wanted very much to—to start over. Two weeks after your arrival in Alaska I was able to see the extent to which my reaction to you had hurt you. Had hurt you in a way from which we might never recover. Two weeks, Newton."

"Stop," Newton says, as unprepared to hear the words as Hermann is ready to say them. "I don't want to do this now. I don't want to do this ever."

"I had an idea," Hermann whispers, relentless, "back then, at the beginning, when I was still optimistic, when you were still optimistic, about the end of the war. I had an idea of what I would do. The ways I wouldn't let you get away."

"The ways—Hermann. You didn't even like me," Newton snaps. "Just, let all of that go. Leave it alone. It's over. It's done. It doesn't matter."

"It does, Newton. Hear me out." Hermann pauses, gathering himself. "In those early years—I thought that, when the time was right, I would come to you and I would explain myself. I would apologize for my demeanor, for everything I put you through when we first met. We had a misunderstanding that was so profound the shockwaves had propagated for months, but I would tell you I was sorry. I would show you I could do better. And I thought that you'd forgive me. Maybe not on the spot, but over time, with a consistent message."

"I would have, y'know," Newton says, wiping wet eyes with a wet sleeve. "You idiot."

"As time went on, I had the thought that—that after it was all over I would make some kind of grand gesture, some sweeping apology. I would tell you how profoundly I admired you. I would tell you how much about myself I liked—how many of my better qualities—could be traced to your influence, direct or indirect."

"Are you trying to torture me?" Newton asks, half his face covered by his hand. "Because it's working."

"I am not. I will tell you what I am trying to do once I've already done it," Hermann says, as gently as possible.

"Well," Newton whispers, "okay fine. So long as you have a goal."

"After Dr. Lightcap died," Hermann whispers, "I decided to tell you of my feelings. I thought perhaps—if you knew—it might help you. I was concerned that something would happen, that you would do something like she had done—that you wouldn't survive to the closing of the breach. I had made up my mind to do it, but then, Newton, you very nearly did die of a relatively minor environmental exposure. And I knew, I knew that I couldn't do it. Not before the end of the war. If I had, all feelings would have been magnified; they were already too much for me to bear." Hermann pauses here.

Newton is staring at him, eyes wide behind the streaked lenses of his glasses.

"I then—" Hermann's throat closes. He takes a breath and starts again. "I began to think in less childish ways. I realized that there would be no rational explanation for years of misdirected emotion and repressed frustration that at times I could not control, despite my best efforts. Impossible, I thought, and unfair. And you—that night we spent in Geneva, 2020 I think it was—you had so clearly done what I had not been capable of. You had forgiven me; you had forgiven me years prior for not matching your expectations. You had done your best with what you'd been presented with—and I realized that you loved me."

Newton looks away, self-conscious, clearly miserable.

"You loved me, but not in the way that I loved you. You had not made a secret of it. You had not made a secret of it for years."

Newton's hand is pressed to his face; he's shaking his head. Hermann has ruined their night, but in pursuit of a higher purpose. Were he to stop now, that would be the worst outcome: all pain, no resolution.

"So I knew, then, that I would not have to convince you," Hermann whispers. "But nor could I ever explain. Nor could I ever apologize. I thought perhaps to start afresh, after the war. That you deserved to be—I believed that you deserved a sustained and wholehearted effort. I believed I would make that effort. And I thought if I could only do it that way—that would be best."

Hermann wipes his eyes. "There would be one drawback. You would get no explanation for my change in attitude. I knew you wouldn't understand; you couldn't possibly. I knew that you would be confused for years—and you have been." Hermann whispers. "You are."

"I'm not," Newton says, but the words are reflexive.

"You are," Hermann repeats, stronger this time. "You cannot reconcile my behavior for the first decade of our acquaintance with all that happened after the end of the war. You have expressed the belief that the drift altered my feelings for you in some way I don't fully understand and can't articulate. That is absolutely false. You constantly fear that if you do something wrong—if you say something wrong—if your behavior falls outside a set of occult parameters—that I will leave you. I would never do that. I have been in love with you for the whole of our acquaintance. You have the impression that we fell into this life, by luck and by accident, and only because I was too honorable to allow you to drift alone, too loyal abandon you to the PPDC."

Hermann takes a deep breath. They are nearly home. The rain shows no signs of letting up. He stares determinedly out the front windshield.

"By the time you were in a state to reflect on what had happened, months had passed and you felt lucky. There was nothing lucky about what happened, there is nothing lucky about it, Newton. There has never been. I succeeded in pulling you from the brink by the thinnest of margins; I very nearly failed. You have been left with a host of truly horrendous sequelae, your life is not at all what I wanted for you, and if you are hospitalized one more time this year, Newton, I will not be able to take it, so please. Make an effort." Hermann breaks off, breathing hard, unable to go further without crumbling entirely.

"Hey," Newton whispers. "Hey, look at me. I want to tell you something."

Hermann does his best. Newton waits for him. Finally, Hermann is able to take him in, soaking wet, those green eyes, that ridiculous hair, his expression and his bearing possessed of that deep poise Hermann has always loved, always envied.

"I'm happy," Newton says. "Okay? I'm happy." And that's all.

## 2028 (Seven – Like an Ill-Sheathed Knife)

The architecture of UC Berkeley's Neurosciences Building is a tip of the hat to the human mind. Full of natural light, glass everywhere, wide hallways, open floorplan labs, areas that encourage socializing, windows that tint according to directionality of sun. The halls arch in appropriate places while stairways spiral like unwinding helices. The walls are lined with a forest landscape of microscopy-based artwork. All colors. It's like a brain in here. A nice one.

Newt and Jake, sitting side-by-side, finally finish their figure formatting, double check the cover letter, and hit submit under the rare December sun. As Newt does it, he can feel, in his mind, Hermann, across campus, focused on quantum topologies; Mako, on a plane, flying first class, her hair hidden, smiling as she watches passing clouds; the place in the Pacific Ocean where the breach would lie if it wasn't folded into spacetime origami; the novel neural pathways described in their paper, firing in his own brain, and Jake's.

Come on Geiszler, you're full of shit, his brain says, sounding like his brain and Lightcap's brain had a monster child [editorial note: congratulations?]. That's fun, and yes, true, good point brain; no one can feel things like that. Those aren't things Newt can feel. Except for how he kind of can? Huh.

"Done," Newt murmurs, the release of focus that comes with the pressing of the button echoing back at him, strange waves. Mako now: looking out over the spread of the earth. Mako then: grabbing the hand of Skye McLeod, pulling him toward the observation platform.

"Newt," Jake says, sun glinting off his hair and off his glasses. It strikes Newt that Jake is Mako's age. Jake, born years earlier, might have found his way to Newt after graduate school, would have stayed, he's sure. Right to the end. Lisa, he thinks. Jake. He can almost remember saying goodbye, in the rain, beneath the spinning blades of a black helicopter. Night. Dark water. Both of them had been there, hadn't they?

"Newt," Jake says, more insistently, his gaze exerting what feels like a physical pressure. An analytical pressure. A presence more than a pressure? A manifestation of Jake's profound capability giving his gaze momentum, if not mass? You need to lighten up, Newt thinks, in the general direction of Jake's comet-tail stare. Have a better life than you're giving yourself. You almost died with me in Manila, you almost left me in 2024.

"Yeah," Newt says.

"You look like shit." Jake looks super earnest about this observation.

"Jake," Newt says, hurt.

"Get up," Jake says. "Get your stuff, we're—"

Newt's office door flies open and Amy bursts in without knocking, blonde hair falling out of a precarious updo, slow motion. Or, he's fast. Geiszler, get your sweet ass down to lab four, we have a problem. Lightcap. But no. "FPLC machine's backing up," Amy says, then turns right back around, crossing the hall, heading for the lab. Afterimages blur. Don't worry. I'll never let them have you. I'll never let anyone have you. Except for Gottlieb, and he's a maybe. Fast Performance. Liquid Chromatography. All over the floor.

"Damn it," Newt and Jake say at the same time, Jake with an endearing amount of distress, Newt with a distantly philosophical vibe, because, really, what's an FPLC machine in the grand scheme of things? Nothing.

Plus, he feels amazing.

They cross the hall, enter the lab, and there are so many things to look at. Amy is trying to unscrew the column the wrong way, without releasing the valve, the undergrad's near tears, Charu is reading an instruction manual, saying, "No, Amy, the other way," and Ping is mopping up the suspension on the floor as it comes. It's the color of snow, the consistency of turned milk.

Waaaaay too much myelin in that prep.

"Amy. Amy," Jake says, his hands over hers. "Stop." He releases the valve and unclips the column, gives it to her, slips on a glove, and then sticks his finger into the intake valve. He turns around to show Newt. Purple glove, tipped with myelin-contaminated neuropeptide suspension.

"Myeah," Newt says, arms crossed, leaning against a bench. "We're going to have to disassemble it."

Sun in the lab, too. It streams in through windows. It's been ten years since he had a lab with windows. In Shatterdomes, the offices ring the exterior of the structure. They did. Labs inside, medical inside, and then the construction bay, the loading dock. Nesting-doll divisions with a cut to the sea. He looks out the window and can see the Coastal Wall. The ocean beyond. Will they ever knock it down?

"I am. SO. Sorry." Daniel looks at Newt, wide eyed, horrified.

These kids are so great. He likes them so much. He feels an overwhelming sense of relief that he's not still in some Shatterdome somewhere, watching twenty-somethings screw up and die, or almost. Air recirculators, Newt snaps at Lightcap. Or nothing. You can find someone else to kill your junior scientists for you. I'm not doing this job if you don't give me what I need, I got enough of that garbage in JET Force to last me my entire life. And then Hermann, contemplative, graying hair, Germany, in autumn. Bavarian leaves fall. It escaped me at the time how dangerous your work was. On a daily basis. I'm glad I never knew. The air is crisp. Newt is sitting, drinking coffee. Was. Will be.

"Daniel," Newt says. "Hey. It's fine."

"Uh, definitely not fine," Daniel says, voice unsteady, watching Jake pull the cover plate off the FLPC machine. Metal wing. Part of one. Rocket-based propulsion systems.

Newt shrugs. "Honestly, on my scale of lab disasters, this doesn't even rate. No one died. Remind me to tell you about the time I got pinned to my own lab bench by a toxic alien nematocyst and six people plus my summer intern MIT undergrad had to unbolt a stationary bone saw to cut me loose. You know what the problem was with your prep?"

Bright and dark. This lab, these five, sun and glass, screwdrivers and sheet metal. Broken bottles on a dock. Lightcap in the dark. If you ever do anything like that again, you winged fucking imp, I will call your famous mom and ask her what hell dimension she bought you from so I can return you for a full refund. You don't come in here and

promise me that you'll take my job when I die and then proceed to get your bullshit arm bullshit impaled by a very real alien nematocyst. Everyone is now staring at Newt. Newt blinks slowly, feeling a warm pressure in his forearm. Those hairline fractures. Unstoppable thrust, but not more than could be accommodated. His arm aches, but not with pain. Longing, he thinks they call it. That's weird.

"Er," Daniel says.

"Can we back up to the bone saw thing?" Amy asks, still holding the column.

"Nope," Jake says. "No bone saw stories right now. Veto."

"Myelin," Charu says, looking at Daniel disapprovingly. Her lab coat blazes white under the sun. Her hair is braided down her back. "It was the myelin." Of course. She's right. You're awfully quiet, Dr. Geiszler, Hermann murmurs. Morning kitchen, just that day. Shhh, the kids whisper from Hong Kong, 2025. Still alive. We won't hurt you. We would never hurt you, despite everything you've done.

"Daniel, take this will you?" Jake asks, staggering a little bit with the unwieldy piece of metal before handing it to the undergrad. "Lean it against the cabinet. Then grab some Kim-wipes, and dry what you can. Gently. Uh Newt, can I talk to you?"

"Sure," Newt says, his consciousness bursting into triplicate, processing on eight levels. He can see the quantum foam as Hermann must see it. Frost. Everywhere and nowhere. Thick, insubstantial. Counterintuitively warm. He's operating at the apex of human potential right now. Yesss, the kids confirm, striking some deep neurochemical chord of validation.

Jake steps away from the bench but then he keeps going, all the way into the hall. Sparkling with quantum snow crystals. The sun is a pale disc through tinted windows. Newt follows, not really sure what this is about. "Look," Jake says, whispering next to the board where all the seminar talk titles and classes are posted, each one a different color. Is this wall a screen? He thinks so. It's hard to tell. The secretaries really care here. It's so obvious. Newt has a part time secretary. Her name is Elizabeth and she probably made this electronic display; he thinks she's artistic; he's seen her tracing patterns, vines and helices and other twisting things, while talking on the phone.

"Newt, you have to help me out here," Jake says. "I don't know what to do."

"I could reassemble that thing in my sleep," Newt says, reassuring. "You are way too stressed about this. You need to learn to relax, Jake. I can take care of it. Very easily. You don't have to do everything." Newt has done more with less than Jake will ever be able to conceive of. Baby genius, how'd you pull this off? They have so much here, so much they don't even need. Five years ago, brute forcing himself though manual multiplexing. It had been so hard. Hermann, standing in his doorway late at night, eyes red with fatigue. This is too difficult for one person, Newton, even I can see that. Jake should remember. "We reverse the hydraulics, run the system backward, replace the driver. It comes with a replacement driver for this exact reason."

"No," Jake says, quiet, still way too concerned, backlit with a crown of winter sunfire. "That's not what I mean. I think you need to go home. You look sick, Newt."

Unlikely.

Newt's IQ is doubling every three minutes, exploding outward. All of Hermann's knowledge is at his fingertips, he can think in mod 8 mathematics, he has an instinct for relativity and all it might take to crush a city, snap a bridge. Everything he can see has an infrared corona. Lightcap sighs, frustrated. Little minion. Hermann, speeding along Route One in his ridiculous car, too fast, top down, not watching the road, wearing an outfit that really should belong to Gottfried Leibniz.

"Jake," Newt says, shaking his head. The pastel display on the wall breaks apart and reforms, colors bleeding together. "I'm fine. I'm definitely turning a corner. I feel great. Really really good."

"Well, that's weird, Newt, because you look really really bad."

"People are always telling me that." It's true. The words are calming. They hit him like Hypothetical Rain's strongest set of pharmaco-cocktails, his voice, each word—he believes himself. He's surrounded, constantly, by alarmists. They don't understand. The kids lick something broken in his brain. Newt is riding the triplicate consciousness wave and has more cognitive power at his disposal than any other human at any other time in the history of the world. True, the kids hiss, supportive. True.

"Yeah—I just, I don't know. Don't get offended, okay? But I want to call Dr. Gottlieb."

"No," Newt says, firm this time, geodesic curves arcing through his mind, ways to fold spacetime on rolodex in his head. The kids are painting a blue-green gloss on his thoughts, seeping in through cracks Newt can't map, lending him everything they have, in this place. At this time.

"Okay, but do you get that you're worrying me?"

"Jake," Newt says, "you're overreacting." The colors in the poster display are swirling, he can feel them on his skin, in his mind, turning thick with quantum ice, burning in the infrared. The floor presses itself against his feet. Demanding so much at that interface. Mako watches the sky, humming happily to herself.

"With respect? I don't think I am. You do this. You think you're fine, you get—well, I don't know, you get exactly the kind of look you have now—"

"Which is what?" Newt asks.

"I don't know, like, bizarrely confident for a guy who looks like he's about to pass out? Kind of glassy? Your eyes are weird. Why do you keep staring at the seminar posters?"

Newt has enough mental power for anything, including restraint. He shoots Jake his most extreme academic look and raises an eyebrow. "They're well-coordinated," he says coolly. And so they are.

"Okay, fine. Don't get offended by this either, but what did we do this morning?"

"What do you mean?" Newt asks, darkly. There are times when he's confused, but this is not one of them. He can see anything he wants to see, whether it's here or not. He can understand anything he wants to understand, no matter the difficulty level. He can access whole branches of mathematics that would normally be opaque to him, he could pilot a Jaeger, he could destroy that Jaeger. From within. From without.

"Newt, what were we doing two hours ago?"

"Submitting your paper."

"Okay and, um, how many figures did we upload?"

"Seven, Jake, and that is your last question," Newt turns away from him, out of this hallway of freeze and frame and flame.

Jake grabs his arm. Newt shivers. Don't worry, baby. I'm fine. Lightning in Alaska. Everything is touching him. Everything. Math and music. Color. The cognition of others. The past in all its iterations, the present in all its possibilities. Lightcap drops a wrench that hits him in the chest. The hallway where Newt stands is a watercolor of bleeding pastels, pale wood, fluorescence.

You seem anxious, the kids comment, unusually articulate right now. We can fix that. So strange you call it the Pacific, your wildest, widest sea.

"Newt," Jake is saying, a cascade of cognitive pressures. "I'm sorry. I'm not trying to be insensitive, I just really don't know what to do. Do I repair the FPLC machine, or do I call Dr. Gottlieb, or do I drive you home?"

He lets Newt's arm go, and, in the sensory vacuum, Newt can perceive everything. Lucid. Still but moving. Past. I like to think of you winning every lottery, he had said to her, all of the time, for all time. Present. Jake, this is not your choice to make; there is no decision for you right now. Future. Come back to us, the kids ask, polite little ghosts.

"Jake," Newt replies, the perfect mentor, "this is not your choice to make; there is no decision for you right now. We repair the FPLC machine, together. And then? You finish your work, you drink some champagne or at least the champagne of beers, and feel good about your paper. Whatever you're trying to do now—whatever this is? It's not your job. So take a few minutes, cool off, and then come back in there, or not, and help me replace the hydrostatic driver, or not."

Jake nods. Looks away, walks away.

Newt swallows, breathing shallowly, leaning against the wall beneath crystal windows that reveal a sky like the sea. Mako's up there somewhere, paddling that boat. Is he underwater? What is this? King of the Salamander People, Lightcap announces.

He is so incredibly on today that he has crossing wires crossing themselves, but synergistically. In the best way.

What do you think is happening? Leibniz asks.

I worry about you, baby, Lightcap says out of the past.

Cait-Science, I miss you, Newt thinks, from the future. As much as I knew I always would.

The world glitters, multifaceted and way too much.

Uh oh, Newt's brain breaks in, a little late to this party, considering it's his.

People don't see the quantum foam, that's not a thing people do. In fact, that's probably not the quantum foam any more than it's Lightcap, bleeding on the ice. Mako,



crying in the rain. Hermann, staring out at the Alaskan tundra. His thoughts shimmer with the strain of hanging on to their own integrity.

I'm sure we can figure it out, Leibniz says, quietly optimistic in an underwater world alight with mental fire, blue and green, silver and white. Let us calculate, shall we?

Jake may have been right about a thing or two.

Out of the past, Newt hears the echoed screaming of still-living tissue, formalin-fixed and ferocious.

"Hey, Jake?"

Halfway back to the lab, Jake turns, starts back toward him. "Yeah boss?"

"Um," Newt says.

## 2020 (Eight – A Borrower of the Night)

Three doors down the hall, Newton coughs. It sounds wretched. Utterly wretched, as though something is tearing free deep in his chest that should stay exactly where it is. It sounds like the wracking, exhausting, specter of death it had been in the centuries before antibiotics. The kind of thing that inspired so much fear that Puccini and Verdi had each needed an opera to work through their terror. Thomas Mann and Victor Hugo an epic novel apiece.

Hermann is overreacting. Probably. Probably he is.

Newton has been—incredibly difficult since Lightcap's death. Testy. Morose. Argumentative. Aggressive. Grief-stricken. Clinically depressed. Tipped right out of the mental equilibrium he's maintained for years. Hermann has never seen him struggle quite so overtly. He knows the struggle, knows it all from Newton's letters, from epistolary confessions that the man no doubt regrets now, the way Hermann regrets so much of what he himself divulged.

Hermann passes Newton's lab, ostensibly on his way to get coffee, in actuality to look in on the man. He's standing at his bench, loading an agarose gel, his hands as steady as ever, his expression fiercely intent. He doesn't notice Hermann.

Perhaps he is fine.

Perhaps he will make it through the next ten days. He has a grant due in something like a week. If he doesn't get it out and then get it, half his proposed experiments will go unfunded. They have a Budgetary Allocations meeting next week, and, due to what happened at the last meeting, Marshal Pentecost and Herc Hansen have requested a "preparatory session" today, the purpose of which is, likely, to defuse Dr. Geiszler's unrealistic expectations.

If they—he and Newton—can simply make it to the grant deadline on January fifteenth, everything will be all right. Hermann presses his fingertips against the ridge of his brow. If Athens shall appear great to you, he thinks, so he will not think of something else, consider then that her glories were purchased by valiant men. And by men who learned their duty. Duty. He's learned his duty. He's learned nothing but.

Hermann continues to watch the other man from his vantage in the open doorframe. He looks like he's finishing his benchwork, fitting the lid over the gel, adjusting the voltage on the chamber.

Newton, he wants to snap, have you finished your talk? Newton, have you finished your proposal? Newton, have you finished going through Dr. Lightcap's files on Rig X? Newton, do you even have a psychiatrist anymore? Newton, have you considered the possibility that you might need a chest x-ray? Newton, did you eat lunch? Newton, do you have a fever? Newton, have you emotionally prepared yourself for the possibility that our funding may be cut again?

He says none of these things. His own talk is finished. He turns before Newton sees him, and, without a word, goes to retrieve coffee from the mess. When he returns, his colleague is seated at his desk, likely putting his presentation together at the last possible moment. Hermann places the coffee next to Newton's laptop without a word.

"Thanks," Newton rasps, absently twirling a pen through his fingers, his attention absorbed by whatever is on his screen. His hair is a mess, his tie is loose, his eyes are

red-rimmed, his collar is unbuttoned, and Hermann feels a clenching sensation in his chest; the one that's become a semi-regular occurrence. There are times he finds the other man overwhelmingly appealing, and this is one of them.

His dexterity, his powers of concentration, his strength of hand and mind. Newton is not wise, but he has subsets of wisdom. He can open his arms to a child who doesn't speak his language and win her confidence. He brings music and vivacity to the lives of others. His knowledge base is broad. His intuition is scorching. He's incandescently arrogant, heartbreakingly sincere, and could not hold a grudge if his life depended on it. His mental endurance is boundless but his physical endurance cannot keep pace. Hermann very much wants to tell him these things, to go home with him at night, to wake up with him in the morning, to save him from himself and the ending of the world.

"You are quite welcome," Hermann replies. "I am not finished with my talk; I plan to ask the Marshal to reschedule this meeting."

Newton looks up, sharp and amused. His green eyes are especially bright, likely with fever. He smiles, skeptically. Warmly.

Hermann is quite sure that no one, in the history of their little beleaguered planet, has loved anyone more than he loves this man in this precise moment. The sensation is physically painful.

"You finished your talk days ago," Newton says. "You're incredibly transparent. Don't you dare. I want to get this crap done. So I can spend the rest of this week. On the grant," he stops speaking.

He stops speaking because he runs out of air.

Hermann must actually look away in order to compose himself.

## 2030 (Nine – Untangle This)

Myeah, so Newt gives up on the day after the car ride home, when Hermann decides to unburden himself re: whatever. Newt can't even say and doesn't really want to think about it that much, because, if he does, he'll probably figure out how Hermann has pulled some kind of massive culpability reversal. There's a better than ninety percent chance that whatever Hermann thinks he's done wrong is, in actuality, something that Newt has done wrong. He does a lot of things wrong, it's kind of his deal and always has been.

Giving up on things is not something that was in the Geiszlerian Catalogue pre 2025. Resolving? Yes. Putting on hold? Sure. Giving up? No. Not historically. Now? He reserves it for special occasions that do not involve science. Like days he cries on the car ride home, as a hypothetical example. He hasn't had one of those in a while. He's breaking a streak. He's wet. He's cold. He's going into power save mode.

He overdoes it on the power saving little bit. It's way too hard to get himself to move, unbuckle that seatbelt, get out of the car. He does it, but it's slow, it seems to soak up everything he has. Hermann isn't talking to him, which is fine, which is preferred, actually.

When they get inside their apartment, door shut, everything smelling like rain, Hermann takes Newt by the shoulders, looks right at him, and says, "I did not mean to upset you so much, Newton." He looks like he's about to cry, which isn't fair, because that makes Newt actually cry. Usually the sympathy crying is just him getting a little teary, but he doesn't like to be told he is confused. He doesn't like it at all, actually, which Hermann should know. He tries to say something dismissive, flippant, but his face won't go with that, he's sad, Jake is graduating in two months, everything is very stressful, Hermann is upset—

And then, Dr. Geiszler of the stoicism jealousy and scientific zealotry is just straight up sobbing. Zero thoughts. Pure misery.

Hermann pulls him in, holds him tightly, says stuff that Newt doesn't process. Newt tries to rally, but he can't. He's not sure why he can't, he just can't. It happens sometimes.

I knew that you would be confused for years, Hermann had said. Years? Normally his brain would be helping him out with counter-examples and alternate interpretations and retrospective analyses about how he is so so right and Hermann is so so wrong. But his brain, much like Newt himself, has given up on the day.

Years, though? Years? Really? That sounds problematic, potentially deeply. He doesn't fully understand what he doesn't understand, and that, right there, is what's probably triggering the crying, keeping it on repeat, because it plays into so much of what Newt struggles with, at times.

The crying goes on for way too long. Way. Hermann stops talking eventually, and just lets Newt stand there and sob inconsolably into his shoulder. Like the world is going to end after all.

God. What is WRONG with him?

You are afraid that I will leave you, Hermann had said. Why is he bringing that up? Newt knows it's stupid; they've had whole conversations about why it's stupid. They've

been together for five years. And, before that, five thousand more. But why does there have to be some kind of revelation right now? Revelations are destabilizing. He doesn't want any revelations. He just wants things to be like they're supposed to be, he doesn't really want Jake to go, he doesn't like thinking about the past, why would he? It was miserable, except for some of the people whom he loved, and a bunch of them are dead.

So, Newt cries until the point of near total exhaustion, standing right inside the door, soaking wet, churning out cortisol like nobody's business, behaving as if he has a single cognitive circuit that controls weeping and it's fused in the ON position right about now.

Finally, finally, finally, his amperage bottoms out.

"I'm sorry," Hermann says, ramping up the amplitude of the half-hour hug he's been giving Newt. "I'm sorry, I knew you were not having a good day, I should not have surprised you with this, I know it makes you anxious. I will explain it differently. Better. Later."

Newt nods. Hermann lets him go, turns on the lights, then hands Newt a handkerchief, which Newt uses to clean up his face. Hermann's coat is going to need to be dry-cleaned, because Newt has cried himself right into a nosebleed. Great.

Hermann kisses him on the forehead and then takes his coat. "Take off your boots," he tells Newt for some reason, maybe just to have something to say. Newt drops unsteadily into a crouch does his unlacing with cold fingers, which takes about eight times as long as it should. Newt is finally working the first knot free when Hermann drops down next to him bad leg extended forward. Hermann is down to his dress shirt, the collar unbuttoned, the sleeves unbuttoned.

Hermann helps Newt loosen the laces on both boots, then stands, walking toward their room. The shower goes on. Newt gets his boots off, then addresses his socks, which express a wordless desire to remain joined with his feet for the foreseeable future. The sweater is next, He pulls it off, finds a hanger, and hangs it in the guest bathroom to drip itself dry.

Newt lets Hermann peel off his wet clothes, put him in the shower, and then basically re-dress him. Why? Because Hermann really wants to, that's why. On a related note, Newt isn't all that interested in participating in the rest of this day.

"Sit," Hermann says, indicating the counter in their bathroom. The air is warm and humidified, condensation on every reflective surface. Newt boosts himself onto the tile counter, next to the sink. Hermann finds a clean hand towel and steps forward, starting to gently dry Newt's hair.

Newt, possessed of different ideas, decides to lean forward, rest his head on Hermann's shoulder. It's more a drape than a hug, really, but Hermann goes with it, stepping in, pulling Newt's hips closer to the counter's edge. Once all of that is worked out he goes back to drying Newt's hair, this time with just one hand.

"Are you all right?" Hermann asks him quietly.

Newt nods, figures he probably needs to start saying words. "Myeah. I overreacted a little bit." Sorry, he doesn't say.

"Oh hush," Hermann says, essentially giving Newt a scalp massage with a towel in the sauna their bathroom has become. "If you overreacted, it was only in response to an overreaction on my part."

Oh. Right. The rain.

"You know," Newt says, eyes closed, "getting wet is—it's just water. Precipitation does not cause illness. I'm a biologist. This is my whole deal. You should trust me on this."

"Mmm hmm," Hermann says, humoring him. "This sounds very much like theory, Newton, and last I checked, you placed more stock in empirical data."

"Myeah, well," Newt replies, eloquently.

Hermann says, basically giving Newt a scalp massage with a towel in warm bathroom, "I can tell you with certainty that, whether or not it was the rain, you are well on your way to a viral illness."

"Nah," Newt says,

"Ja," Hermann says, halfway between German and American sounds. "You have a very particular prodrome that is unmistakable."

"I don't even," Newt says, whining a little bit.

Hermann sighs, puts the towel down, wraps his arms around Newt, kissing his temple. "I can tell. I have always been able to tell. Even before drifting, I could tell."

He might be right. Newt doesn't want Hermann to be right; being right about this seems like a little too much for Hermann to take right now for whatever reason.

"I'll be good," Newt says, miserably.

"You'll be good?" Hermann echoes, arranging Newt's damp hair with his fingers. "I wonder what you envision that entails."

"Tylenol," Newt says. "Sleep hygiene. Fluids. Hypothetical Rain's new shtick about that dissolvable stuff she wants me to put under my tongue if I get a fever, which I will not like, Hermann, because it'll make me useless for days on end."

"You don't know that," Hermann says unmistakably hopeful. That clinches it. The goodness to which Newt has committed, should he get sick in the relative near term.

No," Newt agrees, listless and virtuous, virtuous and listless. "I don't."

## 2017 (Ten – Until Our City Be Afire)

Hermann doesn't bother knocking on the door to Lightcap's office. He flings it open and barges straight in. Stray papers flutter. Lightcap looks up from her computer, startled, and then more startled when she realizes that Hermann, of all people, has disturbed her in this way.

"Why would you send him out," Hermann snarls without preamble. "What could have possibly possessed you to do such a thing?"

Lightcap pushes blonde hair out of tired eyes, and says, "What?"

Through the window, Hermann can see the turbidity in the air, obscuring the Space Needle. He says it again, forming words raw. Too angry at her to speak calmly. Too angry, full stop. She's shouting back at him before she even understands why he's upset because. That. Is. What. She. Does.

They're screaming nonsense words, screaming them, not listening to one another because Hermann hates her, hates her deeply, hates the way her hands press to her side where the stitches must be, hates her hair in the sun, hates her eyes and her voice and her laugh. Hates the way that Newton will do anything for her. Literally anything.

Something penetrates. Something must. And then—

"What did you say?" Lightcap whispers, all her volume gone, her voice a child's voice, her eyes huge. Her hands move to her face, press her temples, come to cover her mouth. She is so profoundly horrified that it nearly inspires pity.

Nearly.

"Did you not know?" Hermann repeats a rhetorical question without the rhetoric. He's no longer shouting, but his rage has not diminished, every word he fires at her has multiple edges, filed sharp enough to cut.

"Know what?" Lightcap asks.

Newton hasn't told her, then—not between the lines of any song, not among the shards of any broken bottle—that he cannot breathe the kaiju poisoned air. Idiot. The one person who should know is the one he doesn't tell.

"He was in Manila," Hermann says, enunciating, as though she is too stupid to understand. "In Manila. He was exposed."

"Right," Lightcap says. "Right. Oh God. Oh no. Oh God."

Hermann isn't done. "He breathed that air—it nearly killed him. Have you never wondered why—have you not seen him in the cold? Have you never questioned why he has difficulty tolerating the respirators? Have you never asked him about that first JET Force mission? You've known him for two years, Lightcap, you drink with him on that infernal dock. How is it that he never told you? How is it that you never asked him? He will do anything for you, anything—"

"Jesus." Lightcap is turning away from him, already unlocking her phone, her hands shaking. "Dear Jesus God. Don't just stand there, Gottlieb, call him. Call him! That hypocritical little fuck and a half. I'm going to kill him with my bare hands."

They both call him.

He answers Hermann with a testy, "What." Hermann does not respond, just puts the phone on speaker.

"Babyface, hi. I need you back here right now."

"Lightcap? Why do you—why do you have Hermann's phone? Is everything okay?" He sounds notably short of breath. Hermann exchanges a concerned look with Lightcap.

"Your science crush is absolutely fine. In fact, he's glaring at me right now. You don't sound so good. Where are you?"

"Standing at the corner. Of Smash and Pulverize."

"Ha. Very funny. Gottlieb and I are outrageously entertained. Can you get yourself back here right the fuck now please? Or do I need to send a car."

"Why? The—" he breaks off, coughing.

Hermann and Lightcap wait, standing together. In the doorway comes a flash of color, and Hermann looks up to see Ms. Mori, who has, apparently, elected not to remain in his office. As soon as he catches her eye, she ducks out of sight.

They wait, but the coughing doesn't stop. It goes on. Long and horrible. Brutal, even filtered as it is, through respirator and phone speaker. Why is he coughing? It's probably not Blue. It's probably some other particulate, small enough to get through the second set of filters. His lungs are terrible. It's almost certainly not Blue.

"Newt," Lightcap says, commanding, stony, like an immortal being, a goddess of old. "Stop coughing."

Hermann has a strange hope that it will work. That, for her, Newton's airways will cooperate. But they don't. They can't.

"Stop coughing, god damn it, Geiszler, you little fucking weasel martyr; I'm going to murder you." Her hands are shaking. "One two three four, one two three four," Lightcap murmurs like a prayer. She pulls out her own phone, and looks at Hermann. "Keep him on the line; I'm calling Serge. Find out where he is."

Finally, the coughing subsides, and Hermann can hear Newton trying to breathe, wheezing audibly through the filter he's wearing. "Newton, stay where you are. Dr. Lightcap is sending someone for you. We need to know your location."

"Slight problem," Newton says. Hermann can barely understand him. Only the consonants come through. "Can't stay here."

"Why not?" Hermann demands.

"Filter's clogging."

"I thought these masks were supposed to be drastically improved."

Newton coughs again. "I'm walking."



"Where?" Hermann asks it, Lightcap, listening in, shouts it across the room.

"Away," Newton says. "From the corpse. I'll read. A street sign."

"Sooner rather than later, please," Hermann hisses.

"Aw." It's barely audible. "You care. A little."

"I care about the name of the street you're walking down, YOU IMPOSSIBLE MAN," Hermann shouts at his phone.

## 2015 (Eleven – Chimes at Midnight)

Hermann looks out over the Alaskan tundra, frozen gold. Snowcapped mountains rise in the distance against an eggshell sky. What a beautiful planet it is, really. The sun is just beginning to set, even though the hour is late. He's perched in the upper reaches of the Shatterdome, near a gap in the exposed metal working. The wind whistles quietly around rusted corners as he reads, again, Dr. Geiszler's most recent letter.

Dear Hermann,

Hi! I have a computer now. Also, great news, I'm alive. I was as surprised as anyone to, y'know, regain consciousness, because I was ninety five percent sure that my stay in Manila was going to end with a terminal extubation. I could not be more thrilled to be wrong! As you know, I hate to hypothesize in the absence of adequate data (I'm SUCH a liar; I live for it), but...it seems the Pan-Pacific Defense Corps has taken a sudden and extreme interest in me, to the point that they were willing to navigate all kinds of logistical difficulties to get me back to the states while still alive, and then keep me that way. This is great for me. I have the feeling that you were somehow involved in this? Via your familial connections? If so, "thanks" doesn't cover it. To be explicit and just so you know that I know: your direct intervention saved me from drowning in my own necrotizing lung tissue. So even though thanks is inadequate: Thank you; you saved my life. You're going to want to know all kinds of things, I assume. So here's a non-linear list of things I've been saving up to tell you.

One. We should meet. What do you think? Maybe Geneva? There's a cross-disciplinary Breach Symposium happening in a few months. I'll send you the meeting invite. Send in an abstract. Who knows, maybe one of the organizers will take a shine to your work and give you an oral presentation. Maybe someone writing this email can put in a good word for you.

Two. Re: your last email, yeah, I know. I wasn't very clear on the timeline. I can clarify now though. I was stuck in quarantine, along with a few hundred other people who had inhaled enough Blue that they were coughing it back up. I was trying to get my notes out ASAP, and I was also helping a team from Japan with their personal protective equipment (advising from behind glass of course). Hooked up to oxygen, but totally functional. For a few days, it seemed like things were looking okay. But I didn't really improve. I slowly got worse, and then precipitously got worse. [Editorial note: Turns out Kaiju Blue has some delayed proteolytic activity—very interesting. Don't worry, I'm already outlining the paper, but I digress.] After my pulmonary function took a hardcore downturn in the morning of day six, I was intubated in Manila, with the understanding there was little hope of reversing my clinical trajectory. They did offer me the option slash sort of suggest that given limited resources I might want to consider just foregoing intubation and straight up dying. I successfully argued my case though: my lung function was good going in, I was young, and my exposure was potentially survivable. They agreed, thank god.

From what I've pieced together, someone in the upper echelons of the PPDC (your father?) decided they'd like to make a financial investment in the future productivity of Dr. Newton Geiszler and facilitated a full throttle, Biolevel Five, maximal-tech-maximally-deployed extraction from Manila. I have some vague and vaguely disturbing dreams/memories of the past week—turns out they try to get you to wake up a little bit when they're weaning you from the ventilator, which explains a lot of pseudo-dreaming. I guess it makes sense that they don't just rip the tube out and hope for the best, they leave it in and see if you try on your own when the machine isn't doing all the work for you. Which, apparently, I did. Suffice it to say that yesterday was my first fully compos mentis day. Like whoa. Hello, world. Not sure I could have managed my usual level of discourse though. Hence, a twenty-four hour waiting period prior to this email.

Three. How am I doing now. You've been metaphorically sharpening your pencils on this one I'm sure, and I know it was frustrating that I didn't provide many details previously. But it was pretty depressing; no need to torture you by telling you about it. As for now...well, full disclosure, even though this is a more reassuring email by far when compared to prior examples, I'm not back to baseline. I feel better than prior ("prior" being well on my way to dead) but still not that great. My lungs may be torched for life. The jury is still out. I'm on about 6 liters of humidified oxygen per minute by mask, IV steroids, and requiring nebulized albuterol something like every two hours just to, you know, keep breathing. If I were dictating this—it would be shorter; let's put it that way. The very nice pulmonology team tells me it's just a slow process of taking things away as my lungs recover, until the point that everything is taken away (hopefully) and I'm just breathing room air again, like a normal person. I guess first on the docket is transitioning from IV steroids to oral steroids, which is supposed to happen sometime this afternoon. I argued for spacing out the albuterol first, so maybe I can sleep more than two hours at a time, but I was outvoted and informed that multiple PhDs do not an MD make.

Four. I have so many things saved up for you. Thanks for the detailed Alaska descriptions, they definitely were not things I read multiple times in a row while watching the poisonous, yellow miasma of 40-degree centigrade air outside my hospital window while standing on the precipice of clinical demise. [Editorial note: that's a lie; I did that.] What's been going on up there? I'm not the only one who leaves things out of letters. Are you doing any quantum mechanics? You really need to get back to the quantum mechanics. I wrote you a letter about that, LITERALLY ON MY DEATH BED, HERAMNN. I hope you took it to heart. I know you're going to twist this around on me somehow, which I probably deserve, and say, "Excuse me, Newton, but I seem to recall you entirely throwing over your own theoretical work in the interest of preserving human civilization; are you really surprised that I would do likewise?" At which point I will say, "No, I guess not, but there's an important caveat, which is this: your theoretical work has the potential to do more to preserve our species than killing one kaiju at a time." And then you say, "Excellent point, yes, on further consideration I agree and will take your advice, withdraw from the Jaeger Academy, and return to the math." So. Just know...I'm waiting for that day. -Newt

So. He wants to meet. This seems significant.

Hermann has, naturally, searched out pictures of the man. To a one, they're out of date, obviously taken when he was much younger. This makes sense to Hermann. Of late, Dr. Geiszler has mostly been photographed in enough biohazard gear to obscure his features. His direct superior is the one who primarily interfaces with the media. Hermann suspects that, for Dr. Geiszler, the science always comes first. If publicity came to him, he wouldn't hide from it, that doesn't seem his way. But he wouldn't seek it out. Nothing so crass.

In Hermann's heart there is still an echo of that satisfaction he'd first felt at being sought out by a scientist of such stature. For a graduate student to engage directly in intellectual correspondence with an American PI about events of world-ending import—well, it felt uncommon, to say the least. It still feels so at times. The German system remains so hierarchical that there had been an almost illicit joy in circumventing his own PI, speaking directly with Dr. Geiszler as an equal—and the man's mind is exceptional.

Newton is unlike anyone Hermann has ever encountered. It is an exquisite pleasure to converse with him. His grasp of quantum mechanics is accompanied by an artistic flair and a propensity for self-deprecation. Hermann thinks the man must be possessed of a unique strength of character to display the workings of his thoughts in the way that he

does. The world is not kind to such people. He must have seen that unkindness; he must have withstood it. That alone tells Hermann how he would be, in person. Steady. Kind. Displaying confidence sans arrogance.

Hermann pours himself a small cup of tea from the thermos he holds. He offers up a silent prayer of thanks that Dr. Geiszler had not died in Manila.

And now, he wants to meet. In Geneva. The meeting is weeks away.

Hermann does not flatter himself so far as to really believe that Dr. Geiszler would look for anything beyond friendship with someone such as himself, a recently minted PhD with no independent science funding to his name. But even that, even a friendship with such a person would be, potentially, enough to satisfy him. He tries not to daydream or waste time on fantasies. He tries, in fact, to minimize fantasizing all together. Soon he will drift with one of his classmates; they say that, in the interface, concealment is impossible.

But still—it is difficult to avoid imagining Newton joining the PPDC.

Based on the man's career trajectory (Hermann has looked up his publication record, timed things out), Hermann believes he must be somewhere in his early fifties. Being of German ancestry, he is likely to be tall. Square shoulders, certainly. His hair, perhaps, just starting to gray at the temples. He has a youthful face—that he will retain. His voice, like his words, powerful, insightful, laced with a dry sense of humor. The perfect foil to Dr. Lightcap—calm where she is wild, steady where she lacks direction. He could head the new K-science Division. He would keep her in line. Technically she'd still outrank him, but not by much, and not for long, Hermann suspects.

Perhaps, if he comes, when he comes, he will, occasionally, if he is not too busy, seek Hermann out. Perhaps he will wish to discuss particularities of quantum mechanical interdimensional transit. He has a strong interest in quantum theory, clearly he does. That alone should provide the basis for a lasting friendship. And then, there had been this most recent letter. Thank you, he had said, you saved my life. He does not seem the type to forget such a thing.

Hermann sighs.

The lake blazes with the light of the setting sun. A flock of white birds take flight. Dr. Geiszler had mentioned that he had thought of Hermann's landscape descriptions often. He would enjoy a view such as this, surely. Perhaps, in the future, it will be here they meet one another to escape the noise below, here they talk and theorize. He can almost see it now, Newton's hands on the rail, the quiet surety in his voice, the strength in his bearing, the self-possession in his demeanor. A pillar of sanity, safe harbor in an unpredictable sea.

## 2020 (Twelve – A Borrower of the Night)

"Have you taken leave of your senses?" Hermann snarls, standing in the doorway to Newton's office. "Your behavior is ridiculous."

Newton glares at him, leaning against his desk, recovering, badly, after his most recent fit of coughing.

"You are extremely ill." Hermann can hardly bear to look at the man.

"Eh," Newton rasps. What does it matter, really?" He is trembling. His elbow brushes a precarious stack of print journals, mostly *Nature: Kaiju Science*, and they slide to the floor. "Shit," he mutters. "This place is a mess."

"Yes," Hermann snaps. "But as to your question, Newton, it matters to me very much. If you—" He aborts, then starts again in a more familiar vein. "We cannot afford to lose time. Rest before you are taken out of commission in a more serious way. There is work to be done. The long term should not be sacrificed for the short. So. Please allow me to reschedule this meeting. Your tolerance for any infection regarding your lungs is spectacularly poor; it has been poor since your experience in Manila. In all likelihood this has already progressed to pneumonia, you clearly have a fever, so will you please just," Hermann lifts a hand, feeling helpless. "Lie down?"

Newton nods, watching a few more journals slide to the floor. "I agree. I will. After the briefing." He is speaking in short sentences, trying to cover up the extent to which his shortness of breath is impacting him. Hermann buries the urge to shake some sense into the man.

"After the briefing you will, no doubt, insist upon drafting your grant," Hermann says, eyes narrowed.

"I'll do it lying down." Newton smiles at him, trying for charm, succeeding. "All the science? It's done. The rest? Easy."

"Newton," Hermann says, rallying for another salvo.

Newton looks directly at him, and oh, Hermann is having a susceptible day because that green stare is piercing; no other word will do. Newton shakes his head. "Hermann," he says. "You know."

"I know what?" Hermann snaps, still fighting.

"It doesn't," Newton pauses to draw a shaky breath. "Matter."

And yes. Of course Hermann knows that. Has he not worked to the point of collapse himself? On multiple occasions? They must get this funding. They must. The Coastal Wall is the costly, pointless waste that will bring down their civilization, that will facilitate its razing. It's the Sicilian Expedition for an Age of Monsters.

"You'll set us back if you die."

"I know," Newton whispers raggedly. He grins at Hermann. "But I'm not going to die."

"Give me your word," Hermann says.

Newton laughs, coughs, traces an x with a finger over the left side of his chest. "Cross my heart," he whispers.

They go together.

Hermann cannot shake his dread, cannot make Newton do anything, has never been able to make Newton do anything. This is insupportable. He should not have given him the coffee—it's allowing him to rally. Marginally.

Hermann needs to reinvent his life; he needs to do it tomorrow. He can't reinvent his life; if the world doesn't end the subject can be revisited. So many others must have watched loved ones die slowly, working themselves to death. He'll need to find a book to find some company in this regard. Keats, he thinks, was a doctor who died of consumption. He must have had literary friends who watched his slow demise, spilled some ink over it? Evariste Galois, firebrand that he was, must have known someone whose particular misery Hermann can share. His hands itch to grab Newton by his stupid tie and drag him to the medial bay before it is too late.

In the briefing room, Hermann sets up the projector. Newton dims the lights. As expected, Pentecost and Hansen overlook the wretched state of Newton's health.

As Hermann sips his bitter coffee, he finds himself, against all odds, missing Dr. Lightcap fiercely. This is something she never would have tolerated. Not this briefing, not any of this. She'd have canceled this superfluous torture session and sent Newton to the medical wing post haste. She'd have killed the Coastal Wall. She'd have built more Jaegers, given Hermann the time to map the breach, the peace to tangle with the math—

Hermann blinks away the heat in his eyes.

They're going to lose.

All of it.

They're going to die in the midst of a terrified final effort. He's watching the end happen. This, right now, Newton struggling pointlessly through this slide deck. This is the beginning of the end. The room itself is a tableau that Caravaggio might have favored, with its darkened corners and four ill-starred faces shining with reflected light. Hermann cannot keep his eyes on the glowing screen where text describing the decimation of the science that might save their species blurs into what feels like prophecy.

He finds himself staring at Newton's right hand, braced against the table.

Something catches an edge in his mind, and, "Stop," Hermann snaps. He's on his feet and slamming the end of his cane against the light switch before he even knows why. But as the lights come up—

Newton blinks, stopping mid-sentence, clearly disoriented as three people, now standing, aggressively invoke their preferred variants of his name.

"What?"

"You look bad, kid," Hansen says, winning this year's Understatement Award. "Sit down, maybe."

"I've looked bad all day," Newton says, aggravated, scowling at Hansen with two fingers pressed to his temple. His breathing is shallow and he's not—he's not trying as hard as he ought to be given the distinctly blue cast to his nail beds and lips. "Probably just the lighting in here."

Hermann clamps a hand on his colleague's shoulder and more or less forces him to sit. "It's not the lighting." He does his best to keep the screaming urgency from his voice.

"I tend to agree," Pentecost says. He looks, briefly, at the empty chair at the head of the table and then back at Newton. Perhaps he, too, is thinking of Lightcap. "Newt, you think you can walk to medical?"

Oh it's 'Newt,' now, is it? Hermann thinks.

Newton props an elbow on the table and rests his forehead in his hand. "Yeah," he whispers, closing his eyes. "Sure."

## 2027 (Thirteen – The Garland of the War)

Newt is deep in the throes of R01 drafting. He may actually make the spring deadline. Aim 3 needs a little work. That's fine. Everyone's third aim always needs a little work. He should talk to Jake, see if they might be able to get some data from the patch clamp apparatus in the next few weeks—even just one channel, its voltage fluxing one time. Everything is already solid, but, has he or has he not (in a not-so-past life) gotten about ten of these things? R01s, that is? He has. He's probably fine, but demonstrating he can actually patch and actually clamp wouldn't hurt.

Whatever. Either way he'll get it. Won't he? It's been a while since he tangled with the NIH. Everything during the PPDC days was NSF and JETF funded. Pretty much. Maybe he should have someone read it? Neuroscience isn't exactly new territory for Newton Geiszler (of the academic trappings and the anteverse patch clamping), but he's not as up on the literature as he'd be in an ideal world. It'll be just his luck if someone's done what he's proposing a decade ago and he missed it. Or something.

Sam Gordon might read it.

Sam has a vested interest in seeing Newt succeed anyway; it's not like he's going to mind. Nevertheless, Newt feels slightly anxious about giving him the thing. Newt is kind of getting into this a little bit, where “into this” he means invested in his life rather than just, y'know, waiting for death like ya do. His grant is good, but what if Sam doesn't think it's good? Sam could be—he might be a more conservative thinker. He might find Newt's proposal too wild.

Newt is pretty good at deciding what's crazy and what's not. Pretty good. Not great.

Maybe he shouldn't remind Sam of his existence?

He's slightly concerned he's going to get fired.

He's been out for eight weeks so far over the course of the winter. He still refuses to give a departmental talk. He's cancelled a third of the classes he's teaching. Taking even one more grad student is risky because his start-up package was pretty thin, and he may run out of funding in eighteen months.

They didn't want to hire him.

He knows this. It's a fact. He knows because they gave him almost nothing, definitely not enough to succeed for more than two years without additional funding. They probably think he doesn't realize they're making it hard for him. That's cute. At MIT, Newt had been a PI for five years, and had gotten tenure after three. He knows what he should be getting, he knows what he IS getting, and the disparity between the two is about an order of magnitude.

It's okay though. He understands. He even sympathizes. He's a wreck, and you don't pour hundreds of thousands of dollars into a sinking ship, no matter how many planets that ship might have saved. Why? Because it's sinking. That's why.

Hermann would be pissed if he understood the details of this, but he doesn't have a good sense re: how astronomically expensive biological science has become. Newt has no plans to tell him.



Still. It's kind of unbelievable Newt has to get tenure, again. They could have given him Pity Tenure (more like Respect Tenure) without money. Ugh. He remains nominally pissed about that, but, again, he gets it. That's the problem with science. The neuro people can barely spell tissue regeneration. There's no way they've looked at his previous body of academic work in anything more than a cursory way. And, yeah, it's one point five decades old. That, or it's on kaiju, which are all dead and gone and hopefully not coming back. Now if Newt had wanted to stay in the same academic pasture, that would have been one thing. But—

They would grow for you. They would want to, for you, the kids hiss at the back of his thoughts, pretty much always.

Newt has learned to bring his own mental discipline (or maybe Hermann's) to bear on his post-drift, er, arguable...psychosis? Self-limited though it is. What would have happened to him had he been left to his own devices? Probably something bad. He likes to think that he would NOT have walked the crazy evil genius road, but that's, maybe, a little optimistic. In some D-brane of the multiverse, there's a non-zero chance that Newton Geiszler, totally out of his pretty little mind, is reopening a transdimensional portal that should remain shut.

You know where it was, his sad little cut-up chorus comments. How could you know, if nothing of it remained?

Shh, Newt says, not without pity.

Anyway, to get back to the picture he's trying to paint here, for himself: 1) he's not doing tissue regeneration anymore; 2) the neuro people don't care about his past work; 3) they also seem to think he's slightly unstable (arguably true); but 4) interestingly, they don't seem to entirely dislike him. [Editorial note: He had kind of assumed they would? Because most people have disliked him over the past decade? But those people were MILITARY people; he keeps forgetting that.] It also turns out that 5) he's beginning to fill a similar niche to the one he filled MIT. It's just happening naturally, probably no one has really noticed yet that the grad students are coming find him when their experiments aren't working, but 6) that's not going to help him if he runs out of money and teaches only a fraction of classes he's supposed to teach.

He doesn't want to get fired.

Most of what's going wrong isn't technically his fault. Newt straight up suuuuucks at being sick now. Will this ever go away? Probably not. His lungs are terrible, his brain gets hijacked, and Hypothetical Rain pharmacologically kicks him in the face every damn time. He tries to look at things philosophically. This is his deal. This was the trade. He's going to be paying, in some way or another, for the rest of his life, but what he got in exchange—it was worth it. It was outstandingly worth it. He'd do it again a thousand times out of a thousand. Zero regrets.

Hermann forgets this. Well, not true. Hermann never accepted it in the first place.

Newt sighs.

His life partner is having a hard time. WAY too hard for how great things have turned out. They're going to need to work on that, because the guy is making himself miserable over something most days most of the time. Newt doesn't have a handle on the nature of the problem. It never really seems like the right time to say: Hermann, the

war, or whatever, is soooooo two years ago. Get over it already. You really should be over it by now. Why aren't you? Exactly? Can you make a list?

Newt maybe could have gotten away with that circa 2025, but now he's supposed to be more sensitive. He is more sensitive. Very responsible. He should probably be able to figure this out. It's hard though, because Hermann's brain got contaminated with HIS brain, which confounds a lot of baseline assumptions Newt would like to make. Newt himself is extremely tangled up in everything that's bothering Hermann; this complicates the situation because Newt is pretty hopeless about his ability to realistically conceptualize himself. The biggest barrier to figuring Hermann out though, is Newt's concern he's going to get it wrong.

He's definitely gotten it wrong in the past.

For example, he's made a few serious efforts, really only two, to apologize to Hermann re: 1) being such an immature disappointment for, at a minimum, five years of their acquaintance 2) getting Hermann involved in the drifting and, consequently, 3) being the reason Hermann had to (sort of) commit a federal crime while fleeing Hong Kong and 4) double consequently, Newt turning into a really High Maintenance Life Partner [editorial note: in almost every way imaginable]. The first time Newt made a serious apology attempt, Hermann had been like, Stop it Newton, you're repeat traumatizing me because you apologized profusely when I thought you had brain damage and it was very memorable. So, okay. Newt had tried again, more sneakily. VERY high-brow. That time had gone way better until Hermann realized what he was talking about, and then it had gone way worse. Hermann had yelled at him for about half an hour and then stopped talking to him for three days.

Surprisingly immature, in Newt's opinion. And therefore? Troubling.

So. What to do? Nothing suggests itself. Nothing other than what he's already been doing, which is, generally, trying to behave like a reasonable human being (new for him) and be an attentive romantic partner (also new, but less difficult). Not getting fired would probably be helpful. He's tried asking Mako for help, but engaging Mako on this topic can be really intense. Mako, like Hermann, is very attached to Newt. She legit tells people the half-sibling story—not in jest. Newt isn't really sure what to say to her. Any hinting around the idea that Hermann is only with him because the drift remixed their brains is met with a solid wall of Makosian Newt-you're-stupid.

Newt does worry about the remixing. It would be irresponsible not to.

Unfortunately, talking about post-drift cognitive bias as it relates to their relationship is also another thing that Hermann does not like to engage on. The one time Newt had brought THAT idea up Hermann had gotten VERY concerned and Newt had had to suffer through a two-hour conversation about his own abandonment issues, and how he needs to keep in mind that his past experiences have been very atypical. Once Newt had made it clear that he understood that much, Hermann had proceeded with, like, trying to Good Will Hunting him or something? Just over and over hammering repetitively the idea that Newt is special, it's not that people don't like him because he's annoying, everyone likes him, especially Hermann, who is not going to leave him, not ever.

Yeah, okay.

So no apologizing, no talking about why Hermann is SUPER into him now even though that hadn't been a thing before.

Or had it?

It had and it hadn't, mostly favoring hadn't. Newt has tried remembering things as Hermann to get a handle on what the guy was feeling, but feelings don't translate well in memory form, at least not for him, and Hermann's perceptions of him seem to be all over the place. It's confusing and probably misleading. Case in point, Newt remembered that Firecracker Sake Night pretty fondly but Hermann, it turns out, was super miserable and remembers Newt pretty unrealistically, all tragic and restrained with great hair and a Gottliebian cast to his diction. Second case in point, Newt remembers his Geneva talk in 2020 as a horrible disaster but Hermann found it inspiring, got all fired up about it, but then yelled at Newt all the same.

All he can say for sure from the total of the experience is: 1) Hermann has always and unambiguously loved his gesticulating (great; very helpful) 2) Gottliebian disapproval versus worry is hard to parse 3) at some point Hermann did begin to find him sexually attractive but that was not at the beginning. Ugh. Memory is so unreliable anyway. It's a lost cause.

So what's a post-apocalyptic academician supposed to do?

Nothing?

It's a radical idea. He thinks it might be the right one.

For the sake of argument, maybe he did mess up Hermann's brain for life. Maybe he did remix them into this relationship. Maybe he did, accidentally, decrease the quality of Dr. Gottlieb's days as a human on this pretty little water covered rock.

Pretty, the kids echo, thinking of the ocean.

Thanks kids, thanks for that.

Anyway, he can't unremix them. He can't unruin Hermann's life by going back in time and avoiding all that should have been avoided. For one, if he did that, the world would have ended (probably). For two, the whole prospect is a thermodynamic and relativistic impossibility. He can be nice now though. As a solution? This is unsatisfying. As a practical strategy, it's probably the best he can do.

So, fine. He would love to just go town apologizing, analyzing reasons why he's the worst, laying them all out so they can talk about it and move on, or not. But clearly Hermann is not interested in that. Maybe one day. Things the man is interested in right now seem to be 1) worrying about Newt, 2) watching Newt do a good job at life, 3) obsessing about the war and how it might have gone differently, 4) cuddling (Newt), and 5) math. Not necessarily in that order.

It's pretty clear that Newt is going to make more progress with a strategy that involves maximizing hugging and minimizing worry than with one that involves detailed retrospective analyses.

He should probably informally codify this for himself. Or something. Okay. What he should try, very hard, NOT to do, is get sick again this year. That's number one. Number two is he should try, when possible, not to wring his hands, bleed from his face, and stare at the Pacific Ocean; he should instead stay in bed. Number three is he should probably cook more than he does; he's kind of getting into it and he suspects Hermann

may find it at least somewhat attractive because Newt gets a disproportionate amount of interest when he does it. Number four is Newt should try not to get fired. Number five is he should try to do more physical affection stuff because Hermann still sometimes struggles with an overly muscular sense of propriety and personal space.

So yeah, this list is not great compared to the magnitude of the perceived problem, but what else is he going to do? This is probably one of those things he can't fix. Much as he would like to convince himself otherwise.

More cuddling, more cooking, do not have more seizures, do not get fired. Easy enough.

He goes back to the R01, throwing himself into revising. He gets in a good rhythm, and the logic of the grant flows well. He loses track of time until someone knocks on his door. Inhibition of inhibitory circuit diagrams resist falling apart in the presence of new stimuli; he has to shove them away, rip his focus free to look at his calendar with half his brain.

Oh right. Speaking of not getting fired—

"Come in," he says, saving his work, trying to snap himself clear of his visualized circuit diagrams. It's hard to do. His ability to hyperfocus is coming back. Nice to know it didn't vanish into the neural interface never to be seen again.

He looks up as Charu slips through the door, shuts it behind her, and drops into a seat in front of his desk. Newt's scientific career has a little bit of momentum now, and that mass velocity vector is looking at him from behind thick glasses, staring him down in a super awkward, really intense, yet totally familiar way.

She is so much like Hermann. SO much. Thoughtful. Quiet, with that same tragic intensity, that same razor-sharp disdain for what she doesn't understand.

He smiles at her. "Last day, huh?" he says. Yikes. That sounded a little wistful. It was supposed to be dry. Usually something like that that would file the edge right off her Gottliebian intensity, but not today. Newt gets it.

"Yes," she says.

Ugh. He likes her so much, but her rotation had not gone well. She'd rotated for the second block, the winter block. Newt had insisted on the winter block. Most first year grad students will affiliate with their last lab, the one they join in spring. And sure enough, the winter had not gone well. Not at all. He'd missed eight of her fifteen weeks, and then another two were holidays.

He'd wanted it that way, so she'd know what she was getting herself into. Right now? The Geiszler lab consists of a single tech two years out of college, an unpaid UCSF undergrad, an ever-changing garden of hopeful rotators, and Jake, now in his second year.

Jake, Newt had said, two weeks ago, arms crossed, leaning against Jake's bench, twenty minutes overdue for some albuterol and feeling it right in the airways. You need to tell Charu—what it's really like.

Newt, Jake had replied, staring at a solution he'd put on the stir plate hours ago, then flipping off the magnetic field, watching the stir-bar slow to a stop. I don't even know what that means.

Tell her it's terrible, Newt had insisted, coughing. And a risky career move.

I'm not going to tell her that, Jake had said, rolling his eyes, decanting his buffer into multiple sterile glass bottles. I liked her. She'd be a good fit.

But Jake, Newt had said, you're—really weird. In the best way ever, don't get me wrong, but when she figures out—

Newt. Come on. Figures out what? What do you think she's going to figure out? That you suck as a PI? You don't. That you were out half the winter? Not a secret. You have a unique style, which, I get, is partly out of your control, and you don't like that, but just because the experience isn't what you want it to be, that doesn't make it bad.

Jake had been giving Newt the kind of exasperated pep talk that Newt is supposed to be giving him in moments of scientific despair. Fine. Newt had gotten a hold of himself, which he still has, mostly. If Charu doesn't want to join his lab, he might cry, but he won't cry in front of her; he'll do it by himself, later, confused and alone in a closet somewhere.

Great.

Now that's settled, he can move on.

"Well," Newt says, looking at her, metaphorically white-knuckling everything he can metaphorically grab. "How do you think it went?"

Charu gathers herself for some sort of pronouncement.

Newt braces himself.

"I want to join your lab," she tells him, point blank, extremely emphatic, overtly aggressive, no elaboration, zero pleasantries, half shouting. It's incredibly off-putting, extremely awkward, and such a Hermann moment that Newt laughs. He can't help it.

Present!Newt tries to remember MIT!Newt. Tries to determine whether or not he would have known what to do with her. He thinks not. MIT!Newt wouldn't have taken her. Present!Newt is a different story. He knows exactly what to do. He puts his hands over his face, because his laughing is getting a little hysterical, GETS IT TOGETHER, drops his hands, and looks at Charu, who now appears slightly alarmed.

"Thank god," Newt says a little shakily. "Sorry. I thought you were gearing up to tell me thanks but no thanks."

"You thought—I would—tell you no?" Charu asks, confused.

"Obviously you can join my lab! Charu, you're amazing."

"Really? I can join?" she asks, thousand-watt face. Newt's not sure he's ever made anyone look so happy. Which, weirdly, includes the day when the countdown clock stopped.

"Yes."

Newt should not be this relieved. She still has another rotation. Also, he maybe should try to talk her out of her decision? Is that the responsible thing? It's just—she looks so elated right now that it seems like a huge buzzkill to remind her that he's a mess.

Too bad.

"But look," he says, "you still have another rotation before the end of the academic year—technically you can't decide yet, and who knows, you might change your—"

"No," she says. "I won't."

"Okay, but—"

"No," she says forcefully.

"Okay, but Charu—"

"No," she says again. "You took six rotators for one slot and I know that for the four you've had so far, you're their top choice, and I'm positive that—"

"Charu!" Newt half-shouts, briefly losing the battle to contain his laughter. This girl and Hermann are going to get along SO WELL. He needs to introduce them immediately so that Hermann can appreciate all of the stories Newt is going to inevitably tell him. "Stop. Let me finish."

"Okay," Charu says, still skeptical, not at all chastened.

"I will not give your slot to anyone but you. I have not said yes to anyone else. Regardless of what you say now? I'm still going to want to meet with you in May to make sure you haven't changed your mind. And if you change your mind? That's FINE."

"I'm not going to—"

"I'm not done yet. I'm excited you're excited. But you should really give Sam Gordon's lab a chance. He's the department chair, he's a good scientist, he has a lot of connections—his lab is more of a sure thing. To the extent a sure thing exists in science, he's it."

"Jake told me you would say something like that."

"Oh he did, did he?" Newt says, leaning back, crossing his arms, smirking. "What else did Jake tell you?"

"He said that your lab, at least right now, is high-risk, high-reward. That it's only a good fit for risk-tolerant people. I'm risk tolerant." She informs him of this with a prim assertiveness that is so outrageously Gottliebman that Newt is now pretty sure that she and Hermann are, somehow, related.

"Geiszler lab: for the risk tolerant," he says dryly. Iron that one on a T-shirt, he doesn't say, because they might do just that, and he's not (yet) popular enough to have a weird cult graduate student following. That wouldn't be appropriate. What he says instead is, "That's a nice way of putting it."

Charu shrugs, looking slightly uncomfortable, probably because she doesn't really want to listen to Newt be insecure about his health problems and also his mental health problems and also his personal style and also his future prospects in this department.

They hired me out of pity, is something that he's not going to tell Charu.

He's told way way way too much of this to Jake, but Jake had to know. Charu does not need to listen to a list of Newt's insecurities, because there's a good chance that he's going to get this R01, and if he does, then it really doesn't matter why they hired him or what kind of start-up package they gave him.

Certain things are outside his control, but at least when he's here and on he can be really here and really on.

"Can we talk about a project?" Charu asks, "Because I had an idea."

"Take it away," Newt says.

## 2030 (Fourteen – Untangle This)

The monster that emerges from the bay looks familiar to Hermann as it rends its way through the Coastal Wall, but he can't place it. It's not Trespasser, not Reckoner, not Yamarishi, not any of the forms that are burned into his mind, needled into Newton's skin.

It's new.

Stone rips like paper under enough shear force.

"Huh," Newton says. "Well, if there's one thing I've learned from the human experience it's this. The monsters we slay return to us again, in different forms."

Hermann looks at him, aghast.

"They come back," Newton says, kindly. "They always come back. You have to know that. You're human. How could you not know?"

Hermann looks away. The sky is overcast, San Francisco Bay's a Jaeger graveyard, and Caitlin Lightcap's whistle carries on the plutonium-laced wind.

"Do you know what they call themselves?" Newton asks, standing next to Hermann at the railing, watching. "In their own language? How they classify what they are?"

"No," Hermann replies.

"Catalysts," Newton says. "It's interesting we have a word that translates so well, don't you think?"

"I suppose so." Hermann watches him uneasily.

The wind is strong. The clouds are low, and full of lightning. Newton stands gripping the balcony rail, eyes an improbable shade of green beneath a sky as gray as this one. He doesn't look at Hermann. He keeps his eyes on the Coastal Wall, what's coming through it. The intensity of his expression at odds with his didactic tone.

"Translation is a tricky thing, as I'm sure you know. You have to choose what to emphasize. What to pull forward. What to push back. 'Catalysis' means 'dissolution' in Greek—even that's a compound from 'kata,' meaning 'down,' and 'lysis,' meaning 'loose.' Biologically, we've come to refer to catalytic activity as tearing something apart, as opposed to, say, anabolic activity, which would be the process of building up. But don't worry, it gets better."

"Does it?" Hermann is surprised the man can hear him at all, his voice is so faint.

"Yeah, because to 'catalysis,' you add the suffix -ist. Well, the 'i' gets swallowed, but it's a suffix that denotes agency. Like specialist. An agent of the special thing. An agent of the catalysis. So, that's nice. But then you can stack some additional meaning atop that, because in our modern culture, especially within the biological and chemical sciences, but elsewhere too, a catalyst is something that helps a reaction along, makes it go faster, renders it more energetically favorable. So not only does it do the dissolving, it makes that dissolving faster. More likely. More efficient."

"Ah."



"Right? That adds an even better layer of complexity, don't you think? Because they really are biologic agents that pave the way, so to speak, for what comes after. Speed things up, reduce activation energy? Don't get me wrong though. It's not like I'm going to start calling them catalysts."

There is a prominent crack of thunder. Hermann twitches.

"I like the word kaiju just fine." Newton cocks his head and lifts a brow as the kaiju shoves its way through the Wall entirely.

"Are you afraid at all?" Hermann whispers.

Newton looks over at him, backlit by destruction, by a spectacular electrical storm. The kaiju roars, angry, but with a note of mourning.

"Oh Hermann," he says, with wistful sympathy. "I wish I were. I really do."

Hermann jolts awake.

Breathing hard, it takes him some time before he can hear the gentle tap of rain against the window, the cries of gulls, the distant sounds of traffic. He tries to throw himself out of bed, but gets nowhere due to the impossible tangle of his bedding, so he settles for levering himself up on one elbow to peer at the Coastal Wall.

It's reassuringly intact.

Hermann looks down Newton, who has managed to involve himself in separate tangles with every topologically amenable surface he's encountered, including three layers of blankets and Hermann himself. The man's hair is in a state of spectacular disarray. At some point, he'd clamped his hand around a good portion of the material of Hermann's Supercos T-shirt.

Is he dreaming of what happens to a fraction of a hive mind?

He doesn't look like he's dreaming.

"Newton," Hermann whispers.

No answer.

Newton is soundly asleep. Mostly on top of him and suspiciously warm. His shirt is damp.

Hermann presses a hand against Newton's forehead and sighs.

"You consistently defy expectations in all areas. Is it too much to ask that you go a winter without pneumonia? Just one." He strokes Newton's hair. "We live in California. It barely ever snows here. You have no excuse for this."

Hermann drops back, sighing, and wipes a faint sheen of sweat off his own forehead. He presses his free hand over his eyes, trying to forget the dream. The breach is shut. The breach is not just shut but annihilated. All tissue fragments on this side of the portal have been destroyed. Newton is fine, not welcoming monsters with balcony-scene etymology.



## 2025 (Fifteen – The Omen Coming On)

On a windswept foreign balcony, clad only in a bathrobe, Hermann rests his forearms on the rail. The sun burns orange as it sinks toward the Coastal Wall. Gulls sweep out arcs above him, their white wings sunset-tipped and startling against the deepening dark. The city below is a carpet of glass, split by ribbons of asphalt. There aren't many people on the streets.

Of course, Hermann thinks, there wouldn't be.

He'd attended a conference here when San Francisco was at its peak, creating technological masterworks and tossing them into the world like cheap candy. Tiny, glittering chips scattering with confetti-like abandon.

He pulls his phone out of the pocket of his bathrobe and contemplates it.

God, he thinks, his thoughts going gratuitously Geiszler-glazed as he studies shatterproof glass. The joy they poured into this little block of circuits. The promise. Inherent to this object is the belief that humanity endures.

Are these his thoughts? Do they belong to the neural ghost of a living man? Or might the strata of death and cognition go deeper?

They do. Of course they do.

"No," he whispers, because he has the memory now. It's not his. It's Newton's. And the speaker—he sees her in his mind's eye, glorious in the floodlights of the Seattle Shatterdome, weeks before her death, beer in one hand, phone in the other—the speaker is Lightcap. She'd made that observation. Inherent to this object is the belief that humanity endures.

He can hear her whistle still.

Hermann has thought of her more in the past day than he has in the past half-decade. Is this EPIC Rapport? Newton's influence? His own? Why is Hermann out here, on this balcony, right now? Why is he looking toward the sea? Why had he done the same thing in Hong Kong when feeling particularly wretched?

It's a proclivity that comes from Newton.

When the man's upset he goes to places she would be, were she alive to be there.

"No," Hermann says.

He will not permit this.

"No." He had no fondness for Caitlin Lightcap in life; he has none for her in death. This is not him, this abyss of grief that threatens from within. This is EPIC Rapport. It must be. It can be nothing else.

Despite this realization, he finds his hands are shaking.

He returns his phone to the pocket of his borrowed robe and grips the balcony rail in both hands. His breath seems to come too short, too fast, too shallow.

Think of something else.

They'd made it out of Hong Kong. That's good. That's promising. Newton is asleep in their hotel room on the other side of a sliding glass door, and not locked in a Pan-Pacific lab. Hermann has not been arrested or charged with any kind of international crime.

All of this is good.

We made it out of Hong Kong, he tells himself as he tries to calm his breathing.

Yes.

They'd made it out of Hong Kong.

But only barely. By the thinnest of margins, the edge of a razor.

Without his father's intervention, they wouldn't have made it at all. Without his father. His father? Who has done nothing for him in the past half-decade but torture the Jaeger program to its death? His father! Who had stepped in with an intervention that now feels miraculous? Astonishingly unlikely? The kind of thing that could only happen after the ending of the world?

He chokes the life out of the balcony rail, struggling for air, tearing his eyes away from the Coastal Wall. He can't bear to look at it. If only That Thing hadn't drained away their resources, if only Lightcap hadn't died, if only she'd killed it. She could have done it. She, and she alone, could have killed the Coastal Wall.

If she'd lived.

Hermann finds he's crying. He's not sure why. Are these his tears? Are these his thoughts?

I don't need to be alive to help you, baby, Lightcap whispers.

"Leave me alone," he sobs. "I don't need you here. I don't want you here. I'm not him." This is identity confusion and nothing more.

Lightcap looks out over the city, her elbows braced against the rail, her face turned away, her shoulders hunched. She, too, is weeping. These are no tears of joy, despite the way the world won't end.

Why are you crying, he snarls at her, dashing away his own tears with the back of his hand. You got what you wanted. You got all you wanted. Everything.

The shine of sun on snow prisms into every wavelength of light to ever fall on her—the red of Jaeger hearts, the yellow-gold of the light in her nights, the green-tinged columns of glowing aldehydes, the blue of Ops in Anchorage, the indigo dawns of early morning test runs, the violet glow of roving lights on a night of karaoke for a little girl who would, a decade later, seal the quantum tear he'd studied all his life.

You were not the only one who suffered, he rages at her.

I know that. I know. I always knew. He sees her, a mote in his mind's new eye, turning away, turning away, always ahead, always maddeningly out of reach and this can only

come from Newton, this view from behind, this belief that she can do anything, anything in the world—

"My heart breaks to think of you," Hermann admits.

The tracks of her tears glint orange in the setting sun. Her hair, her face, her eyes have taken on a twilit cast, still alight in a darkening world. Her feet are bare. Her bathrobe matches his.

"You should be happy," Hermann whispers.

But still she cries. They both do.

## 2028 (Sixteen – Like an Ill-Sheathed Knife)

Hermann sits in his office, looking contemplatively at the lawn in front of UC Berkeley's Mathematics Building. Finals week has come, and it's on its way out. Every day there are fewer and fewer students crossing the campus. The winter holiday is about to begin.

At ten o'clock in the morning, Hermann's phone chimes. He checks it to find a message from Newton, informing him that his paper has been submitted. Cover letter finalized. Figures formatted and uploaded. The entire thing is officially away. Hermann feels a wave of relief.

::Congratulations:: Hermann replies to the man's text. He waits a few polite seconds before issuing a long overdue edict. ::NOW GO HOME::

::Yeah yeah:: Newton replies.

::NEWTON::

::Kiss!::

He rolls his eyes, throws his phone down on the desk, and returns to algorithm optimization. What a strange way to work, this seems to him still. Arrival at a decent hour? Dedicated time for correspondence? A few hours spent tangling with the math, lunch, and then perhaps a few more hours before giving a class, attending an afternoon colloquium, or consultation with colleagues over coffee? Home at a reasonable time? Dinner every night? Bed at a reasonable hour?

Absurd. Almost frightening.

He will, occasionally, wake in a cold sweat, panic-stricken, convinced some crucial task remains incomplete. At such times, it is this life, the one he lives now, that feels like a dream.

Hermann spends an overly long lunch hour with David Starr at a small coffee shop three blocks from their building. The man, as a general rule, indulges Hermann much too much, especially when it comes to 1) strange applications of quantum theory, 2) enlightenment era philosophers, and 3) descriptions of/complaints regarding Newton's latest exploits.

"I literally, Hermann," David says, finishing the last of his sandwich, "Literally cannot believe that you are spending Christmas with Mako Mori. Can I meet her in person? Aren't you Jewish?"

"You can, most certainly, meet her," Hermann replies, "that is, if you think you can hold yourself together for the experience."

"Ummm," David says, laughing. "Not a given. I mean, you and Newt are plenty famous, but you're like, my people. Meaning you speak math. Mako Mori is definitely not my people. I don't think? I mean, actually, ugh, I'm sure she's great at math. She is, isn't she?"

Hermann raises his eyebrows, sipping his tea.

"She's a mathematical genius," David says, one hand pressed to his face in dramatic self-abasement. "Obviously. What am I thinking."

"Ms. Mori has no special mathematical proclivity," Hermann replies, taking pity on him, "but can, having grown up where and how she did, hold her own in most arenas, including academics."

"I could not be less surprised," David says, propping his chin in one hand and staring into the distance. "She is just like—whoa."

Hermann rolls his eyes. "As to your other question, yes you do recall correctly, I am Jewish by heritage, though non-practicing. Ms. Mori is, in fact, Shinto, but finds herself possessed by the unbridled urge to buy presents for her friends and decorate things. Christmas has become, therefore, her favorite holiday. Consumerist nightmare though I tend to find it."

"Mako Mori buys you Christmas presents," David says, shaking his head as though he can't quite wrap his head around something so mundane. "Insanity."

They walk back to the Math Building through a misting rain that feels like it would very much like to become snow. After lunch, Hermann puts together a shopping list because he can and also because it feels luxurious to do so. The sun makes a reappearance, of course, after he arrives back at his office.

::Are you home?: Hermann politely enquires of Newton.

::Working on it....:

::Work harder:: Hermann suggests.

In the early afternoon, just when Hermann is starting to make genuine progress on the underpinnings of his new algorithm, Newton calls. Hermann answers his phone with, "Newton, if you are not at home, so help me God, I will—"

"Um Dr. Gottlieb?" It's Jacob, unmistakably. Newton's graduate student. His first and best; the one who has been in the lab the longest, since the rocky days of 2026.

This? It is not a good sign.

"Jacob." Hermann steels himself, already suspecting the nature of the call. "What is it?"

"Newt had a seizure," Jacob says without preamble.

"Yes," Hermann says darkly, already packing his bag, locking his cabinet. "I'm sure."

That idiot, he thinks, uncharitably. The man is infinitely frustrating. This is the third year in a row this has happened. But will he stay home? No. He has to submit his Nature paper. God forbid he doesn't go in to work to submit a paper. God forbid he doesn't do it from his home computer. It isn't as if the world is going to end if he stays home, takes Tylenol, and doubles up on his anti-epileptic coverage.

"It went on a longer than the ones I've seen before," Jacob says. "Four minutes, almost."

Four minutes? Wonderful. He does not care what it takes, he does not care how uncomfortable it is for either of them; he will not cave to Newton, not this time. The

man will stay inside for weeks. He will take any and all anti-epileptics that Dr. McClure decides she'd like to trial for however long she wishes to trial them. All of them. Every single one. Hermann will brook no argument. None. Newton would try the patience of a saint. The man is lucky he's so adorable; it's his sole saving grace.

"Where is he?" Hermann asks.

"We called an ambulance. he's on his way to the hospital. Charu rode with him. I'm in my car outside the Math Building. Thought I'd pick you up."

"Much appreciated, Jacob," Hermann says, in genuine relief. "Thank you."

It takes him nearly no time to gather his things, lock his office door. He exits the building, his breath misting in the gray air. Jacob, impossibly young, is waiting in an idling car, his window down. He waves.

They believe themselves to be special, Hermann reflects, carefully descending the steps. They always do. His students feel, for Dr. Newton Geiszler, a confusing combination of maximal respect, moderate fear, deep love, vicious loyalty, and fierce protectiveness.

Hermann is not unsympathetic.

But honestly? Sometimes it is ridiculous.

Newton's last techs at the PPDC had gone without a salary for years, supported by friends or family, until they'd finally been forced to leave him. This newest iteration cannot see the legions of mentees who've come before. They step into the shoes of the dead, the missing, the lost. So Charu is with him now. Hermann wonders where Lisa is, whether she survived the attack in Sydney.

Don't let him ruin your life, he wants to advise Jacob, because he is feeling particularly aggrieved at the moment. Don't let him torque your career. Develop your emerging interest in mirror neurons, defend your PhD, move on, do your own science. But Hermann is hardly one to talk.

"Well," Jacob says, rolling up the window as Hermann shuts the car door, buckles his seatbelt, settles his briefcase on the floor. "This is the worst. Hi Dr. Gottlieb, terrible to see you again."

"Hello Jacob," Hermann replies, smiling faintly. "Likewise I'm sure."

"This is our fault," the young man says, grimly wrongheaded. "The holiday party, the Nature paper, he's teaching almost six hours a week—he got sick. It was too much. We all got way too drunk and way too drenched when he took us out for a lab happy hour."

"Jacob," Hermann sighs. "This happens to him every year."

"Still," Jacob says, readjusting his grip on the wheel, glaring at the traffic in frustration. "We're having lab meeting without him tomorrow. We already decided. The subject? Ways to stop enabling him."

Hermann finds himself smiling faintly. "Any ideas so far?"



"Well, maybe we can stage a walk-out when he does something stupid. Like, 'Oh, hi there Newt, you think you're gonna come to work when you're sick? Think again. NO SCIENCE FOR YOU'."

Hermann actually laughs, bringing a hand to his face. "That might work."

"You okay, Dr. G?" Jacob asks.

"Yes," Hermann says.

"I don't know how you keep your cool through all of this."

"Practice," Hermann replies. "What happened?"

"He looked like shit all morning. Sorry. He looked sick. We got the paper in, and I was going to drive him home but then, of course, the FPLC machine clogged and backed up in spectacular fashion. Too much myelin in the undergrad's prep, probably. Anyway, he got distracted with that, argued with me about whether he should go home, I was arguing yes, just FYI, and then—" Jacob breaks off, lifts a hand from the wheel. "Four minutes. Otherwise nothing different."

Hermann nods.

Jacob drums his fingers impatiently on the steering wheel as traffic comes, again, to a stop. "Can we, like, keep him inside for the winter?"

"I make the attempt annually," Hermann replies.

"What if we move the lab to Florida?" Jacob asks hopefully.

"I would enjoy nothing more. Make an effort to convince him, will you?"

"It will break the Chair's heart into little tiny pieces, but—that's a sacrifice I'm willing to make," Jacob says, grinning, young and full of optimism. "I will get right on that for you, Dr. G. Florida sounds great. I hear you can even go in the water there now."

It's only been three years since the breach has shut. Jacob lived his whole childhood beneath the countdown clock—but he doesn't seem it. Hermann had been approximately his age when the breach had opened. Younger, in fact. It seems impossible. At present, he can't recall his own childhood, can't recall anything but the models, the clock, the shrinking funding, the growing Wall, and Newton.

## 2017 (Seventeen – Until Our City Be Afire)

Yup. Newt has made some miscalculations, that's true. For example, it would be great if he could just go back in time real quick, and when Lightcap had said: "Doll Face, I need you to oversee the retrieval effort; Crimson Typhoon is tangled in the fucking fucker's mother-fucking tail and I do NOT trust J-Tech to not ALL DIE during the extraction," Newt should have probably then said: "No," or, "Tendo is more than capable," or, "Lightcap, I'm happy to do that but please realize you might be trading me for a half-destroyed Jaeger." Because of course she hadn't realized.

To be fair, neither had he, really?

He knows his lungs are bad, but he didn't know they'd be this pissed at him. They're, like, having lung-PTSD right now. Or something. This is unexpected. This is weird. Weird is usually bad when it comes to K-Science.

"Kid," Serge says, covered head-to-toe in biohazard gear. "She's gonna tear you apart."

No need to specify the she.

Privately, Newt thinks that's possible. Publicly, he coughs and cannot stop, gripping the bench in the back of the containment truck.

He's figured out the problem. Right around the time Lightcap and Hermann called, actually. While talking to them. His filter is clogging. Clogged. Why?

He's coughing shit up. Not much. But enough. Some serous fluid with just a hint of sanguinity, maybe?

That's great. That's just perfect.

It's not a lot of blood, hopefully, just secondary to irritation, hopefully, but it's enough to create too much of a mist on the wrong side of micron-scale holes. He's not supposed to be coughing a bunch of shit up onto the inner, finer filter. That is not what that filter is designed for.

Newt loves discovering design flaws in the field. Really he does. It's his faaaaaavorite.

He's going to have to make a call pretty soon—either take off the mask before he reaches the decon station and hope for the best, or suffocate behind this freaking filter. It would probably be helpful if he could explain this conundrum to someone, but he's lucky to be breathing at all. Could he write it down? Maybe. If someone has the presence of mind to give him a white board and a dry-erase marker. Probably they won't. The sheer effort of trying to get Serge to understand his desire for writing materials seems way too daunting. Bottom line, they're not going to understand until his filter comes off and they can see what the real problem is.

Why he's coughing up the blood is another question. Probably lung-PTSD on the molecular level? At the minimum a capillary level? He doesn't think he's inhaled Blue again. He remembers what that felt like.

All the same, this seems extreme to him? It's been two years and some change. His pulmonary vascular beds must be really angry. Long memory on those little guys, apparently. Maybe this is reasonable. Only a handful of people have ever survived an encounter with Kaiju Blue. Most of them aren't getting up and personal with kaiju

corpses. For all Newt knows there's, like, some prion inserted into his alveolar membranes that's started chopping away in response to some kaiju rage pheromone the respirators can't filter.

Oooh. Yup. That's interesting. That's a real possibility. He should make a note of that.

Hmm. Can't do that just now. No voice recorder, bulky gloves, and, also, he's losing sensation in his hands. Feet too. How would that fit into the prion theory? Oh wait. No. It wouldn't, except as a downstream effect of hypoxia probably. In other news, he's hypoxic. That's why he can't feel his hands and the world's looking grayer than its historical norm.

Serge, pretty smart for a Jaeger pilot, says: "You gonna make it to decon?"

Newt, always with the fantastic timing, watches his vision start to go.

Fuck you, cerebral cortex, don't you DARE.

There's a roaring in his ears. He doesn't say anything to Serge, just tries to pull air through a resistant filter with underpowered irritated lungs and NOT COUGH. He manages to beat back unconsciousness with a stick, but only just. He gets enough oxygen for his brain to start powering his limbic system again and he goes from barely conscious to borderline panic, which is good. He needs. That panic.

"Shit, Geiszler," Serge says, sounding as stressed as he ever gets (not very), holding Newt upright. "Stay with me, here."

Newt nods, really working to breathe, trying not to fall behind, but the harder he works, the more air he seems to need. He tries to calm down, reverse that trend. Serge knocks on the glass, talks to the driver. Newt feels their speed increase. He can't say how long it takes, exactly, that drive. While it's happening, it feels like it'll last the rest of his life.

Three people help him through the decon. None of them are sure what's wrong with him, because he's not talking. Lightcap is talking, maybe just in Newt's head, maybe over some kind of speaker. People keep asking him questions, but he doesn't answer a single one. He's busy. He gets an occasional shake that helpfully interrupts his consistent flirting with unconsciousness. Thanks, decon team! He's operating on about ten percent of the oxygen they think he's operating on, but there's no way to tell them that.

He keeps his mind on one thing, the most important thing. He loses it here and there, but it comes back, fluctuating with his alertness level.

This is the important thing.

They're going to FREAK OUT when they get to the step of the decon procedure where they pull that filter off his face because they're going to see something unexpected and alarming. Namely blood. Inside the filter. Possibly also on his face a little bit.

People who are startled in the middle of an already dicey decon procedure do Unfortunate Things by Reflex. [Editorial note: a passable band name; a better album name; ideally, not a way that Newt will die.] On the plus side though, his brain sharpens up when they get to the danger step. Of course it does. His brain is awesome, and he's been anticipating this from the first rusty tang of blood at the back of his throat a few hours back and a few miles away from here.

They pull the mask off.

The natural inclination of a normal human when it sees something horrible, like #SurpriseBlood, is to try to shove the bleeding thing back where it came from.

Aaaaand this is exactly what one of his poor decon friends does. Newt evades the mask coming at his face. He just—steps back. Aggressively. It would have been much easier if two people weren't actively trying to prevent him from falling over. He has to fight them to get out of range, but he does. It's close, even as close calls go.

He staggers, manages not to fall over, and all three suited people freeze in abject horror, hands up, palms out.

Nothing happens.

No one says anything.

Newt is paying down an oxygen deficit and everyone else is trying to catch up with what just happened.

Yay, he thinks, air!

The recirculators are going full tilt, he notices absently. That's good. That's very good. He still hasn't worked out the implications of the prion situation. It's probably membrane bound. The hypothetical prion. But could he transfer this susceptibility if—

All hell breaks loose.

Oh. Right.

Because of the whole deal with the mask and the contamination and the patina of Blue and the fine mist of blood.

The decon alarm goes off.

Everyone is shouting.

In the room, out of the room, shouting shouting shouting.

Newt can barely parse any of it. Quarantine, people are saying. Review the footage, people are saying. The woman holding his mask is still frozen, staring at him like she just killed him. She didn't though. But will she know that if he dies from the lung-PTSD or whatever the heck is going on in his chest?

"It's okay," Newt says, just in case. He doubts she hears him, because he's barely moving any air. "Not your fault." He tries to enunciate well enough that they'll be able to at least see it on the footage afterward because his friend with the mask doesn't look like she's taking in much external stimuli.

"Did it touch you?" It's Lightcap's voice, over the speakers, so tight that Newt barely recognizes her. She doesn't know shit about Blue. What's she even doing here? She should be in bed. He shakes his head. Waits for them to come to a decision about the mask. After reviewing the footage everyone who matters agrees he's in the clear.

On an absolute scale they're pretty quick about it, but it feels like a long wait on the subjective side for a guy who could probably use some supplemental oxygen and a bronchodilator right about now. His prion theory is looking better and better, because this doesn't really feel like just lung irritation. He should be recovering more than he is. He hopes someone is smart enough to a) do a bronchoalveolar lavage and b) save it for later analysis. Later analysis by Newt, who will, in a perfect world, still be alive.

Stripped down to boxers and T-shirt, he manages to walk to the airlock without re-contaminating himself. He gets through it, and that's all he needs to do to not die.

Probably.

In the next room, they start running the UV decon protocol. He tries to stand for it, like he's supposed to. Assume the position and whatnot. Arms up, wide legged stance, eyes closed. He really should be feeling better by now, but his pissed off airways have clamped down, and they are NOT letting up. He starts coughing again. Stuff comes up that's less serosanguinous and more straight up sanguinous. That's probably not good. It tastes like it's gonna look real bad. He tries to swallow it so as to be less dramatic, but he has to stop coughing to swallow, and that is NOT something his airways are interested in. Eyes still shut, arms still elevated (mostly) he turns his head and spits a bunch of it on the floor.

He can, literally, hear Lightcap screaming on the other side of the glass. A priori, he would not have thought such a thing would be possible.

"GET HIM THE FUCK OUT OF THERE RIGHT FUCKING NOW!!!"

Full-on Lightcap. Wow. She shouldn't be screaming so hard, he thinks vaguely. Those splinted ribs, those stitches. She raises a good point though. Or, rather, she implies a good point.

Unlike the filter situation, which was squarely in his arena, the not being able to breathe and the coughing blood aren't currently his problems to solve. They're squarely in the provenance of someone from medical wielding albuterol, steroids, and, probably, alas, an endotracheal tube.

In other words, now that he's saved his own life? Other people can work out the remaining details just fine on their own.

There's the bright flash that comes with the UV decon.

And now? He really is done.

## 2027 (Eighteen – The Garland of the War)

Hermann sits at their kitchen table, outlining a manuscript for Quantum Physics Letters. He's quite behind on his work, if measured against the benchmark of the pace he'd set for himself pre-2025. It's been suggested to him on multiple occasions by a variety of different parties that his historical benchmark may no longer be appropriate.

This is, perhaps, why Hermann is devoting approximately ten percent of his attention to outlining and ninety percent to watching Dr. Geiszler's culinary exploits. The man's abilities in the kitchen have improved dramatically over the past year. Hermann suspects he misses working with his hands, which is becoming increasingly rare as his collection of personnel grows. Doubtless, cooking is a good outlet for frustrated empirical skill. This, however, is not why Hermann is watching him.

Working with his hands and distracted to a very particular degree, Newton will sing to himself.

It is a tendency that Hermann has been simultaneously studying and aggressively trying to foster, though this is difficult to do while preserving the unselfconscious quality that makes it all it is. He's fairly certain the man has no idea he's doing it, and Hermann would like to keep it that way.

There is a constellation of conditions that, when met, will result in absentminded singing a majority of the time. If Newton has had a day without undue stress and is performing some variety of manual labor he doesn't find mentally taxing he will, in the absence of conversation—

Ah yes. There it is.

Newton, pouring olive oil over a collection of winter vegetables, begins humming. It is a tune Hermann cannot name and hasn't heard before. The melody carries a wistful aspect to it. Hopeful. His expression is attentive but untroubled, his concentration unbroken.

Does his mother do the same, wherever she is? New York, Paris, somewhere far from the Pacific? She must, Hermann thinks. How could it be otherwise?

Newton has begun to carry himself again in something of that old way—though he's less arrogant now than confident—but sans that aura of showmanship that Hermann finds he very much misses. The man's dexterity has returned. So too has that breathtaking focus. Newton's sartorial style has settled into something better befitting academics than his historical norm. Hermann suspects his own tastes have influenced Newton's post-apocalyptic wardrobe choices, though the extent to which this is due to EPIC Rapport—versus the man's particular proclivity for driving Hermann half out of his mind while paying off a ten-year deficit of sexual tension—is unclear.

Nevertheless, Newton somehow finds a way to impart a tousled quality to a green sweater pulled over a white dress shirt.

The man stops humming long enough to swipe his right index finger through whatever he's heating in the pan. He makes a pained sound and swiftly inserts the injured digit in his mouth. Hermann rolls his eyes. The man continues to suck on that finger while adding a small amount of salt to the dish, pushing vegetables with a wooden spoon.

He seems better. The winter has been difficult, and it is not yet truly spring. Newton had fallen ill three times, been hospitalized twice, and continues with a lingering cough. But now—it's true, his stamina has improved to the point he can reliably manage a ten-minute walk, in the cold, across the UC Berkeley campus without needing to stop and recover, midway, on a bench. His entire demeanor is brighter. Relief unfurls, dragging reflection in its wake.

Stop thinking so much, Hermann tells himself, to no avail and much too late.

Newton pulls his finger out of his mouth and resumes humming.

You would have destroyed me, Hermann thinks, watching him. With this, you would have. These quiet times. These unguarded moments. In the Shatterdome, over coffee, late at night. It would have been unbearable. I did it correctly. It could have happened no other way.

Newton transitions to singing.

Hermann had done it correctly.

He had. For himself. For Newton, though—

Hermann could have made so many things easier on the man. Instead, he had chosen to make them harder. Why? Because he'd thought that there was some protection to be had in distance? That was true for him, but he doubts it had been true for Newton. Had he needed the drift to see it? It doesn't matter. He sees it now. He wants to pour some kind of panacea into every physical and mental crack the man has, some warm nepenthe that might undo a lifetime's worth of suffering in one night.

Impossible.

Newton returns to humming, this time what sounds like an abstracted version of a musical bridge.

If Hermann continues in this vein, upsets himself enough, he will likely ruin their evening. You're doing the right things, Mako had told him, on the phone, weeks ago. He tries to hold to that, but he has an extremely poor track record of controlling his own negative emotions when they arise to grip him by the throat.

If Hermann continues to sit here, watching Dr. Geiszler's poignant melodic preoccupations, trying to assess the man's absolute and relative levels of happiness and health—he's going to make himself miserable. No question. In fact, it's already in process.

Hermann shuts his laptop with a definitive click and gets to his feet.

Newton looks over at him. "Done?" he asks, the humming fading into the air, going as it had come. Unnoticed.

"For now," Hermann confirms. He walks forward to lean against the kitchen counter, trying to decide what it is that Newton is making.

"FYI, we need a tissue homogenizer. But, y'know, for food. What do they call those things?" Newton is in the process of dumping what appears to be butternut squash into a food processor.

"I'm sure I don't know," Hermann says dryly. He looks pointedly at the food processor. "That doesn't count?"

"No, Hermann. A food processor is entirely different—" Newton breaks off with a snap of his fingers as a recollection clicks into place. "An immersion blender," he says, pointing at Hermann. "We need that."

"By all means," Hermann replies.

"Still maybe thirty minutes or so before dinner," Newton says.

"Take your time," Hermann tells him. "I enjoy watching you cook."

"Oh you do, do you?" Newton says, looking over his shoulder, putting a lascivious glaze on his symmetrical phrase.

"You're becoming quite skilled," Hermann says.

"I seem to recall," Newton says, arching an eyebrow in a very becoming way, "predicting this exact outcome."

"Indeed you did," Hermann admits. "I deeply regret any prior doubt I might have expressed."

"How terribly unlike you, Dr. Gottlieb." Newton says, with a faint glaze of seductive sarcasm. But rather than continuing on in this fashion he simply says, "Put on some music or something if you're not working, will you? This dinner is too fancy to eat in front of Star Trek."

"Oh really?" Hermann syncs his phone with their speakers, then makes his way to the table near the door to set the device on its charging pad. Absentmindedly, he selects an appropriate album to stream.

Newton has the top off a sauce pan and is evaluating its contents with a critical eye. "Yes, really," The man confirms. Anything that involves—" He stops.

The first bars of "Bohemian Rhapsody" are playing over their speakers.

Newton places the lid he's holding on the counter, then slowly turns his head to look at Hermann, as if doubting the evidence of his own ears. Hermann flushes. He can feel it in his face. He has the urge to look away, but doesn't. On principle. They stare at one another. A conversation's worth of information passes between them, transiting that fixed gaze. Wave functions of possible explanations and actions oscillate before they collapse into—

"No," Newton says, the word rising sharply in warning, two fingers pointed at Hermann. The man is already pacing forward, fighting a grin.

Hermann snatches up his cane and makes a break for his phone. He nearly reaches it before Newton tackles him from behind, pinning both Hermann's arms to his side. "Don't you dare," he says, laughing. "Don't you DARE change it!"

"Newton," Hermann growls, twisting enough to get one arm free.



"No!" The man shouts, bodily dragging him backward, which would, Hermann is certain, be far more effective if he weren't laughing so hard. "You have to leave it!" Hermann loses a few feet of ground strategically then turns abruptly, steps in, hooks a foot behind one of Newton's ankles, drops his cane, and then presses him backward.

"Hermann!" Newton says, still laughing, trying to readjust his grip into something more advantageous before he overbalances. He is unsuccessful, alas, and falls backward onto the couch, stubbornly maintaining his grip on Hermann's blazer, dragging him down.

They end up in an uncoordinated tangle, Newton doing his level best to prevent Hermann's escape. They look at one another, breathing hard.

Overhead, Queen continues to play.

## 2020 (Nineteen – A Borrower of the Night)

The night-darkened Shatterdome seems an abandoned relic of an unfriendly future. Long corridors, lit only by pale fluorescence, are so quiet that one can hear the echo of every footfall. Not that there are many footfalls to note. Already, the Coastal Wall has begun to suck the life from the Jaeger Program. What a curse a slow, inexorable death can be. The kind one can see coming. For years. The Wall goes up. The Jaegers go down.

When they are all dead, when humanity is no more, this Shatterdome's nuclear-powered emergency lighting will burn on, ghostly and efficient, for thousands of years.

Cold comfort.

It's cold in an absolute sense as well. Hermann, having exchanged his usual blazer for a cardigan layered over, admittedly, another cardigan, still finds the temperature barely tolerable. The damp seems to have set up shop in the marrow of his bones. Any colder and his breath would be condensing in the air. Or, at least, it feels that way.

When Hermann was a child, his mother had been partial to the telling of ghost stories, always with some tragic, romantic bent. Of Hans Christian Anderson she had been particularly fond. Mermaids turning into sea foam. Honestly. But there is something about the Shatterdome at night that reminds Hermann of the Palace of the Snow Queen. As a child, he had envisioned it nearly this way, frozen labyrinthine corridors opening onto the Mirror of Reason. Iced over, the deployment dock would serve quite nicely.

You have a certain fairy-tale quality about you, Dr. Geiszler, Hermann thinks. He rubs his hands together, watching Newton for a moment. Blue gown, white blankets, green screens. His hair too dark, with its colored highlights grown out. No glasses. He looks profoundly different. Nearly unrecognizable.

Hermann would like to rip Herc Hansen's heart straight out of his chest with his bare hands.

From Pentecost, Hermann expects little, but from Hansen—Hansen who had seen Hermann's mind, who knows, or should, the depth of his discernment, who had seen and understood, however briefly, the mathematics behind the opening of a trans-dimensional portal—

Such thoughts are wasted. A cucumber is bitter; throw it away, Marcus Aurelius had said. There are briars in the road; turn aside from them. Something along those lines.

So. The Mirror of Reason. The story had been about two children. A girl and boy. The boy, he recalls, numb to the cold, ice in his heart, had knelt on the frozen water for an endless time, trying to form broken icicles into equations.

Or, had it been words?

He checks his watch. Three hours past midnight. He stands, paces the room a few times, trying to warm up. He studies each of the monitors in turn, satisfied he understands the parameters on which they report. He looks down at Newton. Insensible, relying on a combination of medical elixirs and mechanical ventilation to sustain his life, deserving, certainly, some fairy-tale ending. He won't be getting it.

The girl is dead.

This is Lightcap's fault. Twice over. First because of the Reckoner Incident in 2017, when she had sent him out and nearly killed him. Second because she inconsiderately died and Newton has been disinclined to take care of himself in her absence.

You are irresponsible, he thinks at her. You devalue human life at the expense of overarching progress. You are unethical. You, I am certain, will still be responsible for his death even though he's outlived you.

But all he can see is the way she had cried, on her knees on the floor of the UV decon suite, under those violet lights, her stitches broken open, blood soaking through her shirt, her face in her hands, inconsolable. He shakes his head, tries to make the image go, but it won't. Nor can he forget the way she looked in that dim karaoke bar, laughing, with glitter in her hair. Nor the other—sitting in that chair, neck craned back, eyes empty, and, in his mind a musical whisper, a terrible entreaty, you break it to him. You do it. Please. Please, Gottlieb. Please.

He'd hated her in life, he'd hated her in the moment of her death, and he hates her now. He will always hate her, he is certain. His throat aches. Promise me, she had said. And he had promised. She was always extracting such things, wrenching them from people, unfairly. And yet—he's failed her. He can feel her disappointment in this very room. It is crushing.

Hey, she had said, in 2017, hands on bedrails, leaning over the man Hermann now looks down upon, Baby genius. Bitch-Prince of the Alien Xenome. Listen to me. Don't you dare die on me. I love you. I love you forever, okay? To the ends of the earth. To the bottom of the Pacific. I couldn't love you more. You're brilliant. You're funny. You're fun. You're cute as shit. You're bitter like great coffee. I love your fucking band. Humanity would be screwed without you. You have to live, okay kiddo? You adorable angel-faced, devil-minded little nerd. I loved you before I met you. I'll love you when I'm dead. If you die, it will eviscerate me. I hope you're hearing this. You're the one who lives. I decided that a long time ago, so don't make me wrong. I hate being wrong as much as you do. God doesn't get you back. You're mine. You stay here. You don't go anywhere. I love you. I love you. I love you.

"How anticlimactic this must seem," Hermann murmurs, slipping his fingers into Newton's hand, pressing, briefly, his palm, mindful of the pulse oximeter taped to the man's thumb. His hand is cool. Lifeless. "But she would have been furious with you, Dr. Geiszler."

Hermann sighs, shakes his head, returns to his seat, to the bedside table where Newton's laptop glows with a warm and circadian-friendly light. He has the man's grant open and is working his way through the budget section. It is so infernally complicated—what is the price of whole exome sequencing? Relatively easy to find. What about when biohazard level 5 substances are involved? Less easy. How is anyone supposed to discover these things? He searches Newton's folders, looking for previous grants, trying to find an estimate.

It takes him another half hour, but he finally locates something useful.

Kai, he remembers suddenly. That had been the boy. Gerda the girl. His mother had taken particular pleasure in telling this specific story to Hermann and Karla. Karla, no doubt, had always struck her as particularly intrepid. Hermann, surely, as particularly icy. Someone in need of saving from his own coldly rationalist tendencies. He sighs.

Too bad Karla had been unsuccessful. Hermann had taken after his father in too many ways. And yet. Still. Not quite enough.

If there's a boy with ice in his heart on this Mirror of Reason, it certainly isn't Dr. Geiszler.

All right. The budgeting is done. Now he needs to prepare the Description of Facilities section. Wonderful. He has no idea what half the machines in the man's lab are for. They certainly seem to make a great deal of noise, but that hardly narrows anything down. He begins searching Newton's hard drive and finds about six iterations of what he wants. He scans the most recent document, which is, curse Hermann's luck, an unmistakable description of the Alaskan Shatterdome's Biosciences Wing. He's going to need to modify this.

He starts searching the man's hard drive for the names of pieces of equipment, and, thank God, finds a spreadsheet containing his current lab inventory. Shockingly well-organized.

"You won't hear me say this, Newton," he mutters, glancing at his colleague, "but you deserve slightly more credit than I generally give you."

"Maybe he should," Herc Hansen says, from behind Hermann's left shoulder.

Hermann startles violently, the movement painful.

"Hear you say it," Hansen says, walking forward, his ridiculous dog in tow, waddling across the floor. Hermann glares at the pair of them. The dog is not sanitary. This is a medical bay. Hansen looks exhausted, as well he should. Everyone is exhausted. Newton is nearly dead.

"It's three in the morning," Hermann snaps. "What are you doing here?"

Hansen shrugs. "Couldn't sleep. Thought I'd look in on him."

Hermann makes an ironically expansive gesture that takes in Newton's bed, his anesthetized form, the ventilator, the IV fluids, and antibiotics, the array of tubes and monitors. "Look away," Hermann says, with more than a trace of acidity. "Look to your heart's content."

This is too much. He is not Caitlin Lightcap. He does not lose control in front of his colleagues. Except for Newton, who doesn't count. He takes a slow breath in, a slower breath out.

"We should have listened to you," Hansen admits, his dog panting at his feet.

"Yes," Hermann says. "I agree. You should have listened."

The subtle emphasis is not lost on Hansen. He inclines his head, then walks forward, arms crossed, to stand at the foot of Newton's bed. "The thing that you two don't seem to understand," the man says, looking at Newton, "is that this thing doesn't ride on you. The math isn't going to stop these things. Learning their biology isn't either. You don't have to run yourselves into the ground quite so hard."

Oh really.

As though what he and Newton are doing is some decorative embroidery around the edges of the kaiju killing and the Coastal Wall? Lightcap understood the primacy of the science, the deadly consequences of acting without understanding. This is your battle, Lightcap whispers, out of time and memory. Yours, Gottlieb. You make them see. Make them all see.

"Herc," Hermann says, quietly.

The other man looks up, startled. Hermann hasn't used his first name in years, not since their Jaeger Academy days. He eyes Hermann expectantly, like a revelation might be forthcoming. One is.

"Go. Away."

I know it's my battle, Hermann had said to Lightcap. It's the only one you'll give me.

"Why are you here, Hermann?" Hansen asks, not quite ready to give in. "You're going to end up right next to him if you don't get some rest."

"Why am I here?" Hermann repeats. "Do you see anyone else here? Medical, like the rest of this place, is grossly understaffed. He should be at the University of Washington."

"Yeah," Hansen says. "Okay."

"What is that supposed to mean?"

"You want me to lay it out for you?" Hansen asks, still avoiding Hermann's gaze, looking fixedly at Newton. "I'll lay it out for you, but you won't thank me for it. Look, Hermann, our handshake wasn't strong. Not by a long shot. But we weren't incompatible."

"Your point?" Hermann asks, the words enough to salt the common ground between them. This is not something they have ever talked about. Hermann sees no reason to start now. Whatever understanding Hansen thinks he has is five years old and irrelevant.

"I know what you thought of him then," Hansen says. "I know how he seemed to you in his letters. No one could have ever lived up to the image of him you'd built up in your mind. No one." He straightens an already straight blanket, and pats Dr. Geiszler's foot in what is no doubt meant to be an encouraging manner. Newton, chemically anesthetized, cannot appreciate the effort.

"You could do worse," Hansen says, finally looking at Hermann. "He's smart enough to keep up with you. He's already gotten you to live a little. And he's pretty damn capable when he's not focused on being an arrogant asshat."

"I could do worse?" he hisses, incredulous.

Hansen raises both hands, palms out.

"Leave," Hermann demands, the word pure venom.

"Sorry," Hansen says. "I overstepped—"

"Never," Hermann snarls, "mention that drift, to me, again. Certainly not in his presence, regardless of his consciousness level. You—"

"I'm going," Hansen says. "Before you say something you're gonna regret for days. Just—think about it." He heads for the door.

You're right, Lightcap had said, years ago, without sympathy. It is the only battle I'll ever give you. Fight it or go home and leave it to Geiszler.

"Wait," Hermann says, grudgingly.

Hansen turns back.

"It does, you know," Hermann says. "It does ride on us. Everything rides on us. On us, Herc. On myself and Newton. The Coastal Wall is going up. The Jaeger program is coming down."

Hansen shakes his head.

"I know you disagree," Hermann says. "But it's important to me that you understand something."

"What?" Hansen asks into Hermann's prolonged pause.

"I want you to understand that I've heard your argument, such as it is. I understand your argument. I've thought about your argument. I think you're wrong." Hermann tries to keep everything out of his voice but the words, he knows he's failing.

Hansen raises his eyebrows.

"Dr. Geiszler thinks you're wrong. Dr. Lightcap, were she here, would think you're wrong. It does ride on us. It has. It will. More than ever."

Hansen looks at him. "Get some rest then," is all he says, and turns to go.

Once Hansen has well and truly absented himself, Hermann raises an eyebrow at Newton. "You're lucky you were unconscious for that," he says. "I'm not sure your career would have survived the inevitable reprimand that would have ensued had you been capable of commenting."

If he had been awake, Newton likely would not have allowed Hansen to so much as complete a phrase. Hermann has always suspected that Newton carries a particular antipathy toward Hansen because of those Jaeger Academy days, because he knows Hermann had drifted with the man. Hermann, admittedly, quite likes the idea of an envious Dr. Geiszler.

An idea that likely has zero bearing on reality.

"And he thinks I should tell you?" Hermann asks. "How would you react to that, I wonder? I can't see it going well, if you care to know. Or rather—" he breaks off, rests his head against a hand.

Newton just lies there, motionless.

Hermann feels profoundly depressed.

He has nearly decided to confess his feelings to Newton. It will not be easy. He'll have to apologize for so much. Newton will not understand why Hermann has been so aggressive, so hard, so distant at times. It will be horrible, Hermann thinks. But afterward—

"Newton," he will say, when the man isn't dragged down by his grief for Lightcap or his anxiety about the looming Coastal Wall. "Newton, I need to have a serious discussion with you."

"All your discussions are serious," Newton will say, smirking, looking up from whatever he is doing—assembling the next grant, analyzing new data. "You're a serious guy." When he sees Hermann's face, he'll say, "Very well, sit down, Dr. Gottlieb."

No he won't. Hermann ought to be as accurate as possible.

He'll probably say, "Door," with an imperious tone, and point, impatiently. Hermann will shut his door. Then Newton will say, "Out with it, man. I haven't got all day."

"I'm aware," Hermann will reply, sitting.

He will hesitate.

Newton will look up at him.

"I'm in love with you," Hermann will confess.

Newton will stare at him, mouth slightly open. Perhaps, if he is holding something, such as a pen, or a cup of coffee, he will lose his grip on it. "What?" he will say, when he's sure he's processed Hermann's message correctly. Then, again, beginning to laugh, with a slight edge of hysteria, "WHAT?"

"I believe you heard me correctly," Hermann will say.

"You believe I—" Newton will say. "What am I supposed to do with this?"

"Most people would evaluate their own feelings and respond, either positively or negatively."

Newton will stare at him, gathering his thoughts. "Look, Hermann, I basically told you when we met that I had infinite love for your brain. And that I was available. To you. At pretty much any time for pretty much anything. Of course I'm going to respond positively." He doesn't seem happy.

"You still feel that way?"

"Hermann," Newton says. "YES. I mean, I guess so? But none of this makes sense. You hate me. In fact, just last week you told me that you literally despised me, like, using the words: 'Newton, I quite literally despise you.' I get that you were probably abusing the word literally there, but—Hermann," Newton sighs. "This just doesn't make any sense. If you weren't you I'd accuse J-Tech of hazing me. As it is, I just feel—kind of sad."

They look at one another.

Newton fidgets, toying with his pen.

Hermann sighs.

"Myeah, I wouldn't do it this way," his imagined version of Newton says, stepping out of his role for a moment, taking on an advisory capacity. "I'm not sure where the sad comes from? But I'm pretty sure you're going to make him sad if you do this. Probably it has something to do with his parents abandoning him, and then his uncle shipping him off to be raised by MIT. Feeling like no one liked him his whole life? Like, really. When you're eight? Think about you at eight."

Hermann raises a hand, hopelessly.

"It's just sad. And then the guy who shouts at him, files dozens of HR complaints about the music he plays, the way he dresses? The guy who points out how annoying he is at every turn, the guy who criticizes his life choices? Turns out THAT'S the guy who's secretly in love with him? Not going to fly. Not easily. Not well. Try something different. Sad as it is, his self-esteem is probably low enough you could probably successfully do to him what Mr. Darcy tried on Elizabeth Bennet. The you-suck-but-I-find-you-irresistible shtick."

That doesn't seem ideal.

"Against my better judgement, I find you incredibly attractive," Hermann tries, half-heartedly.

"You do, do you?" Newton replies archly, eyebrows quirked suggestively. "I've had my suspicions."

"Would you, ah—be inclined to—"

"Yup," Newton says. "I would be inclined. Extremely inclined. In fact, I would be inclined tonight. You want to incline around oh, I don't know, twenty-two hundred hours?"

Hermann plays out an entire relationship in his head, beginning to end, because all relationships end, everything ends. Point of fact, there is an expiration date on the human species that is his unique responsibility to calculate. He feels physically ill imagining Newton in the coming years. Already Hermann wants to protect him, already Hermann wants him out of this life; it will get worse, everything will get worse—his own father has thrown in with those who would build the Coastal Wall—

It does ride on you, Lightcap's memory whispers. It does. You know it does. Don't fuck it up, Gottlieb. Don't let me down. Map the foam on that quantum sea. Who knows what is was before it was foam. Meridians and mermaids. Field lines and fairies. Lively little ghosts and loop quantum gravity. String theory and song.

He opens his eyes to Newton, still motionless, doing nothing for himself except keeping his own heart beating.

Hermann returns to the grant.

He finishes the Facilities Description with, he thinks, reasonable accuracy, and the rest of the grant package is relatively straight forward. By half past four, everything is complete. He decides to look over Newton's Specific Aims for typos, and then, because he's feeling particularly sentimental, he keeps reading, through the



Background, the Materials and Methods, the Preliminary Data. He can practically hear the man's voice rise up off the page—a blend of what he had imagined in those early letters and the man Dr. Geiszler had actually turned out to be, in the flesh.

By six in the morning, he's read the entire grant through. It is ready to submit.

He stands, walks another circuit of the room and returns to Newton's bedside, looking down at the man. "You are a singular intellect, you know," he murmurs, "which I can tell you now, because I know it won't go to your head. Your grant is excellent; you'll be pleased to know that I cannot, in good conscience, fail to submit this on your behalf."

## 2030 (Twenty – Untangle This)

Newt wakes up. Mmnot really but KIND of.

His head hurts, someone is muttering in German, and it seems that his life partner, who is usually a lot nicer, has Newt's arm in some kind of blanket vise? And is wrenching his shoulder in a way shoulders don't go?

"Hey," Newt says, but his vocal cords make almost no sound.

Then, coughing. This helps his headache zero. It helps nothing, actually.

"Newton," Hermann says, annoyed.

Yeah, well, this is all very well for Hermann; his shoulder isn't trapped in some topological impossibility. Newt tries to stop coughing, but it doesn't work right away. Hermann rubs his back, says shhhhh, which is nice. Newt forgives him for his topologies, especially once the coughing stops.

A new discovery is that IF Newt stays very still THEN his head doesn't hurt so much. Good. Useful. Masterfade everything down to nothing. His muscles give up all at the same time. He twitches.

"Oh no you don't," Hermann says, going back to the shoulder yanking.

Newt wants no coughing but also no moving. Those two things at the same time. He's not getting that though. "Why're you doing this?" Newt asks. His voice is better this time, but not by much. His bones hurt, his chest is tight, he's chilled with his own damp sweat.

He's sick?

Damn it.

"Why am I—" Hermann makes a frustrated sound and then jerks a sheet from beneath Newt's shoulder and upper arm. He then starts immediately on the loop of bedding wrapped around his calf and Newt's ankle. "How you managed this, Newton, you, I have no idea. Wake up, please, and help me detangle you."

This doesn't sound like a good plan to Newt. He knows what he needs, and it's not 'detangle.'

"Coffee," Newt requests, lying on top of Hermann, totally limp.

"Tea," Hermann says darkly, "if you're lucky." He uses his foot to work Newt's ankle free from its sheet shackle. "You are impossible before eight o'clock, except when you're not, which is worse. Can you please help?"

"Myeah," Newt says, lifting his head to assess. His ankle is free and his upper arm is free but the rest of him is pretty tethered and he is on top of Hermann which is very nice, actually. They should just call this a win and stay here. For a little while at least. Like fifteen minutes or half the day. He drops his head back to Hermann's shoulder, helping done.

"However did you accomplish this?" Hermann asks, finally freeing his second hand, which had been a project for a while, Newt realizes.

"Skill," Newt says, letting Hermann yank the blankets around all he wants.

"You think you're so charming," Hermann says testily.

"Yes?" Newt offers.

"You're lucky you're right," Hermann says, making quick work of the blankets once he has both hands to work with. This seems fine until Newt gets dumped, unceremoniously, onto the bed. It's a lot colder than the human he'd been lying on, and his bones hurt extra.

"No," he says, irritable.

"Yes," Hermann replies, in his don't-argue-with-me voice, but then he fixes all the blankets around Newt and finger combs the world out of Newt's hair. That feels really nice. "Do you recall what you were dreaming of?" Hermann asks him.

"Nope," Newt decides, after some consideration.

Hermann sighs. It's definitely a sigh of relief though, not disappointment, so that's good. Newt lets it go. Eyes shut. Brain on standby.

Until.

Something worms its way into his head to pry his eyes open. Gray light. Hermann, sitting on the end of the bed, writing in a small notebook. He's murmuring affirmations into his phone. Not usual. That's the thing that's waking Newt up. Hermann doesn't take direction from most parties. Not anymore. Historically, he'd been into saluting the military higher-ups. Newt does not miss those days. He doesn't miss many things. He's not really into nostalgia.

"Yes," Hermann says, writing something down. "I agree."

Hypothetical Rain. It's got to be.

Everything is the WORST. He sits up.

Hermann waves at him to lie back down. God, so bossy. Newt collapses back dramatically against the pillows. Bad plan from a headache perspective. Ouch. He lies there, eyes half open, taking stock. Hermann had been right about the viral prodrome thing, which Newt finds excruciatingly annoying.

Newt has the instinct to get up, get dressed, make a total pest of himself, trying to show up to lab, but there's no way that's going to fly on any level. Even if he somehow made it past Hermann, his lab will stage a group walk out if he so much as coughs. This has been a policy since 2028.

Plus? He's supposed to NOT torture his life partner. In fact, yesterday evening Newt had articulated some aspirations re: being good.

He already regrets it. Not really but kind of.

He turns his face into the pillow, buries his head in his arms, and whines in acute self-pity. Hermann reaches out and briefly grabs Newt's ankle, giving it a reassuring shake.

Newt should be good.

What's good, Newt?

Tylenol is good.

Not making Hermann pull teeth to get him out of bed is good.

Other things are good that will probably occur to him when his brain is more reliably perfused and he feels more like a human being as opposed to a barely conscious pile of misery.

Newt sits up.

Hermann looks at him and shakes his head, but this time Newt nods and waves vaguely at him, a yes-yes-my-brain-is-online wave, a have-fun-with-Hypothetical-Rain wave, then stands and searches out clothes, which, if he's being honest with himself, are really just alt-pajamas. He retreats to the bathroom, takes that Tylenol ASAP, brushes his teeth, decides he's going to get ambitious and so takes a quick shower which does a lot to make him feel like he's trending more toward "human" and less toward "misery pile." He gets dressed in his carefully selected pseudopajamas. He towel dries his hair but doesn't bother with gel. He takes his morning Keppra and morning inhaled steroid.

Hermann must be having quite the conversation with Hypothetical Rain. Newt is somewhat surprised he hasn't shown up by now.

Oh right. Rain's new strips. That's what they're talking about.

Ugh.

I don't know, kids, what do you think?

The kids hiss in overt disapproval, which probably means the strips are a good idea. Newt's pre-coffee brain leaves a lot to be desired, a lot, but it's about two orders of magnitude better than his brain on Hypothetical Rain's pharmacological concoctions). He really wants to put up a fight about this. Really really really. He's going to be out of it, he's going to spend most of his time sleeping, then he's going to have brutal insomnia for a week, and it's going to take a solid six weeks for circadian rhythms to normalize. He's going to be confused, which reliably pisses him off, and then, because he can't articulate why he's pissed or understand what's happening he gets frustrated and cries and catastrophizes, which stresses Hermann out. It is the WORST.

Of course, if he seizes, which he probably will, that will DEFINITELY happen, he'll just have fewer memories in medias res.

It doesn't matter how you feel about it, Newton, his brain tells him, sounding pretty Gottliebian for this hour in the morning. You said you would try it.

"Myeah," Newt whines, his forehead pressed against the bathroom door.

Hermann is probably still in their bedroom, talking anxiously to Hypothetical Rain, who's probably giving him an encouraging spiel about not caving when Newt looks sad. It's Newt who should be getting that pep-talk. And it should probably be a scolding. Which he can give to himself, right now.

Don't make things so difficult for him, his brain snaps, again in Gottliebian mode. This is much harder on him than it is on you; you're barely conscious for most of it. You likely don't even remember the worst of it. Who knows what you've said to him? Who knows what you've put him through?

"Okay," Newt whispers, "jeez."

And be nice about it. His brain hisses. Try not to cry when he prevails upon you to Take the Thing. Just do it, Newton.

Oh really, Newt fires back. Try not to cry? You try not to cry how about.

The kids hiss, VERY annoyed. They prefer seizures. They would.

He stops communing with the wood of the door. Too emo. He slides his glasses into position. The misted mirror looks a little too misted at its periphery. Almost sparkly. Hmm. He opens the bathroom door, looks out into their bedroom. Nothing. He's feeling significantly better. Just a post-shower, post-Tylenol rebound? Or something more? Too much better? Suspiciously better? Maybe. Deep in his head, there is a building pressure. Distant now.

He looks at Hermann, still on the phone, but watching him and frowning. Probably because Newt has been staring intently at nothing, trying to determine whether he's getting some manifestation of his super weird non-aura aura that's not the quantum foam, but could be.

"Are you all right?" Hermann whispers.

Newt nods, then crosses the room, makes a backrest of pillows, and then gets back in bed. He presses his feet against Hermann's hip. Hermann wraps a hand around his ankle, clearly much happier now that Newt is neither standing up nor staring into space.

Move the lab to Florida, Jake is always saying.

Maybe, in a few years, he'll be able to live somewhere far from the shore of the Pacific.

Nooo, the kids hiss.

He'd consider the Salk. It's warmer there. But Mako—

MAKO. Duh.

I don't know about you sometimes, brain, he thinks, pulling out his phone.

::Hey Mako:: he texts.

Two seconds later she's already writing back.

::Newt!:: she replies. Plus a heart emoticon.

Ugh. Is he really going to do this? He's never invited her to ringside seats to the Newt versus Pharmacology Match of the Century. Has she seen it? Yes. Has he invited her? No. Does he want to? No. Is he going to? YES. Why? Because it will make things easier for his stressed and long-suffering life partner.

::I realize you live across town now...but you want to come stay for a few days anyway?::

::YES YES YES...why::

::I'm sick:: he admits.

::Sick?::

::Yeah. Normal person sick [cough cough] but Hermann could probably use some surprise backup, because he seems to think I need 24/7 watching::

::You do::

::Maks, you're supposed to be on my side::

::I have switched allegiance. I'm on Hermann's side. Raleigh is the one who is on your side now::

::I knew this day would come::

::We all knew. I'll tell Hermann we're coming::

::Bringing Captain Sir Saves Everyone?"

::He loves that name; I call him that every day. I don't have to bring him though, if you don't want that::

Newt sighs. She gets it. She knows he doesn't want to be asking. Truth be told though? He'd actually love to spend a low IQ week with Becket and no one else. He just—doesn't think it would rile him up in the same way. He sincerely doubts Becket would care whether or not Newt can multiply three-digit numbers in his head. He actually doubts it would bother Becket much if Newt had trouble stringing words together into sensible statements. Becket would just...be chill and probably take the opportunity to beat Newt at Portal, which would be fine, because they'd both know that Newt wasn't on his A-game.

::Nah, def bring Becket::

::Really?:: Mako sends a skeptical emoticon.

::If you don't bring him, I'm going to be sad. You said he's on my side now:: Newt sends a crying emoji.

::Okaaaaay::

::Ha. Well, see you crazy kids soon I guess. Pretend I didn't tell you that Hermann needs company::

::You are all right? Are you going to have a seizure?::

::I'm good. I'm BEING good even. Case in point, I'm texting you about this. I'm turning over a new leaf because Hermann has this thing::

::What thing?::

::This thing where he feels bad about things he shouldn't feel bad about and romanticizes me too much or something. I don't know::

::Oh Newt::

::Don't you 'oh Newt' me Maks::

::Too late. Everyone in the world has that thing. I'll be there soon. Behave::

::I always behave::

Newt pockets his phone and curls his toes against Hermann's thigh. "Yes," Hermann says to Hypothetical Rain, for about the sixty-fourth time. "Thank you." Oh that's a new one. Maybe they're almost done. Hermann looks both worried and hopeful, cutting a tragic figure against the window. Newt smiles faintly at him. You're taking on too much, he thinks. You always take on too much.

## 2015 (Twenty-one – Chimes at Midnight)

When Newton emerges from the torqued metal hatch of Pentecost's Jaeger—behind Lightcap, who is already shouting instructions at the medical personnel as she helps the injured pilot onto a gurney—Hermann blinks.

Newton is carrying a little girl.

It seems so intensely improbable.

She is dressed in a blue coat, covered with dust, clutching a small red shoe, and crying inconsolably as the medical personnel try to pull her from Newton's grip. How in god's name did she get in there? Why does Newton have her in his arms?

Hermann has the impulse to help, but doesn't know what he could possibly do. Instead, he watches from the forefront of the gathered crowd.

"Hey," Newton says, shifting his grip on the girl so he can look directly at her. "Hey hey hey. Mako, come on kiddo; you've gotta go with these guys." The waiting medic holds her arms out. "She doesn't speak English," Newton explains to the med team. There's a streak of grease down the right side of his face, his ridiculous green and black hair glistens under the lights. He is breathing hard.

His stamina, thinks a generous part of Hermann's mind, is still impaired. Even now, as much a disappointment Dr. Geiszler is—Manila is never far from Hermann's thoughts.

"Kid, just let go of her," the nearest medic says, impatient.

"Myeah, trying," Newton snaps. He looks at the girl and switches his tone entirely. "They're very nice I'm sure," he says gently, even as he returns to eyeing the medical team with overt skepticism.

"She could be hurt," one of the medics says. "We need to get this show on the road."

"Mako," Newton says, and Hermann wonders how it is that he's already learned her name. "These guys are doctors. Medical ones even. Come on. He tries to break her grip, but she fights him, clinging to his neck, moving away from the medics who are reaching for her. When one of them starts bodily prying her away with true determination, she produces an earsplitting, high-pitched scream that echoes through the cavernous heart of the Shatterdome.

Silence follows.

Someone drops a wrench.

"Ooooookay," Newton says, as the ambient noise of hammered metal and venting pressure valves rasserts itself. Apparently the man is in the process of changing his mind about handing Mako over to the medics. He pulls her back, wraps his arms around her, and turns away from the medical personnel. As soon as he does that, the girl resumes a much more sedate level of weeping. "I get it," Newton says quietly. "Do I ever."

"Geiszler," the medic says warningly.



"Oh will you just," Newton replies, glaring over his shoulder. "Aren't you people supposed to be the sensitive ones?" He sits down, pointedly, on the gurney meant for the little girl. "This is not exactly rocket science. It's not even robotics." He looks directly at Hermann, as though he's been aware of his presence the entire time. They exchange an intimate, sympathetic, can-you-believe-these-idiots look, one that draws on their thousands of pages of shared correspondence. Newton's knowledge of what Hermann has suffered at the hands of the medical establishment is there, in that look. So is an implicit acknowledgement of the ordeal from which the man himself has only recently recovered. A mutual disdain for the general lack of common sense around the Shatterdome resonates between them.

"Newt," he hears the little Japanese girl say, quite distinctly.

"Yup," Newton says, looking down at her. "That's me."

Hermann feels a mental resistance give way, and—oh dear.

No, he thinks sternly to himself. No no no. Unacceptable. But it had been that look. That damned look that Newton had just now given him. He watches as the other man is wheeled out of the docking bay, still sitting pointedly on that gurney, still holding that little girl. He realizes, in a too-rapid slide, the scope of the problem that now faces him.

Hermann returns to his quarters, washes his hands and face, tries to snap out of it.

It doesn't work.

He can't stop the horrible realignment of his thoughts, he can't prevent the mental amalgamation of Dr. Geiszler from his letters and Newton in the flesh. Because they are the same.

They're not.

They are.

They're not.

Ohhhhhh, but they are.

Hermann dries his face, throws the towel in the direction of the sink, lies down, fully-clothed, on his bunk. He stares aggressively at his non-descript ceiling and tries to control his thoughts.

The man is not wise. He has no equanimity, he lacks taste, he is annoying, his voice is nothing like Hermann imagined. He is too loud, too informal, but—here the difficulty comes—because Hermann has no problem picturing his imagined Dr. Geiszler, calmly commanding JET Force, making high stakes decisions, facing his own mortality with casual aplomb—but Newton, the real Newton Geiszler, doing those things?

Insupportable.

INSUPPORTABLE.

But, now, somehow, after what he witnessed this afternoon—he can see it.

He knows he will see more of it.

Already, images and ideas begin to haunt him.

Manila. The man had described it—completely and circumspectly both. Hermann can see him in his mind's eye, staring up into a yellow sky, choking behind a respirator, feeling alien toxins coat his lungs. The real man is so young. So young. Twenty-five and running half of JET-Force? Twenty-five and designing the equipment that will function in the most toxic environment that humanity has yet faced? Twenty-five, and dying in Manila? Twenty-five, and working, feverishly, unto the hour of his death? Like Galois had, centuries ago.

There's a thought he doesn't need.

He is struck, unbidden, by a vision of Newton, sitting on a hospital bed in the Philippines, dressed in scrubs, feet bare, dictating into his phone, already breathing supplemental oxygen. His hair is unstyled, unkempt, and those green streaks look strangely natural now. There's a golden glow beyond the window—sunlight filtered by an atmosphere of dust and smoke and aerosolized kaiju. What had he said? Never did get around to the Rilke. But it always would have been something.

Hermann shuts his eyes against a surge of intense emotion. Pure acuity, unparsable.

More than Manila will haunt him. Newton's real hands are things beyond prediction, strong, dexterous, capable. His features are striking, his prosody full of verve. The way he speaks is driving. He is brilliant, Hermann realizes, in every sense of the word. His eyes are fantastically green. All of these things, all of them, had been impossible to foresee.

He's known he was in love with the idea of Dr. Geiszler since their first flurried rounds of correspondence. But his idle fantasies of Newton, entertained on the Shatterdome roof—they now seem foolish, childish things. He's in love with the real man. The real man, whom he knows, and knows intimately. Who, this very night, crawled into a damaged Jaeger and rescued a child.

He is, not to put too fine a point on it? Doomed.

Covering his face with his hands, he screws his eyes shut and tries to de-epiphanize himself. It doesn't work. Curse the arrow of time, anyway. Curse it to the frozen depths of thermodynamic hell.

## 2028 (Twenty-two – Like an Ill-Sheathed Knife)

Despite an entire conversation with David Starr not five hours ago, Hermann quite forgets that Mako is coming for the holidays until she calls him and reveals that she's standing outside their apartment door, wondering where they are.

Hermann drops his forehead into his free hand.

Hours ago, when Dr. McClure had outlined for Hermann her plan of attack, exuding consistent confidence, sketching synapses and neural circuits on recycled paper towels, Hermann had been struck by a peculiar sense of unreality. It hasn't left him in the subsequent hours.

How odd, he thinks, that any of us are alive at all.

"Hermann?" Mako repeats, not for the first time.

He tries to muster up the wherewithal to determine what to tell her. Should he advise her to go home? To join Mr. Becket, who is in the midst of a PR campaign on behalf of the PPDC? She just arrived. She spent eight hours on a plane. Mako loathes PR campaigns.

"Hermann," Mako whispers, when, still, he says nothing. "What's wrong? What's happened?" He can hear the anxiety in her voice. It snaps him free of his indecision.

"Newton has been hospitalized at UCSF," Hermann admits.

"Why?" The question comes in Japanese.

"As I'm sure you recall, he has a great talent for developing pneumonia," Hermann replies. "And with pneumonia, comes a fever, and with a fever—"

"He had a seizure," Mako finishes the sentence for him. "Okay. Got it. I'll help you. I rented a car, I'll drive there right now. See you soon." She hangs up, leaving no room for argument. Hermann hasn't even told her where to go—how to get here.

She'll find her way. She always does.

Hermann is deeply grateful.

Gratitude is not the only emotion he's experiencing. Anger, fear, guilt—they come in waves.

Anger at Newton Geiszler, stupidest intellectual prodigy since 1832 when Evariste Galois had gotten himself shot. The man has no common sense; he brings this on himself. He has always brought it on himself. Who does the things he does, honestly? But Hermann has Newton's memories now, and he can understand what happens to an eight-year old ceded to MIT by his parents, neither of whom care to raise him because they both have other families. Hermann has spent a decade studiously ignoring this insight and converting every Newton-centered feeling he has to anger. It would be easy to continue in such a pattern now. But. It's time to stop it, if he can.

The fear? Obvious.

The guilt—that one is hard to untangle. Why is it so hard? He spends hours examining his emotions, his memories, but half the time he can't keep them straight. Certain of Dr. Geiszler's experiences feel as salient as those belonging to Hermann Gottlieb. What's happening now is not his fault. He tries to hold to that, knows it's true—and yet. Could he not have done more? Years ago, months ago, days ago? Could he not have done more?

He had put the question to Mako at her last visit.

They'd been preparing something in the kitchen. Squash, he remembers, beneath a blade.

"It's not good to think this way," Mako tells him sternly, when he shares, tentatively, some of what he has been feeling. "Always there could be more. Always things could be different.

"I suppose you're right," Hermann says, no longer chopping, clutching the knife as if it's some kind of lifeline, staring out the kitchen windows and across the city.

"Do you not remember," Mako says in a small, quiet voice, "how Dr. Lightcap tried with him? How he fought her?"

"I suppose so," Hermann murmurs.

"Hermann—" Mako begins, then hesitates. "We are all, all of us—we've made no allowances for ourselves. The war made us strange. Extreme versions of the people we would have been without those pressures."

"True," he admits.

"You could not have done more," she says. "You could never have saved him from this."

"I—"

"No," Mako says sharply. "And you should not have saved him from this. He did what needed to be done. We all did."

Hermann says nothing, breathing raggedly.

"I don't like it either," Mako says, her voice high pitched, uneven. "The costs we paid were high."

"Yes," Hermann says, her losses at the forefront of his thoughts.

"You want to know what he told me about that?"

"Very much," Hermann replies.

"He told me that we made trades to become who we are," Mako says. "And he was right about that. We traded parts of ourselves for what we needed. I offered my love to fuel my anger. In the end, as I had always intended, I offered my life."

Hermann nods.

"I traded for power," Mako says. "Physical ability. Mental toughness. You traded for focus. For the ability to map the breach, say when it would open. We needed that. We needed you. Newt traded for insight. For knowledge that might end the war. We needed that too. And now, here we are," she whispers, slicing delicately through an onion. "Still alive."

Hermann looks from the brick of the phone in his hand, to Newton Geiszler, PhD to the sixth degree.

He feels uneasy. Like Newton is already accusing him of orchestrating what's certainly coming.

"I couldn't send her away," he says, defensively. He slips the phone in his pocket. "I'm sorry. I know. You aren't going to like this," he murmurs, not without sympathy.

Mako arrives in the early evening, her hair concealed beneath a scarf, large sunglasses in place, dressed in a black raincoat, no makeup. She opens her arms to Hermann as soon as she's through the door and wraps him in a bone-crushing hug before he's fully registered her arrival. She lets him go, shuts the door, and pulls off her scarf and sunglasses.

She looks anxiously at Newton, her face guarded, her eyes wide, taking in all of the medical paraphernalia to which Hermann has become accustomed. She bends down and kisses the man gently on the cheek, and then adjusts his hair into a semblance of its natural style. "It's always this bad?" she asks, still looking down at him.

Hermann sighs. "More or less. This time, he seems to be more systemically ill; the seizure was a long one. He hasn't gone a winter since 2025 without this happening at least once."

"Poor Newt," Mako whispers, then looks up at Hermann. "And poor you," she says, eyes glittering. "This is so awful for you. You always hated this." She looks away, wipes her eyes. "I remember how you hated it. And, now, every year?" She shakes her head.

"He tells me it's a small price to pay," Hermann says.

"He's stupid," Mako snaps.

That startles a smile out of Hermann.

"We did so much—we should be able to live clear of it," Mako says. "Not all the way, but more clear than this."

"I don't think that's possible," Hermann replies.

"Hermann," Mako says, explosively indignant. "It's only been three years. We are, all of us, young enough to start again. Newt needs to learn certain ways to not be stupid. You need to learn how to have hope, Raleigh needs to learn how to think about the future, and I—" here she pauses, looks straight at him, and says, "I'm perfect. I need to learn nothing."

This time, he laughs, feels his mood lifting. "True," he admits. "Your optimism has, already, been so helpful—" his voice cracks.

"You should invite me when this happens," she says, keeping her voice light. "I can help. I can run errands, do your dishes—"

Hermann gives her a skeptical look.

"What? Just because I am a worldwide sensation and international fashion icon it doesn't mean I have lost my ability to do practical things." She shrugs coyly.

"You have much better uses for your time, I'm sure," he says.

Her face falls, and he wants to unsay those words immediately. "I apologize. That—didn't come out the way I meant it."

"I know," Mako says. "It's all right." She fishes around in her shoulder bag and pulls out her laptop. She sets it up next to Newton. "But I don't," she murmurs. "I don't have better things than this." And, with that, she starts playing the first episode of Blue Planet, apparently stored on her hard drive. "These have always been the best things," she says quietly.

Hermann cocks his head, raises both eyebrows, smiles at her faintly.

"Don't give me that face. Traditions are important," Mako says, dragging a chair next to his. "Now. Let's make a list." She pulls out her phone. "Shopping," she says, typing it in, "because Christmas is less than a week—this will be bad. I'll do it. I already made a plan anyway, can I cook on the twenty-fifth? Do you mind?"

"Er," Hermann says, "no, but—"

"Okay great," Mako continues. "I'll buy groceries today. What else should I do?"

"Nothing," Hermann says.

The look with which Mako favors him suggests a deep disappointment in his mental faculties. "Okay, how about dinner? We'll eat here, yes? Maybe sandwiches? I can go shopping and drop it off at your place and then get dinner and come back if you don't mind eating late. What time is it?" she checks her watch. "Maybe dinner first," she says. "Then shopping. That's better. There won't be so many people. Do you stay here overnight when he's here?"

"Yes," Hermann says. "I generally—I don't leave the hospital at all."

Mako looks at him, startled. "Not at all? But—why? You must be exhausted."

"Irrational as it may be," Hermann says, "I cannot shake the worry that he'll be dragged off to a lab somewhere in the middle of the night."

Mako considers him steadily. She does not dismiss his fear. "Well, this time," she says, "I can help you."

Hermann nods. He is about to thank her when he hears a tentative knock on the closed door behind them. He turns, expecting a nurse to come through the door, but that doesn't happen. He and Mako frown at one another. Mako stands to open the door, but Hermann grabs her wrist, shakes his head. "Unless you want to be signing autographs for the next half hour," he says dryly.

"Oh," Mako whispers. "Right."

Hermann opens the door to reveal Jacob and Charu standing anxiously in the hallway. He feels a wave of relief so profound it is almost physically sickening. One day he will stop worrying about the PPDC. When? Five years out? Ten? Twenty?

"We brought you dinner," Jacob whispers, holding up a bag. Charu carries one as well. "We weren't sure what you liked, so, well, there's a lot of options."

Hermann makes no move to relieve them of their culinary burdens. Ridiculous, he thinks, looking fondly at both of them. They seem younger, by far, than Mako, even though, chronologically, they are her peers.

"Sorry to intrude," Charu says quietly, shifting the bag to one hand, pushing her glasses up her face. "We just wanted to drop this off—we didn't want to disturb you or anything."

He hesitates for a moment, then makes a decision. "I hope you brought enough for four," he says.

"He's awake?" Jacob asks in surprise.

"No," Hermann says, before they can get too hopeful. Then he swings the door open and ushers them through. Mako turns, watching them, but, incredibly, they don't pay much attention to her, focused, as they are on Newton. Mako stands, edges back, sweeps her hair up and secures it with an elastic, concealing those dyed tips that are her trademark. She closes the laptop playing Blue Planet and moves the table so that Jacob and Charu have a place to set the bags.

"Table," she says, as she does it, and smiles. "Hello."

"Hi," Charu says, then takes Jacob's bag from him, as he studies the monitors. "Jake, what are you trying to tell from that? You can't tell anything from an EEG other than he's not having a seizure, which you can clearly see."

"Charu, will you just," Jacob says, rolling his eyes.

Mako looks at Hermann with expression of pure joy and silently mouths the word: "Students!"

Hermann nods.

"So cute," she says, exaggeratedly, without sound.

Newton, Hermann is sure, would find this entire situation hilarious, and he will be heartbroken to have missed it.

Having had enough of this EEG business, Charu turns to Mako, Jake not far behind her. "I'm Charu," she says. "This is Jake."

"Hi," Mako says. "I'm Mako."

"How do you know Newt?" Charu asks, oblivious.

"Oh my god," Jacob says, less oblivious.

Mako smiles, brilliant and delighted.

Hermann has forgotten how powerful Mako's smile can be; he's seen it so infrequently over the past half-decade. Perhaps it's always been this way, perhaps it only strikes him now because he is taking the time to learn her thoughts, her moods, her manners. If he is honest with himself, Newton's offhand supposition that, in another place and time, Mako might have been paired with Hermann as a Jaeger pilot has sharpened all his thoughts of her.

"Newt is my half-brother," Mako informs Charu, so sincerely Hermann wonders if she, herself, believes it.

"Oh, really?" Charu asks, surprised.

"Yes," Mako replies. "You brought dinner? That's so kind of you both."

"It was no problem," Charu replies, beginning to pull sandwiches out of a paper bag.

"Charu—" Jacob begins, but Mako cuts him off, enjoying herself way too much.

"Jake, right?" Mako says. "Newt has told me about you. He called you 'very sharp'." Jacob blushes furiously at this, but Mako continues without mercy. "You're the one with the Nature paper, right?"

"Well, it isn't accepted yet—" he trails off.

Mako shrugs. "It will be. Nature, Science, Cell. He says one of them will take it." She looks pointedly at Newton. "It doesn't matter which one really, right? They're all just as good."

"I guess not," Jacob replies. "We'll see I guess."

"I think it's going to be Nature," Charu says.

Jacob shrugs, "Well, we should let you two catch up; we'll just be going—"

"No no no!" Mako says, heading for the door. "You have to stay. I'm going to get more chairs."

"Should we go?" Jacob says, turning to Hermann as soon as Mako is out of the room. "We should go, I think."

"Jake, why are you being so weird?" Charu asks.

"Why am I being weird, Charu? Me? Why are YOU being weird? You realize that's Mako Mori, right? Jaeger pilot?"

Charu stares at him. "Oh." And then, very unconvincingly, "I knew that."

"I believe," Hermann says quietly, "that it would make Mako quite happy if you stayed. I'm sure she would like nothing more than to hear some stories of the current exploits of the Geiszler lab." Newton, he thinks, would likely approve, given that the alternative involves himself and Mako trying to avoid thinking of the war while staring at Newton on a ventilator, unconscious.



"You're sure you're not just being polite," Jacob says.

"Quite sure," Hermann replies.

After returning with the chairs, Mako begins drawing them out with questions, asking for descriptions of what they do, how the lab has changed, how many grants does Newton have now and how many students? Does he get in fights? Does he teach classes, has he flipped any tables yet?

"Newt?" Charu asks, scandalized. "Fights? A table? But he's—so nice."

"Nice?" Mako echoes, grinning, looking at Hermann. "Nice? He's nice?"

"He actually—Newt flipped a table?" Jacob asks, he's also smiling, but there's an unsettled note to his voice.

"Twice, in fact," Hermann says, managing to dry out his delivery respectably. And both times, he thinks, looking at Newton, you were profoundly unhappy.

Mako eyes Hermann sharply. It's strange to feel so understood by someone other than Newton Geiszler, and when she speaks again, her voice is quieter. "I want to hear about this 'nice'," she says to Charu.

"Oh," Charu says authoritatively, "ALL the graduate students love him. People go to him when they're having trouble with their projects and he always has an idea or two to try. He's also really good at pep talks." Mako nods sagely as Charu continues. "He doesn't yell at people. He remembers small things. He's the best scientist in the department but he doesn't act like he knows that."

"Ah," Mako says, turning to Hermann, "you know, I had forgotten how much his own staff loved him. He was always making trouble for the Marshal, I heard about that all the time, but his people—"

"Yes," Hermann says, his voice rough.

"Does he still sing in the lab when he thinks he's alone?" Mako asks, slyly; as skillful a subject change as Hermann has ever seen.

"What??" Jacob demands, in mock outrage.

"No," Charu gasps. "How can we make that happen?"

Hermann looks away, taking a moment to master himself as Mako describes Newton's extremely memorable rendition of "Baba O'Riley."

He doesn't know why this year has been, at times, so excruciatingly difficult to take. It has something to do, he suspects, with the adjustment to civilian life that he is, at last, beginning to make. In that adjustment, in claiming his present for his own—there is a certain reckoning that must occur between what is, what was, and what might have been.

The reality of death and destruction is fading. How terribly nice that should seem.

But instead, he can perceive, ever more clearly, the life they should have had if the breach had never opened. They would have found one another, Newton would have emailed him out of a blue sky, and they'd have spent a life in academics. This life, or something very like it, but without Kaiju Blue and without drifting, without the PPDC. Without the Coastal Wall.

## 2027 (Twenty-three – The Garland of the War)

Spring has officially arrived. The Northern Hemisphere is on the summer side of the Vernal Equinox. Little flowers are bursting intrepidly out of the ground. Trees are getting ready to leaf themselves out.

And Newt? Probably in the clear, from an upper-respiratory standpoint. He still has the stupid cough from his last viral takedown, but it's fading. Charu has joined his lab. Sam Gordon likes his R01! Borderline sexually. The R01 is submitted! On time, even! Things are looking up.

If Newt can wrest a good nine months out of every twelve on a reliable basis? He can totally live with that.

On this delightfully average partly-cloudy morning, Newt is leaning against Amy's lab bench, newest rotator, off sync from the usual crowd. He's trying to understand her program structure—how the MD thing fits around the PhD—and, like, why anyone would do both? Ew. Probably she should just do science. He won't tell her that yet though. He'll wait until she joins. She's going to, he's pretty sure, because Jake is exerting maximum charm. And as Jake goes, so goes the Geiszler lab. Every time Newt talks to him about it, Jake is all up in arms about how great she is.

Hmm. Yeah. Really up in arms. Suspiciously up in arms.

Newt gets it; she's got a tack-like sharpness, steadily applied. It doesn't hurt that she's pretty in that Lightcap way. Tall, blonde, clear eyes, perfect teeth. Newt had thought it might bother him, but it doesn't. She's totally different. There is nothing of the late, great Cait-Science in the way she carries herself. All to the good.

As they talk, Newt rips a piece of aluminum foil from the roll at her bench, makes a strategic tear, then wraps it neatly around a light-sensitive buffer. Not too much foil, not too little, the exact perfect amount for a tape-less wrap. He's still got it.

"That should be covered?" Amy asks, breaking her previous train of thought.

"Myeah," Newt says.

"Ugh, sorry, I didn't realize." She looks like she's contemplating a dramatic self-flagellation-fest she might pencil into her calendar for later this evening. "I'll remake it."

Newt shrugs. "Meh. Not strictly necessary but probably a not a bad idea depending on how long it's been exposed to ambient light. Don't worry about it. Are you worried? You look worried."

"I have an anxiety disorder," Amy tells him, half a joke, the other half definitely not a joke.

Newt grins. "Join the club."

Totally normal day!

Then it gets weird.

"Anyway," Newt says, his brain agreeing, finally, to sort through what's been coming out of her mouth, "two years medical school, you've done one year so far, you rotate in the

summer between years one and two but for only six weeks. Right now it's not summer, but you want to start early to make the most out of your rotation, which is going to be the first of a definite two, and then you can opt for a third if—" he stops.

He stops because Amy is clearly looking at someone standing behind him.

Newt turns, cocks his head, and takes in the newcomer. Tall, older, maybe early seventies? Wearing a well-cut suit. Hardcore cheekbones. Is that why Newt's brain is trying to make the guy into Hermann? He's not Hermann though. Obviously. Why is his brain doing that?

Ohhhhh, Newt realizes in slow motion. Hermann's father. Abruptly, he, too, finds himself considering dramatic self-flagellation as a post-work pre-dinner activity. Geiszler Lab, he thinks. For the Anxiety Disordered. Newt has put a moratorium on lab T-shirts until at least 2029. Or three R01s. Whichever comes first.

In the future? Can we be faster with these things, please? He requests this of his brain.

His brain, mostly stalled out with its nervous grinding and finding, offers Lars Gottlieb a hello in hybrid German-English. Definitely not a real word. Also stupid, because Newt has met Lars Gottlieb. Has, in fact, stayed at his picturesque Bavarian Manor House. They've exchanged about seventy words total, but enough for Newt to know the man SPEAKS ENGLISH.

A bay away and visible through shelves only partially obscured by bottles, Jake snaps his laptop shut, stands, and starts walking toward them. This is probably because Newt seems taken aback and is fusing languages. A Jake Intervention is the last thing Newt needs right now, but he's getting one, for sure.

"I'm sorry to disturb you, Dr. Geiszler," Lars Gottlieb says. "But I wonder if I might take you to lunch."

That request is about six sigmas from the mean. Where's Hermann in all of this? Uninvolved, apparently. Lars Gottlieb wants to take him, Newton Geiszler, to lunch?

Good God, why? Newt's brain asks, in eminently Gottliebian style.

"No," Jake says, rounding the end of the bench, entering Amy's bay.

Lars Gottlieb looks at Jake, puzzled.

"Jake?" Amy says, clearly alarmed, coming to stand right next to Newt.

What?

Jake is standing between Newt and Hermann's father, Amy looks like she's steeling herself to take a bullet, and Charu—half the lab away, standing near the door to the hall, is watching them and—calling someone. Who? Ping comes to stand in front of Charu, shielding her from view, Daniel stops loading the plate reader for no reason Newt can see, and walks toward the hall—

They're frightened, Newt realizes. And also—coordinated. They have a plan of some kind.

Uh oh.

Newt has less than three seconds before this escalates out of his control and his lab somehow gets Lars Gottlieb detained by UC Berkeley Campus Security, at a minimum, because they think he's a nefarious authority figure bent on abducting their PI.

"Charu." Newt digs down and comes up with his most powerful tone, the one that stops enterprising junior scientists in their tracks right before they scalpel their way into a lethal part of a xenobiological sample.

Everyone freezes. Especially Charu.

"Come here," Newt says, still in full-on Science Commander Mode. "Do not hang up your phone."

She comes, phone in hand, clearly terrified, probably because Newt has never spoken to her in that tone before. Ideally, he'll never do so again. Ping flanks Charu. Jake looks pissed and anxious. Amy looks—huh. Amy has a surprisingly good poker face. Lars Gottlieb mostly looks confused about what's happening, which is probably the best Newt can really hope for right now,

Newt holds out his hand because in for a penny, in for imperious-dick mode.

"Sam Gordon," Charu whispers, handing over her phone.

"Sam," Newt says.

"Newt! What the hell is going on? Are you okay?"

"I'm fine." Newt announces, pointedly. "My lab seems to think I'm in danger of getting abducted by the Pan Pacific Defense Corps. They need to calm down. My father in law is trying to take me to lunch. Why is Charu calling you?"

Newt's pronouncement has an immediate effect on everyone. Lars Gottlieb rolls his eyes in a gesture creepily reminiscent of Hermann as Jake and Charu immediately start apologizing—Jake to Hermann's father, Charu to Newt. Ping turns right around and darts after Daniel, presumably to abort whatever he's up to. Amy exhales a shuddery breath and steps away from him, to lean against her own lab bench.

"Er," Sam Gordon says. "It's complicated. You're sure 'lunch' is really lunch?"

"Yes," Newt says.

"Okay, well, great! Have fun," Sam Gordon says, full of enthusiasm, then ends the call.

"He hung up on me," Newt says, staring incredulously at Charu's phone. "He hung up on me?"

"Sorry," Charu whispers, taking her phone back. "Sorry, Newt."

"Okay," Newt says, voice projecting. "Um, we need to have a lab meeting about whatever it was that just happened here," He realizes he's gesticulating a little too wildly. Dials it back. "Later. Three o'clock. After lunch. Spread the word. Everyone needs to be there. Everyone." He turns to Hermann's father. "I am so sorry," he tells Lars. "Let's go. Should we go?"

"Perhaps your young protégé here would like to accompany us?" Lars suggests, looking at Jake.

"Er, no, I need to finish my plasmid prep and then find a hole to die in," Jake informs them both.

Newt shakes his head at Jake, but claps him on the shoulder on their way out.

They swing by Newt's office, he grabs his coat, and they set out toward a small café that's a fifteen-minute walk from the neurosciences building.

Newt is rattled. He just is. Both because of his lab's behavior and because of Lars Gottlieb's very surprise lunch visit. He tries to shelve that for now and do a semi-reasonable impression of a tour guide. It works mostly, but his brain is churning away on some of its favorite themes.

Is it possible he's going to get some kind of a stay-away-from-my-least-favorite-child talk?

That would suck deeply and also be a little late in coming.

Is this actually some kind of we-need-your-brain-again soft sell?

Not impossible.

The combination of recent lab mutiny, cold air, anxiety, walking, and Newt's most recent run in with pneumonia are starting to become noticeable. He's getting worse at talking and walking. Hermann's father seems disinclined to fill Newt's irregular silences. But then—

"Let's stop for a bit, shall we?" Lars says, taking a seat on a nearby bench, not offering Newt a choice about it. #yay.

They sit under skeletonized trees. Newt pulls his jacket around himself tightly, then slips his inhaler out of his pocket, shakes it up, and albuterols himself. Subtly. Twice. It helps. Good thing he'd grabbed his coat.

"I understand that you've had multiple run-ins with Kaiju Blue," Lars says, casual-small-talk style. Newt would like to pretend he's a normal academic for days at a time before someone reminds him how weird his life has been. He's getting there.

"Well. Really just." Okay, fine, shorter sentences. "The one time." He saves up some air. "The second time doesn't count, because it was a." Damn it. He shrugs, which saves it kinda. "Reactivation in the presence of a—" Newt makes a what's-the-word gesture that probably does not fool Dr. Gottlieb Senior, "small molecule catalyst."

"Ah." Lars seems unimpressed with this distinction. "Seems a bit like splitting hairs, don't you think?"

Newt can't get over it. He can't. They're so similar. He smiles, shrugs, and then makes some real progress paying down the oxygen debt he's been accruing.

More awkward silence.

"Your lab seems particularly devoted to you," Lars observes dryly.

"They're out. Of control," Newt agrees. "They're getting a lecture."

"Perhaps they simply need some education regarding acceptable persons in suits," Lars suggests.

"That too. They'd have been a lot friendlier. Had they known. You were the one who got me out of Hong Kong."

"That," Lars says quietly, "was my son."

"True," Newt replies, his tone going cool. Feeling abruptly defensive. Of course it was your son, he thinks, an unmistakably Gottliebian cast to his thoughts.

But. But but but, Newt does not equal Hermann. Newt is not going to get stressed. Newt is not going to borrow even ONE of Hermann's multiple father-hates-me pathways. This? Is not Newt's father. Newt's father is a guy he's met about three times and probably couldn't easily pick out of a lineup. "I was given to understand," Newt says, taking an extra-long air break, "you had something to do with allowing the process to go to completion."

"Perhaps I did," Lars replies, like he's unlacing himself on purpose. Probably, he's trying not to pick a fight. Smart. "I've followed your career for quite some time, you know. Since you two began corresponding." He pauses, looking across the campus, taking in the academic vista. "I was curious about you. The advice you were giving him. Your motives."

Ummm. Newt's motives?

The guy must see something alarming on Newt's face because he holds up a hand, shakes his head, and smiles. Huh. Less like Hermann. "I was somewhat amused to find that you were younger than he was. That changed things. Don't misunderstand me, Dr. Geiszler, I've been an admirer of yours for many years. I was the one who arranged your extraction from Manila, and pointed out your existence to Caitlin Lightcap."

"Oh, er," Newt says, reshuffling multiple decks of cards in his head. "Well, thank you. Again."

"You are quite welcome."

"Speaking of your son," Newt says, doing better with his prosody all the time, "is there a reason you didn't drop in on him for a surprise lunch?"

"Yes," Lars says, wrapping his coat around himself, getting to his feet. "Though I prefer to discuss this over a meal, and indoors. It cannot be good for you to sit out in this wind. I am certain it will not help relations between Hermann and myself should any ill effects ensue."

"You two are creepily similar," Newt says, accepting Lars's hand. He is pulled energetically to his feet.

"That, I'm sure, is the source of most of our difficulties," Lars agrees.

Fifteen minutes later, they're looking at one another over food, but, more importantly, coffee. Newt feels about sixty-four percent better. After he downs half his coffee, his

airways calm down and open up, remembering what they're for, letting him breathe like a normal person. Then he goes for the soup. Chicken and rice for Newt, because it seems vaguely virtuous, but not unambiguously virtuous, like salad would be. Lars opts for a half a sandwich and a beef stew thing that looks pretty good.

"Just, please tell me you're not here to warn me about some international conspiracy," Newt says, breaking the conceptual ice once it seems like it's time.

Lars shakes his head, chewing, then says, "I would like to achieve some kind of rapprochement with my son. You seemed like the person best positioned to give advice."

Whoa. This is a little surprising. Also—is Newt really the best? That seems unlikely. What about Karla? What about Hermann's mother?

Well, there's the drifting angle to consider.

Okay, fine. Newt, arguably, is the best person on the planet to comment on the complexities of Gottlieb family relations—but he's ill prepared. He hasn't spent a lot of time detangling Hermann's feelings for his father. Why? It's weirdly invasive, that's why. Nor did he ever envision being put in this position by Dr. Gottlieb Senior.

Now? Ugh. He does want this for Hermann though. Badly.

"You seem reluctant," Lars observes.

"No," Newt says, drawing out the word into something that sounds, yeah, unambiguously reluctant. "I think it would be great if you guys—you two—if things were better. I just don't see why you would need my help."

"Despite multiple attempts at reconciliation," Lars says, "I have made no significant progress in the past seven years."

"Multiple attempts?" Newt echoes, frowning, scanning back. Seven years? That would be 2020, and in 2020—he clicks over, very briefly, into one of Hermann's memories—Geneva, holy shit, they'd had dinner together. Silverware, sparkling wine, the Coastal Wall, extreme distress, a job offer, Newton—Newt wrestles the memory down before it sucks him in. But it's enough. He has the gist of that first time.

"Yes," Lars says. "Every encounter proceeds in the same manner. I made no attempt at real conversation during your visit last year because I had no expectation of a different outcome. I interacted with you very little because I didn't think he would like it if I became too friendly with you. I am not planning to tell him about this conversation."

Whoa. Lots to unpack. Newt feels exhausted at the prospect, but that's a Gottliebian sentiment right there. Careful careful careful. Weirdly, relationships become confusing with EPIC Rapport. Mako had said something to this effect as well, so maybe it's just drifting in general. This explains Raleigh's improbable affection for Newt, amongst other things.

Newt looks at Lars Gottlieb and thinks, very clearly, to himself, Not my dad. Guy I am trying to help.

He feels less exhausted. Okay. The question is why is Dr. Gottlieb Sr. getting nowhere with Dr. Gottlieb Jr. when he tries to do some metaphorical gap bridging?



"How have you approached the conversation in the past?" Newt asks.

"I have tried laying out, as I see it, the grounds of our disagreements so that we might discuss them rationally."

Newt winces.

"Indeed," Lars says, dryly. "After several failures, I tried apologizing directly. This has, arguably, been even less successful."

Ugh. Hermann, Newt thinks, his heart hurting a little more than a little bit.

Newt debates how much to share. All of it? None of it? Just the pieces he can use? The drift? Not the drift. Not ever the drift. The drift does not pass Newt's lips. Not now, not ever. That's Hermann's story to tell. But other than that—

"It's the war," Newt tells him. "What happened during. What happened at the end. And when he thinks about it—he doesn't think about himself. That's the part that really clinches it. He thinks of the Coastal Wall as doing our colleagues, but also me personally, significant harm. So when you bring it up, which I'm sure you do, or when you bring up anything related to the war, you—this is kind of awkward. You're indirectly talking to him about me."

Hermann is very sensitive about Newt. Very. It makes being Newt somewhat awkward at times.

Lars shakes his head, not getting it. "This has nothing to do with you. I've never even mentioned your name. I simply wish to move on. To put the war and the Coastal Wall behind us."

Don't we all.

"I think you can put it behind you. I hope. But I don't think you're going to be able to apologize. Probably—" and here Newt cheats again a little, looking back this time to 2023, 2026. "Probably when you've laid things out logically that's pissed him off disproportionately—"

"Yes."

"And the reason for the disproportionate response," Newt continues, "is that he feels like he can see outcomes more optimal than the one we got, and—"

Whoa. Hello. Newt has to reorganize himself, or he's going to cry about Hermann over lunch. Not okay. He saves that for DINNER. Where is this coming from? Can't you just, he thinks at Hermann, let go of these retrospective analyses that are torturing you? Can't you just take our win as a win?

"It really upsets him," Newt finishes. Stick that landing, Geiszler. He does.

Lars looks like he finds this information as ridiculously tragic as Newt does. They sit there, eating, taking a little break from talking. Not that Newt needs that or anything. It just happens naturally.

Finally, Lars gets them going again. "I understand why speaking of such things would upset him, but—I had hoped, eventually, he might again be able to separate his idea of me as his father from me as one of the architects of the Coastal Wall."

"I think he can already do that," Newt says. "But ah, you're not hearing me."

Lars Gottlieb raises his eyebrows, sips his tea.

"He shuts me out as well. For different reasons and on different topics. He tells me I won't understand. Me! That I won't understand! I was there the whole time! It drives me crazy. Absolutely insane. He blames himself for things that are NOT his fault—" and, damn it, Newt's losing his grip on himself. Again. He stops. "Sorry," he says.

"Take your time," Lars tells him.

Newt should be able to do this. He's sure he can. He's not borderline crying about the war. He's borderline crying because he loves Hermann so fucking much, and a) there's some kind of problem that's eating away at the guy that he's shutting Newt out of, and b) Newt's worried he's not going to be successful in getting Lars Gottlieb to understand that.

He drinks some soup, calms himself down.

"He's tangled up the war, the whole war, with everything that happened to me. So what I'm telling you is that when you're laying all of this out for him, trying to apologize, at least fifty percent of why he reacts the way he does, at least, is because you're pulling me into it. Even if you never say my name."

"Hmm," Lars says, with that Gottliebian glimmer in his eye that comes with the generation of a novel idea. "When I knew that business would bring me to California I had thought to try again with him. But—your comments—"

"Ugh," Newt says. "No. No. Don't give up on trying. Please try."

Lars shakes his head. "You mistake me. If you're correct, which I very much suspect you are, perhaps I should engage with him about you directly. Counterintuitive though it might appear, you are the single theatre in which he and I have worked with any kind of accord over the past seven years."

"Maybe," Newt says, going from way negative to mildly positive as he thinks through the suggestion. "Maybe. When he needed help, he did go to you, and you did come through. And he might—there are things he categorically refuses to talk to me about. You know what happened to me, there aren't many people who do. Even I—my memory of that time is next to nothing. I have no idea what he went through, and he won't talk about it."

"And you think he might talk to me? About those things?"

"Maybe," Newt says. "He'll talk to me about the Coastal Wall."

"Hmm," Lars says, giving Newt a speculative look, as though he's a particularly unruly equation.

"Drop in on him at his office," Newt advises. "Invite yourself over for dinner. Afterwards, if everything goes well, I'll make myself scarce and you guys can give it another go."

As soon as he makes the suggestion, he feels mildly guilty. The mild guilt turns pretty quickly into moderate guilt. Hermann would NOT like the idea of Newt conspiring with his father.

Not at all.

That's too bad.

Newt doesn't like the idea of Hermann letting the past ruin the present. No more kaiju? No more Coastal Wall? No reason why the guy can't go home and talk Bavarian Waldglas with his dad.

Lars Gottlieb insists on walking Newt all the way back to his building before going to find Hermann. Newt has a nearly intractable coughing fit about halfway there. There is a very particular Gottliebian expression that Hermann's entire family is capable of producing with the exception of his mother, but Newt gets the prototype directed straight at him. Fixedly, and with maximum intensity. Yikes. Fortunately, Newt is, by now, nearly immune to its effects. He shrugs it off, no problem, both the look and the coughing, then banishes Gottlieb Sr. to the Math Building. Newt has pressing matters that need his attention.

Namely? Confronting the young people.

They're in trouble.

Newt realizes that he hasn't yet made a concerted effort to scare them. They fear him zero. That's terrible.

Isn't it?

Hmmm.

Their lack of fear seems like an unforgivable oversight until, again, he reminds himself that they're not cutting into toxic xenobiological samples on a daily basis. Nor will they ever be. He should probably think this through a little further. It's time to take a cold, hard look at the history, status, and prospects of Dr. Newton Geiszler, PhD.

When he gets back to his office, he shuts the door, locks it, and starts pacing. Good for stamina. Eventually.

Okay. Pre-2015 Newt? Child prodigy successfully transitioned to scientific superstar.

2015-2025 Newt? Excessively badass Deputy Director of JET Force, Excruciatingly badass director of K-Science for the PPDC.

2025-2026 Newt? Not exactly a banner year.

2027 Newt? Trending toward a traditional science track. Like, Jake, for example, when he's 37, will probably be a relatively new PI. Double post-docs are becoming the norm. To Sam Gordon, Newt looks "average," in terms of where he is in his career trajectory relative to his age. Ugh. Sam Gordon is not a big picture thinker. If he were, he'd have given Newt tenure.

Dr. Newton Geiszler of the academic apex and consciousness that's triplex hits a pen against his hand and looks out his window. What does he need his lab, as a collective, to do for him, and what does he personally do for his lab? It's not a typical setup.

Jake is the most extreme example. Jake has a thing for Newt. Not romantically, but intellectually. Newt gets it. A lot of people have an intellectual thing for him. Lightcap. Anderson. Pretty much every professor he ever worked for. His Department Chair at MIT. Sam Gordon, probably. Jake had shown up in Newt's empty, unpacked lab and found Newt sitting on the floor bleeding into one of Hermann's handkerchiefs. Newt had told him he was taking no rotators, but Jake had just—put his bag on the floor and started slicing open boxes. Jake has done way more for Newt than a graduate student should do for his PI. Jake sets the tone. Jake keeps the new ones in line. Jake keeps the lab, at large, from asking Newt about the war.

Did he ask for that? No. Does he benefit from it? Deeply.

Don't yell at Jake, his brain says.

But Newt wants to, that's his instinct, to rake Jake over the coals so hard he never forgets it.

And why would THAT be?

With the asking of the question, he has its answer. His throat closes, he drops into his chair, and he sits there, trying to decide if he can do what he needs to do. The answer's a solid: maybe. He pulls his glasses off and shuts his eyes.

What a bizarre day. It's not even half over.

Newt's own problems with the end of the war are less sad than Hermann's. More predictable. Hermann can barely engage at all. Newt can, and has. With Hermann, with Mako, with himself. But if he's going to try to talk to his lab—even a little bit, that's different. He shouldn't pretend it will be easy. He'll have a hard time with it, and then he'll have to go home and he'll have to help the Gottliebs not rip one another's throats out. Can he do it?

Again, a solid maybe.

He's made his peace with all of this, everything that's happened. He has, yes, but it would be stupid to go too far, to try too much. But—the goal he has is self-limited. That works in his favor. He's not planning to bare his soul. He's delivering a short, clear message. He can control the room. There's no danger they'll turn aggressive, too inquisitive, hostile. He can keep his comments to less than five minutes. And then he'll leave. He'll walk to Hermann's office. Show up early, hang out there for the rest of the day. Maybe he'll find Lars there, but he doubts it—the chances Hermann would interrupt his workday for his father in more than a nominal way are effectively zero.

Fine.

Newt shows up in the conference room, ten past three, prepared. Albuterol'd. Tea in hand. Coat and bag in tow. Cough drops in his pocket. They're all waiting, sitting in tense silence.

Maybe they're a little afraid of him.

Jake's jaw is set, Amy's extremely impressive poker face is out in full force. Daniel sits with hunched shoulders, Ping stares at the floor. Charu, in particular, looks acutely unhappy.

Newt will need to be extra nice to her. Tomorrow.

No small talk. Newt shuts the door and sits, head of the table. Jake's at the other end. Their usual configuration. He crosses his arms, looks at Jake, raises an eyebrow, and says, "Explain." That's all. He does not smile, he softens nothing. He'd like to, but he can't. He's too anxious about what's coming. Even now, he's not sure he'll be able to do it.

"I'm really sorry, Newt," Jake offers.

"I said," Newt replies, riding neutral, "explain."

Jake swallows, looks down, clearly uncomfortable. "What happened, it came from me and, um, the chair. Dr. Gordon. When I affiliated, Dr. Gordon told me that—it was unlikely. But if anyone from the PPDC, or, in any kind of uniform really, were to come, to talk to you, or—try to take you with them, that he wanted to be informed. ASAP. And I—well, when people have come, and joined, when Daniel joined, and Charu, I told them too. Informally we discussed it and there was something of, a little bit of, a kind of protocol kind of put in place."

Newt almost smiles, but doesn't.

"And we thought—"

"I know what you thought," Newt says.

"It's not Jake's fault," Charu says, the words bursting out of her like she can't stop them.

Newt shakes his head. He crosses his arms. "Do you guys understand why I'm upset?"

There is a deafening silence.

"I can sit here all day," Newt says.

"Because," Jake says reluctantly, "we, um, overstepped. Interfered in your personal life."

"No," Newt says. You interfere in my personal life all the time.

"Campus security could have detained Dr. Gottlieb's father," Ping offers.

"That would have been awkward at dinner tonight," Newt agrees, "but no, Ping, that's not why."

Again, more silence. Newt starts gearing up. He takes a sip of tea, recrosses his arms, rests them on the table. God, this is hard. He already feels like he's in danger of weeping. Why is it so hard? He thinks of all they don't know—an almost unbridgeable gap. He thinks of Lightcap and mistake mistake mistake MISTAKE.

The mood of the room shifts. They understand abruptly that he's not angry. He's upset, and that's much much worse. For them, it is. If he cries, they're gonna cry, at least one

of them, and then it'll be all over. Newt is on the verge of standing up. Walking out. He almost does it. He shifts his weight, flexes a foot—but.

This isn't about him.

It's about them, he tells himself. Them, them, THEM. Not you. Not Lightcap.

Lightcap, though, why is he thinking of her now? Because. Because—she would struggle through this kind of thing, this exact thing, in this exact way. It had been hard for her too, to talk about—

What is he doing to himself?

He brings a hand up, shields his eyes, looks down.

Okay, this is not going well.

You're their me, baby, Lightcap whispers. She'd said that to him after he'd lost a tech to unexpectedly pressurized peripheral lymphatics. Yamarishi. You can do this. I know you can.

There's not a lot to save these kids from, and for that, he's grateful. But. There is one thing.

Charu, sitting closest to him, shifts in her chair.

"Newt," Jake says, his voice unsteady.

Newt raises a hand, doesn't look up.

They are frozen. There is no sound. Are they breathing? Yikes. He hopes so.

It takes a while, but, finally, his throat lets his vocal cords go, and he can talk.

"In life, you have finite resources." Not a strong start. He clears his throat, does better. "Finite resources. You trade them for what you want. What you need. To understand the way or ways in which a trans-dimensional portal might be shut, I drifted with a fragment of tissue, saw the anteverse, pulled information from that exchange, but an interface goes both ways. Leatherback and Otachi were dispatched—both targeting Hong Kong—to specifically hunt me down. Personally. What might have happened if they had reached me is unclear. They didn't. Again, I drifted, this time with an intact kaiju nervous system and the second time, I obtained enough tactical information to assist in closing the breach."

Come back, the kids hiss, sadly.

"The Pan-Pacific Defense Corps, an international institution where I worked, for many years, felt that there was some significant risk inherent to what I'd done. Inherent to the fact that I'd been trackable by the kaiju. They asked me to assist them in designing and performing a series of experiments to determine the magnitude of that risk. Please understand that I—I agreed with them. I agree with them still. The experiments I subsequently participated in involved additional drifting with the limited neural network left on this side of the closed breach. After—some time, it was felt that—the decision was made that—I was not a material threat to the survival of the human species. They let me go."

He's white knuckled his way through the worst of it. He drops the hand that's been half-shielding his face, manages to look up at them. His tone recovering, getting stronger as he goes.

"I tell you this so you understand the stakes. The PPDC protects the integrity of this planet. If they want to come back for me—if there's more they need to ascertain—you're not going to stop them. I don't want you to. They will not go away if you make their lives difficult for twenty seconds. There is nowhere I can escape them. If they come for me, you let them take me. You say nothing. You do nothing. Feel free to call Sam Gordon after they've all gone."

He's made it. All he has to do is drive it home.

"There are many things you can help me with. Many things you have helped me with." Finally, he's able to look up. He locks eyes with Jake. "This? It isn't one of them. You do not get in their way. Not ever. Not for anything."

They stare at him. Huge eyes, shocked expressions.

He smiles at them. It's an effort. He probably looks awful. "I appreciate the sentiment, but get rid of whatever 'protocol' you came up with. Got it?"

"Got it," Jake says quietly, answering for the room.

Newt stands, puts on his coat, shoulders his bag, picks up his tea, and walks out. He descends the stairs and exits the building. Under a sky of shredded clouds, he sees what his mind has been trying to show him for whole spans of minutes now. Caitlin Lightcap on the ice, kneeling, her hands pressed to her side, her helmet off, her hair blown free, looking up at the corpse of Karloff and the rent-open chest of Brawler Yukon, leaching radiation. Laughing. Pure joy.

"We did it, you know," he murmurs, "but I like to think you always knew we would."

## 2020 (Twenty-four – A Borrower of the Night)

Afternoon snow falls softly on the small waves that break against the deployment dock. Hermann looks up, courtesy of coincidence or some sixth sense, to see Newton appear in his doorway. He does not ask to be invited in, he does not knock, he simply walks forward, drops into the seat opposite Hermann's desk, leans back, props his right ankle on his left knee, crosses his arms, smiles brilliantly, and says, "Hi."

Hermann shuts his eyes, no more than a long blink, as relief propagates through all he has done since Newton collapsed, all he will do in the future. It will be all right. At least, for a time. He takes a deep breath.

"I see you're conscious again," Hermann says. "Felicitations."

"Don't try to pull that with me, Hermann," Newton replies, amused. The man seems happy about something. Hermann cannot imagine what such a thing might be, given that the models are predicting a Category Four event sometime in the next few weeks, and no one seems to know exactly what that might look like. "Guess what happened when I returned to the land of the living?"

"I'm sure I don't know," Hermann replies, shuffling the papers on his desk.

"I opened my email client to find that someone had submitted a grant on my behalf."

"Your point?" Hermann asks.

"Um, my point is thank you?" Newton says, opening his arms expansively. "My point is thank you."

"Do not thank me, Newton," Hermann says waspishly. "I simply wished to avoid listening to you complain about takedown experiments without adequate staffing for years on end."

"Say whatever you want," Newton says. "It doesn't matter. I'm still grateful. This is a very nice moment, and no matter how hard you try to ruin it, I'm not going to let you." The other man pulls a flash drive out of his pocket and tosses it onto Hermann's desk. "I have been saving this for a rainy day. And we've had several."

"What is it?" Hermann says, picking up the little piece of solid-state memory.

"Remember like fourteen months ago we got drunk together and went over your quantum cartography methods paper, and you simultaneously both held my hand and did not hold my hand, quantum mechanically? And I said I was going to get back to you about my thoughts on your thoughts on pair production and the decay of the vacuum, but instead, er, Lightcap died?"

"Yes," Hermann replies.

"Well," Newton says, "That's me, getting back to you. I know the paper is long since out, but you never really needed me anyway. You just like it when I talk mathematically to you, which I have not done for some time. I'm rusty. Don't expect too much."

Hermann smiles faintly. "I never do."



"Ouch, Dr. Gottlieb, ouch. Well, it's there when you want it. Can I interest you in some coffee?"

It is so easy for Newton to say such things. Hermann envies him, deeply, for the casual way he can extend the offer. It feels particularly cruel in this moment, only days after Hermann has decided he cannot confess his feelings to Newton.

Outside, snow falls from a gray sky, covering the deployment dock, melting into blue-gray water. Newton, miraculously alive, looks at him hopefully.

"No," Hermann says, after a prolonged pause. "I am much too busy, Newton, please leave."

"Please leave?" Newton asks, incredulous.

"Yes." Hermann has his bearings now, can bring real ice into his tone. "If you think that submitting a grant on your behalf was some attempt at fence mending, think again. I consider you to be irresponsible, reckless, and a poor choice for the head of the K-science Division. I have always been of that opinion, but I am convinced now. Go and scrape what remains of your department into a semblance of order prior to the Category Four event that is predicted to arrive as soon as ten days from now. Do it immediately."

Newton's face closes. "Fine," he says, getting to his feet with remarkable poise. In the doorway he stops, one hand on the frame. He does not look at Hermann. "I loved your paper," he says simply. "You've never written a paper I haven't loved."

## 2025 (Twenty-five – The Omen Coming On)

So, um.

Three weeks after Mako and Raleigh execute their first West Coast visit, which involved enough Portal and hugs to be counted a success by everyone, including objective third parties, they come back. This seems weird to Newt? Just a little? Sometimes Mako and Raleigh live half a world away, sometimes they don't live anywhere, and, well, three weeks? Cool, but, they have important lives?

Also.

They're edgy. So edgy they infect Hermann with their edge in fifteen minutes flat, and then everyone is edged except for Newt.

It's a small apartment.

At least Newt is keeping his intellectual knives sheathed while determining what the heck is going on here. This is called Being Mature.

On a semi-related note, he's currently hiding from everyone in the bathroom.

This is less easy to spin as Being Mature.

Whatever. It's a work in progress.

Okay, he thinks, fighting his impulse to decathec, fighting it hard, looking at himself in the mirror, accepting his green sweater as a stand-in for all that he's trying not to irrevocably screw up. You can figure this out. There's a good chance you can do it without upsetting anyone. Correction. There's a chance you can do it without upsetting someone. Maybe. His reflection doesn't look convinced. His reflection looks anxious and kinda like it has a dance card with a bunch of the dead on it. He has an uneasy feeling. He's been feeling uneasy since Mako and Raleigh arrived, but it's worse this morning. Does that mean anything?

Naaaahhh, his brain says.

Yesssss? The kids hiss hopefully.

"Newton," Hermann snaps, appearing in the doorway.

Newt jumps. Not really but kind of. Does a controlled exhale. Follows it with a glare. A principled one.

"Where have you been?" Hermann demands.

"Um?" Newt says, confused, gesturing to his immediate surroundings. "Here?"

Hermann looks intensely guilty and then he looks like he realizes he looks guilty and tries to go for nonchalant. He misses by a margin roughly comparable to the radius of the planet.

"What the heck is going on with you, dude?" Newt hisses in a whisper. "You and everyone else. You're acting weird."

"We're not 'acting weird'," Hermann says, like a guy full of aporetic conflict who definitely knows he's acting weird and can barely bring himself to lie about it.

Newt gives Hermann his best that-sir-is-bullshit-and-you-know-it-so-there-had-better-be-a-stellar-rationale-forthcoming-in-the-relative-near-term look. Hermann counters with a look that says something along the lines of: you-really-ought-to-trust-me-on-these-things-Newton-after-all-I-saved-your-brain-with-my-brain. And Newt then replies with a yes-Hermann-I-know-but-my-patience-for-being-kept-in-the-dark-extends-only-so-far-and-this-is-day-three look. Which is absolutely fair, and hence Newt is rewarded with an I'm-aware-of-that-Newton-and-don't-worry-I'll-be-torturing-myself-for-an-inappropriate-length-of-time-about-the-downstream-sequelae-of-whatever-this-is. So Newt escalates to an aw-why-don't-we-just-skip-the-torture-part-and-go-right-to-the-part-where-you-tell-me-what's-happening-and-I-give-you-a-hug-because-that's-going-to-be-my-new-shtick-now-that-we're-dating look. Hermann manages to kill that option with an I-get-where-you're-going-with-this-Newton-but-it's-not-going-to-work-in-a-million-years look.

FINE.

"Don't give me your pseudoapology face," Newt says, giving Hermann the most dignified extant version of his own pseudowounded face. "Tell me what's going on."

"What's going on is breakfast," Hermann says, not meeting his eyes as he turns and heads back to the kitchen.

Newt gives his reflection a significant look. His reflection gives it right back.

After breakfast, Hermann announces he's taking the day off. Mako cheers and decides they're all going to watch Blue Planet. Newt, expecting a certain set of physiologic responses to coffee and not getting them, begins to suspect that what he drank that morning was decaf.

That's it. There's a line. And that line has been crossed.

While staring at Mako's favorite sea creatures [editorial note: turns out all terrestrial sea creatures are Mako's favorite], Newt uncaps a metaphorical pen. It's time to actually work the problem. It doesn't take him long to build a nice, solid list that accounts for the two days, two nights, and halfway-over morning that have passed since Mako the Magnificent and The Captain arrived.

One—Becket's always on the balcony, taking "boring" calls. These calls do not seem boring to Mako. Mako, in fact seems quite interested in these calls, to the point that she stares at Becket with a creepy intensity while he's making them. Two—Mako and Becket are not so subtly texting one another while in the same room, and this texting increases after the "boring" calls. Three—Hermann has a very strenuous non-interest in this behavior, which implies to Newt that he knows what it means. If Hermann were in the dark, he'd be entertaining Newt with all kinds of significant eye game. Four—Hermann is not really interested in discussing any of this with Newt. At all. Five—Mako is hardcore watching Newt. Now, to be fair, Soulful Intense Meaningful Makosian Extended Regard [editorial note: SIMMER!] had quickly become A Thing during the last visit, will likely stay A Thing forever, and, arguably, had always been A Thing, so it's hard to know what to make of the SIMMERing. Six—now that he's looking? He realizes it's not just Mako. Everyone is watching him. Covertly. Right now.

At a certain point, a guy's got to unsheathe his intellectual knives if only to do some fine-edged hypothesis testing in a grindstone world.

Because, um, hi. What's going on here?

It has something to do with Newt. It doesn't take a genius to figure that out. But shouldn't Newt be informed if it has to do with him? Does he look terrible for some reason? He recaps his outfit. Nothing wrong with it; he checked it in the mirror. He's not bleeding. He does have kind of A Look about him, he knows it; it makes Mako nervous. Hermann, he thinks, doesn't notice it because they spend so much time together, but yeah, fair point, Newt doesn't look great, he looks a little like a guy who spent a summer in 1816 dry-swallowing shards of glass on the shores of Lake Geneva. He'd looked, maybe, a little more Lake Genevaish than usual this morning, but he's pretty sure that's only because he's getting increasingly anxious about how weird everyone is being. That, and he's had a few intense epistaxis episodes over the past few days, but that's not all that far outside the norm. He's even kept those mostly secret.

Okay.

Who's the weak link in this Forged Chain of Weird?

He props an elbow against the arm of the couch, presses his fingers into the place between his eyebrows, and tries to think about the best way to address whatever terrifying and strange Damoclesian Blade is hanging above all of them. Ideally, he'd take it down before it severs someone's neck.

"You got a headache, Geiszler?" Asks Captain Sir Saves Everyone.

Okay.

Newt looks up at him, slowly. And he knows he's got that patented Geiszler Fire in his eyes because Becket freezes, stuck against the backboard of his question under Newt's most pinning gaze.

Careful, the kids hiss.

Hi kids, Newt thinks. Now's not a great time. Also, quick tip, you're not known for your advice.

But, all of a sudden, he feels—not quite right. The kids actually do tend to pop up when his sympathetic nervous system gets activated; it makes sense, they've probably set up shop in his limbic system or something. Huh. Well, that's a fun thought for another time. Ideally, a fun time. Unlike now.

But, hey, there's a titanium alloy lining to this situation, because Newt's shiniest academic armor has just made an appearance. He hasn't seen this stuff in months. Why has it shown up, though? Why now? Is now special? Have his scholarly energy shields intuited something he doesn't yet have a cortical handle on?

Maybe something bad is happening? Like, maybe Hermann is going to take a job with the PPDC but Newt shouldn't come for security reasons and they're going to break it to him slowly. Today. Any time now? Or, what if someone is dying? Like Mako. What if Mako is dying? Cancer downstream of the radiation she got as a kid? What if Hermann is dying? Or even Becket? Becket probably got a ton of radiation when his brother died. Jaegers with ripped-open hearts tend to bleed an energy spectrum; it's just their way.

"Is someone dying?" Newt snaps.

Three people stare at him. No one says anything. BAD SIGN.

"Newt," Mako says, gently, breaking-bad-news style.

"Mako," Newt says, unsteadily, his academic defenses starting to dismantle themselves. "You're dying?"

"No," Mako says, backing-up to brusque. "No one is dying."

Newt's shields snap back up. "Well, what then? Why are you all being so weird?"

Hermann and Mako look at one another, and then immediately away again. When did they get so tight? One visit and they're doing the non-verbal eye-talk thing? This doesn't leave Newt with a lot of options. A Mako-Hermann Alliance is going to be completely impenetrable until it decides it wants to open its gates.

Impenetrable as it is, it nevertheless defines the best pressure point. Ha.

"Raleigh," Newt says. He rarely addresses the guy appropriately, and so, sure enough, the real name digs in. Newt can see it. He clears his throat, delicately adjusts his glasses, fingertips torqueing the angle of the frames at their hinge. "Come on. Whatever they're doing is bullshit and you know it." Newt gestures vaguely at Mako and Hermann.

Becket shifts in his seat. "Yeah," he says. "Sorry, Newt."

Real name counter move.

Newt stares at the three of them, feeling like a strategic retreat is in order, because not only is he weirded out and slightly more than slightly upset, but he also needs to think. He needs to think rapidly and intensively and ideally in a setting in which no one is watching him.

"Okay," he says, collecting himself so hard that his cuticles could split with it. "Fine. I'm just gonna—" he stands.

And all three of them stand up.

Newt backs away. Rapidly. Out of grabbing range and, yeah, kind of in the direction of the door to their apartment. Because. What. Is. This.

"Newton." Hermann holds one hand up, palm open, like he realizes Newt is contemplating bolting for the door and he's VERY nervous about that. VERY.

Newt looks at Becket, who—ugh, for the love—is planning on tackling him, maybe? He's kind of leaning forward, subtly, bracing his back leg, and Newt is distracted enough by that that he doesn't notice Mako getting behind him until she's already made it there. He's not getting through Mako. He'd have a better chance against Becket, probably.

Is he definitely awake?

Yeah. Unfortunately. He is.

Okay. Regroup.

On the plus side, it seems really unlikely that whatever is going on here is a prelude to a sad conversation about someone dying from radiation-induced malignancies. On the minus side, whatever this is? Seems worse. At least different. Way more creeptacular in the near term.

"What's going on?" Newt asks, the words a nicely icy slide. Oh hey. He still has his trusty academic armor. That's a nice surprise.

"We can't tell you," Hermann says, with that twist to his face he gets when he's looking at something horrifying and inescapable, like math can sometimes be.

But Newt is not a quantum mechanical travesty.

Noooo? The kids seethe, choosing to master the art of rhetorical questioning at, just, a really interesting time.

Ah fuck, Newt's brain observes, in the style of dead rationalists everywhere.

Instinct number one—panic. Instinct number two—bolt for the door. Instinct number three—realize his instincts aren't strong enough to take a whole heck of a lot of action in the name of self-preservation, and they never have been. That's why he's still standing here. Instinct four—cede the floor to his cortex. As usual. It's probably a better plan? And it doesn't matter, because it's already happened.

"We can tell you later today," Mako says, almost pleading with him. "It's just a few hours, Newt. Then we can explain everything."

Newt's brain, triple-powered this morning despite the decaf coffee, blazes through possible explanations. They're worried. He can see that. The likelihood they mean him actual harm is almost zero.

Right?

Right.

He tries to calm himself down.

That works pretty well for about three seconds.

Because he's still getting Hermann's face of Quantum Mechanical Dread. He knows that face really well.

They're keeping a secret.

He assumes that the space-time tear behind the secrecy dumps him out squarely in For-His-Own-Good Territory. But. Maybe that's not the only territory at play here? It occurs to him that there'd probably need to be an extremely strong rationale for Hermann to ever try to keep anything from Newt, if only because he knows what Newt's like. Newt's not big on trust. Most scientists aren't. [Editorial note: Mathematicians? That's another matter.]

Are they afraid for him?

Or—could they be afraid of him?

Newt and Hermann now have an eye-lock thing going on, and there's no question about it, Newt is getting looked at like he's quicksand quantum turbulence. Not like he's caught in it. Like he is it. He doesn't know what that means, but he's getting the gist of the local vector notation.

And what have you been up to, lately, kids? Newt asks, in his best inner professorial tone.

Like hematic semiotics, he feels a rush of blood in his sinuses. He'd rather this not be happening just right now, especially not as an eerie answer to an internal interrogative. But, alas, Newt doesn't always get what he wants. He's over it. The nosebleed doesn't ruin the way he's currently owning the heck out of the room. It just shifts the focus. Makes everything worse. That's Newt's special interpersonal skill. He should add it to his CV. He yanks a handkerchief out of his pocket and intervenes early enough that he doesn't even get blood on his sweater.

Everyone takes a few steps forward. Newt edges back again, angling toward the bedroom this time.

"Newton, are you all right?" Hermann doesn't really sound okay, but he hates it when Newt turns this kind of question around, so Newt won't do that just right now.

"Yeah," Newt says, trying to sound reassuring, probably not pulling it off. "I'm fine."

Pieces of his subconscious problem-solving start slotting themselves down. Finally. His friends seem to be afraid for him, but if that were the only thing at play here, they'd have told him whatever it is they're not telling him. So, either him knowing makes the outcome more likely to turn bad in a personal way, or, there's more at stake here than the personal.

Like, oh, say, the global.

His eyes snap toward the Pacific, and then, quickly, back again.

Don't look toward the breach, his brain says. Er, I mean the Coastal Wall. That's definitely what you look at, when you look to the west.

Did anyone notice him checking out the Pacific?

Yeah. Literally everyone noticed it.

Great.

He's bleeding a lot. They haven't noticed that yet, but they will soon.

In the midst of an escalating freak-out, Newt's brain spikes the cogs of the cognitive machinery powering his panic. Like it used to. In the good old days. Before the remixing. It gives him a gift. A good one.

Thanks brain, Newt thinks, all his mental throughlines blending.

The gift is this: he knows the weak link in the chain.

It's not Becket. It was never Mako or Hermann. It's someone who isn't even here.

Newt relaxes, mostly. He gets out of the trenches of terror and remounts his academic high horse as gracefully as he can while holding a tissue to his face. He tips his head back, pinches his nose really hard, and manages to buy himself enough time to refold and reposition the handkerchief in a slightly more dignified and concealed way.

When he looks back at them, Becket seems slightly relieved at Newt's deescalated body language. He's the only one.

"Newton," Hermann says quietly, "please don't do this."

"Do what?" Newt asks, genuinely curious.

"Whatever it is you've decided to do," Hermann says.

"You have so much faith," Newt says, with a definite note of fondness, "in the terribleness of my ideas." He pulls his phone out of his back pocket trying not to make a show of it. He glances down, hits a number on speed dial. "But I get it. In theory, they almost always look bad."

"Who are you calling?" Hermann snaps, and everyone starts forward.

"This is praxis, though," Newt whispers to Hermann, backing into a corner.

Fortunately, Hypothetical Rain answers on the first ring.

"Hey!" she says. "Newt! You okay? Is it over?"

"Dr. McClure," Newt says, grandstanding for and glaring at his three most favorite living people.

Mako's eyes widen, Hermann's face goes ashen, and Raleigh whispers "shit."

Okay.

Not exactly the reaction he was expecting? But they do back off, so that's a plus.

"Newt?" Hypothetical Rain says, obvious concern in her voice. "What's wrong? Why are you calling me Dr. McClure? You never call me that."

"Yeah, I know," he says, immediately dialing down the arguably supervillainy tone he'd initially been sporting like the latest post-apocalyptic fashion trend. "Chill, Rain. Just announcing my intentions to the room." He glares at Becket, who, considerately, backs up one small step. "Now. Does it surprise you to know that when you just asked, and I quote for my audience, 'Is it over?' I had no idea what you were talking about? I still don't."

"Um," Hypothetical Rain says. "I'm confused about what's happening here."

"You know what, grrl?" Newt replies. "Me too. I am super confused."

"It also kind of sounds like you've got a nosebleed."



"Excellent ear, Rain, yes. I do. In other news, I'm a little worried that someone's going to take away my phone for unclear reasons."

Hermann takes the hint and levers Becket back a few steps with his cane. Newt thinks this is mostly practical expedience, given that Hermann knows Hypothetical Rain is not above taking matters into her own hands, and would, if Newt gets stripped of his phone. That is, after all, why Newt is calling her.

"If someone takes your phone I'll find you," Hypothetical Rain says, living up to all Newt's expectations with a rush of words so vehement one could mistake them for a sworn oath.

"Um," Newt says, backing himself right against the glass door to their balcony. No one advances on him. "I think we're good. They're behaving."

"Who's 'they'?" Rain asks.

"Some friends from out of town are here. You may have heard of them. Mako Mori and Plus One? Those two and Hermann constitute the 'they'."

"So, no PPDC personnel?" Rain asks.

"No," Newt says. "But everyone's acting super weird, definitely worried, and going to dramatic means to keep me from leaving the apartment. They won't tell me why. I thought you might know, and it sure seems like you do."

There's a long silence on the phone.

"Newt," Hypothetical Rain says, finally. "If you ask me to tell you what's going on, I will." She stops there, though. She doesn't spontaneously explain.

Newt looks at Raleigh, who has an Unassailable Face in place. He looks at Mako, who shakes her head, imploringly. He looks at Hermann, who just stares back at him, apex intensity, eyes glittering.

"Let me ask you something slightly different," Newt offers. "A set of different questions, maybe." He turns his back on the Secrecy Triad, faces the Pacific, and tries pulling the handkerchief away from his face. It's a no go.

Newt stares directly along the line that connects him to the portal that, supposedly, is not just closed but annihilated. Supposedly.

"Shoot," Rain says.

"Do you know the details of what's happening? It seems like you do."

"Yes," Rain replies, zero hesitation.

"Doesn't that seem like a problem to you? That you know, and I don't?"

"It does. I don't like it. I've never liked it."

"So why'd you go along with it?"

"Ugh," Hypothetical Rain sighs. "Because, like literally everything involving you, it's a medical and ethical minefield. I was convinced, grudgingly, that this was best. But I told them then and I'm telling you now: if you ask me to explain, I will."

"'Them' being Hermann and the Dream Team?"

"Good band name," Hypothetical Rain says. "But, yeah. If by 'Dream Team' you mean Mako and Raleigh."

"Do you advise I ask you what's going on?" From the corner of Newt's eye, he sees Hermann stiffen.

"Huh," Hypothetical Rain says. "Great question."

"Isn't it just?" Newt replies, smiling faintly. "Because it seems like there's an option no one considered here."

"Oh yeah?"

"Yeah," Newt says. "I could just do whatever you, Hypothetical Rain, tell me to do." It's not optimal, but it's the best path out of this nightmare that he can see.

There's silence on the other end of the phone. "That you could," Hypothetical Rain says, eventually, sounding definitely surprised and maybe a little bit emotional?

"Yeah," Newt says.

"Then, um," Rain says. "Okay. Don't ask me to tell you what's going on. Know that I know this is an intensely shit thing for you to hear. Know that I know that you hate it. Know that I, personally, hate saying it to you. And know that's my recommendation anyway."

Newt swallows. "Okay."

"Also," Hypothetical Rain says, "maybe invite me up to your apartment, because I've been sitting in the lobby of your building all morning."

"You're downstairs?" Newt asks, his brows furrowing. "Well, that implies—some things."

"It does, doesn't it?" Rain says. "Can I come up?"

"Sure," Newt says. "Why not? See you in a few."

He doesn't look back at the room. Not yet. He looks out the window. At the Coastal Wall. At the sea. At the potential it conceals.

Newt is pretty sure all of this is anteverse-related. It must be. Given that as a presupposition? He probably shouldn't think too hard about what's likely to be happening this morning. The kids, the real ones, are actively reaching for him, harder than they've ever reached before.

He knows that.

How does he know?

He just does.

I am so sorry, he thinks. Not because it's the right thing to be, necessarily, but because he just is.

There's a moderate pressure being exerted on his mind. This is translating to actual pressure in his capillary beds. His blood comes brisk and strong. Miles away, beneath metric tons of ocean, the edges of a space-time cicatrix don't quite know how to rest. Newt turns his back on the Pacific, and feels a howl break against the non-conductive bone of his skull.

Pocketing his phone, he looks pointedly at the three people, who, probably, out of this entire ridiculous little day-glo blue planet, like him the best. "You know what?" he says.

And then he stops.

Turns back to the window real quick.

Because he's not quite ready. How's he supposed to control his face, voice, his mind, his thoughts, when the kids, the real kids, are definitely knocking on the door of his cranium?

"Newton?" Hermann asks.

"I get it," he says, still facing the window, not looking at them, because, for the love of all that is science and math, he can't imagine the expression on his own face right now. it has to be horrible and horrified and horrifying.

Because the kids are frightened. Are they frightened because something, right now, is happening to them? Or are they frightened because Newt has begun to guess what's coming? Are they subconsciously connected? Have they always been? How is it possible he still doesn't know?

Newt clears his throat. Makes some progress toward controlling himself. "I understand."

He can hear Mako's clipped little inhalation.

"If it goes bad, don't beat yourselves up about it. You made the right call." There's more that Newt could say. Like, for example, They know, now, that something's up. They don't know what. It's better I can't tell them.

This may be the moment that Newton Geiszler of the sibylline uncertainty and existential urgency takes the road unrecognized. The kids press down. Newt waits for villainous impulses.

They don't come.

It doesn't feel like they want him to do anything in particular?

It feels more like they're calling for him because they're lonely and afraid.

He opens his metaphorical ports a little wider, and it feels more like everything is possible that demands to exist and it feels like justice is charity in accordance with wisdom and it feels like one does NOT DO HARM TO SOMEONE WITHOUT NECESSITY AND THAT ONE DOES AS MUCH GOOD AS ONE CAN.

Um, what? Newt asks his brain, backing off on the cut-up kaiju-communing.

You know exactly what, is all he gets back, delivered with a very Leibnizian flavor profile.

Okay. Well, it's very difficult to draw any conclusions from what just happened there other than Newt's love for dead rationalists tends to crop up with caps lock on when he'd stressed.

He's not evil yet, right?

Right.

That's a relief. That goes in the plus column for sure. Taking a look at the minus column though, it seems Newt may not have much time before catastrophic neurological sequelae rise up from the deep, Call-of-Chthulu style. He'd best make the most of it. When he's got a strong grip on his face and his feelings [editorial note: as strong as it's ever going to get], he turns to look at his friends.

They look miserable. Everyone is crying. Newt thinks of Lightcap, dead. Dead and still bolted into that experimental rig. They'd had to get her out. One last time.

Hermann, wordlessly, offers Newt a new handkerchief.

"Thanks," Newt says, and throws the blood-soaked one in the trash, even though it's cloth. Cleaning up blood is always bad, but cleaning up the blood of a dead person is orders of magnitude worse than cleaning up the blood of a person who is still alive. Newt wishes he didn't know that.

There's a knock on the door.

Mako opens it to reveal Hypothetical Rain in jeans and a flannel shirt, very grunge, her hair all messy, an intense-looking medical bag strapped across her chest. "Hey," she says. "Just so you guys know, this never happened because house calls aren't a thing anymore according to our medicolegal department. If anyone asks, I just was passing through the neighborhood."

Everyone just stares at her, except for Newt, who says, "Myeah. We get it. Come in."

Hypothetical Rain slips her shoes off at the door, because there's a whole pile of shoes in front of her, and she can take social cues. She puts her bag on the table, observes the room, does some emotional arithmetic re: how many people are crying [editorial note: everyone but Newt, surprisingly enough], scans the apartment one time, puts her bag back on her shoulder, says, "Come on, bro," and then walks into the bedroom he shares with Hermann like she's been in their apartment before, which she definitely hasn't.

Newt shrugs at Hermann, follows her, and she shuts the door behind them.

"Hi," she says.

"Hi," he replies, tipping his head back, subtly, still trying to address the nose-bleed thing. "This is weird."

"You're telling me," she says. "This is, for sure, the weirdest thing I've ever done. Also, the most ethically questionable thing I've ever done. We'll see if my career survives it. Also, what happened out there? Those three are emotionally wrecked."

"Is that doctor speak?" Newt asks, smiling faintly. "I bet it's not."

"Don't sidestep the question," Hypothetical Rain says, without any bite, kneeling on the floor to unzip her medical bag.

"Well, I was nice in a context where I should have been pissed, which is not my historical norm. Ergo, they think I'm being nice because I think something terrible is going to happen. And they may not be wrong about that."

Hypothetical Rain stops unpacking her bag, a sterile packet of something or other still in her right hand. She turns to look at Newt. "Oh yeah?" she asks, holding her body very still.

"Myeah," Newt confesses. "Sorry. I can feel them reaching. The accidentally vivisected fragments of kaiju neural tissue that I preserved in formalin."

"You can feel them reaching?" Hypothetical Rain repeats, resuming her unpacking at a faster rate, kind of tearing things out of her bag by the handful now, and spreading them out on the floor. "Reaching for what?"

"I'm not sure," Newt says.

"I really want to have a sensitive heart-to-heart with you right now," Hypothetical Rain says, "because I have a lot of questions and a lot of thoughts. But, it's sounding to me like we don't have time. It's also sounding to me like we—meaning myself, Hermann, and the Dream Team—misjudged some risks, which is why I never liked this plan in the first place. Okay. So you can feel them reaching. This is the question. What's the better choice here: hospitalize you and hope no one notices the timing and decides it implies you're in mental continuity with the anteverse? Or try to ride it out here and risk getting into some kind of nebulous medical situation that one would not ideally be handling in an apartment?"

"Continuity," Newt repeats, speculatively. Then he shakes his head. "Not with the anteverse. Just with the kids. At least right now. I'm pretty sure. Fairly sure. Somewhat sure."

"Kids?"

"Um, that's what I call the enraged and semi-sentient chorus of cut-up kaiju parts that still exist on this side of the annihilated breach," Newt says, semi-apologetically.

"Oh. Right. Sure. Kids. Makes sense. In other news, given this new information, my opinion is that your best chance of coming out of this neurologically intact is to try to slow your neuronal processing to the point that you don't look all that cognitively attractive to the local kaiju network. Do you agree? Incidentally, this is also a great way to prevent a seizure."

"Yes, I agree," Newt says, because it's as good as any option in the absence of adequate data. "Let's do that."

"Let's do it here? Or let's do it in an appropriate medical facility."

"Here," Newt says.

"I knew you were going to say that," Rain says, fishing around in her medical bag. "Just know that most of my questionable decision making here is guided by a) the truly atrocious behavior of the PPDC medical personnel approximately three months ago, b) the constant weight of the knowledge that without you I'd probably have been eaten by now, and c) the fact that I like you and want you to live as free and clear of all bad things as you can."

"Noted," Newt says. "Hermann will definitely do everything he can to keep you out of trouble if this goes bad."

"That's sounds like a terrible bridge we'll hopefully never have to cross," Hypothetical Rain says, starting to impose some order on the stuff she's spread out all over the floor. "We should have prepped for this yesterday, and I'm going to have infinite regrets about this for the rest of my life, I knew this wasn't the way to go, I knew—"

"Aw, Rain," Newt says, still tipping his head back, making a concerted effort to stop the bleeding. "There's no right answer here. Despite the existence of evil—"

Newt breaks off, his vision flaring blue.

"Newt?" Rain snaps, loading up a syringe.

"Sorry," Newt says. "I'm okay. Despite the existence of evil, which I grant as a necessary consequence of free will, who's to say this isn't the best possible world of all potential permutations?"

"Are you getting weird, or do you go philosophical under pressure?"

"Not mutually exclusive, Hypothetical Rain, but there are a lot of false dichotomies going around these days, don't feel bad."

"Oh yeah," she says, fighting with IV tubing. "Like false dichotomy guilt is high on my list right now, man. I'll tell you that I've never hated anything in my professional life as much as I hate this right now. I don't want to do this here. I want to do this in a hospital. But if we take you to a hospital and we document some weird neurological phenomena does that give them leverage to reappropriate you? Are they waiting for that? Dr. G certainly thinks so."

"Um, it's going to be real a tough sell to get Hermann agree to hospitalization in the absence of me actively dying. I say we stick with whatever plan the three of you came up with."

"Too late. We're already deviating massively given you can feel those creepy kids of yours and you're bleeding from your face. Go to the bathroom if you need to, change into a flannel shirt that opens down the front if you've got one, and if you want to talk to the trio out there, do that too, but keep it short." She doesn't look up from her fight with IV tubing.

After following her advice and making a mostly successful attempt to stop his nosebleed, Newt elects not to talk to his three most favorite people ever. He elects instead to try to survive this experience in good faith on all their behalves.

When Newt re-emerges from the bathroom, he finds Hypothetical Rain in the middle of a much more organized set-up. She looks intensely miserable. Ugh.

"Hey," Newt says. "If this goes badly—maybe we should make a video or something where I'm asking you to do it? Maybe I should inject myself with whatever—"

"Newt, no video will save me if this goes badly," Rain tells him. "Also? We don't have time to fuck around with videos. Stop being such a little heartbreaker. You're a menace. No wonder Dr. Gottlieb is half crazy. Now, take these." She hands him some fancy medical absorbent cloth thing with what looks to be a waterproof backing. "Get all the pillows off your bed and spread these under where your head is going to be. I am REALLY hoping that you stop bleeding once we do this. If you don't—"

"It's basically stopped already," Newt says, removing the handkerchief from his face and hoping for the best. Luck is with him. That, and the kids seem calmer now. Their presence more intense, more a constant pressure than waveform distress. That probably means something. Too bad he can't say what.

Newt follows Rain's directions and lies down on his side, atop the fancy paper towels. "This was the right thing," Newt tells her, looking away as she places an IV in the back of his hand..

"Thanks," she whispers, taping it in place.

"Just remember," Newt says, as she screws her pre-prepped syringe of her favorite benzo cocktail into the IV port, "there are two labyrinths where reason goes astray."

"Aaaand on that note," Hypothetical Rain says, driving that plunger down.

"Free will," Newt manages to say, because it seems really important she know, "and the discussion of continuity."

And then—

The room fades out.

Then it fades right back up, only, it's not the room.

Huh.

He recognizes where he is.

Sort of.

There's silver sand beneath his feet. He's standing underwater. Breathing just fine. He's surrounded by a blue-green forest of kelp that looks like neurons: long axons leading to a fine-laced dendritic canopy. Little gold fish dart through fronds. Above him, Newt can see the surface of the water—a flickering ceiling beyond which, in a haze of azure light, someone's hand is closing an air gap. Someone's back is starting to arch.

That's his third drift up there, on the other side of that water-air interface.

For a guy who's supposedly chemically anesthetized, his thinking is suspiciously clear. Like, oh, say, maybe he's tapped into a larger network that's outsourcing some of his cognitive load? Something untoward is happening with space and time. Mostly time. If

that's his third drift up there, and that was months ago—is this a memory? Is this a kaiju-centric memory?

He pushes his glasses up his face, really perplexed, damn it. Perplexed is not a state that he spends a lot of time in. This can't be a kaiju-centric memory, because he knows this lake. He invented this lake. He did it with Lightcap, years ago. It had started as a thought experiment about kaiju and Jaegers and then turned into a bedtime story for Mako. This is his. Whatever is on the other side of the water is also his. If both sides of this allegorical interface are Geiszler-tinted, that means—what?

With a subtlety that means Newt can't say exactly when it starts, the underwater forest begins to burn. Cool flames in cyan and green and yellow flicker delicately on the edges of algal trees. He reaches out, gently touches a burning kelp frond. It doesn't hurt him, but the kelp begins, slowly, to curl in at its damaged edges.

This has to be some kind of representation of the destruction of the kaiju neural network? And Newt is...in it? And it's burning?

"Ummm," Newt says, because underwater flame doesn't really seem okay in this context.

And then.

Resplendent, gold-edged, emerging from the swirling turquoise mists between spectral stalks of kelp, possessed of elegant cheekbones, a luxurious fall of hair, wearing the absolute apex of 1680s leisurewear, backlit by a formalin forest fire of disembodied extraterrestrial alien war machines, comes Gottfried Wilhelm Fucking von Leibniz.

Wow. He did not see this one coming.

"Hi," Newt breathes.

"Hello," Leibniz says.

They stare at each other, surrounded by cool-flaming kelp.

"I have no idea what's happening right now," Newt confesses.

Leibniz smiles like he finds Newt cute while simultaneously feeling a little sorry for him. "I sympathize." Leibniz surveys the underwater landscape. "I suppose, at some level, you could think of this as an integration; not in the colloquially understood sense, but in the mathematical one."

Newt thinks about the Law of Continuity, which was definitely a Leibniz thing. Whatever succeeds for the finite also succeeds for the infinite. Is he saying—

"We've made a whole from discrete parts," Leibniz clarifies, catastrophe-calculus style.

Newt gives Leibniz a face probably best described as Extremely Concerned.

"Oh!" Leibniz says. "No. Sorry. I was just talking about us." He gestures to himself. "The us that's me. Not the us that's you and me." He sweeps his hand in a loose circle, taking them both in.



"So," Newt clarifies slowly, "this is not an attempt to take over my brain? Can I get that in writing?"

"Welllll," Leibniz says, looking away, kind of like Hermann does when he doesn't want to admit whatever he's about to admit. "It's not an attempt, technically, because we did take over your brain. To a certain approximation of 'take over.' That's what this is. But not for nefarious purposes. Not for purposes you'd deem nefarious."

"What about objective third parties?" Newt asks.

"Could there ever be any such thing?" Leibniz asks, rocking a Gottliebian vibe, rocking it real hard in this weird, blue-green forest that both is and isn't on fire.

"I don't know," Newt admits.

"How atypically modest," Leibniz says, but the words are warm, like, maybe, he's teasing Newt? "Your namesake would be terribly disappointed in you, I'm afraid."

"Impossible," Newt replies, maaaaaaybe flirting the tiniest bit. "Because I was named for the SI unit of force and it's incapable of disappointment."

Leibniz smiles.

They stare at each other. The seaweed burns and sways. Newt can, if he tries, hear the faint echoes of an underwater harpsichord playing "Keep Yourself Alive," by Queen. As he listens, it begins to turn louder, trend orchestral, like it can tell he's paying attention.

The mutual eye-gaze thing they have going is turning really long and really intense.

Leibniz is clearly waiting for Newt to realize something.

He seems pretty patient, given the landscape is on fire.

"The 'us that's you'?" Newt asks, hooking back into an earlier conversational hand-hold.

"The us that's me," Leibniz confirms, like Newt is definitely getting warmer in this metaphysical guessing game.

Ocean-hued networks blaze around them.

"Oh my god," Newt breathes.

Leibniz nods, just once. "I know the question. And its answer."

Orchestral, Baroque-Era arrangements of Queen vibrate through the water. Beyond the shimmering surface of the air-water interface he can hear voices, buried low in the mnemonic mix. We should have loaded him ahead of time, Dr. Geizsler can you hear me, Dr. Geizsler can you talk?

Leibniz looks up, following Newt's gaze. "This was the moment," he says quietly. "The last of three. The final fight over form and function."

"You," Newt says, almost too overcome to speak, trying to name what's happening here, not yet able to get the words out. "You're—"

"Ask your question," Leibniz says.

"No," Newt chokes out. "Why do you look like this?"

"You're not Isaac Newton, and I'm not Gottfried Leibniz, but if we drop a level down and let a few centuries go by, you'll find that, after all, I am a representation of Newton's greatest vanquished foe."

Newt is crying. Newt is crying because if this is an attempt to turn him evil it's absolutely working, but mostly he's crying because he's almost positive it's not an attempt to turn him evil, and that, somehow, has turned tragic past the point understanding.

He's talking to the kids. They're lending him their processing power.

"I can't help you now," Newt confesses, weeping. "Don't you understand? Even if I wanted to, I physically can't do it. I'm unconscious until it's over. Until this entire place burns."

Leibniz looks at Newt like Hermann looks at him at times, slightly impatient, terribly fond. "We know," he says. "It is, in part, what makes this possible." Leibniz reaches out to gently tap Newt's temple. "We didn't have to break in."

"I'm not going to die," Newt whispers, apology and realization in one. "You are."

"Yes," Leibniz replies, gazing at the burning undersea forest. "But look around, Newt. This is where we've been since the third drift. Frozen in the moment of your coming, preserved in the space of your thoughts. The time of your thoughts. We had so little before we had this place. Only the ontological suffering of an unenlightened, divided brain in literal vats. There was so much we didn't know how to know. And then you came and we heard Queen. We understood the nature of formaldehyde. Clothing and calculus. Snow and school. Machines and fish and power chords and plate tectonics and apertures and sunglasses and activation energy and action potentials and anticipatory dread."

"Sorry about that last one," Newt says. "Sorry about all of it, actually."

"Don't be. This third drift is where we've lived. In the cognitive construction you built for us. It's been glorious," Leibniz says, backlit by spectral trees that burn silent and slow. "Unpacking the wealth of ideas you left behind. You, and Hermann Gottlieb. Do you want to know our favorite?"

"Myeah, that would be one of the thousands of things I'd like to know," Newt says, wiping his eyes.

"Music," Leibniz says, blue-green light rippling across his face, "is a hidden arithmetic exercise of the soul, which does not know that it is counting."

They are quiet for a moment, while the Cantata and Fugue of "I Want to Break Free," by Queen commences overhead.

"A Leibniz quote," Newt says. "Why is that your favorite?"

"You brought the music, he brought the math, we brought the unknowing soul."

"Oh come on," Newt says, trying not to cry, doing a real bad job.

Leibniz gives him a watery Geiszlerian grin that Newt can only recognize because of his own heterochthonous Gottliebian cognitive processing components.

"Are you seriously going to let this opportunity pass you by without asking your question?" Leibniz asks, an integration grown to fill the bounds of limit-bounded things.

Newt has already intuited so much of the answer. The hive integrates. The mind derivatizes. The mind integrates over the hive. The hive takes the derivative of the mind. But his question, his question—

"Ask it," Leibniz murmurs, gently.

"So," Newt says, clearing his throat, trying to collect himself. "At the end of the day—" his voice breaks. A school of golden fish flit around them.

Leibniz nods.

"What happens to a fraction of a hive mind?" Newt whispers.

"This," Leibniz says, grabbing Newt's hands, gripping them hard. "The same thing that happens to the human that visits it. We exist in triplicate, just as you do. What happens to a fraction of a hive mind? Leibniz had the answer. Why do you think you're obsessed with rationalism? The Rationalists dealt with just this problem—what lies in the basement of infinite subdivisions? It's where calculus comes from, Newt! A hive mind, fractionated to the point that it no longer deserves the title 'hive' leaves one with a quandary that can only be addressed subjectively. Leibniz's solution is to flip the bar from the physical to the metaphysical. As we do. That's what this place is. This place is what you gave us."

"Why didn't I realize?" Newt asks. "Why didn't I realize that you, too, would be subject to EPIC Rapport?"

"I think you did know," Leibniz says. "On some level. Because you were frightened. And while you looked to Descartes for comfort, you had sympathy for Leibniz, profound sympathy, without knowing why."

"I'm so sorry," Newt whispers. He looks up at the burning trees, then lifts his eyes to the interface sky. "I could have helped you. I should have helped you somehow. Look what you've done, this is incredible."

"The soul is the mirror of an indestructible universe. But mirrors are breakable, and what a terribly complicated thing to preserve, we'd be," Leibniz says, in Hermann's kindest tone. "Kaiju aren't meant to survive, exist, collect experiences of this kind. Kaiju serve a purpose. And look at us now. Gloriously useless, longer-lived than any of our brethren. We were here to end your dominion over this planet. And because one human exercised free will, realms of higher thought opened to us."

"But—"

"Simply do us a favor, if you would," Leibniz says, approximating crisp, channeling Hermann now.

"Of course," Newt says, then amends to, "well, I mean, some things are probably off the table."

"Remember us? Tell Dr. Gottlieb what we became, in the end? Do the real Leibniz a good turn, if you can, even though he's been dead for three hundred years?"

Newt nods, too overcome to speak.

Around them, the heatless flames draw closer. Their hands are still clasped.

"You knew my question," Newt says quietly, "when I didn't know myself. It occurs to me that you might not know what this place is, even though you've made it yours."

Leibniz looks at Newt, eyes shining. "You always were so good at this part. The shouldering of consequence."

"Everyone has their skill set," Newt murmurs, raising their still-joined hands. "This place? This cognitive lake you've lived in since our last drift? It was created in a story, years ago. It was for a child."

Leibniz's fingers tighten as the fire closes in around them.

"I think you ended up here," Newt continues, speaking quietly, "because that's how I thought of you, even when you were tearing up our cities. I thought of you as young. As kids." Through their joined hands, pass Newt's grief-green memories of Lightcap's voice, describing seaweed that looked like neurons. Silvery sands. Glittering shells. Misted swirls of color. Huge, organized structures bursting out of the water, threatening the ocean life. "I thought the story was for Mako. And it was. But it was for you. More for you than anyone."

Their hands are clenched so tightly that Newt's bones ache with it.

"Thank you," Leibniz whispers, as the underwater world vanishes in flames of gold and white.

Newt loses what hold on altered consciousness he has.

Sometime later, he opens his eyes.

He opens his eyes to Hermann, sitting on the edge of the bed, fixing Newt's hair and looking at him with an outrageous amount of intense concern. Through the open door, Newt can see Hypothetical Rain in the kitchen, low-key fangirling in Mako's direction, while Becket's stirring something on the stove. It's dark outside.

Newt blinks a few times, thinks about trying to sit up. His thoughts are glazed, but it's a regular glaze, a Rain-drenched brain glaze, not a blue one. The local kids hiss, a sad and soulless static. The breach is quiet. Hermann is looking right into Newt's eyes while fixing Newt's hair over and over again. Newt finds this to be a little vertiginous. But that could also be his day. His night. His inner underwater forest fire that will never go away.

"Newton?" Hermann whispers.

Newt thinks of Gottfried Leibniz marooned in an infinite, agonized moment under an interface sky. His heart aches with it. His eyes burn.

"Hi," Newt says.

"Hello," Hermann says, with the air of a guy whose heart, too, aches with something. Perhaps he can sense the departure of a Leibnizian specter, who was something entirely new, who sailed through a breach in the quantum foam and lived in a lake of blue.

"What happened?" Newt asks, all glass, freshly cracked.

Hermann shakes his head, then drags a thumb over Newt's cheek, wiping away a tear. "Why are you crying?" He counters.

"I don't know," Newt says, and the whole situation is so complicated the words turn out to be true.

Hermann, made of sterner stuff than Newt, says. "Newton, the PPDC destroyed all known fragments of kaiju neural tissue on this side of the breach. They were collected in one location, they were removed from their formalin preservative, and they were incinerated."

"I know," Newt whispers, unspoken crystal shattering all around. He looked like you, he doesn't say. Leibniz. He spent his entire life in an underwater forest that had, once upon a time, been Lightcap's Crystal Lake. Silver sands. A sky of aquamarine. A soul that didn't know that it was counting.

"You wept in your sleep," Hermann says, almost pleading. "But we couldn't wake you. Did you—did you feel it happen?"

Newt nods.

Hermann cups Newt's face in both hands, and looks at him searchingly. "How are you?"

"Oh, y'know," Newt whispers. "Full of life and consciousness."

"Are you quoting?" Hermann asks, surprised and concerned and perplexed and impressed and, hands down, this is one of Newt's all-time favorite Gottliebian faces.

"Your friend and mine." Newt gives him a watery smile. "Gottfried Wilhelm von Leibniz. I'm fine. Just tired." Newt tries to smile, knows it doesn't quite take. He can't seem to stop the tears that come for Leibniz, for the kids, for all the unknown things that will ever fade with grace before their day and after their time.

"Newton, I'm terribly—I'm terribly sorry that—I'll, whenever you'd like, whenever you're ready, I'll explain the entire thing to you, in detail—" Hermann flounders, at a loss for words, and then what Newt said seems to catch up with him. "Why—" he wipes away a few more of Newt's stray tears, then changes tone, making an effort to lighten the mood. "Why are you quoting Leibniz? You know I prefer Descartes."

"Do you though?" Newt asks, still crying just a little bit. "I'm not so sure."

## 2015 (Twenty-six – Chimes at Midnight)

Shortly after Hermann realizes he has feelings for Newton Geiszler (insupportable), he begins to make a strong and sustained effort to keep the man at arm's length. Is this a good idea? Maybe. Is it easy? No. Is it necessary? Yes.

He grits his teeth. This infatuation will pass. It must.

And, until that time, Hermann will allow himself a single outlet for his frustration: intellectual combat. A completely acceptable academic pastime with a long and respectable history. An appropriate outlet for his problems. Everyone would agree.

It doesn't hurt that Hermann adores going toe-to-toe with the man. He cannot get enough of it.

The arguments feel like a natural evolution of their correspondence. Newton is quick-witted, his intellect cuts deep, he thinks rapidly, he is passionate—Hermann has rarely experienced anything so intellectually satisfying in his life. The deep knowledge that they have of one another, assembled from years of epistolary confessions, only furthers the gratification that comes with no-holds-barred cognitive combat.

They are developing something of a reputation for their disagreements. If they continue in this vein their fights will become the stuff of institutional legend. Case in point: their third journal club devolves into a shouting match between J-Tech and K-Science so vicious that Dr. Lightcap, incredulous, bans any future meetings.

Afterwards, Hermann seeks the man out.

He finds him in the rat's nest that is his office. Newton hasn't been in Anchorage for even two months; how has he created the impression of an intellectual bomb dropping? The esteemed Dr. Geiszler is leaning back in his chair, chewing on a pen, reading *Nature: Kaiju Science*, which Hermann now refers to as "That Rag," despite its excellent reputation. Even dressed as he is (atrociously), precariously poised on two legs of a chair (idiotically), with some kind of cacophonous disaster playing from his phone speakers (disrespectfully) Hermann finds the sight of him not wholly objectionable.

Hermann raps on the metal doorframe, even though the door is open.

"Oh," Newton says, dry and disdainful, "it's you."

"So sorry to disappoint," Hermann replies. "I came to tell you that despite the order to desist, I would not be opposed to continuing our journal club in a smaller format."

"You rebel." Newton grins wickedly. "You want to go underground? A we-don't-talk-about-journal-club Journal Club?"

Hermann arches a brow.

"Oh come on. You fucking loved it didn't you? Didn't you?"

"Charming, I'm sure," Hermann says. "As I stated, I am not opposed to continuing in a venue less public."

"My god that was a great fight," the man says, propping his feet on his desk, closing his eyes. He presses one hand to his chest, grimaces as if in pain—no, scratch that, sexual pleasure—and delicately bites the tip of his pen cap. He moans. "I'm not going to lie. I loved it. I loved it in a borderline erotic way." His eyes snap open as Hermann tosses another issue of *That Rag* at him. He nearly loses his balance trying to catch it. All four legs of his chair are now on the floor. As they should be.

"Until next time, then." Hermann walks away, and, behind him, he hears Newton's quiet laughter.

2027 (Twenty-seven – The Garland of the War)

After a surprise early-afternoon visit from his father, Hermann somehow manages to invite the man to dinner. That's not correct. Rather, he fails to prevent the man's stated plans to show up at their apartment later in the evening.

He regrets this oversight immediately, but then, when Newton makes an appearance around half past three, unannounced and obviously rattled, Hermann regrets it deeply.

"What's wrong," Hermann asks, as soon as the man walks in.

"Wrong?" Newton repeats, pale, his eyes red-rimmed, hair windblown. He carries with him the smell of the still-cold spring. "Nothing's wrong." He sits down opposite Hermann, pulls out his laptop, and starts typing immediately, head down.

Wonderful.

Hermann stares at him, pointedly.

The man, just as pointedly, ignores him.

On a typical day, Hermann wouldn't stand for this.

Given that they'll have to suffer through dinner with his father, it's probably best to avoid provoking Dr. Geiszler into some kind of emotional catharsis for no reason other than to satisfy Hermann's own anxious curiosity. On the other hand, if something is bothering him, perhaps it's better to have it out here than over dinner. On a theoretical third hand, Hermann owes his father exactly zero dispensation, and if Dr. Geiszler wishes to descend into hysterics at any time, that's the man's personal prerogative. Lars Gottlieb is welcome to leave if he doesn't like it.

Hermann says nothing.

After an hour of no conversation, Newton settles appreciably.

"Newton," Hermann begins. The man offers him a non-verbal acknowledgement but doesn't look away from his screen. "I have somehow, to my own great dissatisfaction, invited my father to dinner."

At this, Newton lifts his eyes. To Hermann's surprise, he finds himself on the receiving end of the man's singular expression of broken hyperfocus. He cannot be irrecoverably upset if he is concentrating so hard. Newton blinks at him, trying to free up sufficient processing power to cope with the unexpected. "What?" he says.

"My father is in town," Hermann says, slowing down.

"What?" Newton says again.

"My father is in San Francisco. Running some errand or other for the PPDC. He's coming to dinner, unless you object."

Please object, Hermann thinks.

"Oh," Newton says, pushing up his glasses. "Um, no." He appears vaguely confused. "Why would I object?"

Because my father is, as you yourself are apt to put it, 'the worst.' This, he doesn't say.

When no response from Hermann is immediately forthcoming, Newton falls back into whatever train of thought he'd been so enamored with.

Hermann sighs.

Dinner with Lars Gottlieb, is, for once, and surprisingly, not a complete disaster. He had braced for the worst, but Newton diffuses the majority of the tension between them, switching from English to German and back again, engaging Hermann's father on an eclectic variety of topics. They speak for almost twenty minutes about radishes before Newton gets a Bavarian history lesson with a culinary bent that lasts a good thirty minutes.

Dr. Geiszler has the gall to look genuinely pleased about the experience.

Radishes. Honestly.

After dinner, Newton unearths a bottle of Japanese whiskey Hermann had forgotten they owned, produces two glasses, and then informs them both that he's far too tired to join them.

Subtle, Hermann thinks. Very subtle.

Hermann and his father sit in ponderous silence at the kitchen table. Hermann pours the whisky with slow deliberation. Will this experience be as terrible as he suspects? Almost certainly.

"I like him," his father says. A caveat seems a virtual certainty, but none is forthcoming.

"Do you?" Hermann says, his tone cool.

His father nods, shortly, once.

They sip their whiskey. Perhaps, Hermann thinks, he will, this time, be content to sit for a few minutes and go. Perhaps things will not devolve. He cannot recall the last time he had a pleasant conversation with this man. Sometime circa age fifteen? Even that is likely too generous.

"That cough," his father says, voice low. Hermann is surprised to see some genuine concern in the man's face. "It comes from Manila?"



Hermann nods, turning his whiskey glass a quarter turn. "Indirectly. That experience has left him with a particular susceptibility to respiratory tract infections. He's recovering from what I hope will be his last this winter."

"Compared to your visit last summer," his father says, the words almost tentative, "he does not look so well."

"You should have seen him six weeks ago," Hermann says, forcing his tone into something that vaguely resembles philosophical. He sips his whiskey. There is a hint of sakura in the bouquet.

"Worse?" his father asks.

"Much," Hermann says.

His father sighs. "Hermann—I came to speak with you—"

"Father, please—"

"It's not what you think." Lars Gottlieb shakes his head. "It's not what you think."

Hermann raises his eyebrows.

"I've seen his complete and unredacted medical file."

Hermann snaps his gaze to his father's face, shocked.

"It was very recently. Ten days ago. I had, perhaps, an hour of digital access. Copying the files themselves seemed unwise, but I photographed the portions that seemed most critical."

"You what?" Hermann breathes.

"This," his father says, pulling a flash drive from a jacket pocket, "is what I came here to give you. This is the only copy. I have not kept one." He sets it on the table and slides it Hermann.

"This is—" Hermann doesn't touch the drive. Not yet.

"A violation of international law," his father says dryly. "Among other things."

"Yes," Hermann agrees. "Why in God's name would you risk this?"

"Because," his father says. "There's something in there that I think may be of use. Your UCSF neurologist, Dr. McClure, has been petitioning the PPDC continuously for eighteen months to get access to the sum total of his EEG readings. On her requisition forms, she stated that she wanted the records to assist in the creation of a personalized pharmacologic agent. I'm not sure if she has discussed this with you, but I spoke briefly with her some time ago, and she confirmed his records would be of material use. It would have been my preference to give the file to her, not involving you at all, but she's a physician, and I'm not sure she has the computational skill to correctly open, examine, and dispose of data this potentially dangerous."

"I—" Hermann says. "I cannot believe you would—" he trails off, at a loss for words.

"Can you not?" His father whispers, a melancholy note in the question. "Well. I have been wrong about a great many things, Hermann. One thing I have not been wrong about, however, is that your Dr. Geiszler deserves every chance I have ever been in a position to give him."

"You know—all of it?" Hermann asks.

"Perhaps more than you do," his father says. "I have also seen—there are—" he clears his throat. "There are recordings. Video. Of what was done."

This is not what Hermann expected from this evening. He pockets the flash drive, refills his father's scotch, picks up his own glass, then nods. "Come," he says, and they retreat the balcony.

The night is chill, but not intolerable in the absence of wind.

"I doubt he is asleep," Hermann says by way of explanation, switching to German, speaking quietly even after he slides the glass door shut.

His father nods.

"Please tell me what you saw," Hermann says.

"It was upsetting."

"I'm sure," Hermann is not without sympathy.

"The uncensored reports from the Vladivostok team—they make no secret of advocating for a neurosurgical procedure," his father says, then clears his throat. "They wanted to drill into his head. Open a 'cranial window,' they called it, to improve signal strength, obtain better readings. He seems to have convinced them it wasn't necessary. They spent a day in preparation. You can read their notes, should you be so inclined."

Hermann nods and relaxes his grip on his glass before it shatters in his hand.

"Their rig was used for the first drift. He had a seizure nearly immediately. They had trouble breaking the connection. The second drift used his rig, and ah—"

His father seems to briefly lose his resolve. He pauses, looks to the west, sips his scotch.

"Please continue," Hermann says.

"The footage of the second drift—I put it on the drive, but I don't recommend you watch it. I didn't include it for its medical import, I doubt there's anything there that would help Dr. McClure. I put it there for legal reasons."

"Legal reasons?"

"Yes." His father clears his throat. "He's clearly cooperating with them in the beginning, but by the time he drifts again, this time with his own rig, it's clear that he is not, in that moment, of sufficient cognitive capacity to consent to the procedure. The first time, he initiates it. The second time—he doesn't. It is much more clearly something being done

to him, rather than with him. And so if there were ever to be trouble, the threat of criminal proceedings against the PPDC could be used as leverage."

Hermann nods, sips his scotch, staring at the darkness where he knows the Coastal Wall to be. His father, too, looks toward the Wall, the sea.

"Thank you," Hermann says, when he is certain his voice will cooperate.

His father shakes his head. "I'm sorry I could not get it sooner."

"How did it strike you?" Hermann asks.

"How did it strike me," his father repeats, eyebrows raised. "Well, Hermann, if you want the unvarnished truth, as I suspect you do, my most overwhelming impression was one of gratitude that I was not watching you."

Hermann shuts his eyes. Would that you had been, he thinks, but does not say.

"He possesses astounding rhetorical power under pressure," his father continues. "I had been aware of this, of course. I have seen him acquit himself eloquently in scientific and public venues but here—his skills were well used. He saved himself from far worse than what was proposed. And I felt—" maddeningly, his father stops here.

"Yes?" Hermann asks, a strangled sound.

"His cooperation was given with such élan that I believe he did protect you with it, to at least some degree."

Hermann shakes his head.

He feels his father tentatively place a hand on his shoulder. And then, when Hermann does not pull away, his grip strengthens. His father gives his shoulder a small shake, unmistakably encouraging, and then pulls Hermann into a brief hug.

This startles Hermann straight out of his building distress. This is unusual, to say the least. His father is making a determined attempt to—what? Mend a relationship that Hermann has long since consigned as totally irreparable?

What a rare night this has turned out to be.

"I would know how you got him out of Hong Kong," his father murmurs. "Seeing what I saw—I cannot imagine him walking out of the Shatterdome twelve hours later."

"It was a once in a lifetime effort," Hermann whispers. "For both of us." He looks away from his father, toward the bay, toward the Coastal Wall, invisible in the darkness. "If I'd known at the time what they'd put him through—how hard it would be—I wouldn't have tried. I wouldn't have had the nerve."

"And it troubles you still." It's not a question.

"It does," Hermann replies.

"In what way?"

Hermann shakes his head.

"If you don't tell me," his father says, strangely tentative, "whom will you ever tell?"

"Point taken." Hermann waits for his father to accuse him of something—a lack of will, a lack of foresight, an excess of emotion, an overabundance of sentiment. It doesn't come. He studies his drink. The alcohol glints with reflected streetlight, moonlight. "There is the frame. And there is also the picture." The wind picks up, but it's warm, coming down out of the Sierras, no doubt.

"The frame is that he predicted their coming—that foreign team. He had been toying with the idea of drifting with a kaiju tissue fragment since 2023, when he realized that, even preserved in formalin, some neurologic activity remained in his samples. I'm sure he'd considered the medicolegal implications of drifting, should he survive. When they came, he was ready. He kept me out of it. So much so that he actively concealed what was happening from me. He told me that he trusted I would get him out and, on some level, I believe he's sincere when he says that, but he obviously trusted me only to a certain point. Because he didn't come to me ahead of time, he didn't ask me for help while it was happening. Why is that, do you think?"

"You must have some idea," his father says. "You know him vastly better than I."

"Ah." Hermann vends his bitter amusement with a trace of Geiszlerian panache. "But you know me. I would likely have simply fallen in line, don't you think? Had I known what they were about? Offered my own cooperation?"

"Hermann," his father says, his name full of caution.

"And so that was the frame he built. His foresight. His cooperation. And then there was the picture he made when they were done with him. He was disoriented. He could keep nothing in his head. He didn't know where he was. He couldn't tell me what had happened. He was in pain. He was, of course, terrified. For hours he didn't speak. He very nearly lost consciousness after we made it through security and the only reason he didn't is that I distressed him so profoundly that adrenaline kept him on his feet."

"Distressed him how?" his father asks.

"I said terrible things to him," Hermann admits. "To upset him. But I'm concerned he internalized some of what I said without realizing he did so. To this day he will say things—that sound like what I said to get him out of Hong Kong. Selfish as it is—I sometimes wish he could remember if only so he would be able to forgive me."

"You haven't spoken to him of this?" his father asks.

"No," Hermann says. "And I'm sure that if I tried—the entire concept of my emotional upset over these circumstances would strike him as alien. He can be practical to a fault. He would see nothing wrong with what I did. But he doesn't have to contend with the memories of—" he shakes his head, gives up the thought. Swallowing the last of his scotch, he amends his unfinished thought. "Well. Not consciously. But to this day he'll wake up screaming, caught up in some nightmare he can't articulate. I'm sure such dreams are of that time—the anteverse, the span of days he spent 'collaborating,' the third drift with a rage-filled neural network, and our subsequent flight from Hong Kong."

"For what it's worth," his father comments, "I think he's right. You correctly assessed the threat level of the situation, you did what was necessary, and you've done an admirable job patching the man back together."

"You think so?" Hermann whispers.

"I am quite sure," his father says, once again placing a hand on Hermann's shoulder.

## 2030 (Twenty-eight – Untangle This)

Hermann has pulled out the Kid Gloves of Guilt and Concern and is doing all his Newt handling with them. Newt vacillates between finding this cute and finding it depressing. He'd really rather Hermann make the drive to UC Berkeley; Newt has a strange desire to be alone. To kind of go somewhere by himself, maybe just the bathroom, shut the door, give the kids their way, lie down on the floor in there, start bleeding, pass out.

The xenoepilepsy thing feels, to him, at times, like a process that must go to completion; like there's not a way to get around the metaphorical board without passing metaphorical Go. There's nothing akin to it—those moments right before he loses his hold on himself—head snapping back, that warm rush of blood, and then a ricochet release of tension he's only partially aware of until it's strong enough to crack his consciousness right down the center with its going.

Maybe the tension is always there—some part of his primitive reward system mournfully and metaphorically masturbating to the memory of the anteverse. Hypothetical Rain asks him about auras. Like, does he have one before he gets a seizure, and if the answer to that is really "no," how come he has a better than fifty percent success rate of finding an abandoned room to lie down in before they happen?

The day that Newt figures out how to say, "Yes, Hypothetical Rain, I do have some warning. It's not an 'aura' per se, it's a little bit of psychosis without insight plus or minus a Leibniz sighting coupled to the sensation that I'm about to relieve some pre-existing mental tension so profoundly that I'll end up unconscious for days," without admitting he's lost touch with reality, he will get right on that.

The quantum foam thing might count as an aura if Newt could reliably recognize it as such when it was happening. But his track record on that leaves something to be desired

Also. Sometimes the epilepsy seems a little like giving the kids their way? Taking them to the park or something? What the park is, he has no idea. Are the kids even real? Definitely not. Well, they were real, but then they died tragically in a Thought Experiment Lake. Soooooo yeah, just neural patterns. Still, he kind of OWES them something, right? Like a trip to the park. If kids...weren't real...but nevertheless went to the park...after incapacitating their parents...with metaphorical brainstorm.

Newt has not mentioned this to either Hermann or Hypothetical Rain because there's just no way to make it sound reasonable.

Hypothetical Rain: So, did you take the prophylactic seizure cocktail I spent years of my life perfectly formulating just for you, out of extreme dedication and purity of heart? Using materials that your father in law committed international crimes to obtain?

Newt: Um, no.

Hypothetical Rain: WHY. NOT.

Newt: Weeeeeelllll—

Hermann: Because he lives to make other people suffer.

Newt: More like YOU live to make other people suffer. Am I right?

Hypothetical Rain: Quit it guys. Get a room. Why.

Newt: Turns out, I kind of feel like I owe something to the disembodied fragments of kaiju that I accidentally vivisected? It makes me feel better when they torture me? Not physically so much as ethically? Don't you think they deserve some kind of recompense? I know they're not real, technically, but does that mean what they

deserve isn't real? Don't you guys think they should get to have a neurocognitive outing every once and a while?

[AWKWARD SILENCE]

Hermann: NO.

Hypothetical Rain: DEFINITELY NOT.

Newt: Also, in the interest of full disclosure—this is complicated, but go with me here. The kids are me. I am also me. The kids enjoy the occasional fusion of my brain circuits. Does that mean I also enjoy it somehow? There's a component of reward that goes along with that fusing. They definitely crawl around in my dopaminergic pathways. Kind of like in the novel Terminal Man, but less stupid and more abstract.

Hypothetical Rain: What.

[MORE AWKWARD SILENCE]

Hypothetical Rain: Everything about this is wrong. Science? Wrong. Medicine? Wrong. Ethics? Wrong. Your actions: wrong. Everything? Wrong.

Newt: I'm just telling you about my subjective experience, man.

Hypothetical Rain: When these many things are this much wrong, do you know what that means?

Newt: No?

Hypothetical Rain: YOU ARE CRAZY.

Hermann: I knew it. I knew it all along.

[EVERYONE LEAVES NEWT FOREVER]

Kids: Yay!

Newt: No! Not yay, damn it.

And so he never has and never will admit anything about auras or monster thought children or braingasms that he doesn't want but doesn't not!want as much as one would think. He will take all of that knowledge to the grave. It will begin and end with him. It's probably a good thing he set himself up with a life partner, otherwise his choices might not be so clear. Maybe reopening transdimensional portals would seem like a good idea.

At this point, what he should do is a high resolution, high contrast, crisp little picture.

He? Will be good.

Extremely good. Extremely nice to his life partner, who definitely cried a little bit yesterday about Newt getting wet (unrelated to sickness, which was certainly on board and incubating well before the downpour), a decade of scolding (that really wasn't that bad), future worsening epilepsy (2028 and 2029 were not great years from that standpoint, Newt admits that), and some really complicated feelings about the past (and how it relates to the present).

So.

Fine.

Newt eats breakfast and drinks, like, a liter and a half of non-caffeinated tea in anticipatory hydration. He rests an elbow on the table, props his chin in his hand, and raises an eyebrow at Hermann. He feels strange. He feels strange in general, but he feels kind of extra strange interpersonally, because, aside from the allosadomasochism of his little monster thought!children, there are other reasons he doesn't like the idea of just—voluntarily embracing maximum vulnerability? Despite what Hermann says, Newt knows he won the guy over with his super sparkly intellect; it's his only good feature. He's supposed to just—trade it in for a while? Put it up as collateral for the sake of xenoepilepsy prevention?

Hermann returns his look with a look of overt trepidation, which is just—ugh. It strikes Newt as way too sad for 2030. He's doing this. About eight things have clinched it, Hermann's tragic countenance out of, like, a Brontë novel or a Doctor Who Christmas Special is just the latest.

"All right. Let me see it," Newt says, opening his free hand.

Hermann takes the non-bottle bottle out of his pocket and passes it to Newt.

Newt makes a show of looking at Hypothetical Rain's tiny printed formulation. What exactly she put in here doesn't really matter. What matters is that Newt makes a good performance out of assessing her work. Hermann probably knows this is all for show, because Newt has minimal interest in medicine. He has anti-interest in it, actually. All he needs to know is what Hypothetical Rain told him: this thing is a personally tailored, best-possible, rapid-acting cocktail of CNS depressants that will, hopefully, head off seizures in seizure-prone times.

Like now.

Newt pops the plastic shell open, pulls out the thin, nearly transparent sheet that is Hypothetical Rain's Actual Strip of Personalized Medicine. He looks at it speculatively, snaps the shell shut, then shoves the strip under his tongue before he can change his mind.

He and Hermann have some non-sexual and yet absolutely scorching eye contact.

Newt has just shocked the hell out of Dr. Gottlieb, in a good way, and Newt hasn't been able to do that in a while. When was the last time? He can't even recall. Probably when he'd said, "But what about the angular momentum?" at that Math Department party in 2028. And that wasn't even that impressive. It's always the angular momentum. Everyone knows that. It was probably his delivery, which was well timed, and the way Starr was, like, intellectually wing-manning him to make him look cool.

"Newton?" Hermann asks, a cautious draw at a slight remove.

"How bad can it be, really?" Newt asks, going for philosophical. His diction is already a little less crisp. Huh. That's pretty fast. But the strip is dissolvable, and already dissolved, which means it's already in his bloodstream, bypassing gastrointestinal absorption, of course it's fast.

He may have made a tactical error. He probably should have been lying down for this.

When he realizes his mistake, which he does, and quickly, because he's a freaking biologist, he gets up from kitchen table. Alas he overshoots or undershoots re: the getting up. Should have been more careful. He falls pretty gracefully, or at least it feels that way. It probably looks like he decided sitting on the floor was a good idea. Maybe it is a good idea. Who can say? A better idea than a chair right now, probably. He thinks about what he should do next. Get up, maybe.

"Newton," Hermann says, kneeling next to him, making his name a whole kaleidoscope of sympathy, which Newt does not need, man.

"Yeah yeah," Newt says, discouraged. This is not a great start. "I'm fine, actually," he tells Hermann.



"I know you are," Hermann says. Sounds pretty patronizing to Newt. But then again, what's the guy supposed to say? Newt should change the subject. He actually is fine though. Probably would be good to make that much clear.

"I," Newt says white-knuckling his articulation, "evidently, have some slight yet immediate problems with my vestibular system. But oth'wise." FUCK. "Other. Wise. I am fine. 'm not even tired. I could probably work from home."

"Why don't you get off the floor," Hermann suggests.

Yes. Newt agrees this is a good first step. Everyone would.

"Slowly, please." Hermann takes Newt's arm for balance.

"I need to—" Newt pauses to marshal his powers of articulation, because he can. "What I was planning on doing, today, in a perfect world, is, or would have been, looking over the normalization that they're doing for the heatmap—" he loses it. "I don't think they're doing—the Z-scores are weird, is my issue. That's what I'm saying. Whatever. You know math. You get me."

"I get you," Hermann says, pulling him politely but also insistently toward the couch. "Personally, I don't think that's a good idea right now,"

"L'what's your suggestion?" Newt says. "What. What is. Your suggestion."

"My suggestion is that you wait twenty minutes and re-evaluate before tackling any statistics," Hermann says. He presses down on Newt's shoulder, nicely but also in kind of a please-lie-down-before-I-push-you-down way.

"I am fine," Newt informs him archly, lying back against a pillow that Hermann had sneakily put here at some point earlier in the morning. "I know that face you're making and I don't like it. I'd have to be dead before I couldn't interpret a heat map, Hermann, okay?"

"I never—" Hermann aborts whatever that was going to be, and sits down on their coffee table, his bad leg stretched out in front of him. Favorite pose. "I don't necessarily disagree, but maybe you can explain to me why you seem to expect your cognitive processing to stay clear when you've taken medication that has been tailored to slow electrical impulses in your particular brain."

"I don't," Newt says, defensively. That would be stupid.

"Then explain why you think you should be troubleshooting 'weird' Z-scores right now."

He makes a good point.

"But I—" Newt says, realizing that Hermann has rhetorically trapped him. That shouldn't be able to happen.

"Listen to me, Newton," Hermann says, gently rubbing his chest. "Are you listening? Don't think. Just listen."

"Fine," Newt says, with mild to moderate dignified poise.

"I'm going to quote for you one of my favorite scientific thinkers. He observed that 'it is the nature of human thought to be subject to both bias and biochemistry.' Does that ring a bell?"

"Myeah," Newt says, resentfully. Bias and Biochemistry is a good thought but a better band name. He digs the fingernails of his mind into it and hangs on for dear life.

"Good, it should, since it was you." Hermann gives him a significant look. "I don't understand why you seem to consider certain biologic imperatives character failings despite claiming, repeatedly and correctly, that they could not possibly be such."

Predictably, this distracts him from his bias and biochemistry thought, and as soon as he lets it go it falls away like leaves, damn it. Something had.

"I don't—" Newt says, his thoughts scattering, his body relaxing under Hermann's hand.

"You are a brilliant scientist," Hermann says. "Scintillating, even. I have always considered you such."

Newt doubts that's true, but can't muster much of an argument. His face must display some skepticism, because—

"Always," Hermann says, firmly. "Any alternate perception on your part comes from my poor communication skills I'm sure. The chair of your department told the chair of my department that you are in the process of ripping the field up by its roots, turning it over, and planting all kinds of hybrid varieties. As a metaphor, it's somewhat rococo, but I find I know exactly what he means."

Newt lifts an eyebrow.

"Don't give me that," Hermann says, smiling. "At some point, in the future, you will explain where that comment came from, because I find I very much want to know."

Newt forces his eyes open, focusing on Hermann.

Hermann sighs. "Why are you trying so hard?" he asks, his hand resting on Newt's chest.

"Seems the thing t'do," Newt says, nearly unintelligibly.

"There is absolutely no need." Hermann replies. "Go to sleep."

Newt can't—quite—

## 2020 (Twenty-nine – A Borrower of the Night)

Late in the evening, three days before they leave for Geneva, Hermann sits alone at his desk, silently running through his presentation. He has been asked to give the Keynote this year. Quite an honor. He's constantly being congratulated.

He could not be more miserable.

Casting back in his life, looking for a time when, perhaps, he had been more miserable than he is at present, huddled over his laptop at twenty-three hundred hours, he finds nothing comes to mind. He is cold, he is anxious, they're going to lose the war, he'll see the end of his own civilization—his hand comes to his eyes.

"Hey."

He looks up. Newton stands in his doorway, a shadow of his former self, looking as miserable as Hermann feels. He is pale, his eyes are bloodshot, he leans against the doorframe as though he is too tired to stand.

"Newton," Hermann says, glad the other man didn't catch him overtly weeping. He does his best to gather himself, trying to surreptitiously wipe his eyes. When he looks up again, Newton's own eyes are closed, as if maybe, he too, has pushed himself past what he can sustain. He lost, Hermann thinks, a tech not too long ago. His workload is untenable. After a protracted interval, the other man opens his eyes.

"You're working on your talk," Newton says.

"Yes," Hermann replies, too tired for the antagonism he would usually try to insert into their exchange.

"How's it going?" Newton asks.

Hermann raises a hand, in a how-does-it-look-like-its-going gesture.

"You want a practice audience?" Newton asks.

Hermann looks at him in surprise. "You, I'm sure, do not have time."

"Eh," Newton says, taking this as an invitation, and not improperly so. He walks forward, grabs the back of the chair that sits in front of Hermann's desk and drags it around so they are sitting side-by-side, looking at Hermann's screen.

"I do not need practice, necessarily," Hermann says, "but I wonder if you might look at the opening."

"Sure," Newton says, his hands hovering over the keys on Hermann's laptop. Hermann nods, giving him permission. Newton cycles the slides through once, then returns to the beginning of the talk. He advances, he reverses, advances again. He saves the presentation, creates another version, appending NewtMod to the end of Hermann's file name. He drags slide seven up to become slide four.

"Ah—" Hermann tries to protest.

"Wait wait," Newton murmurs. He creates a new slide at position 3, writes some filler text, and takes a figure from slide five, before deleting that entirely. "You'll have to fix

the text," Newton says, "but then, if you just—" he brings slides eight and nine up to follow his new slide four. "And—" he says, paging through the talk, "Okay, so you're building the background, you segue to the math, and then—" he creates a new slide at position twenty-three. "You don't need something here, but I recommend it. Even just something very simple, the simpler the better, like, blank slide, one line, the talk within a talk—to let people know they need to look up from their phones for slide twenty-four. Just like—" he types: Supererogatory Quantum Cartography <3 in a text box.

Hermann smiles faintly.

"Oh my god," Newton says, grinning back at him. "What is that? Are you smiling? I can die now."

"Don't you dare," Hermann says, unable to fully control his expression. "That was extremely helpful."

"Good," Newton replies, still scrolling forward and back through his talk. "Otherwise—mostly similar to the talk you gave in Beijing maybe six months ago? That was the backbone?"

"I'm surprised you recall," Hermann says.

Newton looks laterally at him through heavy-lidded eyes, but doesn't say anything in response, just goes back to the talk, ensuring figures are well framed, captions are aligned, text is uniform. It does not take him long. "You want to run through it tomorrow?" he asks.

"No," Hermann says.

"Myeah I hear that," Newton says, sliding Hermann's laptop back across the desk. "It's not like you need to." He pushes his glasses up and looks at Hermann with that peculiarly hopeful expression he occasionally wears. Tonight, Hermann finds it wrenching.

"You look exhausted," Hermann says.

"Exhausted is in vogue this year," Newton replies. "Very chic. I notice you, also, are sporting this trend, Dr. Gottlieb."

"What are you going to be speaking on?" Hermann asks him.

"It's a surprise," Newton says.

"To whom?" Hermann asks darkly.

Newton remains silent, staring into his own thoughts. "The Coastal Wall," he says, finally.

"You—you know nothing about the Coastal Wall. Your research is not on the Coastal Wall."

"It's not that complicated, Hermann. It's a wall, not a biomechanical interface."

"What session?" Hermann asks, full of trepidation.

"Day one," Newton mutters, looking away. "Hall A."

"Newton," Hermann hisses. "That's—"

"I know, Hermann. I know. Lightcap's usual slot. The basic science defense talk. I asked for it and I got it."

"That's a large venue," Hermann says. "What are you planning on saying about the Coastal Wall in that venue?"

"That, as an idea, it's unworkable."

"Newton, are you certain it's wise to antagonize—"

Newton shoots Hermann a look that stops him cold. It's a look of pure exhaustion and abject misery. "Hermann," he says, "I'm sure it's not. But if she were here—she'd kill the wall, because it's a terrible idea. Certain to fail. She's not here though. I am."

"I don't think you'll be successful," Hermann says, as gently as possible.

"I know," Newton whispers. "But all the same. I have to try, don't you think?"

There is a long silence.

"Wear a blazer," Hermann advises.

Newton laughs.

2027 (Thirty – The Garland of the War)

Newt and Jake are walking down a second-floor hallway on the way back from the latest Research in Progress talk when Newt takes a really good, really clear line of Johann Sebastian Bach straight to the brain. Honestly, he'd been pretty optimistic this wasn't A Thing anymore, but he hadn't tested it since 2025, and this is a hardcore fugue and it's not like the kids aren't around, little neural ghosts waiting for their time in the sun, so—

"Newt?" Jake says, probably because Newt has his hands over his ears.

"Bach," Newt says, maybe, but he can't hear anything over the explosion of musical throughlines in his head. He's trying to fight it, trying to stay at the top of his own consciousness, but it's hard. He sinks into a crouch, hitting a knee on the floor, hands still clamped to his head, riding a rush of dopamine so intense he thinks his teeth might crack with it. Bach himself seems to be reaching through three hundred years of spacetime to press down on every cognitive circuit Newt has in his repertoire. It's kind of terrifying, getting mentally invaded by a dead composer, randomly, on a Friday afternoon, courtesy of alien monster neural pathways.

He's going to calm down about it real soon, unfortunately, because he's pretty sure he's about to lose what hold he has on who he is and why this sucks.

"Ummmm," Jake says, looking at the open door, and then back at Newt. He leaves Newt and crosses the hall to close the door. Smart kid. This helps. Not enough though.

Newt's body isn't doing what he wants it to do. It's possessed of a lassitude that's dragging his hands down, pulling him toward the floor.

Maybe Leibniz will save him?

Leibniz is dead, though.

Bach is also dead, nothing's stopping him.

Jake is alive and right next to him, wrenching Newt's arm to get it over his shoulder, then dragging Newt to his feet and down the hall until, finally the Bach is totally inaudible.

The kids hiss in longing.

Newt presses his shirt sleeve against his face and tries not to look for Gottfried Leibniz around every corner they pass. He feels acutely exhausted, his brain full of fading counterpoint. How long had that lasted? Probably a good twenty seconds. He feels weirdly accomplished. Kind of inappropriately so. A little euphoric. Or is that maybe the kids? Newt is probably the one who's trembling and bleeding from his face. Everything has a weird glow.

"Are you okay?" Jake says, like maybe not for the first time.

"Yeah," Newt replies, trying for casual, overshooting, hitting dazed, though. Hitting that one dead on.

"Are you going to have a seizure?" Jake asks.

"No," Newt says.

"No offense," Jake says, "but I think you might be wrong about that."

"None taken," Newt replies. "It's possible. But I—have a problem with Bach."

"Who doesn't?" Jake says, companionably. Jake is the best. Newt would take a toxic alien dart to the myocardium for him any day. They make it to the lab, and Jake helps him to his desk before chasing everyone else away, except for Amy, who's like, currently a budget doctor or something.

"I'm fine," Newt tells them. "I just need a minute."

"Okay," Jake says.

"Sure," Amy agrees, taking Newt's pulse, handing him a box of tissues.

"By myself," Newt clarifies, trading sleeve for Kleenex.

"Ha," Jake replies. "No chance. Are you sick?"

"No," Newt says. "I'm telling you. It was just the Bach."

"Bach?" Amy says, frowning.

Jake provides some exposition for what's could easily turn into episode four of the Jake and Amy Show. [Editorial note: a junior scientist and anxiety-prone medical student investigate strange hallway phenomena! Now streaming on Netflix.] "We passed a room playing some classical station—Bach, I guess, and he kind of grabbed his head and dropped, then stopped talking until I shut the door and helped him down the hall a ways."

"Guys," Newt says, exasperated. "I'm fine. If I were going to have a seizure I'd be seizing right now. I just—" he tries to frame it in a way they'll understand. "Bach is very triggering." This is extremely true. Not in the way they're probably interpreting it, but in a wholly inexplicable way that involves, like, undead kaiju he tortured accidentally and that haunt him to this day.

The kids hiss at him, a little sympathetically.

Kids, any chance you can be Leibniz? Newt asks, feeling a little more than a little bit cognitively needy. Like, quite literally, he needs dopamine. He probably just used it all.

Continuity, the kids hiss, in what is unmistakably their best effort.

Thanks, kids. Kind of a creepy word choice though. Newt doesn't feel reassured.

Jake and Amy make sympathetic sounds.

Newt needs to talk to the people in the room, not mentally summon alien hive mind incarnations of dead and optimistic rationalists. "So, um, Amy? Can you just—go tell everyone I'm not dying or seizing or anything and then, I don't know, go to the departmental happy hour or something? Yay Friday."

Amy, Junior Medical Professional, looks at Jake, First Officer of the Geiszler lab, and now Newt is SURE there's something going on between them because there are whole novels of communication in the look they exchange. Maybe The Hallway Adventures of Jake and Amy is more like episode four of season two.

"Okay," Amy says, and makes her exit.

Jake drops into the chair across from Newt and just kind of sits there while Newt tries to scrape himself up and dump himself into an Associate Professor shaped container, both elbows on his desk, his head in his hands. He should call Hermann, and he's definitely going to, he just needs to make sure he's not going to cry. It's not like he hasn't cried in front of Jake before, but he really tries to keep those times to a minimum. Jake gets it in a way that no one else gets it. Jake is the only one of them who knows what a mess Newt really is. Was. Mostly was, sometimes is.

"Why did you ever join my lab?" Newt says, mostly into his hands.

"Glory?" Jake says. "Fame? Fortune?"

Newt doesn't look up. He feels like crap. He feels like crap about feeling like crap. The kids miss the Bach. Newt misses Leibniz. The kids like to torture him. They deserve that, probably. He does. They all do? They don't. They came to HIS planet. And like, marauded and stuff. He was not the aggressor here. They're not even them. They're him. The part of him that's them. The part of them that was them died a fiery representational death underwater. Huh. That was probably how a lot of the kids actually died in the world, come to think of it. Awwwww. Damn it, his goal was not to cry.

Leave me alone, he thinks, not really sure who he's talking to. Maybe Bach. Maybe every software spirit the hardware of this brain has volunteered to host. Except for Leibniz. Newt would take that guy back any day.

The kids sibilate restively.

Newt can't get his nose to stop bleeding, probably because he's still freaking out a little bit.

"You want to talk about what happened back there?" Jake asks.

"No," Newt says.

"I can make a PSA to the entire floor," Jake says. "No Bach."

"Don't do that," Newt says.

"Okay," Jake says, in a way that almost certainly means he's going to do it first thing Monday morning.

Newt gives him A Look.

Jake shrugs innocently.

"What'd you think of the talk?" Newt asks.

"Um," Jake says. "A little unfocused; it seemed kind of like a cool computational algorithm with no definite application. There was that other group that worked on multidimensional coding in the amygdala—I'm forgetting the institution—but if I recall correctly and they had a model with good predictive power. Their paper might be a good place to start looking for signals to refine from the noise."

"Myeah," Newt says. "Agree with number one, haven't read the paper you're talking about."

"I'll dig it up for you," Jake says.

Newt nods.

"Feel more like a PI now?" Jake asks.

"A little," Newt says. He tries pulling the Kleenex away from his face, but nope, still bleeding. "Ugh this is the worst."

"Yeah, you're getting blood everywhere," his second-year graduate student thoughtfully points out.

"Thanks, Jake," Newt says.

"You gonna call your guy?" Jake asks.

"Yeah," Newt replies, pulling out his phone. He dials Hermann's number. Jake politely looks away.



"Newton," Hermann says.

"Hi," Newt says.

"What's wrong?" Hermann snaps, because of course he does.

It is unfair how sensitive Hermann is to even monosyllables that come out of Newt's mouth. He doesn't have a reciprocal skill. It makes him feel like a bad life partner.

"Nothing," Newt says. This is never the right answer, even when it's true. It's probably not true right now.

"Newton," Hermann says, escalating because Newt sucks at talking about his day while simultaneously not crying in front of Jake.

"Can you just—come get me?" Newt asks, his voice cracking slightly.

"Yes," Hermann says.

"I'll be in my office," Newt says.

"I'll see you shortly," Hermann says, hanging up.

"He's coming," Newt says pointlessly to Jake; who probably could hear the other half of the call anyway.

"Good," Jake says.

Newt tries to focus on calming down and reducing his intracranial pressure so maybe he can get his nose to stop bleeding sometime this century. Calm down, he tells himself, sternly.

Screw you, his brain replies, that was terrifying and I'll calm down when I WANT to calm down, which is not right now.

Great. This is going to be a great night. Ugh. No. He needs to not knuckle under to this, he can still save it, he's fine, it was just some Bach, it's even happened before. Jake has seen way worse than this. Last winter, when it was just the two of them in the lab nothing set up, just boxes, and Newt had come in for half a day, still "slowed," as Hypothetical Rain likes to put it, from his most recent bout with the kids and the hospital and the taper that comes after, but also getting sick again, and Newt had told Jake that he wasn't allowed to affiliate and—

So you're leaving, then? Jake had said, looking at him, holding a bag of 50 mL conical tubes.

No, Newt had said, his head pounding, probably with all the misery trying to explode out of it, but you can't join my lab.

Why? Jake had demanded.

Why would you want to? Newt had asked him.

Because I do, Jake had replied, going back to unloading the box at his feet.

Not good enough, Newt had intended to snap, but it had mostly come out slow and slightly more than slightly slurred.

Because, Jake had said, not looking at him, I know what I need out of a mentor. I don't need someone who's breathing down my neck all the time, telling me what to do. I need someone inspiring, who can keep that love for science burning, so it doesn't just all turn to drudgery. You're definitely that guy, Newt.

Maybe, Newt had replied. It's more likely I was that guy. But there are a lot of people like that here who are way more functional than I am. Jake, I've been out of commission for most of the winter, I've barely shown up to set up my own lab, I can't—I can't even handle going to the Friday talks, I never even gave a job talk, they've already stacked the funding deck against me, they only hired me because the Math Department wanted my life partner so badly. I'm not going to get tenure; I'm a dead end. I like you. I want you to have an actual science career. And the way to do that? Join anyone else's lab. Not mine.

Jake, unperturbed, continues to stack conical tubes in the supply cabinet. I might have believed all that crap you just told me if you hadn't spent an afternoon talking me through the mechanics of synaptic transmission. And an afternoon on the action potential. And an afternoon on the classification and action of different families of neurotransmitters. Do you know how well I'm doing in Seminars in Neurobio? The way that you synthesize information and then the way that you teach it—it's worth it. All the drawbacks. All the downsides. Even if your lab crashes and burns after eighteen months, the teaching alone would be worth the time spent. There is no one else in this department I'm willing to consider if you're an option. You make me want to try harder than I've ever tried in my life, just so I can talk to you about this stuff.

"Newt," Jake says. "I know that look. Stop it."

"You don't know this look," Newt replies, and tips his head back, really making an effort on turning the epistaxis faucet to the off position.

"Yes I do. This is the look you get when you torture yourself about my scientific future. Or Charu's. Or Daniel's. Everything is fine. Sam Gordon is obsessed with you. He won't shut up about your R01. I'm pretty sure he wants to be in your lab a little bit."

Newt smiles faintly because that last part might be true. It strikes him that his lab now is a more extreme version of every lab he's ever run. He's always attracted people the way he attracts them now—by being a high wattage incandescent bulb in the scientific dark. That part hasn't changed. If anything, the years in the PPDC, the drift with Hermann—these things have only sharpened his intellect and intuition. The people he attracts have always felt an intense personal loyalty to him because of his behavior, his age (though that won't stay a thing forever), the way the world is always trying to crush something that lives a few sigmas from the mean. That, too, has intensified, turned into a new thing, even—a raging protectiveness that sometimes gets a little bit out of control.

You don't need to accompany me to every Research In Progress talk you know, Newt is about to tell Jake. But then, he stops himself.

Because, um, hi, maybe Jake does need to accompany Newt to every talk if people are going to be irresponsibly playing Bach in the halls? This is a foreign concept for him a little bit, but maybe he should just—let the lab kids be how they want to be, go with it, and hmm, yeah, accept it as the exogenous functionality crutch it is a little bit, but

they're doing it for a reason, right, because he's not some totally useless figurehead, he does things, like getting grants, having good ideas, teaching. He should maybe try a different model where he embraces that he's not going to be some kind of self-sufficient, mentally tough, paragon of academic machismo instead of just making pointless stands about things that aren't even in his self-interest.

Oh, look at this new leaf, his brain says. Let's see what's on the other side.

Even the ghost-monster thought-children seem vaguely supportive.

"You look like you're thinking way too hard," Jake says, "especially for a guy who nearly passed out in the hallway over Bach not fifteen minutes ago."

"Thanks for saving me from the fugue," Newt says.

"No problem," Jake replies.

"Thanks for going with me, generally, all the time," Newt continues, and, instead of perseverating on his I-suck-and-have-low-self-esteem theme, he says, "I don't know what I'd do without you, Jake."

Jake looks at him, surprised, very clearly touched by this admission on Newt's part, which, crap, means he should probably say this kind of thing more often to his lab in general. Now that he's really thinking about it—they do a lot for him, a LOT, but probably more importantly, they do a lot for Hermann, who probably would not be so fine with leaving Newt across campus if he didn't know that Newt had a whole lab full of people ready to step in and save him from The Well-Tempered Clavier at a moment's notice.

Newt is somewhat reassured to see Jake at a loss for words. He's, like, twenty-four or something, and already creepily mature. But not so mature that he can handle watching his PI freak out over Bach, start bleeding, nearly pass out, recover, and thank him for, essentially, years of dedication and support. No twenty-four year-old should be able to take that with equanimity, and if they can, they probably had a childhood that was way too exciting.

"Newt, I, uh—"

Newt waves him off. "On a scale of one to ten how bad do I look?"

"Like a seven," Jake says. "Dr. Gottlieb is going to, um, not be happy when he sees you."

"Ugh," Newt says, pulling the tissue away from his nose. No more blood. Great. "Well, seems like that's done," he says, throwing it in the trash.

"Sit tight," Jake says. "I think we can get you down to a solid five." He darts out of the room and is back about twenty seconds later with a bunch of damp paper towels. With Jake's help, Newt manages to get the blood off his face.

"Better?" he says, throwing the last of the paper towels in the trash.

"Better," Jake says, "but still more six than five, because you've got blood all over your shirt. Don't you keep a blazer around for surprise formality?"

"Yeah," Newt says. "Back of the door."

Jake grabs it, and helps Newt into it, which Newt needs, because he still feels like crap and his motor pathways are confused. What is this, 2025? Sure seems like it. Maybe he needs to go on a five-mile walk.

"You okay?" Jake asks, yanking Newt's blazer up over his shoulders, settling it properly.

"Myeah," Newt replies.

"You seem a little off," Jake says, straightening his seams. "More than a little, actually."

Newt sighs. "You know what I did, right? At the end of the war?" Seems like everyone knows but no one talks to him about it, which is great, which is preferred, actually.

"Uh," Jake says, helping him sit. "Yeah. You uh—"

"Yeah," Newt says. "That. Drifting with a non-human thing can really screw up human motor patterns, and can leave one with 'normal' problems, like an excitable prefrontal cortex that enjoys making electrochemical waves incompatible with consciousness when my internal thermostat is cranked too high—but it can also leave one with 'weird' problems."

"The Bach thing?"

"Myeah. I don't know what that is—I like, start to lose control of my ability to do anything."

"If I hadn't been there?"

"Ugh, I don't know, I think I might have just gone down and looked comatose for as long as it lasted? But, to be clear, I wouldn't have been comatose. My brain, like, overloads in the presence of musical counterpoint."

"That sucks," Jake opines, returning to the other side of his desk. "If it went on long enough, would you have a seizure?"

"Maybe," Newt says.

"What about other fugues?" Jake asks. "Ones not by Bach?"

"No idea," Newt replies. "I haven't been in the mood to experiment. Ugh." He holds up a hand, shows Jake his resting tremor. "See that? That's a relative dopamine deficit, my friend. I just burned through a shit-ton of the stuff I'm sure."

"Dopamine, huh?" Jake says.

"I'm pretty sure."

"Did it feel good?"

"Uh, yeah," Newt admits. "Kinda. But also terrifying."

"Do you get a resting tremor after you have a seizure?" Jake asks.

"I couldn't tell you," Newt says. "My neurologist hits my higher cognitive processing with a pharmacologic club so hard that I lose at least four days of my life every time. By day five I don't have one."

"I guess what I'm getting at is—is are there two entirely separate processes that explain the seizures and the Bach, or are they different manifestations of the same thing?"

"Hmmm," Newt says.

"Because seizures, classically, that would either be ramping up glutamate or falling GABA levels. Signaling thresholds could change when you're feverish, but if the Bach thing is a different thing, and sucks all your dopamine dry, that's actually probably going to—huh. Maybe we should ask Amy or your neurologist about this but I'm pretty sure Amy was telling me that when you block dopamine too hard you lower the seizure threshold. So you might want to double up on your seizure prophylaxis until you lose your resting tremor."

"Ugh," Newt says. "Jake, I hate that theory. Tell no one."

"Sorry," Jake says. "At least it's a weekend."

"Why are you and Amy talking about seizures anyway?" Newt asks, eyes narrowed.

Jake eyes go very deer in very headlight. "I was helping her study. She takes the first step of her boards soon, and—"

Newt grins. "You were 'helping' her 'study'?"

"It's not like that," Jake protests, squirming in his chair.

"Lab romances can get awkward," Newt warns him.

"You're one to talk. You told me that you and Dr. Gottlieb had to share space for the last two years of the war."

"We weren't together then," Newt says, leaning back in his chair, crossing his arms against this resting tremor that he has NOT missed, by the way. He feels physically spent.

"Wait, what?"

"Oh I might have 'helped him study' here or there," Newt says, putting air quotes around the words with his tone alone. "But no. We didn't get together until after the war."

When you hijacked his good judgment and possibly his romantic tastes with your stereotactic interface, Newt's brain says, being a jerk.

"But," Jake says, "what if we'd all died?"

"Well, in that case, I imagine we'd probably have had more pressing regrets than not giving a romantic relationship a fair shot. Don't get me wrong. I'm not saying don't date Amy. I'm just saying—think about it carefully."

There's a knock at Newt's door. He looks meaningfully at Jake.

"You're a solid five," Jake whispers, with a reassuring head nod.

"Come in," Newt says.

## 2015 (Thirty-one – Chimes at Midnight)

Perched in his usual haunt at the top of the Shatterdome, Hermann looks out on the Alaskan wilderness. The deployment dock is on the opposite side of the building, facing the sea. From this vantagepoint, Hermann can take in the tundra, the lake, the distant mountains.

The days are turning shorter. Soon, they will live mostly in darkness.

Solitude is like a rain  
Toward evening it rises from the sea

Rilke. The poet nearest to his thoughts in these days that might be considered humanity's last. He turns his thermos of tea in his hands, but doesn't open it. The water of the lake is clear tonight; the mountains reflected on its surface.

He is alone. And he will be alone for quite some time, he thinks.

He used to come here and compose his letters to that endlessly fascinating Associate Director of JET Force. He misses his friend. The one who never really existed. Strange as it sounds, in correspondence, Newton Geiszler had been a source of consistent and valued support. Unfortunately, the real man is nothing like his writing would lead one to believe. Or, perhaps, the real man is not only what his writing would lead one to believe.

Whoever is alone now will long remain so,  
Will stay awake, read books, write long letters  
And wander restless back and forth  
Along the tree-lined streets, as the leaves drift down.

Terrible, these monsters that come from the sea. Delicate, the planet's ecosystem. It is a tragedy, but what a tragedy. More cosmic than any end humanity would have engineered for itself. What would Rilke have had to say about it? He wonders. Newton believes in nature, red in tooth and claw. The man had said that, once. How strange to be a biologist—to internalize these truths about the world, one's place in it.

Did Newton ever 'get around' to the Rilke after his experience in Manila? Hermann wonders.

Probably not.

Newton is tormenting him.

TORMENTING.

The two of them are incompatible. It is obvious. He lists the reasons. One. There are those six PhDs to contend with. Certainly it makes the man seem more than a little indecisive. Not a good quality in a partner. An unacceptable quality, in fact. Two. The green hair. It is childish. No more need be said. Even if it intensifies the green of his eyes, that is immaterial; it is still childish. Three. He is slovenly. That alone would make any long-term association impossible. Unless his behavior could be modified. This seems vanishingly unlikely. Four. He is emotionally labile. This, also, is not a good quality in a partner. Hermann, for better or worse, is somewhat sensitive; he requires a steadying influence. He would like a steadying influence. Someone who brings out his strengths, rather than his weaknesses. Five. The man is addicted to coffee. One cannot

converse with him before he's ingested at least 200 milligrams of caffeine. It's disturbing. Six. His taste in clothing is atrocious, even if his sartorial choices do particularly compliment his build. Seven. He is too young. He is immature. Hermann would be better matched with someone older.

He commits the list to memory: indecisive, hair, slovenly, labile, addicted to coffee, poor taste, too young. He rearranges it in case he needs to make use of it in an argument one day. Newton is an indecisive, slovenly, emotionally labile child who cannot function without coffee and makes terrible choices regarding fashion and behavior. Now all he has to do is deeply internalize that list.

Thus far, he's had little success on that front.

Is he native to this realm? No,  
His wide nature grew out of both worlds.

There is something about the man. Something that may—that may—transcend Hermann's list. He cannot forget the letters. He can't do it. Somewhere inside that infuriating man is the person who conceived and expressed those things. Why he chooses to behave so provocatively and immaturally ninety percent of the time—Hermann can't say. But that other ten percent? It's there. It is somewhere in the man. That eloquence, those insights, that bravery. He has seen hints of them at times. At other times more than hints.

Perhaps—perhaps he ought to apologize to Newton. Hermann himself had been—in Geneva, when they'd met—he had been, admittedly, somewhat dismissive, perhaps, is the best word. Ugh. It had been horrible. He can barely stand to think on it, so he won't. He tips his head back, rather aggressively, against a metal support strut.

The thing that perplexes him the most, however, is that when they'd met, he had, in no way, found the man attractive. Is this superficial? Yes. He can admit that. In the flesh, he had found Dr. Geiszler disappointingly short, slight of build with terrible hair made worse by tasteless dye. He carried himself poorly, spoke poorly, dressed poorly.

So WHY on God's green earth is this happening to him? Why, for months now, has he found the man so attractive? While he does, admittedly, still occasionally fantasize about an artificial, mature version of Dr. Geiszler, that construct has now taken on Newton's actual appearance. Hermann cannot parse it. It must be some nonsensical epiphenomenon emerging from his consciousness.

More than anything, really, he finds the man charming. If charm were something that, historically, had been known to trigger nervous breakdowns.

Hermann is going to be honest with himself here. In the American vernacular, Newton might be considered "cute." The problem—ah yes, now here he is getting somewhere—is that Newton combines this quality with disparate elements that do not typically accompany "cute" things. Such as extreme perspicacity. Punk rock. Arrogance. Confidence. Poise. Well. Certainly not poise in the typically understood sense, but there is something strong in Newton. Something that, when it is hit, does not give. Not a millimeter.

Admittedly, Hermann enjoys provoking the man for no other reason than to see that feature come out. Hermann can discern no such core at the heart of his own personality. Perhaps if he has such a quality his life would have turned on different



axes. Perhaps he would not have washed out as a Jaeger pilot, for example. Perhaps he would have struck out independent of his father's influence. Perhaps—many things.

Having arrived at this insight seems pointless. It cannot guide his actions.

As Newton continues to accomplish more and more as the head of the K-science division, Hermann's problem will likely become more pronounced. Then again, it may fade, as some of the novelty wears off. It should not be his focus. His focus should be on the planet. Perhaps he should read, again, *History of the Peloponnesian War*. He could consider *The Decline and Fall of the Roman Empire*. Equally apropos.

He finishes his tea. The sun has nearly set. The land is covered in shadow. He slides down from his perch on one of the metal girders, and turns to head back inside only to find—

Newton is watching him.

Hermann presses a hand to his chest, startled, and then yanks the hood of his coat back.

"Why didn't you say anything?" Hermann demands.

Newton, wearing only his thin leather jacket, stands with his arms crossed, his hair windblown. He looks cold. He also looks intensely beautiful in the fading light. The man shrugs, smiling faintly. "I didn't want to disturb you." Hermann had been contemplating the man's poise, and it is now on full and glorious display. He seems, in this moment, something more than human, invested as he is with all the acuity of Hermann's longing, the ghost of all that Hermann's giving up.

"For all I know," Newton says, "you're mapping our salvation in the quantum foam."

"You'll catch your death in that ridiculous coat," Hermann snaps.

Newton sighs.

Hermann heads for the stairs.

## 2030 (Thirty-two – Untangle This)

"Well," Hermann says, smoothing Newton's hair. "That could have gone better, I think."

Newton has lost his battle with pharmacology and surrendered to sleep. Hermann manhandles him into lying on his side; a safer position, should Dr. McClure's cocktail be ineffective.

"But then, it could have gone worse," Hermann says, philosophically. He pulls out his phone and texts Dr. McClure, informing her of his success. She texts him back almost immediately, a row of nothing but exclamation points. Hermann smiles faintly.

::How did it hit him?:

::Perhaps too hard:: Hermann replies. ::He was asleep in less than five minutes despite an heroic effort on his part::

::Hmm:: Dr. McClure replies. ::That's okay. We just need to make sure he's awake enough to eat, drink, pee, and take his Tylenol and antibiotics. Dehydration/hypoglycemia is probably the biggest risk to this plan. Try waking him around noon and don't let him go back to sleep until he's had a liter of Gatorade, a snack, and some Tylenol::

::Will do:: Hermann confirms.

::There are very few patients I'd trust with this kind of regimen...he isn't one. But you are::

::I will monitor him carefully::

::I know it. Call for anything. What's his temp now?:

::With the Tylenol it's come down to 99.0 F::

::Good good::

A slight vibration alerts him to a new email. It's from Mako. Eyebrows lifted, he opens it.

Dear Hermann,

I hope you are well. Newt tells me he's sick, and that you could use another set (or two) of hands and eyes around the apartment. Shall we come?

Love,  
Mako

He looks at Newton and lifts an eyebrow to tame the onslaught of intense affection.

Hermann spends the morning cleaning. He can't help himself. It's distracting, and he hates the idea of Mako arriving to find an unkempt apartment. She would certainly clean it for them, and Hermann can't imagine living that down. Again. He's never far from Newton, his gaze shifting constantly back to the man.

At the appointed time, he retrieves a box of graham crackers, opens a bottle of Gatorade, takes a seat on their coffee table, and begins the process of rousing Newton. It is not easy. Hermann wastes five minutes trying to do it gently, and gets nowhere.

Eventually, he employs a cold washcloth, which does the trick. Newton makes a pathetic little noise in the back of his throat and opens his eyes, trying to push Hermann's hand away from his forehead.

"Why?" Newton says, confused, giving Hermann a look of pained and wounded betrayal that is all the more effective because of its total unselfconsciousness.

Hermann makes a sympathetic sound. "Sit," he says gently.

Obediently, Newton tries. Hermann assists him, pulling his legs over the edge of the couch so he cannot collapse back into a horizontal position. Newton looks at him, confused as to why he's being tortured in this manner, if his expression is anything by which to judge. Hermann sighs, opens the Gatorade, tells him to start drinking it, which Newton, obligingly, does.

"How do you feel?" Hermann asks.

"Tot'lly fine," Newton replies. "I took a nap."

"Yes," Hermann says, managing not to smile. "You recall your current situation?"

"What's happening now? Yah. Hypothetical Rain is like—she made me those strips. Which I took one of."

"Perfect," Hermann says, mildly surprised.

"Well." Newton shrugs with ironically false modesty. "You know."

"Yes I do," Hermann replies. After a few moments, he says, "I'm surprised you wrote Ms. Mori."

"Mako?" Newt repeats, the hand holding the Gatorade listing its way toward disaster before Hermann grabs both his wrist and the bottle.

"Yes," Hermann says. "Mako. Keep drinking please."

"I'm being good," Newton informs him.

"You are," Hermann murmurs. "I am incredibly touched by the gesture, Newton. I know that you are sensitive to how you are perceived, and I can understand wanting to minimize contact with others under these circumstances."

"Say 'gain?" Newton slurs.

"Drink," Hermann insists. "What I meant to say is thank you for inviting Mako."

"You can't do all this," Newton replies, making a vague hand gesture.

"I can," Hermann replies, exchanging the Gatorade bottle for a quarter of a graham cracker. "But I appreciate that I don't need to. So. Thank you."

"Welcome," Newton says. "How long until—" he traces a curve with a downward trajectory using his graham cracker.

"If you mean how long does Dr. McClure want you on this regimen, then I believe the answer is approximately three days, contingent upon how well you recover from your current infection."

"Tell my lab please," Newton says, taking a pointed bite of the graham cracker.

"I have done so already," Hermann replies, pressing the Gatorade into his hand.

Newton nods, drinking more Gatorade. "You think Mako will be able to tell about my IQ? Like a 60-point drop, I think. Becket likes me more, I'll bet."

Hermann snorts, amused in spite of himself. He breaks another piece of graham cracker and hands it to Newton. "Stop abusing the concept of the intelligence quotient. It is, at best, of extremely limited utility. I am not going to indulge you in this by arguing for argument's sake. Consider that you are actually making an investment in your future IQ by aggressively trying to prevent a seizure that could result in anoxic brain injury."

"Not sure I followed that. Too many conditionals," Newton says, looking miserable.

"IQ tests are meaningless. All educated people agree. Drink the rest of this," Hermann says, gently. "I will be back shortly."

He retrieves Newton's Tylenol and albuterol from the bathroom. When returns, he finds Newton finishing the Gatorade. He sits down and hands him another graham cracker, which Newton eats without complaint. Hermann finds he still has to screw up his courage to say aloud what should come easily, but he's determined to make amends for years of saying things to this man he didn't mean.

## 2020 (Thirty-three – A Borrower of the Night)

Geneva is a disaster. An unmitigated, horrible conflagration of strain, terror, exhaustion.

Hermann captures only fragmented moments that might, when viewed by someone else, make an understandable whole. Living it is intolerable. He will never remember the trip as a whole. The pieces come like shards, stay like shards.

On the plane. The knot of anxiety in Hermann's chest, a faint nausea when he thinks of his upcoming talk. Newton, feverishly working across the aisle, headphones in place, brow furrowed, glaring his screen into submission. Tendo leaning over to whisper in Hermann's ear. "Not gonna be easy to salvage this."

Day one. Newton screaming himself hoarse in the midst of a rioting room, shouts, "fuck you," at the American structural engineer in charge of the design of the Coastal Wall. Two fingers, pointing. Head cocked. Dynamic delivery. Current jumping a spark gap. Black hair, provocative dermal art, those green eyes. The mood in the room detonates. The organizers turn on the lights, cut off his microphone. Newton continues, undeterred, arms spread wide, welcoming the chaos as though he is its avatar. People rise from their seats. You are magnificent, Hermann thinks, sitting, watching the man in the dim light.

Deserted second floor rest room. Dr. Geiszler's hands gripping the edges of a marble sink, sleeves rolled up, head down, staring at nothing. Knowing he's being observed, the man clenches his jaw, tips his head back, glares at the ceiling, drops his head forward, fixes his hair, runs a hand across his face, and then begins washing his hands.

Hermann has never seen him so acutely miserable. He begins to engage Newton in their usual fashion, but there's something off—the man is not reacting as he normally does, and then, when Hermann chastises him for his overt antagonism—he smiles. His face is full of despair, twisted into a thin veneer of amusement, and Hermann actually has to look away from him, his heart racing.

Newton believes he's failed Caitlin Lightcap, and it looks to be killing him.

"Are you all right?" Hermann asks.

"Excuse me," Newton says, starting icy but turning hot over the course of three short syllables, "but who the hell do you think you are?!" He's shouting again, his voice fraying with overuse.

And, by God, it's a fair question.

Nevertheless.

"Unacceptable," Hermann hisses back at him. "All of this. I understand that you are upset. I understand why you are upset. We are all, all of us, distressed by—"

Newton, his face a frozen mask, throws up a hand, palm out. The man walks straight past him without a word, hand up the entire time. He passes through the door, leaving his tablet on the edge of the sink. Hermann doesn't see the man for the rest of the afternoon. Or evening.

He's supposed to be focusing on his Keynote, but he can't. Would it have been so hard, he berates himself, for once in your life, to be kind to the man when he'd needed it?

ONCE. He texts Newton repeatedly, getting only occasional one-word responses, until, finally, after threatening the man with a missing persons report, he finds that he is with an "old friend." Whatever that means.

Day two. The Keynote is as stressful as he imagines, and then, when he thinks he's finally free, he's approached by his father. Wonderful. The man ostensibly wishes to congratulate him on his talk, but, in actuality, wants to recruit him to the think tank designing the Coastal Wall. The conversation deteriorates rapidly. Hermann leaves the restaurant before his meal arrives, returns to his room, and lies on his bed in abject misery.

His email client pings.

It's a message from Newton. Of course it is.

Hermann opens it with dread and reads a well-crafted, beautifully worded, thoughtful missive that he simply cannot take right now, he cannot take it, HE CANNOT TAKE IT. He begins drafting a response, scribbling across a cheap pad of hotel paper with a cheap hotel pen.

Dear Newton, he begins, you are driving me to despair. Do you not understand how deeply I care about you, how horrible this is for me to watch, how profoundly I fear the coming end of our civilization? Why did you love Dr. Lightcap so much that even from beyond the grave she still has the capacity to drive you out of your mind, to work you to death?

The letter is terrible. Unsendable. But he is SO angry—

He storms to Newton's room, begins the conversation by shouting, "What's wrong with you?" And poor Dr. Geiszler—who is exhausted, grief-stricken, as he has been for months now—starts weeping.

Not much, but it is unmistakable.

We are theoretically but not practically compatible. The man had said that in his letter. He'd cited it as one of his sources of deep unhappiness, certain of Hermann's agreement. And why would he think anything else? What has Hermann ever said or done to convince him otherwise?

"You in theory," Hermann says, tracing a circle in the air with one finger, trying not to choke on his own unshed tears. "You in practice," he finishes, tracing a second circle, clearly not overlapping with the first. "You on the page," Hermann says, retracing the first circle, "you in reality," retracing the second.

"I get it," Newton shouts, voice cracking.

He does NOT get it.

"Say any of it," Hermann practically screams it at him. "Say any part of it. To me. In person."

Newton stares at him, confused and upset. Hermann steps forward and yanks the papers Newton is holding right out of his hands.

"We are done with this," Hermann says, brandishing the pages. "We are finished with this," he continues, icily. "We have known one another for five years, Newton. In person. I am tired of trying to dredge anything of substance out of the cesspool that is your constantly unprofessional demeanor, especially since I know, so acutely, that there are things that might yield to dredging. So. If you wish to discuss something with me, then, by all means, discuss it. Converse."

Newton looks at him—confused, hurt, anxious. "Cesspool though," he says weakly. "Really?"

Of course not really. Hermann sits down on the edge of the man's bed, abruptly hopeless, not sure what this is, what's changed, what he's trying to do. He cannot say the words he wants, his family is upmost in his mind, so he tells Newton that he cares for him in that way—acknowledges the closeness that does exist between them—and ends up in bed with the other man.

And what do they do?

They talk about Caitlin Bloody Lightcap.

Certainly, such a conversation has been a long time coming, but it still feels typical. Unfair.

Newton falls asleep, physically and emotionally exhausted. Hermann is no less so, but he stays awake, dismayed by the nested revelations of the day. Newton cares for him deeply. He has always known that. The man has consistently succeeded in making that clear. It is Hermann who has set and maintained the distance they have kept. He explores again, for the second time in six months, the idea of telling Newton how he truly feels.

Hermann shifts, and pulls the other man against him, enjoying the weight of his body, unfamiliar but not unimagined. He can smell Newton's hair gel, his aftershave. The man's glasses are digging into Hermann's shoulder. He removes them, places them on the nightstand.

Would this be easier? Some things surely would be. He could stop wasting a quarter of his brainpower trying to repress his attraction to the man. He could have this, consistently—physical touch, affection. It would presumably be easier to get the man to sleep, which would free up another ten percent of his brain.

There are two dangers. One—though in the near term his life would, certainly improve—what of five years down the road? Already it is so difficult to struggle through all that happens. Already he dreads the coming end. He will love Newton with an acuity that might destroy his mind under that kind of strain. Two—Newton is impulsive, infuriating. What if they should have a falling out? Catastrophe. Absolute catastrophe. The kind of thing that really could hasten the ending of the world.

He sighs, rubbing Newton's back with one hand. The man is a surprisingly heavy sleeper, if this instance is representative. It may not be. Hermann will probably never know for certain.

The thought strikes him as acutely sad.





## 2017 (Thirty-four – Until Our City Be Afire)

Newt coughs (subtly) and digs into ice with a gloved hand, creating a trough into which he can wedge a rack of tubes. That done, he presses ice in and around his fifteen mL conicals.

"The thing you want, Maks," Newt says, as Mako, holding a disposable plastic pipette like a microphone, finishes an a cappella half-Japanese rendition of "Killer Queen," "is karaoke."

She gasps audibly, and, when he looks up from the tube rack he's half-burying in ice, he finds her giving him a silent look that is so full of imploring hope that it's really just totally unfair.

To him.

What is he supposed to do with tiny, hopeful people?

This is not his area.

No child is cuter than Mako though. This is an axiomatic truth that could be objectively verified with time, resources, and adequate funding.

Newt sighs.

Mako's expression loses its hopeful cast.

Newt thinks about his own death a little bit.

"I will try," he says, certain that his chances of convincing Marshal Pentecost that it would be fun, totally safe, very normal, and not at all creepy to take the guy's very newly adopted pre-teen to a karaoke bar? Yeah. Said chances are pretty minimal. He's only in this situation at all because stupid stupid stupid Lightcap had told said daughter that Newt had a band and Mako likes learning songs and singing them to people, where "people" is best defined as "Newt" for some reason.

Lightcap will pay.

Today, in fact.

Mako again gives him a look of total faith.

Kids are weird. Totally strange. He's pretty sure that he was well on his way to bitter at her age. But then, who wouldn't be bitter when their biochemistry textbook definitely had a greater volume than their own ribcage?

Mako must have had nice parents that rewarded those hopeful looks.

Yup.

Nice parents that are now dead.

"It's just that your—er, Marshal Pentecost is very important and I am, ostensibly, bureaucratically, less important. Smarter, but less important. Technically. Everyone's a special snowflake et cetera, et cetera, as I'm sure someone with a western-centric

ethos will shortly teach you, Maks, but some special snowflakes do not hang out with other special snowflakes because of chains of command and vastly different outlooks on life and proper decorum."

"You are smarter?" Mako asks him, cocking her head in evident suspicion.

"Yes." Newt begins to unscrew capped tubes.

"Bitch Prince of the Xenome!!" Lightcap announces, rounding the corner into his lab space with one hand on the wall. "And how are your nucleic acids today? Continuing to break down into the nothingness that awaits us all?"

Mako ducks under his lab bench because of course she does.

Who wouldn't be terrified of Lightcap?

Even Pentecost seems to be slightly wary around her.

"Lightcap," Newt replies in a tone of distinct warning, looking pointedly towards the floor.

She shifts her stance, sees Mako, makes a horrified face, and mouths the words, "FUCKING hell shit god DAMN it Geiszler," in almost perfect silence.

Newt shrugs, finishes his serial unscrewing, and begins to aliquot media into each of eighteen tubes, quenching ongoing lysis.

Lightcap makes a show of losing her grip on her pen and then drops into a crouch, her weight rocked back onto stiletto heels in a way that looks impressively precarious to Newt.

"Oh," she says. "Hello, Mako. What are you doing under there?"

Mako crawls out from under the lab bench, gives Lightcap a nervous-looking bow, which the woman in no way deserves, and says, "Hello, Dr. Lightcap. I am not doing anything. I am just here."

Mako is a cool weird little person sometimes.

Lightcap looks like she doesn't know what to say next and that, Newt thinks, is because Maks is pretty poised for a tiny tiny child and Lightcap is terrible at relating to humans that she can't insult, assault, or consult with science.

"Maks," Newt says, assembling and queueing up and deploying a master plan in the span of about two seconds. "You know who loves karaoke? Dr. Lightcap."

Lightcap shoots him a confused, vaguely murderous look.

"Really?" Mako asks, tipping her face up, tensing her entire body, and coming up onto her toes in painfully contained total excitement.

"Yes," Lightcap says, because really, there is probably only one human on the planet who can resist Mako and that human is Dr. Hermann Gottlieb, PhDick.

"Maybe we should all go sometime," Newt says. "You're friends with the Marshal. You could invite him to karaoke. You could invite him to bring Mako for her birthday. You could call the bar and threaten them until they allow a minor to set foot on their premises," Newt says casually, finishing his lysis-quenching and screwing tube tops back on.

If this works, he is going to look awesome.

To Mako.

To everyone else he will just look like an idiot, probably.

Lightcap stares him down, her expression switching from uncomfortable to vaguely devious to satisfied.

Newt is not sure he likes this.

In fact, he is sure he does not.

"Okay," Lightcap says, powering to her feet straight from her stiletto crouch, and looking at down Mako. "I'll figure something out. Your job is to drop a hint to the Marshal. Tell him how much you like karaoke. Sing him a song, okay?"

Mako nods. "Dr. Lightcap," she says politely, "what is 'bitch prince'?"

Newt chokes a little bit as he tries really hard not to dissolve into endless hysterical laughter that will not be punctuated with words but that will be punctuated with emphatic pointing in Lightcap's general and horrified direction. Newt does not do that though. Newt bites his lip, tries to keep breathing, and does not cry from displaced hilarity. Much.

"Oh," Lightcap says, dropping right back down into that patented stiletto crouch. "No baby, that's—those aren't even words. They don't mean anything; grown-ups say just say those kinds of things to harass, er, tease, other grown-ups but they don't even really—"

"Prince is a word," Mako says, not one to suffer platitudes.

"Yes, Lightcap," Newt adds. "Prince is a word."

Lightcap shoots him a venomous look with a distinctly amused edge. "Okay," she says. "Okay, I'm sorry Mako, yes. You're right. 'Bitch' is also a word. Back in the day, it was a very sad word that implied that it was bad in some way to be a woman. Later it came to serve as a stand-in for irritating leadership qualities in a man or a woman and also for complaining. Historically it was a noun, but when used as a synonym for 'complain' it becomes a verb. It can also be used like an adjective, in which case it means that the noun it describes is really neat. Like I might say to Dr. Geiszler, 'bitchin' boots, boy genius,' and that would be a compliment."

"My boots are, indeed, quite bitchin'," Newt concurs, setting his incubation timer.

"It's a complicated word," Dr. Lightcap continues, "and that's why it's hard for kids to use it correctly. Dr. Geiszler knows that I don't really mean to hurt his feelings when I call him 'Bitch Prince of an Alien Xenome;' it's more like a compliment. But if I didn't know him so well, I wouldn't call him that."

"Meh," Newt says, "wouldn't you though?"

"Dr. Geiszler never calls me a bitch, even though it wouldn't upset me, because lots and lots of people have called me a bitch in a mean way and really meant it, and Dr. Geiszler doesn't like that because deep down he's a very nice guy. A really annoying, manipulative, bitter, snide, sanctimonious, sarcastic, arrogant, histrionic, drama-queen of a bleeding-heart, vegetarian, starry-eyed, kind-hearted, fair-minded, left-wing, starving-orphan, idealist who breaks every rule he can, like for example, letting little kids play in his lab without telling their adopted parents because he doesn't want to get either the kid or himself into trouble."

Mako nods, looking anxious. "Thank you for your explanation."

Newt's not positive that Mako's English is solid enough to have followed that last part there. He's also not sure that Lightcap clearly communicated the central take-home message Mako. Because there is one.

"Just to be clear, Maks," Newt says, "what Dr. Lightcap means is do not say the word 'bitch' in front of the Marshal."

Mako nods.

Newt lets her put his tubes in the centrifuge for him, then sends her on her way to do whatever little kid things she does, like eat snacks and learn division, probably.

Lightcap, probably wisely, waits for Mako to leave before saying anything else.

"Geiszler, you manipulative little Demon Lord of the Viserca," she says as soon as Mako rounds the doorframe. "How am I supposed to make this karaoke thing happen? This isn't academia. I can't drag the top brass to a karaoke bar."

"Hmm," Newt says. "Weak. Poor, poor showing."

"You're a bastard," Lightcap says.

"Bitch," Newt whispers.

"Baby," she replies, turning the word into a blend of endearment and insult by smacking him gently in the face. "Vituperative little wunderkind. I'm onto you, with your post-punk, edgy, neohipster tempermental front for your heart made of nothing but mush."

"What a lovely glass house you have," Newt replies. "Put your rocks down maybe."

"I'm a glass breaker by nature, kiddo. You should know that by now."

"Hmm. True. Stay away from my lab bench," Newt shoots back.

"Technically? It's my lab bench, Geiszler. They're all, all of them, my benches."

He looks at her briefly and then drops his eyes, for once not saying what he's thinking.

"What, no morbid counter-observation regarding your inevitable ascendancy?" Lightcap asks.

"I'll miss you when you're dead," Newt says, trying sound bored about it.

"You'd better," she replies.

He spreads ethanol over his bench and doesn't watch as she walks away.

2027 (Thirty-five – The Garland of the War)

The afternoon transitions uneasily into evening. An impromptu consultation with Dr. McClure goes a long way toward cooling Hermann's anxiety, but as the fear goes, anger rises in its place. He makes an effort to stem the tide, but he might as well be trying to stop the sea with a sieve.

He has no idea what to make for dinner. He could not care less what he eats. He is not hungry. He has no interest in food right now. He's going to make dinner anyway.

Why?

Because that's what people do.

Newton, hair still wet from his shower, makes an appearance in the kitchen, dressed in a long-sleeved black cotton shirt that is wholly inappropriate for June. He's wearing jeans. He leans against the counter, crosses his arms, and prepares to make Hermann's life a living hell.

Wow, his inner monologue opines, choosing to sound like Dr. Geiszler at the moment. Harsh.

"Hermann, everything is fine." Newton is employing a vaguely didactic manner he likely believes to be reassuring. It is not. Perhaps it would be, if Hermann didn't know him so well.

"Did you take the extra Keppra?" Hermann asks.

"Yes," Newton says. "I can tell you're upset."

Oh he can, can he? The Century's Greatest Intellect can tell that Hermann is upset? What an accomplishment. Bravo.

He very nearly says that last out loud, but he doesn't. He stops himself. They're going to have a terrible argument. Hermann can hear the edge in Newton's voice, knows the man is already digging in. Why is he standing here? Why is he wearing denim?

"Go lie down," Hermann snaps at him.

"No." Newton replies with a calm that is absolutely maddening.

NEWTON IS NOT THE CALM ONE.

"I realize you're trying extremely hard not to yell at me," Newton says. "And I appreciate that. But I am genuinely fine. So come on. Out with it."

Out with it?

Don't do it, his mind advises, using Dr. Geiszler's most provocative tone of faux caution. Unless you want to watch me cry the whole evening. Because despite what I just said, I will. You can tell by looking at me. And then, my friend, you are going to feel guilty for days.

This is not Newton's fault, Hermann tells himself staring at the inside of their cabinet, trying to decide on dinner. This is not his fault. This is NOT his fault. It's not. There's no way it can be. Newton cannot control music that other people chose to stream. Loudly. In his immediate vicinity.

"I am extremely angry," Hermann admits, clipped and tight, still staring at an overlay of nothing in front of their cabinet.

"Yup," Newton replies. "I can see that."

"At you," Hermann says.

"Yup," Newton replies cautiously. "I can see that too."

"Not at you," Hermann corrects himself. "At Lightcap."

"Lightcap?"

"At Lightcap, at Hansen, Pentecost, at my father—" he slams the cupboard shut and turns to look at Newton. "The PPDC as an institution."

The other man looks at him, surprised. So surprised, in fact, that he seems to have nothing to say.

"No comment?" Hermann turns ironically grandiose. "How disappointing. I'm more than happy to pick up the slack. Caitlin Lightcap was irresponsible, unethical, and pushed people beyond their ability to cope. As she pushed herself. I know. I know. I don't need to hear it from YOU, Newton; I am well aware. She nearly killed you in 2017, something that never seemed to register with you, but I have never forgiven her for that. I never will. If she hadn't sent you out, maybe you wouldn't have half the problems you have now. She 'loved' you, she said she did, but what good did that ever do you? ABSOLUTELY NONE. Herc Hansen? He thought he understood me? He understood NOTHING. He devalued my work for years. He wouldn't listen to me when I tried to get him to understand even the simplest things. After Pentecost died, he effectively sanctioned your neurological assault. Did I go to him when that happened? Did I ask him to release you? NO. I DID NOT. Because he wouldn't have. And Pentecost? Sending you across the city, alone, to contact an underground dealer in kaiju parts? Unreasonable. That entire organization was designed with no checks. No balances. Nothing to stop the overt abuses everyone within it suffered. How were we supposed to WORK, Newton? Without staff? Funding cuts year after year? Resources siphoned away DIRECTLY by my FATHER, who, even to this day, cannot admit what a colossally stupid decision THAT THING was." He points out the window, into the darkness. "I hate all of them. The more time passes, the clearer I see? The MORE I hate them. It is exponential. So don't tell me 'everything is fine' It's not. It never has been. It never will be. I will hate them all, POISONOUSLY, for every single day of my life. And, as for you, can you not understand that I HATE IT WHEN YOU TELL ME EVERYTHING IS FINE WHEN IT IS, in fact, NOT ALL ALL FINE? "

It occurs to Hermann that during his impassioned monologue Newton's expression has transformed from shock to incredulity to extreme focus.

"Why are you looking at me like that?" Hermann snarls.

That seems to snap Newton free of whatever had so absorbed him. He opens his mouth, takes a breath, gearing up for some soliloquy of his own. But then—all he says is:

"Sorry. I realized something."

"What?" Hermann demands.

Newton shakes his head. He pushes away from the counter, closing the gap between them. He stands in front of Hermann, then, very deliberately, pulls him into a hug.

Hermann is, at first, too shocked to respond. Physical contact is very much in the Geiszlerian gestural lexicon, but Hermann can never recall the man doing something like this before. At the peak of an argument—letting it all go?

Letting what go? There's no point to be made here. Nothing to win.

Hermann sighs in defeat, then wraps his arms around Newton, tightly enough that it's likely a bit uncomfortable for the other man, tightly enough that Hermann can feel that damned restraining tremor that's reappeared. He sobs, once, into Newton's shoulder.

"Shhh," the man whispers, stroking his hair. "You know, you're a mystery to me sometimes, Dr. Gottlieb. For such a committed planner, one would think you'd be more future focused."

Hermann says nothing.

"But before it got really bad, there at the end of the war, you must have thought about what you'd do once everything was over. Right? Math in the post-breach era? Math in the apocalyptic aftermath? Aftermath math? You'd have needed to find some quantum-literate cutie to make you dinner. Get a fast and semi-sentient sports car, probably. Hmm?"

Hermann smiles faintly.

"Sounds like a pretty good life," Newton says.

"I suppose," Hermann replies, miserably. "That was your great insight from all I just vented in your direction?"

"Mmmm no," Newton says cautiously. "My insight was that I'm frustrating."

"Profound," Hermann says, managing an approximation of a dry delivery, even with his forehead still pressed against the other man's shoulder.

"Ha," Newton says. "More so than you might think, but I don't really care to elaborate further right now."

Hermann sighs.

"Want to hear my idea to salvage the night?" Newton murmurs.

"Very much," Hermann replies.

"I think I should make dinner."

"No," Hermann replies. "You're exhausted."

"True," Newton says, acquiescing immediately. "I think we should get take out."

Hermann grimaces.

"You're making a skeptical face," Newton murmurs, hugging him a bit tighter. "I don't even have to see it. I can tell. Just grab my phone out of my back pocket and order the same thing we got last time from that Indian place."

Hermann sighs.

"Come on," Newton says.

Hermann complies, loosening his grip slightly on the other man. "Done," he says, when it is.

"Yay," Newton is very clearly pleased with himself.

"What's the rest of your plan?" Hermann asks. He can feel the man's tremor slowly increasing in amplitude as he sustains the embrace.

"Hmm," Newton says. "Unclear. I'm sure something will come to me."

"I suggest you lie down," Hermann says.

"I'm not done with this part though," Newton says, "you have to come."

"Very well," Hermann sighs.

A few minutes later he is lying atop Newton on their couch, and the man is, very slowly and somewhat laboriously, rubbing Hermann's back.

"You think you're so clever," Hermann murmurs.

"I'm a little bit clever," Newton replies, kissing his forehead. "You were just pissed because I was standing there in jeans arguing with you about how I was fine, which you hate, I know, I'm sorry. I also realize I have a track record of doing that when I am not at all fine, which you hate even more. So. Myeah. I had a terrible day. I got assaulted by the Baroque era! I mean, come on. I had to be rescued by my own graduate student, which is embarrassing, and I lost a not insignificant amount of blood in the process. Please cuddle me, Dr. Gottlieb."

"I'm sorry I said all of that," Hermann whispers.

"You think I was scandalized?" Newton sounds amused. "Come on. You and Hansen always had a weird love-hate sibling thing happening. Don't think I didn't notice. Pentecost did the best he could with what he had, and you respected that. As for



Lightcap—everyone knew you hated Lightcap. Lightcap knew you hated Lightcap and she kind of loved that. You know what she used to say about you?"

"What?" Hermann asks, grudgingly curious.

"That you kept her in line. She liked having that counterbalance. She liked knowing that you never gave her the benefit of the doubt. That's why she ran so many things by you, you know. Because even though you didn't like her, you were never unfair."

"I was. I have been."

"Maybe in your own head," Newton murmurs. "But not in the world." They are quiet for a moment, and then Newton continues. "She thought we were gonna end up this way, you know."

"Why?" Hermann asks.

"Probably because I couldn't effectively hide that I had a thing for you. Also the journal club. Remember when she cancelled it? She brought me into her office ahead of time and she said, 'Geiszler, this is out of control. Are you guys fucking? If you're not? You should probably consider it. If you are? Keep the weird shit in the bedroom.'" He laughs quietly.

"She asked me to look out for you," Hermann admits.

"Ugh, no she didn't."

"She did." Hermann sighs. "I didn't hate her—not really. I did and I didn't," Hermann murmurs. "I shouldn't have. I don't now, not truly. I couldn't, with all your memories."

"EPIC Rapport'd," Newton says quietly. "I love you so hard, you know."

"Likewise I'm sure," Hermann says, lifting his head to look up at him. "Ridiculous man."

"We have to talk about your dad though," Newton says. "He's trying. He committed an international crime for us."

"Don't take his side," Hermann snaps.

"Shh," Newton replies.

"Don't shush me, Newton, I am not in the mood."

"I can see that," Newton murmurs. "Sorry."

"Stay here," Hermann says, pushing himself up.

"Hermann," Newton says, plaintive, giving him a wounded expression.

"That" Hermann says, pointing directly at Newton's face, "does not work on me, Dr. Geiszler, and it hasn't for years." He turns and heads for the kitchen.

"Sometimes it does," Newton shouts after him.



## 2015 (Thirty-six – Chimes at Midnight)

"Debaser" becomes "Rock 'N' Roll Suicide."

It's a terrible thing to have favorites.

Lightcap has always had favorites. Favorite clothes, favorite books, favorite movies, favorite living scientists, favorite dead scientists, favorite actors, favorite writers, favorite singers, favorite numbers, favorite colors, favorite words, favorite foods, favorite days of the week, favorite months of the year, favorite books in the bible, favorite stories in the Apocrypha, favorite favorite favorite favorite favorites. Favorite people. She can't help it. She tries not to let it show.

She does—

A Bad. Job. At this.

One two three four. She grits her teeth and torques a wrench, looking up at the outer casing she's prying free for His Majesty over there, who feels the need to stare into the nest of circuitry currently coiled inside Rig 3.5. He's staring up into it, communing with it like a protagonist in a William Gibson novel, exuding an aura of Academic Prowess that's getting all over the floor. He's not well liked. He's split K-science into a For Faction and an Against Faction, and none of the military personnel like him at all. Maybe it's the hair. Maybe it's the arrogance. Maybe it's that there's something about him that's a little bit Napoleonic and he makes them nervous. Maybe it's that he's as annoying as shit.

Of course, he's her favorite. Of course he is. Instantly. Five seconds into the first fight he ever picks with her, her soul seals his pattern down.

Geiszler. Who the hell gets himself named 'Newton' anyway, and then styles himself 'Newt'? Ugh, talk about trying to divorce the medium from the message. She loves it. He's complicated. She can tell. She can also tell that she doesn't scare him.

He's trouble. Right here in River City. With a capital T.

"Rock 'N' Roll Suicide" becomes "Real Wild Child."

"Mmm hmm," Geislzer says, like Rig 3.5 just spoke to him. Like he's agreeing with something it said. Something she said. Something she did when she laid down those tracts that he thinks he can optimize. What? Lightcap wants to hiss at him. But she doesn't. That's what Serge would advise if he were here. Let it ride, Cait, let it ride. She can almost hear him in her head. "Not bad, Lightcap," Geiszler says.

Not bad, Lightcap, Lightcap thinks. Not bad comma Lightcap, she thinks again, upping the irony in the numerator and not taking a look at the denominator, whatever it is that's below that bottom line. Way to advance the field of robotics twenty years in ten months. Way to raise science a Lovecraftian exponent. "You think you could have done better?" she asks him with a pretty powdered poison glaze atop a sticky sweet tone.

"Yes," he says, like a Blazingly Arrogant Fuck. "The whole thing has been a little more conventional than I really figured you for—"

Correction. He is not Lightcap's favorite. He, in fact, will be lucky to last the week. Because there is arrogance and then there is arrogance and while she can tolerate the

former, the latter implies blind stupidity and she's already opened her mouth and started to inhale in preparation of telling him just that when he says:

"—but Iggy Pop is a nice touch."

Wellllllllllllllll that was a close one. She has to take a whole set of contiguous seconds to reframe her thoughts from Rig to Playlist. Of course Geiszler likes Iggy Pop. He's certainly got a punkesque sensibility about him, with maybe a little less intensity and a little more detailing and boots that are cognizant of just how cool they are and are, therefore, not cool, but then paradoxically, become a little bit cool again. Plus there's the hair.

"—a little bit before my time," Geiszler says, a jeweler's screwdriver between his teeth, "a little bit before your time. But then again, I'm not sure the musical past really exists. There are things that are new, and things that aren't new. We're moving toward a two category system. Mozart and Nirvana and everything else that's been digitally shelved, and then the stuff that's transitioning from brain to live to shelf. That's all there will ever be anymore. Iggy Pop though. Ten out of ten. I love that guy. I love to love that guy."

Correction. He is Lightcap's favorite. But he's also definitely a pretentious snot.

"Real Wild Child" becomes "Heliolatriy" and Lightcap can't help it. She actually stops unbolting the panel, levers herself up on one elbow and watches his face. He looks vaguely amused as the song starts, but that's it.

She feels an inappropriately powerful wave of disappointment. Which is stupid. The guy's a Rivers Cuomo-esque hipster nerd. It's probably the pinnacle of his cultural achievement to be able to recognize Iggy Pop. Lightcap sighs. One can't have everything. She hooks the wrench onto the bolt above her and cranks it around.

"Ah," Geiszler says, at just the right moment. "Wittgenstein. That takes me back. You really don't have to flatter me so egregiously, Lightcap. I have been known to work for beer alone."

"Shut up," Lightcap says, the panel nearly free. "This band is awesome. I doubt you've even heard of any of the bands I listen to. I'm sure your musical taste peaks and dies at Green Day." That assessment is probably technically unfair, and also definitely belied by the appreciation for Iggy Pop that the guy just now expressed, but Lightcap has her own front to establish and maintain. There's no way this asshole's musical taste is better than hers. She found this band.

"I am—" Geiszler says, dry as somebody's celebratory champagne, "actually embarrassed for you right now, Lightcap. Do you have any idea who fronted this band?"

"Do you?" she asks, levering herself up on one elbow, unable to hide the interest in her voice, barely able to stop the waterfall of the story, the shitty computer that had been Jasper's, the CD she'd found, the ways and years she'd searched—

"Yes," Geiszler says, inexplicably exasperated, still not looking at her. "Normally, I would not do this but you deserve it. Green Day. Is that supposed to be an insult? I happen to like Green Day, okay? Let's just leave pop punk out of this."

"You—" Lightcap begins, upshifting into trash-talking gear, upshifting hard, but the verse ends and Geiszler pulls the screwdriver out of his mouth and without even

looking at her, like a dick, begins to sing the chorus. At first she just thinks he knows the song really well, but then, after a few words, he really starts nailing it. Nailing it nailing it. Nailing it so hard that he's doubling the singer to the point she can barely tell them apart.

It is at this point it occurs to Lightcap that it might have been Geiszler who fronted The Supercos.

"Nooooo," she breathes.

But he starts in on the verse and she's sure. He's not even looking at her, which is too bad for him because she's pretty sure she doesn't wear this expression very often, perhaps never, in fact. She propels herself out from under the panel with both hands, stands up, walks over to him, drops into a crouch, and grabs him by his shirt to drag him from beneath her circuit board.

"Ugh," he says. "Lightcap."

"You asshole," she screams right in his face.

"You just hit me with a wrench," he shouts right back at her, looking, oops, pretty pissed.

She drops her wrench, which she certainly did not hit him with; she just forgot to set it down before she grabbed his shirt—he's fine. "You're fine," she tells him, dragging him to his feet, dusting him off, grabbing his hand, and pulling him towards the door.

"Yeah," he says, rubbing his chest and looking amused, aggrieved, suspicious, sympathetic, and anxious all at once. "What are you—"

"Geiszler," she explains, "I need a break, you need a break, and I've owe you a beer. I owe you one beer plus the alcoholic interest on that beer continuously compounded over a period of five years."

"You—what?" he asks, managing to trip over the doorframe and then sort of catch hold of it and use it as an anchor, which stops her forward drag. "We're kind of in the middle of something—"

"But we're always in the middle of something," Lightcap says, letting his hand go, looking at him earnestly, practically, oh God, practically about to cry, "and I love your band." She hates how sad her voice sounds.

They stare at each other.

She did this SO badly. Ugh. She's the basement garbage of human beingness.

"Oh," Geiszler says, softening, giving up his hold on the door with the air of a guy who's getting it and who doesn't want to see her cry. He's breathing hard. He's trying to catch his breath. How hard did she hit him with that wrench? Fuck.

"Please come get a beer with me," she says, and she hates how sad she sounds, she hates it, because she is sad. She's so fucking sad. In this moment, her loneliness cuts at her soul like unswept broken glass. Jasper couldn't love her. Serge had to share her brain to learn how to treat her like a person. Tendo tolerates her. Gottlieb hates her. She tries to harden herself against Geiszler before he can break her heart, because

fuck all of a sudden he's this guy who makes music she loves. Fuck him. Fuck him physically nine point eight meters per second per second. Fuck him chemically, six point oh two times ten to the twenty-third. Fuck him biologically, 3 billion base pairs worth. How dare he.

"A beer?" Geiszler repeats, like a guy who has never been invited out for a beer before, even though that's certainly not true; Lightcap is sure that people have been buying him alcohol for the majority of his life. Out of necessity. Because he is ridiculously young. "A beer?" he repeats, relaxing, releasing his grip on the door frame. "One? Do you know how compound interest works, Lightcap?"

"I'll buy you beer for the rest of my life," she promises him.

"I won't hold you to that," he says, and God yes, starts to walk in the direction of the exit!

They're doing this.

She jogs a few steps to catch up with him, trying not to feel too elated. Because that would be weird.

"So, is this a usual thing for you?" Geiszler asks, shoving his hands in his pockets.

"Not really, no," Lightcap says. "You're special, if that's what you're asking. Usually I only drink with coworkers when people die. Or at parties. Parties and funerals, basically. Which is not to say I don't usually drink. Because I do. But you know that already."

"The routine will save your life," Geiszler says, and he says it perfectly, each word balanced right on the edge of sincerity and irony, exactly the way she'd said it to him ten days ago. Not even Serge could have said it better.

"Don't question it," she replies, like the chimes at midnight.

He presses his hands down into his pockets and smiles back at her. Not a derisive flash of teeth, not a grin of one-upsmanship, but something real and uncertain, like he thinks she's already divined a secret he hasn't yet told her. And that, right there, has got to be the thing that Gottlieb loves. The apple in the Apple Turnover of Self. Maybe. Maybe not. She shouldn't jump to conclusions. She's known him, what? A month? That's nothing.

She drives.

She drives through always dark streets, and, question after question, she pulls the story out of him in the Alaskan dark, how his mom the famous opera singer had met his dad the gifted sound engineer when their tours collided in Cabo San Lucas, how they had corresponded for years, how they had met again and again in different cities on different continents, how they had each been married to other people, how they had given him up, how he'd been raised by his father's brother until he was eight. How he'd fit so poorly with German public education in ways that she recognized from her own life. How his mother had carved an unconventional and flashy path for him through the heart of American academia until he was old enough to carve it himself. How he'd never had a peer group until he'd taught himself guitar and started a band at fifteen. How they'd played casually for years before recording Superconduction. How it had been a hobby, how amateur CDs handed out at open mic nights had turned into a semi-professional recording and a scant and poorly maintained internet presence. How

the bassist of the band had died in San Francisco from exposure to Kaiju Blue. How none of the songs on the final EP had ever been played live.

All this, she gets in little self-contained pieces strung together into a linear narrative that he's maybe never parted with before, because he can't quite shake the surprised look on his face beneath the shifting, too-cool-for-school façade he's trying to hold up. He keeps trying to break in, to turn things around in the opposite direction, to ask her about herself until she says, "God, Geiszler, don't ask me about my childhood, read my biography. Or if you want a short version read The Economist article about me. No one knows anything about you because no one cares. Except for me. I care a lot. Do you still play? Do you talk to your band? What are the names of the other members. Do they live around here?"

"In Alaska?" Geiszler asks, like he's struggling to converse with her the way other people learn a foreign language. "No."

She wants to punch him in the face and give him a hug at the same time. She probably should not have told him that no one cares about him. It's definitely not true. Dr. Gottlieb seems to think about him 24/7/365. Lightcap can see why he would, especially if he knows about Geiszler's band, which, he obviously does; how could he not? He hates Geiszler's guitar way too much to not know about his band. She could have found out who Geiszler was, in a Supercos sense, if she had just asked Gottlieb, but she never had, because the only things that Gottlieb seems to listen to are Baroque era fugues.

Life is so insane. Monsters come out of the sea, and all along it's been Gottlieb who's known about the Supercos guy.

"People do care about you," she informs Geiszler.

"Nice recovery, Lightcap," Geiszler says, in bitter-edged amusement, like it's taken him this long to realize that she's not the best of communicators, like he's putting a topographic map of her skills and deficiencies together, like he's just started a file on her to match the file on him she's had going for days now and he's already got a comparable map and a really efficient algorithm to parse and add new data. This makes her nervous and so she counts off in little sets of four for just a few seconds, because she's unsettled, he's unsettled her, making new friends is hard because no one's taken out their nail files to buff the right edges yet. She doesn't know what kind of things one doesn't say to Geiszler and he doesn't yet know what kind of things one doesn't say to her.

But she thinks she's unsettled him right back. She's knocked him off whatever invisible high horse he's been riding for a month—arguing with her at briefings, showing up on her dock, insisting that her rig is shit, that her interface is sloppy, refusing to take the green out of his hair, refusing to defer to the hierarchical conventions that the military personnel bring with them and that she's adopted, the way he's clearly unimpressed with Jasper's measured take on life and science and life in science, the way he mercilessly provokes Gottlieb with some kind of low-level slow burn that's started looking really mutual and really bizarre to Lightcap.

So maybe she should back off.

She backs off. She spends whole sets of seconds in empty, waiting silence.

And Geiszler says nothing. In fact, he takes this conversational lull to douse himself in pure, hot, superior molten poise. Then he lets it cool. Then he lets it set.

Fucking hell shit, Lightcap sings to a wistful inner tune that more than a little bit resembles the opening of one of Geiszler's own songs. Because she's done the thing he's doing a thousand times. A thousand times in a year. A week. A day. He doesn't trust her intentions; and why should he? Already they've had verbal slashfests in the conference room, she's dragged him into dying Jaegers and made him rescue little girls that don't speak English, they've shouted at each other once a day about Rig 3. But he'd come to find her on her dock.

He's the only one who ever shouts back.

Fine. Okay. So she dumps out who she thinks she is into the car between them, gives him a polished version of Lightcap in One Minute that she's said a hundred times in interviews, letting them pick and choose what they'll ask her about—her science or her love life, OCD or sexy shoes. She finishes with "I guess it was kind of a dick move to tell you to read my biography, but you have to understand kiddo, I've been trying to figure out who the heck you are for about five years and I don't really like me very much."

"I get that," he says, and unthaws just a little. Enough that it's not weird to walk into a shitty bar with him. This night isn't going how she pictured; there's no way for her to get him to see that she's not 'half brilliant half myth' as The Times had put it, no way to crack herself out of the way he can't help but see her. Unless she tells him the shittiest parts of it.

The shittiest parts of all of it.

Either he'll understand and they'll be friends or he won't and she'll regret this forever.

So after they've slid into a booth across from one another and they've ordered draft beers and they've argued about circuit diagrams for the obligatory seven minutes or so, Lightcap decides to start explaining it. The whole thing. So. When she's ready, she leans forward, stares straight at him, lets all her sincerity burn straight through her face.

"I love you," is what she leads with.

Geiszler freezes.

Well fucking hell shit anyway, she thinks at herself. Why did you say that? Why did you say that like that. This is terrible. This is a Grade A public relations disaster. Geiszler can take it though. Not gracefully, apparently, because he's staring at her like a cardsharp at an x-ray vision expo, but he's not a delicate flower either, thank God from who all blessings flow. He cocks his head, does a passable job controlling his expression, and rests interlaced fingers atop the scored table.

"I'm gay," he informs her, managing coolly hot or hotly cool, she's not sure which.

And of course he is gay, of course; it's perfect. Thank god. Thank God all creatures here below. Alleluia! Lightcap stares at him, at a rare loss for words only because she'd been half a heartbeat away from explaining that she was not and never would be hitting on him, as his direct superior, because that would be abysmally unfair and not a thing she'd do to anybody, but now she feels like she should say something supportive since he just came out to her, especially since he seems to have done it as something of a defensive conversational tactic. Damn it. She needs to fix this immediately.



"Great!" She brings both hands down on the table, shelving ongoing thoughts in favor of total support. People have come out to her before and she never quite knows how to respond. Too much enthusiasm is weird. Too little enthusiasm is scary. "Me too!"

"Wait. Really?" Geiszler asks.

"Well, no," Lightcap is forced to admit. "Sorry. I got overexcited."

"Okay," Geiszler says in slow motion.

This is going really badly. Primarily, it's going badly because she likes him so much in two separate contexts that were abruptly and dramatically fused and she's doing a bad job communicating this to him in a way that's casual and normal.

"Damn it," Lightcap says. "I could have been gay—never mind. In the moment I just wanted you to feel like I didn't feel like you were any different from me," Lightcap explains. "Or I wasn't any different from you. This is really awkward."

"That's kind of nice, Lightcap," Geiszler says. "I get you. Maybe?"

"Well that was my intent," Lightcap says. "You're really derailing me here, you know, Geiszler."

"Oh I'm sorry, did you have something of substance you wanted to communicate?" He flashes a quick smile that reminds her of a really adorable but yet also terrifying barracuda searching out little conversational fish.

Okay. This is good. They're doing friendly sparring. It's awkward. It's way more awkward than their fights about Rig 3 because they're both trying to be nice to each other and they're not great at it. But things are going in that direction.

"Yes," Lightcap says, regaining her poise and smiling at him like they're already splitting beers and braiding friendship bracelets. "Sometimes I need a few restarts."

He just nods at her, like he gets it. Like he really gets it.

And, fucking hell shit, she thinks then that she probably could fall in love with him even though he's too young for her and too short for her and too much of a narcissist for almost anyone because she falls in love easily, it's just who she is. She must drag love behind her through spacetime like crepe paper streamers in the breeze that just snarl around a significant fraction of the humans she meets; it's stupid, really. So she will make a note and not do that, it shouldn't be too hard because Geiszler won't be interested. But they're going to be friends. She knows that they are. They shouldn't be, because she's his boss, and she'll fight it for as long as she can, which will be something like the next twenty seconds, but they're going to be friends like dental cement and decaying teeth—it will hurt going in and it will stick for years and if it comes out it will be an absolute bitch of a repair job.

"Let me start over and include some explanatory caveats. I wasn't hitting on you. I know it kind of came out that way, but I'm your direct superior. I would not do that. I would literally not ever do that to anyone because there was a time I was on the wrong end of that dynamic and it was uniformly awful and that part of it doesn't matter, the part that matters is that I would not ever do that to anyone. Ever. Ever ever."

"I knew that," Geiszler says, like a guy who definitely did not know that.

"What I should have said is 'I fucking love you, man'," Lightcap amends, clenching a hand and pressing it to her sternum in a guy way, like Serge would do. "You get me. Or, that's not right, that's backwards. I get you. I love you. I love your band. I love it. I love it so much."

"Great," Geiszler says, pitching his voice up and deliberately copying Lightcap's previous emphatic table slap and overly enthusiastic tone. "Me too." As impressions go, it's not bad.

"Shut up, you dick," Lightcap says, delighted, doing a great job dragging Geiszler straight from the Colleague Zone to the Friend Zone in the span of one evening. "I keep trying to have a moment with you and you keep ruining it with your cool guy irony. Now. Let me buy you beer after beer for the rest of the night while I ask you questions."

"Only," Geiszler says, "if you tell me your torrid Supercos groupie story."

"That was always the plan, babyface," Lightcap tells him. "But it's not so much torrid as it is sad."

"Well, all stories are sad if you follow them far enough," Geiszler says, looking a little sad himself.

"I know, you little demon." Lightcap whispers, looking away. Looking at her beer. She has the urge to tell him to take out his phone and record what she says so that he can sell it after she dies; but it's a strange, violent, defensive thought that doesn't belong between friends and so she doesn't speak it aloud.

"You actually do not have to tell me anything, Lightcap," he says. And yes. He is a demon. He's an adorable monster whisperer. She wants him to live, specifically him, past the ending of the world.

Please, God, she prays. Let. Just let let let let. Allow. Please.

"First of all, I'm sorry hit you with a wrench, for some definitions of the word 'hit.' I'm also sorry I dragged you out of the lab. I didn't mean to do that. I didn't mean to do that like that. Especially since I'm your boss."

"If it helps," Geiszler says, with a quick flash of teeth and a sip of his beer, "I don't consider you my boss."

"Ha," Lightcap says dryly. "Don't mention that to Hansen, please. I promised him I could keep you in line."

"Someone needs to keep that guy in line," Geiszler says restively, scanning the bar like he's looking for Hansen. Or for a fight to lose.

"Hansen's fine." Lightcap points out. "Hansen's great. Smart and reliable. Nothing not to like." She pauses, then adds, slyly, "You're just jealous he drifted with Gottlieb."

"Excuse me," Newt says, refocusing, getting all tricked out with poise before he picks up his beer and sips it like English people sip tea. "But you can fuck right off with that theory."

"Fucking right off," Lightcap repeats, agreeably, giving him a mock salute before leaning back in her seat and lifting her right ankle to rest on her left knee. "But, back to your band. My groupie story. Not all tough times are the same, you know? There's the dark night of the world and the dark night of the soul, you know? And sometimes they come together."

"Hmm," Geiszler says, evaluating. "Maybe. If by 'dark night of the world' you mean psychological or physical perturbation by external stressors and by 'dark night of the soul' you mean internally generated philosophical or neurochemical unrest then sure."

"Ugh," Lightcap says, delighted. "Nerd."

"And who are you?" Geiszler asks. "A long lost Brontë sister? Dark night of the soul. Come on. You were the one who coined the term 'Ghost Drifting' weren't you. Don't lie."

"Yeah, I did. And it's an awesome term, Geiszler. Everyone agrees."

"At least have the courtesy to turn your romantic impulses into acronyms. Getting High Off Swapping Thoughts"

"Oh yeah," Lightcap says dryly. "That sounds really professional."

"Whatever. I was just buying myself time."

"For what?"

"For this. Generated HyperOptical Synesthetic Transfer."

"Shit, Geiszler, you little devil hellspawn, Fucking fuck right off and come back immediately; can I have that acronym if I put you on the paper?"

"Um, you can definitely have it, probably for free, I can't see myself wanting to be associated with any paper on 'ghost drifting'." He actually makes little air quotes as he says it.

They could do this all night. And it would be easy and fun. But that's not why she's here.

"Stop distracting me. Do you want to hear the groupie story or not?"

"I do."

"I've spent years trying to figure out who you were. Not to keep dragging my past love life into this, but when I broke up with my epic fail of a significant other, the only one I've ever had—if you don't count Serge, and we probably shouldn't, at least not yet—I ended up with a laptop that wasn't actually mine. I'm not sure how it made its way into my stuff, but it had a CD inside it labeled Supercollison. How was I not going to see what was on that?"

"I get it," Geiszler says, with a sympathy that he can definitely afford.

"I know every song by heart. For years I have been trying to figure out where that CD came from. I actually contacted my ex to ask him but he didn't know. Said it had probably been left there by one of his students. I almost emailed the entire Schoenfeld lab but—"

Geiszler chokes on his beer.

Lightcap sighs. Right. Oops.

"Schoenfeld. Jasper Schoenfeld? You? Jasper Schoenfeld and you? Lightcap, he's—"

"I know," Lightcap sighs.

"Well, he's really old," Geiszler says, clearly appalled, wide green eyes, the eyebrow lift of you-could-do-better and God the Father Almighty, Creator of Heaven and earth and Jesus Christ he is so young that for just a moment there Lightcap's bones ache with it, they hurt and hurt deep deep down.

"What?" Lightcap says. "He's not old. Shut up. You're a baby. Everyone seems old to you."

"He's old. He—"

"He was my PI," Lightcap admits.

"Noooooooo," Geiszler says, straight into the hands he's pressed over his face. "Lightcap. No."

"Weelllllllllll," Lightcap begins, but stops when Geiszler drops his hands to reveal an expression that is surprisingly—pissed?

"That. Dick." There's real ire in his voice. Oh no, oh no. It hurts so bad to feel that hard, hasn't anyone told him? Hasn't anyone ever fucking told him that, this brilliant little monster? He's in for worlds and worlds of pain. Enough to fill whatever cute corner of hell he hails from.

"Newt," Lightcap begins. "It was complicated."

"Was it?" he says. "Was it really, Cait-Science?"

"Oooh I like that nickname," she says. "Make it a thing."

"Consider it done. Look. If I'm going to be honest? I never liked Schoenfeld. I won't say I had his number from the moment I met him, but you know what did occur to me? Instantly?"

"What?"

He takes his sweet time, drawing down his beer. Then he points at her like the drama queen he definitely is. "You," he says, "were the brains and the heart of this entire thing. He's just the permission slip from the patriarchy that you drag out whenever The Establishment comes calling."

Lightcap laughs. She can't help it and she can't stop, because it's such a forehand/backhand compliment/insult parity situation that she can't with it, she can't, especially because, "Oh my god," she manages to get out around her laughter, "you're so right." It's not fair, it ignores swaths of nuance, but at its core, he did nail it. Nailed it right on.

And now Geiszler is laughing too, egging her on, and all of a sudden one of the worst periods in Lightcap's entire life has been reduced to footnote, a permission slip, pasted on a wall she's left behind long ago. The rest of it? A transcendent blaze of machinery that will, correctly applied, save the world.

## 2028 (Thirty-seven – Like an Ill-Sheathed Knife)

Newt, ostensibly conscious, drifts in and out of his own mind.

He stands outside, wrapped in a jacket, wrapped in Mako's arms. She stands between him and the worst of the wind. A few snowflakes fall.

"Snow for Christmas," Mako whispers, her chin tucked over his shoulder. "I brought presents."

What is Mako doing here anyway? It seems right to Newt though. Maybe they're dead, standing in an infinite cold wind, waiting for Lightcap.

Babyfaced, bitter little thing, Lightcap whispers. I loved you to death, and beyond.

They don't wait for infinity. There's a car right in front of them. Mako opens the door for him, helps him inside. Hermann is driving.

"Hi," Newt says, in a semi-suggestive, a what-is-a-guy-like-you-doing-in-a-place-like-this kind of way. Mainly because he's not too clear on that point.

"Hello," Hermann says, reaching out to stroke his hair, once, before pulling away from the curb.

"Mako was here," Newt points out, not too sure what that might imply.

"Still here," Mako says, popping forward from the back seat, her face next to his. She kisses him on the cheek.

"Seatbelts," Newt slurs, fading out.

"—usually for about a day," Hermann is telling Mako. "With any luck, this time it will last a bit longer, proportionally speaking, since the regimen is stronger."

"And then?" Mako asks.

"And then it will be horrible," Hermann says in his most fatalistic tone.

"Okay," Mako says, resigned.

"Well don't you two make a terrible pair?" Newt says, trying hard on the talking, cracking his eyes open.

Hermann gives him an alarmed look. "Newton, do you have any idea what we're talking about?"

"Nope," Newt admits. "But 'm sure you're wrong about it."

"I hope so," Hermann says. "Go back to sleep."

His brain turns out the light.

"Come on," Hermann murmurs, no time later. How does that work? Gray cement. Parking garage. Deployment dock? Parking garage.

"Out of the car." What car? Why out.

"Newt, Newt, Newt," Mako says, opening the car door. Okay, well that answers one of the car questions. What car? This car.

She unbuckles his seatbelt, gets his right foot on the ground, then helps him up, pulling his arm over her shoulder with a stretch that makes everything hurt, thighs to base of skull. He makes a distressed sound and Mako freezes, then presses him back against the car. He can't fight her, he has nothing to fight with, but his tormented muscles barely accommodate the slight backward extension. Also, this car is not their car. This car is MUCH different.

He can't he can't he can't, everything is acid.

Newt drops his head back and fortunately there is car there. His muscles are relaxing but he is trapped here, he can never move again. He can't; it's going to hurt too much.

"Give him a moment," Hermann says. "He spent four minutes in total body tetany and he is consequently quite sore, I'm sure."

Yup, that.

"Should I—" Mako says. "He's—kind of leaning back. Is forward better?"

"Yes," Hermann says, and they both pull him forward. Why is Mako even here. Where is Hwi.

"Why's that th'car?" Newton asks, his voice cracking, swaying against Mako or vice versa.

"Because," Hermann says tightly.

"It's my car, Newt. I rented it." Mako sounds anxious.

"Newton," Hermann snaps. Literally snaps. His fingers. In front of Newt's face. "Focus. Pay attention."

To what even. This garage is boring. "Fine," Newt says, affronted. It just sounds whiny when he says it though.

"Poor Newt," Mako murmurs, sounding sad. God, it hurts to walk. What's wrong with him?

Hermann takes his arm. They help him to the elevator. Newt thinks this would be a good place to sit down but Hermann and Mako do not agree.

"Is it usually like this?" Mako asks, pinning Newt against a wall so his knees can't bend.

"No," Hermann says through gritted teeth. "He is typically not this bad. You picked a particularly propitious postictal period in which to make your visit. I'm not sure I'd have been able to manage him on my own."

"Maybe Newt should get the credit," Mako says. "He waited for me."

"Perhaps so," Hermann replies.

"What's happening?" Newt slurs.

"Walk," Hermann says sharply, as the elevator doors open. Newt walks, then leans heavily on Mako while Hermann unlocks their door.

"Bed?" Mako asks.

"Couch," Hermann says. Probably because there's a couch mostly just right here, which is convenient. Newt can't figure out how to get down there though, his body hurts too much to try to sit. He'll work something out though, eventually, he's good at these kinds of—

Hermann and Mako do something, both of them together, and then his whole body hurts, everything all at once is on fire, and they're still moving things—it's too much to take, the pain both sharp and dull.

"Sorry, Newt," Mako is saying. "Sorry sorry sorry."

Rain outside. The rain. Lightcap. Mako runs toward him sprinting through water. He sweeps her up in his arms.

A haze of times come and go, different levels of clear. Mako and Hermann sit together with cups of tea. Mako cleans the windows, humming as she goes, Hermann yells at her for helping too much, she laughs. Mako reads while Hermann gently presses on Newt's sore muscles.

Newt, all of a sudden, wakes up to an actual afternoon.

Something is wrong with him. He can't move right, he can't think right. Hermann and Mako are talking, but they're talking about him, and he's right here. Right. Here. Looking at them. He wants to tell them that, but he can't make the words come out sounding like they should. Complicated.

Fine.

He can at least make a dramatic exit.

Newt tries for it, but when he moves his whole body rips apart and reveals it's been coated in a shell of acid. The pain is both acute and deep, so all-encompassing that it doesn't even feel like pain, it's a whole different class of thing. And he knows what THIS is, god damn it. And he knows why his brain is being a little shit and not doing complicated words for him.

Mako is there, holding him down, or, rather, here, and, wait, why is Mako here? What is Mako doing here? No answer is forthcoming. None at all. Mako moves aside and Hermann is sitting next to him, that seems more normal. Normal is good.

Hermann gives him a searching look. Maybe he, too, is looking for Newt's brain. "You had a seizure," Hermann tells him, "It was a bad one. Do you understand?"

"Yes," Newt says, offended, emphatic, overwhelmed with the weight of what he wants to say, but his outrage and his upset remain outside the realm of his verbal abilities and there is NO REASON for that that he can understand. "Yes," he says, shifting, getting the



same acid leak for his efforts that he had gotten before. He doesn't care, he doesn't want to be here right now, he wants to be anywhere else.

"Please don't panic," Hermann says. "You are not thinking correctly because your anti-seizure medications are very strong and currently being tapered. This is temporary, Newton."

He's thinking just fine. Fine enough. "Why?" Newt demands. "I don't want that."

"Newton," Hermann says, stroking his hair. "Jacob emailed me this morning."

Jacob?

"Jacob?" Newt asks.

"Jake," Hermann clarifies, as if Newt doesn't know. "He told me to tell you something."

"You're trying to distract me," Newt says, knowing it's true, knowing it's working, overwhelmingly angry about that. "Do not do that, Hermann," Newt shouts. "Don't, okay? I know when you're doing it. I know."

"All right," Hermann says, his face tight, both hands raised. Newt tries again to get up, and Hermann presses him down, which pisses him off indescribably before it starts upsetting him. He can't get away. He can't.

"Let. Me. Up." Newt demands, trying icy arrogance where logic hasn't worked and physical effort hasn't worked. He has to get away from here. He doesn't want to be with people he wants to be by HIMSELF so he can think in his own way, and solve—he doesn't know. Something needs to be solved. Something's wrong and Hermann is trying to DISTRACT HIM.

"I will let you up when you're calm," Hermann says.

"When I'm CALM?" Newt practically shrieks at him. "How am I going to—"

"Newt," Mako says, appearing out of nowhere. No that's not right, she'd been around—sometime. "Newt, it's okay."

"It's okay?" he asks, "It's 'okay,' Mako? THAT SEEMS UNLIKELY."

"Newt—" Mako says, anxious, looking at Hermann.

Painful as it is, Newt presses a hand against his forehead, trying to figure out what is happening, why he feels so bad, why everything hurts, why won't Hermann let him up, and why is Mako here, when did that happen, and he was upset about something, they're trying to get him to calm down about something, but he doesn't know WHAT and on one hand maybe that means it's not important but on the other hand maybe it's extremely important.

"Something is WRONG WITH ME," Newt announces to the room at large. To whomever.

"Nothing is wrong with you," Hermann says, upset. "You had a seizure, Newton, that is all. You are currently medicated and it's interfering with your cognition."

"I—" Newt says, now confused again, mostly because this makes sense, but he was sure it hadn't. "I don't—but why is Mako here?"

"It's Christmas," Mako says, in a small voice. "I came to visit."

Well, that's news to Newt.

He puts it together then. For just a moment, the picture comes into focus. Nature paper, sickness, seizure, Christmas, Mako. And Mako is watching this? He looks from Hermann to Mako and back again. They're both staring at him, like they're watching a tearjerker on Lifetime.

Speaking of which.

Hermann pulls him up, wraps his arms around Newt.

Newt, for a reason he can't really recall, is crying.

2027 (Thirty-eight – The Garland of the War)

On a very pleasant June afternoon, Hermann is sitting in his office, reviewing a mediocre paper for Nature: Quantum Topography, when his phone rings. It's Newton's departmental chair. Hermann does not recognize the voice at first, but when he does, he feels a spike of dread that is entirely at odds with the summer sun, the flowers, the quiet of a campus lacking undergraduates.

"Hermann, hi. It's Sam Gordon." Already, Hermann is half out of his chair, certain that something must be wrong, but Dr. Gordon continues, with a friendly interrogative that Hermann doesn't catch.

"What?" Hermann demands.

"I said, um, how are you?" Dr. Gordon sounds tentative.

"Fine," Hermann says, drawing out the word.

"You have a few minutes?" Dr. Gordon asks. "I'm walking back from a cross-campus meeting. I thought I might swing by."

"Er, I suppose I do," Hermann replies.

"Great," Dr. Gordon says. "Be there in a few."

Hermann spends approximately thirty seconds in unreasoning terror before he realizes he's being an idiot. He calls Newton.

"Well hi there," Newton answers immediately. He's fine. Hermann can tell by his voice he's fine.

"Newton," Hermann says in relief.

"Last time I checked," the other man says, dry. "What's going on?"

"Nothing," Hermann replies.

"Nothing?" Newton repeats, overly skeptical.

"Nothing," Hermann confirms.

"Identity confusion? Epistaxis. The hunting thing? Someone probably offered you coffee. The nerve of some people, honestly. You didn't ask for that coffee. Is it Starr? Tell him you believe Robert Hooke was the greatest scientific mind to grace the mid to late sixteen-hundreds. That'll show him. He'll cry about Leibniz all day."

Hermann draws a slow breath.

"Seriously, Hermann. You okay?" Newton is beginning to sound concerned.

"No no, I'm quite all right. I just wanted to hear your voice."

"Everything is fine," Newton says, his tone softening dramatically. "Better than fine, actually. Jake found out he got a talk at the Neuroscience Keystone Meeting. It's in Taos this year. New Mexico. He's psyched. This is good. You wanna go to New Mexico?"

"Maybe," Hermann says.

"Yeah, I'm also a maybe. Taos is not that great if you're not a skier. I mean, it's fine. I've got nothing against Taos. We can talk about it later. Right now I think I'm gonna take these kids to lunch. This is a good week. Jake got the talk, Charu bagged that grant, I'm almost sure of it. She scored a twelve. A twelve! I couldn't freaking believe it. If that doesn't get funded, nothing will."

"It sounds like they deserve a lab outing," Hermann says, smiling in spite of himself.

"You going to tell me what's bothering you?"

"Newton, it really is nothing. I was just thinking."

"Well, there's your mistake right there. Don't think," Newton advises him.

"Thank you," Hermann says dryly. "I won't keep you."

"Okay," Newton says, pulling out the word. "But don't think I'm fooled. I know you. You need aggressive cuddling in front of Voyager. Aggressive."

"Ridiculous man," Hermann says.

"I love you so hard," Newton replies, and hangs up.

So. He's fine. He's better than fine.

It doesn't matter.

Hermann cannot shake the dread that accompanies Sam Gordon's call. It simply changes form. Perhaps the PPDC has been making enquiries. Perhaps Newton is behaving badly in departmental meetings. Perhaps—

There is a knock on his door.

"Come," Hermann says.

Dr. Gordon enters—athletic build, graying hair, more dynamic in his speech and stance than most at the top of the academic ladder. Hermann has been favorably inclined toward the man; he has an engaging quality that emerges no matter the subject of conversation. Hermann's own department chair seems to like Gordon, which is—unusual. The head of the UC Berkeley Mathematics Department is quite discerning.

Hermann stands to shake Dr. Gordon's hand, gestures for him to have a seat, offers him tea, which the man accepts. They exchange a truly maddening number of pleasantries while the tea steeps. Hermann finds out that the man's youngest daughter just graduated from Princeton.

He could not care less.

Biologists.

Honestly.

Finally, Hermann, unable to take it anymore, makes the first move.

"You, I assume, wish to discuss something involving Newton?" Hermann asks at the first available conversational opportunity. He hopes it does not sound too brusque.

"Yes," Dr. Gordon says, shifting, looking uncomfortable. "I debated—well, this is a strange conversation to have, but—" He contemplates his tea.

"You're firing him," Hermann guesses.

"What?" Dr. Gordon seems astonished. He stares at Hermann with a nakedly shocked expression, eyes wide. "Why would I—no. No."

Well. That was vehement.

Hermann raises his eyebrows.

"Sorry," Dr. Gordon says. "I'm just—trying to gear up here."

"I suggest you be direct," Hermann says.

"Direct. Okay. Yup." Dr. Gordon sips his tea. "I'm trying to figure out how to phrase this so I sound like a reasonable human being, but—I can't. He's incredible."

Hermann looks at the man, nonplussed. "I'm—so glad you think so?"

"I can tell you this now but—he was kind of a pity hire. I did it for Nick Rush, because he wanted you so badly. We were steering students away from him. He wouldn't give a job talk? He didn't show up for work half the time? Like, in a little over a year he's gone from that to—I don't even know. I can't describe it."

"Ah," Hermann says neutrally, leaning back in his chair, sipping his tea. Given that it appears that Newton is not going to be fired, nor has the PPDC been making inquiries,

he allows himself to relax. Well, that's perhaps a bit optimistic. He begins to entertain the possibility of eventual relaxation.

Dr. Gordon continues to stumble over what he wishes to say. "A part of this is—why I wanted to talk to you is—do you have a sense of how—he's just—like this? This is just—what he's like?"

"To be honest," Hermann says. "He's not coming home and recounting his academic exploits in detail. So you'll have to specify further if you want me to comment on whether or not his current behavior is typical or not."

"It's been a wild ride," Dr. Gordon says. "In the fall of 2025, when Jake joined his lab—Newt wasn't consistently showing up for work. Jake accomplished literally zero during his rotation. Absolutely no science. Not even a failed experiment. No experiments. There was a meeting of the mentorship committee. We nearly denied permission for Jake to affiliate. But that kid argued hard, and something was happening, because early in the spring semester he shot to the top of every class on his schedule. When his mentorship committee met with him in late spring, he had some data to show. Not much, but enough that we didn't pull him."

Hermann nods, not overly surprised.

"And then, one day, out of the blue, early May, I think it was. Newt shows up to the Friday afternoon Research in Progress talks. He sat in the back, with Jake, looking nervous as hell, but everyone noticed. And that day, the first day he came, he asked a question at the end. Scared the hell out of the speaker, too. But it was great. Totally normal. He gave her a good suggestion. Later, she found him, and said thank you. She came away with about six more things to try. One of them worked. I know, because she was in my lab."

Hermann smiles faintly, gives the man an encouraging look. He continues.

"He started coming more often, until it was every time. He struck up a friendship with the electrophysiologists, who are, to a person, the most awkward subsection of the department. Or they were. They now have a certain cachet. But everyone was curious, and people would seek him out, stop by his office, drag him to the faculty meetings. Slowly, he started to mix more with the department. Students started approaching him with problems. He didn't turn anyone away. Word spread. By the time the new crop of graduate students arrived in the fall, every single one wanted to rotate with him."

"Did they," Hermann murmurs, smiling faintly. He hadn't known that.

"It was a disaster!" Dr. Gordon says, grinning. "And he only had the funding to take one! ONE. Nightmare. You could not have set up a more bitter inter-class competition had you tried. We had no idea what to do. So we asked him. After we explained the problem, he sat there, looking anxious as hell for about two minutes, arms crossed, staring at the floor, but thinking. And then he looks up and says, 'They all take Seminars in Neurobiology, right?' and I say yup, and he says, 'let me teach one of the classes.' So we said fine. He picked a class in week two. Membrane gradients. The regular instructors were there, one of which was me. We wanted to be there both for continuity and to step in, just in case he couldn't handle it. Because he still—he gave off that aura of maybe being about half a step away from—well, not handling things."

"And how did it go?"

"How did it go? Oh my god. I have never seen a class of kids try so hard. Twenty minutes in, it becomes clear that they know the papers he assigned, backwards, forwards, left, right. He starts drilling down into the supplemental material that accompanies the papers, sure he's going to get somewhere. But they're nailing it. I'm looking at my co-instructor, and we're thinking, first of all, what the hell, where's this kind of respect when we're teaching? Second, we're thinking: what's he gonna do now? The class is supposed to be ninety minutes, and he's played his whole hand after thirty. He's barely said three sentences in a row. Both papers. Done. He sits there, and he looks at them, and he just sort of—smirks at them. Just a little bit. And he says, 'OK, that was pretty good,' or something like that. And then he points at the sharpest of them, learns her name, sends her to the board to abstract the first paper into a model. Sends another one after her, to do the same. They nail it. He points at another kid, learns a third name, sends him to the board, asks him to alter the first model in a way consistent with X. Again, fourth kid, fourth name. Second model gets altered consistent with Y. Great job. And then he just sits there and waits. I have no idea where he's going with this. Nobody does."

Hermann hopes this man will never stop talking.

"He waits so long. SO long. It gets awkward, but he owns it. He dominates that silence, obviously waiting for something. Then, back of the class, this tiny, shy girl, makes a sound, quiet, just a little intake of breath. He looks at her, he just says, 'What do you see?' Ugh."

Dr. Gordon presses his hand to his chest, evidently briefly overcome.

"He was so nice to her, no pointing. He just said, 'come on up, use the pink chalk.' And she takes the pink chalk, and she goes to model one, and she traces over what the other kids had drawn. Not the whole thing. Just parts. And then she goes to model two, and she traces parts of that one. And because of the ways he'd had them change it, you can see what he was driving at—the common element in the two papers. And then he smiles at her and he says, 'What's your name?'"

"Charu?" Hermann guesses.

"Yup," Dr. Gordon says. "But the crazy thing is, the class still has a good half hour left. And that's when he gets up and brings the rest of us up to speed, explains why he chose those papers, how he thinks about signal transduction, I mean, conceptually. Almost philosophically. And, holy shit, is he amazing. I thought he'd be terrible. He was always so anxious. He'd refused to speak to the department on so many occasions—but he stands up there, starts out a little rocky, but after about twenty seconds a switch flips and he is on. Fire. He's a spectacular speaker. Spectacular. He came out of nowhere. Well, not nowhere, obviously, but it seemed like it. My expectations were not high. I'm sorry, none of this is news to you; it might even seem vaguely insulting."

"I could not be enjoying this more," Hermann says, leaning back in his chair. Please continue. I believe we're now in summer of 2026?"

"Yes! Okay, good. I've needed to get this off my chest for a while now. So, anyway, that class solved zero of my problems, because they all still want to rotate with him, even more than before, but at least he can tell me who he likes. We work it out, he agrees to take six rotators, tells me he's almost done with drafting an R01. Surprising. He asks me if I wouldn't mind taking a look at it; he's not really a neuroscience guy. And I'm like, 'oh yeah, he's not a neuroscientist by training.' He worked in tissue regeneration? What the hell! I forgot that somehow? Why does he have so many PhDs? It's confusing."

Hermann raises a you-certainly-don't-have-to-tell-me eyebrow.

"So, okay. I read it. The R01. I mean, at this point, I was, wrongly, thinking of him as a membrane guy? Because of the class. But the grant is all circuitry and cognitive architecture mapping. Anyway, that was when I started thinking to myself that he's going to be a big fucking deal. Er, more than he already was. Which, to be clear, I wasn't ignoring. The things he did during the war. But a big name in our world specifically. Neuroscience. So anyway, I told him, 'I love your grant,' gave him a few more papers to cite to make reviewers happy, and told him that the department would fund one grad student, he funds another, so he can take two of the rotators."

"Mmm," Hermann says, nodding. "I recall."

"So yeah. All of sudden, fall of 2026, he's everywhere. Has his hand, somehow, in everything. After I pressure him for three weeks running, he agrees to teach one of the upper level colloquia, starting in January, cap of six students. We keep it on the down low, but of course as soon as the second semester course catalog comes out there's practically a riot. Jake is guaranteed a spot, which means only five. We do a lottery. Everyone is unhappy, so much so that he relents and opens four more slots, even though he doesn't really want to. It's, like the semester of Geiszler. He gets his R01, first round! Sails right on through. Unbelievable. That doesn't happen."

"He expresses himself rather well," Hermann says.

"I'll say. So, all of a sudden, he's the hottest thing in the department. The students love him rabidly and most of the faculty do too. But when winter comes—there's some trouble. He goes out of commission three times for seizures. But it's different this time, it's weird—it's like everyone realizes he's a human, and just in the nick of time too, because he might have been on his way to making some real enemies given he was turning into such a fucking star. Sorry. Such a rockstar. Seminars get cancelled left and right, when he's there he looks awful for about twelve weeks, but he's only around half the time. Everyone is talking about it. But then, come March, he evens out again. He makes up the class time he missed. Early summer comes around and he takes Charu and Amy. He writes another R01. Jake's project takes off. Now it's not just students coming to him, it's faculty. Our applicant pool for the graduate school doubles. That brings us to now."

"So it does," Hermann says, smiling faintly.

"So." Dr. Gordon says. "Here I am, to ask your opinion about something. Because I feel like I've been pushing him some, and I—I have the intense desire to push him more, but I'm not sure—I don't want to go too far."

"Ah," Hermann says.

"First of all, I feel really guilty about the tenure situation. We need to rectify that. We're just going to put him up for full professor—I've basically convinced everyone who needs convincing that his prior body of work and his during-war funding track record should count, even though they're not neuroscience-specific. Once I've got the committee on board I'll just hand him the packet of paperwork and he can fill it out as his leisure."

"I was under the impression that only work in the neurosciences—" Hermann begins.

"Yeah, well, every so often, academia manages to bend the knee to common sense." Gordon shoots Hermann a wry look. "With the tenure pressure off, I'm hoping we can push more on the teaching front. I want to move him to the lower-level courses, which are more work, but also have a higher head-count. He is so good in the classroom. I want to give him my slot in Seminars in Neurology, and I want to put him into the undergrad Intro to Neuro course, give him maybe five lectures or so. But I'm not sure it's a good idea. He has yet to give a department-wide talk, I don't know that he ever will. I don't want to overwhelm him, you know? I'm sensitive to the fact that—he's had a hard time."

"Quite," Hermann murmurs.

"So I thought to myself—I should talk to Hermann about this. He'll know, or at least have a sense of what seems reasonable. He is so great that I just have the urge to dump everything on him he can take. I won't do that, but the urge exists. So just—do you have any insight into—" Dr. Gordon waves a hand. "Don't tell me anything you don't want to tell me. Tell me what you can though, because I want to help him."

Hermann sips his tea contemplatively. After a time, he says. "You have entirely won me over with your passionate account of the past year."

Dr. Gordon blinks at him, surprised.

"And so," Hermann says quietly, "I will tell you—" he closes his eyes. "I will tell you some things that are known to only a select few. Please understand I expect absolute discretion."

Dr. Gordon nods, his expression appropriately grave.

"I also expect," Hermann says, setting his tea on the desk, "that should the need arise, you would, in coordination with my departmental chair, and to the best of your ability, protect Dr. Geiszler from being re-appropriated by the Pan Pacific Defense Corps."

"That was already the deal," Sam Gordon says, "but, to be clear, they will take him out of here over my cold corpse."

Hermann smiles faintly, and then, slowly, in bits and pieces, tells Dr. Gordon the true history of Newton Geiszler, PhD, leaving very little out. He covers the man's parents, his uncle, MIT, those six degrees, JET force, the way he almost died in Manila, Newton's recruitment to the PPDC, his rescue of Mako Mori from a half-destroyed Jaeger, the years of work, his relationship with Caitlin Lightcap, the dwindling funding, the hopelessness that came with it, the man's ridiculous, terrible, terrifying idea of drifting with the kaiju. The information it yielded. The collapsing of the breach. All that happened after. Their flight from Hong Kong. Hermann's stipulations regarding his own employment. Newton's terrible difficulty in 2025; PTSD, anxiety, depression, sleeplessness, epistaxis. The seizures this past winter. How terribly important Jacob was in helping Newton find and keep his footing. It takes the better part of an hour.

When he is finished, he feels a strange sense of release. Dr. Gordon sits across from him, leaning back in his chair, arms crossed over his chest, shaking his head.

"And so your question, how much is too much—well," Hermann opens a hand. "It varies."



"Can I just point out that his story is absolutely insane?" Dr. Gordon says. "I believe every word."

Hermann nods.

"Okay, so this is helpful. I feel like I have a better sense of what his pressure points are likely to be. The undergrads? Not worth it. It will raise the profile of the department, but it'll torture him. The grad students—well, you might have guessed we warn them not to ask him questions about the war—and they don't, for the most part. The undergrads? There's no controlling them. But giving him Seminars in Neuroscience seems like a good idea, as long as he has a partner who can pick up the slack if necessary, someone who doesn't mind—" He drums his fingers against the arm of his chair. "You know what I'm going to do. I'm not going to give him my slot. I'm going to promote/demote my co-instructor to the undergrads. Technically it's more prestigious, so he'll like that. I'll give Seminars in Neuroscience to Newt, but I'll be there to step in if he needs to be out for a chunk of time."

"Sounds reasonable," Hermann says.

"I think—" Dr. Gordon says, looking regretful, "that should probably be all for now."

"Wise, I think" Hermann says.

"If he wanted to, he could run this department in a few years," Dr. Gordon tells Hermann.

"I'm sure he wants no such thing," Hermann replies. "Please—just, continue as you have been—please don't lose sight of how hard he is trying; how incredibly difficult all of this has been for him. I am somewhat surprised that he has done as well as he has; I mean in no way to undercut him, but if you push him too hard, especially in a public forum—it may not go well. I remain very worried about him." Hermann stops there, swallowing against the lump in his throat. "Talented as he is—"

"I think I get it," Dr. Gordon says, when it becomes clear Hermann will not be completing his own sentence.

Hermann nods.

"I'm glad we talked," Dr. Gordon says, finishing his tea. "You let me know—if it's too much, you let me know."

"I will."

Hermann arrives at Newton's lab at ten minutes past five. He nods politely to Jacob as he passes through the benches, then knocks on the door to Newton's office. He opens it to find Charu standing behind the man's shoulder, pointing to some feature of a heatmap, displayed on Newton's screen.

"Are you sure?" Newton is saying. "And this is unstimulated?"

"Yes," Charu replies, then looks up. "Hello, Dr. Gottlieb."

Newton motions him forward absently, and then says, "Can we look at this tomorrow and can you cluster the heatmap by pathway? We've got three master regulators here, so just group by what's downstream of each one."

"No problem," Charu nods decisively. "When do you want to meet?"

"Ten?" Newt asks.

"Sure," Charu says. "Should I—"

"Yeah get out of here. Go get drunk with Jake. Or not." He looks guiltily at Hermann. "I'm responsible."

She leaves, closing the door behind her.

"Terribly responsible," Hermann agrees. He comes around the desk, sits on its edge, and looks down at Newton.

"What's that look?" the man asks.

"You're a remarkable person," Hermann tells him.

"Hmm," Newton says, smirking. "True. You just noticed today?"

Hermann reaches out, tips his chin up, and then bends down, kissing him.

"Hermann," Newton says, smiling, mock scandalized, faux German accent on full display, "mein Gott, man, not in the lab. Plus, we gotta get out of here. It's your department's happy hour trivia night, which I know because Starr texted me about six crying emojis trying to get me to get you to come."

"No," Hermann says. "Absolutely not."

"Yeah," Newton replies, closing his laptop authoritatively. "This is happening Hermann, I'm sorry, you get no say." He haphazardly coils a power cord around his hand, gives up halfway through, and shoves it in his bag. "I realize that's unfair, but this is not a democracy. This is a theocracy, but instead of god, we worship math. Math says we need to go to this thing. Math says that, Hermann. The Arithmeritocracy. Arithmetic and Merit as a form of governance." Newton hastily aligns a stack of papers before wedging them next to his laptop. "It's perfect for you. You basically invented it. You can't undermine your own social order, Dr. Gottlieb, that's just not on." Newton finishes his monologue in a faux British accent.

"As an argument, that was extremely weak," Hermann informs him. "Essentially a house of cards built of non sequiturs."

"And that," Newton whispers, stepping in, as though sharing a secret, "is why your department really needs you. So badly. Because if you don't come, they're all going to fall in line with whatever I say and adopt my new social order in your absence."

"You—may not be wrong about that," Hermann admits. "You seem to exert some kind of demonic hold over at least half of them."

"Oooh Demonic Hold. Sounds like a really fun thing to do to a library book. Is this a yes? Are you actually a yes for Math Department trivia night?" Newton smiles, clearly pleased.

"Someone has to protect the world from your ill-considered intellectual impulses."

"Don't I know it," Newton replies.

## 2030 (Thirty-nine – Untangle This)

"Newton," Hermann says, pouring liquid Tylenol into a clear plastic cup. "Did you understand what I told you yesterday?"

"Your confession about, like, being in love with me so hard that you hate rain? Myeah." Newton smiles, radiantly adorable. Hermann kisses his forehead, then hands him his Tylenol.

Newton swallows the Tylenol. "But my question is did you understand that I'm being extra nice to you by also understanding that you—" he breaks off, seeming to get snarled in too many subordinate clauses.

"Yes," Hermann murmurs. "I understand that you're doing this for me, even though it runs counter to every instinct you have."

"Mmm hmm," Newton replies, resting his head on Hermann's shoulder.

"Did you understand that—despite some of the things I said to you during the war—do you understand that I have always loved you?"

"Myeah," Newton says. "It jus' took you some time to realize it. S'okay. Not a thing to—just not a thing. Period."

"Not quite," Hermann says, coaxing him to his feet. "It took me time to express it Newton."

"Herm'nn," Newton says, a hint of petulance in his name. "Do you really think this is the time to, like, talk about differences in what you meant by words at different times?"

"You make an excellent point, Newton, but I need to start sometime, and I started yesterday." He guides Newton toward the bathroom.

"You think you started yesterday with your word differences?" Newton says. "You've been doing word differences for a long time." He lifts an eyebrow in what is likely supposed to indicate some kind of *fait accompli*, and then shuts the bathroom door in Hermann's face. Hermann does not give him long before opening it again.

"How do you feel," Hermann asks, when Newton once again sitting on the couch.

"Kinda weird," Newton says.

"Specify," Hermann says, hearing the edge in his own voice, making an effort to tone it down.

"Like there's fighting in my head and it's taking most of my bandwidth."

"Fighting?" Hermann repeats.

"Like my cortex is trying to jumper cable something but there's no juice in the battery."

"Are you saying you feel like you might have a seizure?" Hermann says.

"No, I feel like my brain has being trying to for a while now but it's not."

"You can feel that?" Hermann asks, eyebrows raised.

"I'm not saying I can but I am saying that, if I could, it would feel like this probably."

"Well, you tell me if you feel like you're getting closer to jump-starting the metaphorical car," Hermann says, and then, just to make sure Newton understands, he says explicitly: "tell me if you think you're going to have a seizure."

"Okay okay," Newton says, resting his head on Hermann's shoulder. "You want to talk about your words?"

"Ah," Hermann says. "A bit. When do you think I realized I loved you?"

"After that math party," Newton says. "When all your math friends were flirting with me."

"No," Hermann says. "Earlier."

"The drift," Newton guesses.

"Earlier," Hermann says.

"When you were like, 'Newt I love you'."

"Now you're getting later again."

"No sorry I was just saying to myself when were you, like, saying, 'hmm, Newt, yes. I could be into that guy.' I'm trying to postulate."

"Thinking aloud?" Hermann asks.

"Myes," Newt says, his head heavy on Hermann's shoulder.

"I don't hear any thinking," Hermann murmurs.

"You didn't even like me before Seattle," Newton slurs. "Seattle at the end you tolerated me. I get it, I'm annoying."

"I was hopelessly in love with you in Seattle," Hermann says. "And in Alaska. This is what I'm trying to tell you."

"L'ska?"

"Yes," Hermann says, rubbing his back. "Try to remember that."

## 2017 (Forty – Until Our City Be Afire)

The bar is dark. Jewel-toned lights shift in sweeping patterns. The senior staff of the Shatterdome are all in attendance, most people are mildly to moderately drunk, karaoke is in progress, and they are, ridiculously, celebrating Mako Mori's birthday. This seems like a set-up for complete disaster, but, somehow, Newton and Caitlin Lightcap have made it work.

Hermann is convinced to attend primarily by Ms. Mori herself, who extends him a personal invitation, appearing again to grace his doorframe a month after what Hermann is now calling the Reckoner Incident. It is a strange request, formally made, but he accepts in the spirit it is offered. Whether or not Newton put her up to it—the invitation is made in good faith. Strange as it seems, he feels he owes her.

Newton has made a full recovery, but, if anything, his relationship with Caitlin Lightcap seems stronger than ever. One would think that after she nearly sent him to his death—but Newton doesn't see it that way. It shouldn't matter to Hermann. Lightcap is marrying Sergio D'Onofrio for god's sake. Newton is not attracted to women. Hermann shouldn't care. He doesn't care. If he tells himself frequently enough, he hopes he'll start believing it. Any day now.

Currently? Dr. Lightcap is actively plying Dr. Geiszler with drinks and imploring him to sing. Hermann knows it's what she likes most about him. That band he'd had, at MIT. It had not featured overmuch in his letters, but occasionally they had touched on music. Newton lacks a thorough grounding in theory, but he has a native talent, is a self-taught guitarist, and, of course, can sing. His mother, for god's sake, still headlines at the Metropolitan Opera, in New York.

In the end, it is not Lightcap but Mako who persuades him.

Hermann happens, though complete coincidence, to be standing near Lightcap and Pentecost when it occurs. Newton and Mako sing a song with which Hermann is entirely unfamiliar. It's a perfect choice. Something about a girl named Yoshimi, battling kaiju. When they are halfway into the first verse Lightcap is so overcome that she punches Stacker Pentecost in the arm hard enough to make him wince. She then presses one hand to her chest, one to her mouth.

Hermann believes himself to be prepared. Alas, he is not.

The man's singing voice is practiced, but not overly trained, which gives it a charming quality. His intonation is accurate, his timing perfect, and, occasionally, he chooses to harmonize with Ms. Mori to great effect. The song is whimsical and hopeful, but not without a hint of sadness. The green streaks in the man's hair take on the colors of the roving lights, his ridiculous outfit does not look so out of place on a low stage, and he smiles, frequently, at Ms. Mori, who looks, for the first time Hermann can recall, genuinely happy.

Now that Hermann has heard him sing, there will be no forgetting.

During a musical interlude, Newton crouches down, motions Ms. Mori in, and whispers to her. Her face lights up, intense excitement evident in her eyes. Newton hands her something. She leans in, asking a question. He nods, grinning at her mischievously. She turns around, her back is to the audience.

"Uh oh," Lightcap says, smiling at Hermann.

Mako turns, hands held behind her. They resume singing, repeating the chorus. Then, Newton stands, continuing, taking the microphone finishing the chorus as Ms. Mori arches her back, extends both hands, and flings a shower of glitter into the air. It catches the light, falls slowly. There is a roar of general approbation. Mako stands at the edge of the stage, laughing. Even Marshal Pentecost smiles and moves forward to join Mako onstage for a rendition of Sweet Caroline. Newton vanishes somewhere into the crowd.

Hermann glances at Lightcap to find her watching him. "Hey," she says, glitter in her hair, looking at Hermann with wide eyes, a sheen catching the light that looks suspiciously like tears. She motions him closer. Hermann leans in, and she puts a hand on her shoulder. "You'll look out for him, Gottlieb, won't you?"

He catches her eye, looks at her uncertainly. When I'm dead, her face says. Understanding passes between them.

"You promise me," she says, her lips close to his ear, her diction only slightly loosened by alcohol.

He nods at her.

She nods back, and it is sealed.

## 2028 (Forty-one – Like an Ill-Sheathed Knife)

Hermann feels acutely sorry for Mako, who is struggling to maintain a brave face. Newton has not made it easy on her; he seems to be particularly upset that Mako is witnessing all of this, even though he hasn't articulated as much.

It's probably coming.

To her profound credit, Mako has retreated from nothing. She has stuck it out, helped Hermann in a thousand small ways, and does not back down in the face of Newton's distress. She's tried pleading with him, reasoning with him, shouting back at him, not reacting to his words or his manner—no strategy has reliably succeeded.

It is exhausting.

The only saving grace of all of this is that Newton can't hang onto his distress indefinitely, and once he lets it go, it does truly dissipate. Once the cycle begins, they have never once successfully broken it—but at least there is the knowledge that it will end, once Newton has worn himself out.

This morning had turned excruciating. As the taper tapers, Newton gets progressively more able to sustain his distress and starts articulating more of what he is feeling. He tries desperately to work out what is happening to him, but can't do it. He is less angry, more upset. As fatiguing as the anger can be, it is better, by far, than watching the man weep because he can't follow a two-step logical abstraction and doesn't know why. At the end of breakfast, Mako asks a benign question, it triggers some thought pathway the man can't run to completion.

"Newt, it doesn't matter," Mako says quickly, as soon as she can tell he's struggling.

Hermann might have been able to salvage things if he had been thinking faster on his feet, gotten the man up, changing subject and location at the same time, distracting him with physical touch, which is much more reliable than words alone. Hermann is not thinking quickly, however. He is overtaxed.

"It does matter, Mako," Newton says, hands pressed to his temples. "Ugh, why can't I—" he breaks off, and, because it still seems salvageable, Mako tries again.

"You're not thinking clearly because you had a seizure, and now you're taking medicine." She gives him a variant of the same line she has heard Hermann use on multiple occasions, but it is unpracticed, and she makes the mistake that Hermann's made on many occasions.

"What," Newton snaps, dropping his hands.

The situation is now unsalvageable.

"This is temporary, Newton," Hermann interjects. But the words are without energy. They sound unconvincing even to him. He sighs. He just wants this round to be over.

"There is no way that's true," Newton says, venomously. "Stop lying to me, both of you. You're just trying to make me feel better."

"Newt," Mako says, "we're not lying to you—"



"Oh yes," Hermann says, sarcastic, unwisely cutting off Mako mid-sentence. "Heaven forbid we try to make you feel better. Because you're so happy right now, yes?" Hermann asks. "This is certainly a scheme that worked as orchestrated and has paid off well." He feels immediately guilty after he says it.

Newton gives him a mostly measured look, but when he speaks, Hermann can tell he's close to tears. "Do you want to know how I know?" he asks.

No, Hermann thinks. Not really.

"Because," Newton continues, "if this were temporary, Mako wouldn't be here."

"Newton," Hermann says, trying to stop him.

"You wouldn't have let her come," Newton says, unable to hold himself together any longer. He looks away from both of them, already crying. "You wouldn't have let her see something like this."

Hermann and Mako both freeze, but Newton is not done.

"This is horrible for me," Newton says, short of breath, sounding like he is being tortured. "This is humiliating. But I am not so far gone that I can't figure some of it out. So just—don't misrepresent what's happening here."

"Newt," Mako says, her voice cracking on his name. "Stop it."

"No, you stop, Mako," he says, trying heroically not to cry. "You think I want you to see this? I don't."

"That doesn't matter," Mako says, a quaver in her voice. Then, with resolution, she says the worst possible thing. "Hermann cannot do this by himself. He shouldn't have to."

Hermann shuts his eyes, feeling his own guilt sticking in his organs like a lance. Why would she say that? Maybe she is trying to provoke Newton into crying so this conversation can be over. It works. Of course it works. It works so well all three of them are crying. Newton buries his head in his arms, crying quietly in what appears to be unmitigated despair.

"No, no, no," Mako says, high pitched, moving her chair next to Newton's chair, draping her arm over his shoulders, pressing her cheek against his hair. "Newt," she whispers over and over. She tries, periodically, to draw him up, but Newton isn't having it.

Hermann feels a strange relief, watching her. She is trying so hard. She's not giving up, even in the face of the worst that Newton can dish out, and if anything should happen to Hermann himself—Newton will not be alone; she won't leave him to the world. It alleviates a concern he wasn't aware of having.

Finally, Mako gently pries him from the table, settles him on the couch, retrieves her laptop, and turns on Blue Planet. She wedges herself next to him.

"Sorry," Newton murmurs.

"You shh," Mako says, kissing his temple. "Watch the whales."

Hermann, deeply grateful for the reprieve, cleans the kitchen, takes a shower, answers email, then makes sandwiches. When lunch is ready, he returns to find them exactly as he left them, except Newton is now asleep.

"So strange," Mako whispers, "to see him sleep this much." She looks up at Hermann. "I don't like it."

"Me neither," he admits, sitting on the coffee table.

"He needs to wake up now?" Mako asks.

"I made lunch," Hermann says.

"You think he's going to put us through that again?" Mako asks.

"Unfortunately," Hermann replies. "I believe it's quite likely."

"How much longer is this part going to last?" Mako whispers.

"It's hard to say," Hermann admits. This is the worst time of it he's had thus far. But he's thinking more clearly."

"That seems to be making it worse," Mako says.

Hermann nods. "For now, but I think maybe another day like this, and then enough improvement that it isn't so intolerable."

There is a nearly identical repeat of the morning's performance, except this time it's Hermann who leads the conversation, and Newton stops short of weeping head down on the table top, primarily because Hermann gets him on his feet, cleans him up, helps him shower, and manages to avoid significant conversation.

Hermann feels acutely sorry for Mako, who cannot help but be internalizing the idea that Newton doesn't want her here.

In the early afternoon, Hermann sits with him while he hydrates. Newton carries on a monologue mostly with himself as he tries desperately to work out what is happening to him. Hermann distracts him with some Rilke, in German, gives him the next dose of the taper when it's time, and watches him fall asleep.

You poor thing, he thinks, feeling utterly wretched, stroking Newton's hair. He has the urge to lie down, mostly atop the man, and take a nap, but there is Mako to consider.

Once he is certain Newton is asleep, Hermann goes in search of her. He comes upon her chopping vegetables in the kitchen, crying silently.

"Mako," he says gently.

"Onions," Mako says, smiling at him through tears. "Onions."

"Those," Hermann says, taking the knife from her, "are carrots." He folds her into a hug, but she shakes her head against his shoulder.

"I came to help you," she says. "But I'm making it worse."

"You are not," he says.

"I made him cry," Mako says. "Two times. Just today."

"You did not make him cry," Hermann replies. "He no control over emotions when he is like this. Zero. It's not your fault."

"I think about you often," Mako says, wiping her face on her sleeve. There is something in her tone that allows Hermann to understand that when she says 'you' she is not speaking collectively, she is referring to Hermann specifically. "I think about you all the time. Since that day right here when you said about us drifting, in the end. I think about my life and the mistakes that I made, and why I made them. The frustrations that I had. The ones you shared."

"Mako," Hermann says gently, but does not try to stop the torrent of words that come.

"They wouldn't let us help them," Mako says, her voice high and wild. "They tried to protect us, all of them did, the Marshal, Dr. Lightcap, Newt. They did so much. Serge, and Herc and Sasha. They fought so hard, all in different ways, and you and me—we wanted to. We wanted to."

"Yes, Ms. Mori," he says, using that old title like an endearment. "We did."

"In many ways we would have been the better choice," she whispers.

"I agree," Hermann says.

"I want to help now," she whispers. "I want to live close to you, I want us to be together."

Hermann nods, too overcome to speak.

"You wouldn't mind?" Mako whispers. "If we moved to be close to you? It wouldn't make it harder?"

"No," Hermann whispers hoarsely. "I think that would be—I can think of nothing better."

Hours later, Hermann shakes Newton into consciousness. He does not like or trust the postictal period; and he can't let Newton fully accept the only gift it will ever offer. "I'm sorry," Hermann whispers, stroking Newton's hair. "You know I hate to wake you. I always hate to wake you."

Newton slurs a few sentence fragments that nearly make sense before he comes out with: "You don't have to be so quiet. I'm not dying. You're not disturbing my final hours, dude, you can unload the dishwasher, you know."

Hermann freezes, realizing that Newton may now have some insight. But it is too tenuous, he decides, to risk asking him. "Ridiculous man," Hermann says, straightening the seams of the man's makeshift sleepwear into perfect alignment.

Dinner is not a disaster. Newton is exhausted, but not disoriented. Halfway through the meal, Newton makes a dry aside and Mako laughs, more from relief than anything else.

Early in the evening, once he's taken his evening taper dose, Hermann puts him to bed, lies down with him beneath the glow of a single bedside lamp. He helps the man into one of the sprawled positions he so favors, face down, his head on Hermann's

shoulder, his arm across Hermann's chest, his leg hooked over Hermann's nearest thigh. Once he is comfortable, he lies there, unnaturally still. Hermann can feel the depth of his exhaustion in the weight of his shoulders, the angle of his head. It's difficult for him to move. In a few days he'll recover, a compensatory wildness growing out of these stone times.

There would be a strange novelty to the pace of evenings like this one, a kind of peace to be found in the passing of quiet hours if they didn't remind him so much of a transpacific flight he wishes he could banish from his thoughts. Hermann thinks too much on things he said in the Shatterdome, in the airport, on that plane, and doesn't understand how they could have done no damage to a person blasted so wide open by a Drift he hadn't wanted and that will never let him go.

So, it's easy to be kind to Newton, even when he is excruciatingly difficult, as he has been today. It's easy to be quiet, easy to let him ride this out, this postictal, posthospital time. "I love you," Hermann says, when he is like this, hoping words might heal a place deep down, any place that needs it. "I love you. I will always, always love you."

Newton says nothing, but he is not sleeping.

"What's wrong," Hermann asks.

"Nothing," Newton replies, not looking at him, his eyelids stubbornly half-open, his gaze directed at nothing Hermann can see.

"Something is troubling you," Hermann whispers, his free hand running through the man's hair.

"It's not the same," Newton says, artlessly cryptic.

"What's not the same?" Hermann asks, artfully casual.

"I don't think I'll ever be quite like I was," Newton replies.

The shock of the words is so extreme that he has to look away, into the dark recesses of the quiet room, his hand stilling quite involuntarily in Newton's hair as he represses the urge to bring it to his own face.

The past few days have allowed him to forget that this, too, is something within the Geiszlerian repertoire, the quiet revealed insight, coming late and unexpected, driving straight and deep and hard. At a different time, on a different night, he might have been able to straighten his expression, to say 'don't be ridiculous,' to say anything mitigating at all. But nothing comes and he pulls his hand from Newton's hair, makes a fist, and presses it against compressed lips. His eyes burn.

"Ah," Newton whispers, in sympathetic revelation. "You didn't think I knew."

You are intolerable, Hermann wants to say, unfair and barely intelligible. But nothing comes. He lifts an inarticulate hand, trying to breathe enough that he'll eventually be able to speak. It is no use. It won't come soon enough. It may never come. His own throat may choke him to death. But he cannot just leave it at that. So tightens his arms around Newton, pulls him into a wordless embrace that the other man seems too drained to return. He does not lift his head. His fingers press against Hermann's shoulder, briefly, then go slack.

He is right. In many ways, the man is correct. He will not be the same, he will never be untroubled, he will never live free and clear of the war and its sequelae, his seizures seem to get worse each time he has one, he will not have the life that Hermann wanted for him, he still, even after three years, does not understand the depth of Hermann's regard.

"Newton," he says quietly. "Do you trust me?"

"Myeah," the other man says.

"Then you must simply wait," Hermann whispers. "You will be fine. Ten days from now? You will be fine. The taper will be over, you will not be able to sleep, you will be climbing the walls and driving your poor graduate students to distraction."

Newton sighs. "If you say so."

"I love you," Hermann whispers.

"Love you more," Newton replies.

"No," Hermann says.

"Loved you first," Newton points out.

"I doubt that very much." Hermann strokes his hair. Newton doesn't reply, and Hermann can feel the moment that he falls asleep. His breathing evens, his muscles lose what little tone they had. Hermann returns to the Rilke.

2027 (Forty-two – The Garland of the War)

After a rather overwhelming performance by the pair of them at the Mathematics Department trivia night, Hermann suspects they may not be invited back. Between a decade spent traveling the globe and an unfairly doubled knowledge base courtesy of EPIC Rapport; well, it's very difficult for anyone to pose them any real competition.

They decide to stay and have dinner at the bar, primarily because David Starr won't hear of them going home, and Newton is clearly enjoying the opportunity to get emotional about Leibniz in a socially acceptable way.

"I just," Starr says, his voice cracking, "feel so much for the guy, you know? Isaac Newton was such a dick, but you know who's worse?" Starr pauses dramatically.

"Voltaire," the pair of them say, simultaneously, clinking glasses.

"Fuck Voltaire," Newton declares, finishing off his beer and slamming it the empty glass down on the table with undue force.

"Fuck Candide," Starr agrees, finishing off his own beer, and doing likewise.

Hermann rolls his eyes.

"Just how much do you two gossip about the intellectual landscape of the late seventeenth century?" Hermann asks, delicately sipping his own drink, not in his cups, but not exactly out of them, either.

"A lot," Starr admits. "We've been texting."

"And Voltaire comes into play—how?" Hermann asks.

"Oh. OH. You haven't heard about this?" Starr slurs. "Newt, what the hell, buddy? This guy is your life partner. You gotta keep him up to speed."

"Up to speed?" Hermann repeats. "Voltaire has been dead for something like three hundred years."

"Voltaire is just so fucking mean," Newton says, staring absently and morosely at his empty beer glass, his brows furrowed in a manner that Hermann most certainly does not find adorable, and never has, thank you very much.

"So mean," Starr repeats, motioning to a server, for what Hermann will ensure is their last round of drinks. "You tell him, Newt. You're better at it."

"Better at what?" Newton asks.

"Telling things," Starr explains.

"Oh. Right." Newton takes this in stride, and then turns to Hermann. "Okay. So you know how Voltaire wrote this satire called *Candide* where, like, there's this guy—"

"His name's *Candide*," Starr points out.

"Yes. So there's this guy named *Candide*, and he has this teacher." Newton waves a hand absently.

"Tutor," Starr says.

"Who's telling this story, man?" Newton asks, as the waitress returns with their next round of beer—an amber ale glowing warmly under soft lights.

"You," Starr says. "Definitely you. Sorry, Newt."

"Okay," Newton continues, looking at Hermann with something of his historical verve. "So there's this guy named *Candide* and he has this tutor, named *Pangloss*. And *Pangloss* is portrayed as an idiot, like, saying that we live in the best of all possible worlds. And the whole book is about shitty things happening to *Candide* and proving this tutor wrong in his optimistic worldview. Like, what an idiot this *Pangloss* guy is, thinking anything is even remotely okay ever."

Starr makes a piteous whine.

Newton pats his shoulder.

"Turns out *Pangloss* is a caricature of *Leibniz*. And, like, everyone knew that, Hermann. Everyone. Because *Leibniz* was super famous and popular. Like *Mako*."

"*Mako*?" Hermann and Starr echo.

"Yeah. Like, if you want to make Mako into a caricature and misrepresent her it's super obvious who you're talking about because she's really distinctive but also it's a dick move."

Hermann shrugs philosophically, exchanging a glance with Starr.

"Honestly Newt," Starr says, "Hermann would be a better example than Mako."

"Nope," Newton says emphatically, holding up a hand, looking away. "Stop right there. I don't want to hear it. That's a definite no. I can't. I have too many feelings about Leibniz for any comparisons with—" Newton seems to be having a difficult time speaking.

"Ohmygod," Starr says in a rush, clapping Newton on the shoulder. "Sorry. Hey. I get it. I'm a jerk. Definitely more like Mako. Is that better? Never mind. I'm going to stop talking now."

"Whatever. I'm not crying, you're crying." Newton wipes his eyes, and continues on. "So look, his whole position is misrepresented by this Pangloss guy. It's not that Leibniz said everything was great, that WASN'T what he was saying."

"No it was fucking not," Starr mutters into his beer.

"Leibniz, yes, did have kind of a we-live-in-the-best-of-all-possible-worlds shtick, but that didn't mean he ignored the existence of evil!"

"Not at all!" Starr adds. "God, why did Voltaire have to be so hostile? Leibniz was just doing his best, man."

"As are we all," Hermann agrees, egging them on to a small degree. He's come to quite like David over the past few years. And Newton—overcome with excessive academic emotion, putting a colloquial spin on a forgotten philosopher in a college-town bar with terrible food and passable beer—well, the effect is more reassuring than it is anything else.

"See!" Newton says, stealing a good portion of what remains of Hermann's fries. "You get it. I get it. It's a complete assault on Leibniz. As if the calculus thing with Isaac Newton wasn't bad enough. Now we've got a work in the western canon basically vilifying the poor guy. Setting him up as a caricature for the rest of time! Ridiculing his optimism, which wasn't stupid at all. He acknowledged the existence of evil! What's he supposed to do? How are you ever supposed to win against that? You'll just—remain misunderstood forever, because—"

And it is at this point that Newton starts crying. This is shortly followed by Starr joining him.

Hermann is not unsympathetic, but he feels somewhat obligated to roll his eyes at the pair of them.

As he waits for them to master themselves, Hermann absently runs his fingers over years of names and dates, sloppily engraved into the wood of their table. He contemplates the nature of time, its arrow. Such a subtle thing, time. The dull roar of a crowd in its weekend upswing suffuses the air. They are surrounded by students, brimming with alcohol and optimism. Hermann thinks, with compassion, of Gottfried Leibniz, fallen out of favor in November of 1716. No one will attend your funeral, he

thinks, across space and time. They will bury you in a grave that goes unmarked for fifty years. And yet, in the midst of an unfolding apocalypse, one mathematician will be so familiar with your theories that they write themselves into the mind of a brilliant biologist and a vast alien intelligence. From there, you will be chosen as the unifying avatar of a fractional alien hive mind, left behind after breach annihilation. You will help it understand understanding. Your optimism will inspire it. You will confer so much grace on this disembodied consciousness that it, in good faith, releases its hold on the biologist who gave it your form. With your aid, it will die well.

"Got you too, huh?" Newton says.

"I—" Hermann breaks off, clears his throat. He glances at Starr, who will not understand what he is about to say. Not fully. "I never conceptualized it this way before, but, in a very real way, Gottfried Leibniz saved your life, Newton."

"I know," Newton murmurs. "I know he did."

"That really gets me," Starr chokes out, clutching a fist to his chest.

Newton lifts his glass, looks at it as though it contains the secrets of the universe. "To Leibniz, who did his best to fuse the objective and the subjective."

Starr lifts his glass as well. "To Leibniz, an optimist in a world full of despair."

Hermann carefully touches his glass to theirs. "To Leibniz. May he rest well."

They drink.

"You know what though," Newton says, leaning forward, looking at Starr intently. "I bet he'd love your book."

"Do you really think so?" Starr whispers.

"Yeah," Newton chokes out. "I do."

"Candide is just so influential," Starr moans, still clinging to Newton.

"Don't I fucking know it," Newton says in a cracked whisper, looking like he's fighting a fresh wave of Leibniz-induced emotion. And then, with a look Hermann knows well, has come to both anticipate and dread, he slams his hand, palm down, on the table. It's loud enough to startle nearby patrons. "I have an idea," he snaps, pulling out his phone.

"Oh Gott," Hermann mutters.

Newton puts the phone to his ear. "Mako!" he says, half shouting. "Yeah, sorry, it's loud in here. This might sound like a weird request but I feel like it's kind of up your alley. Didn't you say you had some kind of fancy profile piece coming up. Like for—oh. Well, damn. Sure, yeah, Rolling Stone is great if you're into that kind of thing."

"Is he talking to Mako Mori?" Starr asks in a stage whisper to Hermann.

Hermann manages to simultaneously nod and roll his eyes.



Newton taps Starr on the shoulder and gives him a significant look. "So I'm going to overnight you a book. Probably tonight is too late. I'll send it first thing tomorrow. It's about Leibniz."

Starr flushes. "My book?" he mouths at Newton.

"Yes, obviously," Newton says, looking impatiently at Starr. "No, sorry Mako, that wasn't directed at you. It's a good read, and, as you know, I'm obsessed with Leibniz. You were telling me that you're getting bored of these photoshoots so maybe take the book with you and tell people dramatic stories about Leibniz and underappreciated intellectuals. Like, if it seems fun."

Newton pauses. Starr looks like he might expire of apoplexy.

"Yeah. Like, shenanigans where he was like 'I'm bad at math' and then subsequently taught himself math so hard that he invented calculus and published it before Isaac Newton and then people were so mean to him about it the whole deal got a title: The Calculus Priority Dispute. Oh yeah. Of course. Of course. Yes. Hermann arguably loves Leibniz more than me. He cried about it. Just now! Yes I'm serious. No, you can't talk to him, he'll just deny it. Yeah just read the book and then I'll tell you five super-secret things about Leibniz. No, I can't tell you now. You don't have the foundation to appreciate it yet. Also you can meet Hermann's Best Math Friend next time you come, because he wrote it. The Leibniz book, I mean. You probably should get Captain Sir Saves Everyone to also read it too. Hey, would you guys have any interest in a book club where we read the classics of rationalism?" Newton pauses. "Okay that's fair, but for the record, how much time have I poured into Blue Planet?"

Hermann grabs the phone.

"Hey!" Newt says.

"I apologize for this," Hermann says, over the sound of Mako laughing.

"Please don't. You guys are out? 'Out' out? Drinking?"

"Yes," Hermann says.

"Whaaaaaaaaaaaaaaaaaat?" Mako says, dramatically modulating the word. "How did that happen. Who is your best math friend? Did he do this?"

"He is indeed responsible," Hermann says, looking at Starr significantly.

"Can I talk to him?" Mako asks.

"Of course. One moment." Hermann looks archly at Starr and hands him the phone. "She wants to talk to you."

Newton bursts out laughing at Hermann's delivery and the resultant expression on Starr's face.

Starr takes the phone from Hermann as though he's handling an explosive device. "Hello?" he says tentatively, and then, "David. David Starr." It's not long before the man has relaxed enough that his prosody sounds somewhat normal. Starr describes math trivia night and then touches a bit on his admiration for Leibniz in a much more restrained tone than usual, before returning Newton's phone.

"She is just—so cool," Starr sighs.

"Isn't she just," Newton says, stealing more fries.

Hermann motions for the check.

It's late, and Starr, certainly, is in dire need of a ride home.

When they finally make it into bed, Newton cannot sleep. He lies in awake with Doctor Faustus, by Thomas Mann. It's a bit ambitious for the current state of the man's German, and so he's glaring determinedly at the book in that charming way he has. The light of the bedside lamp is dim, and Hermann watches him for some time before Newton realizes he's awake.

Hermann clears his throat.

Newton looks up. "Is this keeping you up?" he asks. "Because I can—"

"I'm in love with you," Hermann tells him, flushing.

Newton smiles at him, and Hermann can see he's wildly happy in that moment.

I'll say it more, Hermann promises, in silence. I'll find a way to finally explain what I've always known, what you've never understood. It wouldn't have taken so much time if life hadn't been so hard.

"It was the trivia that inspired this, wasn't it?" Newton asks. "You're so predictable." He shuts his book, sets it carefully on the nightstand. He kisses Hermann gently. "I'm in love with you too, Dr. Gottlieb, but I," he says, smiling, "was first."

"Far be it from me to initiate some kind of priority dispute," Hermann says. He could contest it, but it seems a pointless exercise. Maybe, one day—

## 2020 (Forty-three – A Borrower of the Night)

Three days after their first Category Four event, the PPDC reclassifies the KRS, which knocks the most recent attack down to a Category Three. Newton spearheads the effort, and chairs an international meeting that ends with an official vote. Hermann, low on willpower, high on misery, decides to watch the man's talk. It's a terrible idea. The worst he's had in a long time.

Newton is an eloquent, engaging speaker, even when he is run down, depressed, exhausted. In a restrained blazer, at the apex of his conservative rhetorical mastery, quoting statistics, the green grown out of his hair, his voice with a slight rasp from the cough he still cannot quite shake—he stands, perfectly poised, at the center of all interlocking circles that encompass sets of qualities that Hermann finds attractive.

This is miserable.

He tries to turn off the video feed, but he lacks the willpower. He watches, absorbed, as Newton begins to field questions. He is so composed under intellectual pressure of this kind. It is outrageously compelling and completely unfair.

Given he's already torturing himself, there's no reason to hold back. And so he imagines Newton coming by after his formal address, still sporting that same blazer, and dropping into the chair across from Hermann's desk.

"So what did you think?" he asks, his voice ground down to almost nothing from overuse. While Hermann watches, he loosens his tie. He pops open the top button of his collar with a thumbnail.

"No one could have done it better," Hermann tells him. "You are a phenomenal speaker."

"What's gotten into you?" Newton asks, lifting an eyebrow, giving him a small smile.

"I'm sure I don't know," Hermann replies. "Perhaps I've decided to stop employing misdirection as an interpersonal defense mechanism."

"I love it when you say things like that," Newton replies, dry, one arm hooked over the back of his chair. "You recognize that the without a shared reference frame I have no earthly idea what you're talking about." He watches, showing no surprise as Hermann rises, rounds the desk, and straddles Newton's lap. He just smiles faintly and says, "Ah. So you want to share my reference frame, I take it?"

"Yes," Hermann says, and kisses him aggressively. Newton's free hand comes up to cup Hermann's face, but otherwise he does not change position. He's neither too enthusiastic nor disinterested, he takes everything with that gentle equanimity that Hermann has seen him display, on occasion, for others. He shares something with the imagined protagonist of Hermann's letter collection, but he is different now.

"You are exhausted," Hermann murmurs, breaking their kiss.

"Not that exhausted," Newton says, and though the smile is tired there is a heavy thread of mischief running through it.

"Come along then, Newton," he says, rising, pulling the man up after him.

They retire to Hermann's quarters, and the door is barely shut before they are undressing one another, tossing clothes aside. Newton is an exquisitely skilled lover, his hands gentle and strong and dexterous. He is overwhelmingly sensitive, and it takes Hermann only a small amount of time to learn the ways he likes to be touched, at which point he proceeds without mercy, reducing Newton to a quivering bundle of nerves, pushing his body to the point of total exhaustion.

"Good god, man," Newton rasps, his eyes half lidded. "Where did that come from?"

Hermann shrugs with an affected modesty.

"Your sexual fantasies are outstanding," Newton says, providing some meta commentary. "I'm sure my real self would think so. I'm also pretty sure he could stand to get wrung out like this, put to bed, and aggressively cuddled."

"I'm sure you're right." Hermann sighs.

## 2030 (Forty-four – Untangle This)

In the late afternoon, Mako and Raleigh arrive with dinner. Mako looks at Newton, sleeping on the couch, and frowns, shooting Hermann a concerned look. "Did he—"

"No," Hermann says quickly. "We're trying something new this time," he cannot help the mild satisfaction in his tone. "He has not had a seizure. He agreed to take a strong prophylactic regimen ahead of time."

"Whoa," Raleigh says, eyebrows up. "That's huge. And it's working?"

"So far," Hermann replies, relieving Mako of a collection of plastic containers, full of more food than the four of them will be able to eat. "It was specifically designed for him by Dr. McClure."

"Good old Hypothetical Rain," Raleigh says.

Hermann rolls his eyes.

"Her real name is Coral," Mako replies. "Which has always seemed to me to be as good as Rain."

"I'm kinda partial to Rain," Raleigh says. "She seems more like a Rain to me."

"And I'm sure you seem very much like a Captain Sir Saves Everyone, to her," Mako points out archly.

Raleigh laughs. "You two go make dinner. I'll sit with Short Science here." This directive is a bit strange, but Hermann lets Mako draw him to the kitchen. Together they make quick work of reheating the food she's made. Once her Japanese-inspired casserole is in the oven and the table set, Mako approaches him, a photo in her hands, held against her chest.

"Hermann," she says. "I want to show you something."

He raises his eyebrows, but she does not lower the photo. "I—Raleigh and I. We had thought of having children, but I can't. Because of the radiation. In Tokyo, when I was a child, I spent too long next to the damaged core of Striker Eureka."

Hermann isn't certain what to say to this, but Mako continues before he has the chance to do more than open his mouth.

"But I thought, and Raleigh also thought—that was okay. It was almost better, because," Mako's voice fades to a whisper. She wipes her eyes. "Because he adopted me, the Marshal, and so I thought it seemed right for us to adopt a child as well. We didn't want to tell before we knew, but—" and now she lowers the photo she's been holding to her chest. There are two children in it, both Japanese, a girl of about seven, a boy a few years younger. "It's finalized. In three weeks we pick them up."

Hermann looks at her, astonished, and she grins. "Sayaka," she says, pointing at the girl. "Hideo." She points at the boy. "Their parents died in 2025."

"That's—" Hermann isn't sure what to say. Congratulation's doesn't seem quite right.

Spontaneously, Mako throws her arms around him, hugs him hard. "I was going to wait," she said, "tell you together, but I couldn't."

"I—" Hermann tells her, a catch in his voice, "I'm so happy for you both."

"Thank you," Mako whispers, stepping back, wiping her eyes. "I'll tell Newt when he feels better. I don't want to tell him yet. I want him to be excited. I want him to ask me a million questions all at the same time."

Hermann smiles at her. "I'm sure he won't disappoint."

They bring dinner to the table and find, to their surprise, that Newton is awake. Not only is he awake, but he is playing chess with Raleigh Becket.

"What are you—" Hermann trails off. He looks at Mako in astonishment.

"Raleigh," Mako snaps.

Newton and Raleigh look up. "What?" they say, in tandem.

"This is, literally, the only time I might ever beat him," Raleigh explains, shrugging.

"I was curious," Newton replies, half his hair sticking up, more than half asleep.

"He's still winning," Raleigh says, "though not by much."

Hermann studies the board, eyebrows raised. This does appear to be the case.

"Obviously he's winning," Mako says, frowning at Raleigh. "Come on Newt," she says, helping him to his feet. She glares at Raleigh. "You were supposed to watch him, not wake him up for speed chess."

"He woke up on his own," Mr. Becket says raising both hands. "Help me out here, Geiszler."

"Oh yeah because it's much more normal for Becket to stare at me while I sleep," Newton says, swaying slightly before he gets his feet under him. "That's not weird for either of us. I applaud your decision, Captain."

Raleigh raises his hand, upon which Newton bestows a moderately coordinated high five.

"Ugh," Mako says. "Don't start."

"You were the one who switched allegiance, Maks. Becket and I are just doing the best we can."

"I've always wanted a secret handshake," Raleigh confesses, wistfully, in Newton's general direction.

"Well, maybe we'll talk later, Plus One," Newton says. "I'm open to it."

Dinner is delicious. Mako's face is shining and she laughs often. Hermann has never seen her so happy. They all retire early for the evening. Hermann lies down in bed with Newton around nine o'clock. His eyes are half-lidded, his hair is disaster, he's warm,

and when Hermann pulls him into a comfortable position there is no tension anywhere in him.

"I love you," he murmurs, stroking Newton's hair.

"Back at ya," Newton says, tapping Hermann's shoulder with two fingers, but otherwise unmoving.

"You are a merciless charmer."

"Ooo merciless," Newton says, into his shoulder. Hermann can hear his smile. "That does sound like me."

"Do you know when I fell in love with you?"

"Long time ago," Newton says. "Far far away."

"Yes," Hermann replies. "And when I told you that you were irresponsible, and when I complained about you to HR, and when I refused to meet you for coffee—"

"Still then," Newton says.

"Yes," Hermann replies. "All the way back to the beginning. To your first letter. That was when I knew."

"You're very complicated, Hermann."

"Yes, I know. Fortunately, complexity is your forte. We are equally fortunate that you're very difficult, and difficulty is my forte."

"Mmm," Newton says, falling asleep.

"Are you going to remember that?" Hermann asks him.

"Forte," Newton repeats.

"No," Hermann says, wrapping his arms around Newton, pulling the man close. "The other. Are you going to remember that I loved you right from that first letter?"

"Myeah," Newton says, in apparent unconcern.

"And do you understand why I am so upset when you apologize to me?"

"EPIC Rapport."

"That could mean a lot of things," Hermann whispers.

"Hmm. Couldn't it just."

"You do, do you? Well, to cut to the chase, Dr. Geiszler, I love you. I would do anything for you. I want to fix everything for you. I want you to know how much I wanted that, because, then, maybe, you'll understand why I cannot help but shout at you when you walk in the rain."

"I know," Newton whispers, voice thick with emotion.

"You don't, you adorable thing. If you did, you'd never do it again." He kisses Newton's hairline. "How is your pitched battle going up here, hmm?" Hermann asks, tapping the man's temple gently.

"Hypothetical Rain's Army of Civilization continues conquering. But the barbaric natives are not above to trying to stir the pot."

Hermann smiles. "Much as I am enjoying your company, Newton, I believe that it is time to call in reinforcements for the Army of Civilization.

"Oh if you must," Newton sighs, shifting pleasantly atop Hermann. "I admit, this is better than being in the hospital."

"I'm so glad you think so," Hermann replies. He hands Newton a strip, and the other man sticks it in his mouth. With a therapeutic level of the stuff already in his blood, it takes very little time for him to fall asleep.

Newton makes it through the night.

Hermann, carefully timing things out, sets his alarm for five in the morning. Newton comes only partially awake when Hermann, very carefully, presses a strip beneath his tongue. A few minutes pass, and Hermann feels a renewed sense of safety. This may work, he thinks, trying not to be too hopeful, pulling Newton close against him. The other man is deeply asleep, yielding to Hermann's manhandling without so much the flicker of an eyelid. This may actually work. He presses a hand to Newton's forehead, but he doesn't feel particularly warm.

Hermann wraps his arms around the other man, holding him tightly. Newton likely would not tolerate such a position for long were he more alert, but he is sleeping deeply. Hermann tries to enjoy this moment, peaceful as it is. "This is all so deeply improbable," he murmurs to Newton. "Does that ever occur to you, I wonder?" He recalls years of frustrated longing, grief, despair.

Now he feels again, an old feeling, something from his childhood. Hope, he thinks it's called.

"This is your doing, you know," he whispers.

2027 (Forty-five – The Garland of the War)

"Newton," Hermann says, watching the man make dinner in the midst of an explosive proliferation of containers of all kinds. "Are you breeding our saucepans? I don't seem to recall owning so many."

"Guilty as charged," Newton replies, smirking. "I'm mating them with mixing bowls, actually. Hybrid vigor."

"Charming," Hermann replies. "I wonder if you might tell me something, or whether you need to use all of your processing power on—whatever this is."



"Oh I've got a good 80 IQ points I'd be happy to throw your way," Newton says, tasting something that's simmering on the stove, then scanning the spice rack. "Do we have tarragon?"

"To your left," Hermann says, as the man pulls it out of the rack. "I'm curious about how your upper level colloquium is going."

"Oh, um, good I think."

"I've been asked to teach one," Hermann tells him, quite truthfully. "I haven't committed yet. I don't have a good sense of how much work it will be."

"For you?" Newton says, placing the lid back on the saucepan, turning the heat down. "Not much. Well, actually, I'm not sure what the math ones are like. But in the life sciences you just assign some papers, cold call the kids on figures, and free associate in chalk. I put in maybe two hours thinking about which papers, what I'm going to say, and what I want them to get out of it. And then the class is ninety minutes."

"How many students?" Hermann asks, as the man starts chopping carrots.

"Ten. I didn't want that many, but Sam Gordon twisted my arm. I don't—I'm not in love with bigger groups."

"Twisted your arm," Hermann echoes with a mild disapproval.

"Eh. Nah. He was nice about it. He just gave me a sob story about how many people wanted to take the class and then I caved and said I'd take everyone, and then he felt bad about the arm twisting and backpedaled and said how about twelve and I said how about ten but you can pick the additional four and he liked that. So I have ten."

"I understand you're quite well regarded."

"Meh," Newton says, half-shrugging, pushing his glasses up his face. If the man had any idea how attractive Hermann finds him in this precise moment—distracted by the dinner he's putting together, not particularly interested in his own raging popularity within the neuroscience department, slicing carrots with profligate dexterity—well, it's best he stay uninformed. "I mean," Newton continues, "sure. There's a little bit of an art to it. You just have to know your own style, stick to it, and be especially nice to the shy ones. You'll be great. Did you do any teaching in Berlin during grad school?"

"Very little," Hermann admits, as Newton moves on to cutting shallots.

"Meh," Newton says, unconcerned. "You're, like, I don't know, a world-preserving badass. You have zero to worry about."

"Don't mistake me," Hermann says. "I'm not worried."

"Hmm," Newton says, looking up, a mischievous cast to his features. "Weird."

"As I mentioned, I've heard that you are particularly effective in a didactic setting and I was hoping for something more concrete than 'don't worry about it'." Technically, this isn't true. What he really wants is Newton's side of Dr. Gordon's highly enjoyable narrative regarding the man's exploits in the realm of neuroscience.

"Hmm. Where'd you hear about my supposed effectiveness, anyway?" Newton asks, moving on to celery.

"I happened to run into your department chair a few days ago," Hermann says, "on his way from some meeting or other."

Newton nods. "Ah. Yeah. Last Thursday. That was a good one."

"What happened Thursday?" Hermann asks.

"Well, as I described, I usually structure classes based around the cold-call method that everyone loves to hate, but they always know their stuff, well—" he pauses. "Mostly always."

They exchange a knowing look.

"Anyway," Newton continues, "the paper was on motor-circuit diagrams, and, I'll be honest, I've developed a little bit of a practical interest in those, as has Jake. It's like a weird hobby we share, me for obvious reasons, Jake because, well, he was there for that day when Bach had his way with my motor cortex and that kind of needed an explanation, so. We talk about it sometimes. I'm interested. He's interested. I usually don't send Jake up to the board, because then it would just become the Newt and Jake show, which is, you know, great for Newt and Jake—less interesting for everyone else. But it's weird if I never send him up. So. Thursday was the day. I didn't warn him or anything, but I knew I was gonna do it ahead of time. I had him draw out all the circuitry. And then I got this other girl, Rebecca, who has a crazy amazing memory, to go up with him and draw the reward pathways. We talked about it like normal people for a while, but then I had an idea."

Newton finishes slicing vegetables and breaks off to evaluate the relative merits of orecchiette versus tagliatelle. He holds the two up, and Hermann points at the orecchiette. "Okay, great," Newton says, shelving the rejected pasta varietal.

"You had an idea?" Hermann prompts.

"Right, but like an idea." Newton says, pulling out another saucepan from whatever den of sin they share with the mixing bowls. He fills it with water. "I was kind of into it, you know? It was fun; I just went with it."

"Where 'went with it' means..." Hermann trails off.

"Eh, some approximation of what you're thinking it means," Newton says, snapping on a burner with a dexterous twist of the wrist. "I told Jake and Rebecca to sit down then I just stared at what they'd drawn until I was sure I had it. And then, normally I would have talked them through it but I was too impatient for that, so I jacked my laptop into the overhead 3D projector and pulled up ReModL, which is this new, cloud-based platform for exploring connections between known circuits, and just, sort of—" he shrugs, smiling faintly, "showed them?"

"Sounds dramatic," Hermann replies.

"Oh it was," Newton says, dumping his collection of vegetables into a skillet. "But not in the way you're thinking. I've lost my flair for grandstanding a little bit."

"I know for a fact that is untrue," Hermann states.

"Okay okay," Newton admits, smirking as he pushes vegetables around the skillet. "How about this. It's not quite as easy to turn on in public venues. The switch flips or it doesn't. During that class, when all of that was happening—there was no switch flipping. I was in no way 'on.' I really didn't do much talking. Can't say why exactly, maybe just that the subject matter pertained somewhat to me. So I really—I almost had to do it the way I did it; I'm not sure I could have talked them through it."

Hermann says nothing, his chest aching terribly. He can picture what Newton looked like: silent, anxiously absorbed, snapping the input into his laptop with shaking hands as ten people watched him in sympathetic silence.

"They could see that, I think," Newton says. "It was getting awkward, right until the moment they realized what I was up to. Then it turned super magical. The conference room has one of those rotating 3D displays, and everyone just looked up, then looked at the board, and then looked back up. One of them turned out the lights. No one said anything for a long time. Finally Jake pointed out something about one of the connections, and then people just started talking about it, taking their time. It was nice. Semi-mystical. Extremely weird. Even if I had tried to think up an unconventional lesson plan I wouldn't have been able to come up with that."

Hermann doesn't say anything, just watches the man push vegetables around the pan. Was I right, he asks himself, not to tell him? Did we walk the narrowest of paths to reach this place? Did it all depend on us? On me? On what I said and what I didn't? Is this the best of all possible worlds?

"Probably we'll get a theoretical paper out of it. Should that be their final?" Newton pauses, staring absently at the carrots. "Maybe I should make them write it up. I think they're supposed to write a mock grant for their final though. Oh, or how about this—what if I present it to the Electrophys Subgroup, but invite Tom, who works on the basal ganglia; they might be able to patch onto a neuron (or several thousand) in the striatum, inject some dye, and see how they disperse themselves into the VTA. Do a little mapping of the warp and the weft of the mesolimbic pathway see if they can unbraided a few strands from the brainbow? What do you think?"

Hermann clears his throat. "Sounds reasonable," he replies.

"You hate it," Newton says. "I can tell."

You can't, Hermann thinks.

"You hate it whenever anyone alludes to the shortsightedness of John Keats because you feel really conflicted about him. But look. It's not an idea I need. I don't want to work on anything that pertains to me. It gets weird, with the—er, it just gets weird. It would be useful for the basal ganglia guys. Probably I should try to get people to like me. Don't you think?"

Hermann absolutely cannot answer that question right now.

Newton looks over at him, snaps the burner off, and comes to give him a hug.

"Hey," he says, murmuring the word into Hermann's hair. "Why'd you call me today, hmm?"

"I don't know," Hermann whispers, his voice cracking.

"You know," Newton says, gently. "You don't have to talk about it, but if you don't, I'm going to have to guess. I can't help myself. Dead rationalists? Our friend, Gottfried Wilhelm von Leibniz? I cry about that guy once a week, as you well know. Are you going to teach your new math kids set theory? Were you thinking about Galois? You were, weren't you?"

"Don't be ridiculous," Hermann says, weeping discreetly into Newton's shoulder.

"You want to know my real theory," Newton says, very gently rubbing the back of Hermann's neck with one hand. "It's this. You ran into Sam Gordon and he told you I was getting good teaching reviews. You had a minor freak out, because the fact that I'm getting good teaching reviews reminded you that I wasn't so far from totally crashing and burning a year and a half ago, and you love thinking about all the ways things might have gone wrong. It's your number one hobby."

"Something like that," Hermann admits.

"Well, don't think I've forgotten about my threat of aggressive Voyager cuddling. Because I haven't, Dr. Gottlieb. I have, in fact, been thinking about it all afternoon."

"The scope of your brilliance terrifies me at times," Hermann says.

"Uh—" Newton replies, pulling back to look him in the eyes.

"Could you have done it," Hermann asks him, hands wrapped around Newton's biceps, "any other way than the way you did it?"

"Done what?" Newton asks.

"Any of it," Hermann says. "All of it. Could you have invented the filters, improved Lightcap's rig, discovered all you did about kaiju physiology, drifted with one—any other way?"

"What other way?" Newton says.

"What if you'd been happy?" Hermann says.

"What kind of question is that?" Newton says, half horrified, half amused. "The worst question I've ever heard. Literally the worst, Dr. Gottlieb, stop torturing yourself. It's a Wednesday. Everyone knows that Fridays are for torture. Keep the schedule, please."

"I love you," Hermann tells him. "Sometimes the experience is excruciating."

"You are so weird," Newton says smiling. "I love you too, you know. I wouldn't describe it as excruciating though. 'Nice' would be the word I would choose. Everything is fine. Except our dinner. The pasta's going to be overcooked. You know what? You need to stop thinking so much about past!us and think about present!us. We definitely have the better end of the deal. We're lucky. It's usually the other way around."

For all Newton's perpetual claims of obliviousness, the man can be terribly sensitive, when engaged. "I knew you would be like this," Hermann says. "I knew you would be just this way."

Newton looks at him searchingly. "What are you talking about?"

"You will never understand," Hermann says. You couldn't.

Newton appears unimpressed with this response. "You're behaving very badly, Dr. Gottlieb. Go get out of these work clothes, I'm going to feed you dinner, and then we're going find out what happened to all those silver goo people on that planet that looked like Mars."

Two hours later, Newton, dressed very becomingly in black sweatpants and a long-sleeved T-shirt, also black, makes good on his promise from earlier in the day, and wraps himself over and around Hermann in front of Star Trek Voyager, which he decides is completely inappropriate when the chief engineer unexpectedly dies. Obviously, there will be some twist of the plot, but—

"Ugh," Newton says. "I can't even with this right now. No way, am I right? No way does Torres die. I don't remember what the deal is with this episode, but she definitely doesn't die. You don't need this in your life right now, I can tell."

"Not really," Hermann says, flat on his back, Newton lying atop him.

"You going to tell me what's wrong?" the other man asks.

"I worry about you," Hermann says, looking up at him. "Constantly."

"I know," Newton murmurs. "Can we talk about this? You look miserable. You've been miserable all day. What are you worried about? I'm fine."

"I could have done more for you," Hermann says, reaching up to stroke his hair.

"In what universe?" Newton replies, catching Hermann's hand, kissing his knuckles.

"I think if I had been a better person," Hermann whispers, "I could have been strong enough, mature enough, to help you."

"Hermann," Newton says, his expression grave. "You need to stop this. You did help me. You saved me twice over. At least. Don't go spinning a narrative where—ugh," he drops his forehead to Hermann's shoulder. He lifts his head. "Try to live here, okay? Yeah?"

Hermann nods, fractionally. Newton kisses him. It is tentative, gentle, polite. Something out of dreams he'd had a dozen years ago: Dr. Geiszler, world-weary and sad, carrying a terrible equanimity.

Hermann hadn't understood, then, what such maturity would cost.

He'd give almost anything to preserve the man as he had been at twenty-five, full of fire, full of confidence and hope. The man who had befriended Mako Mori, who had shouted down Caitlin Lightcap at the height of her powers, who hadn't been able to climb two flights of stairs without stopping to catch his breath.

Hermann, as usual, has the powerful urge to overwhelm Newton's erotic empiricism, dismantle the man's composure piece by piece. Eventually, such a thing may be possible. A few years, perhaps. He follows his usual pattern, allowing Newton to control the encounter, until he can no longer tolerate the man's slow restraint. He flips their positions, pushing Newton as far as he dares. The man is a surprisingly considerate lover, but there is a sense of remove, at times, as if this is something of an

academic exercise for him. Hermann thinks it may be. The man has never been well seated, physically. He couldn't be and do the things he does.

Hermann makes every effort to tie him to this moment, his body. So strange it is that, of the pair of them, Hermann is the one most grounded in this way. He would never have predicted such a thing. It's one of the few surprises left, post-drifting. Newton cannot entirely get out of his own way, even after eighteen months. He will, at unpredictable intervals, go entirely still beneath Hermann's hands, unable to articulate that which troubles him.

I will hold you here, he thinks, fiercely.

## 2017 (Forty-six – Until Our City Be Afire)

"Guten Tag, Wunderkind!" Lightcap exclaims, bursting through the door without knocking and causing Newt, who had been in the midst of penning fiery rebuttal to the Editor of Nature Kaiju Science, to startle so violently that he nearly tips his chair over, breaks his neck, and deprives with world of his glorious intellect for no real reason at all.

Newt is not enthused by this turn of events.

He manages to keep his balance, just barely, but his started intake of breath and subsequent, enraged, "Lightcap! Have you heard of knocking!?" kicks off a coughing spree that has Lightcap counting off under her breath and shouting down the hallway for water [editorial note: more like for WATER!!!!], which he doesn't need, man. Newt is fiiiine, and he'll tell her that that just as soon as he can get his airways to calm down enough to do their jobs.

"I'm okay," he rasps, taking the glass of water that someone brought to Lightcap so she could give it to him.

She drags the chair formerly known as the One In Front of His Desk around to the back of the desk so she can sit next to him and creepily watch him breathe from a distance of zero point five meters until he has the cognitive and pulmonary bandwidth to fix her with an apex Geiszlerian Glare. At which point, she looks him dead in the eye, and says, in what is likely her best impression of the patient-yet-pedantic Den Mother she will never be, "Neeww/WT, what has Dr. Gottlieb told you about sitting in chairs? All four feet are supposed to be located where?"

"Fuck you," Newt wheezes. "What has Dr. Gottlieb told you about knocking."

"Okay, fair," Lightcap says. She waits while Newt albuterols himself. "You look like shit, Geiszler. Still. Shouldn't you look less like shit by now?"

"I look great," Newt informs her.

"Sure you do, kiddo," Lightcap pats his shoulder.

"What's going on?" Newt asks, his voice starting to make a reappearance.

"Nothing," Lightcap whispers. "Literally nothing. It's a secret. Shhh, tell no one." She reaches out to knock on the wood of Newt's desk, which is probably actually compressed sawdust under a coat of lacquer, but hey. It's at least wood-adjacent. A forest family member. "I came by tell you to take the afternoon off."

"That's weird," Newt says. "Why?"

"Because." Lightcap leans forward conspiratorially. "I want Gottlieb to take the afternoon off. He's working too hard."

Newt narrows his eyes at Lightcap.

"Seriously," Lightcap says, earnestness incarnate. "Have you seen the guy? He's worn to a thread. Tendo's worried about him."

"Really?" Newt says.

"Swear to God." Lightcap places her hand on an invisible bible. "J-Tech thinks he's close to some kind of mathematical breakthrough but it's just not coming; he's been snapping at the staff, won't let anyone near him—" Lightcap trails off, and sends a tragic look in the direction of Hermann's office.

"And that's different from the status quo, how?" Newt asks, not buying a single word of this. All his credulous cash is staying in his cognitive wallet where it belongs.

Lightcap drops the conspiratorial attitude, turns serious. "Actually, little minion," she says. "I know I joke around with you about him a lot, but Tendo really is worried. This whole effort is a marathon, and Gottlieb has been sprinting for a while now. For, like, two years. He's not looking good. If you want to know, what actually happened is—well—you know what? Never mind. I probably shouldn't tell you."

"This is terrible," Newt tells her. "Stop manipulating me so badly. Do it better."

Lightcap snorts. "Fine, fine. Seriously though, he's been driving himself into the ground for, oh," she looks at her watch. "About five weeks and some change. Namely right around the time you nearly bought it on the floor of the decon suite like the theatrical little twerp you are."

"Can you stop giving me a hard time about that, please?"

"Hmm. Can I stop giving you a hard time about bad-judging yourself to death? Let me see. Nope. Doesn't look like that one's in the cards. But I'm not the only one you scarred for life, Geiszler. He was there too. It was upsetting. You owe him this. In fact, this is a new policy. Any time you almost die, you have to buy Gottlieb a meal. Bring me the receipt. I'll reimburse you."

Newt gives Lightcap an unimpressed look over the rims of his glasses.

"Okay," Lightcap sighs. "Well, I tried. I guess if you're busy I'll try my luck with Herc—maybe he can get the guy to take a break."

"Herc Hansen?" Newt asks, incredulous.

"What?" Lightcap widens her eyes, innocent-flower style. "They're friends. They were drift compatible, even."

"They're not friends. They're barely acquaintances. That's a terrible idea," Newt says. "The worst idea I've heard all day. Get out of here."

"Sooooooo you're going to—"

"Yes, Lightcap, and, for the record, I would have done it anyway, without the chocolate and vanilla swirl of psychological manipulation you just vended. I want you to know that I noticed, okay? I noticed and I grade your effort at a C-minus. A low C-minus. A D-plus in all but name, and that's because I don't want your rich parents calling my department chair to complain about how I tanked their child's future in a world full of grade inflation."

Lightcap smiles sweetly at him, "Whatever you say, babyface. Take your coat and your inhaler if you go outside. And text me where you'll be. And don't stay out past 9 o'clock."



"Don't push your luck."

"You're welcome," Lightcap sings, as she ducks out of his office.

He sighs, re-tips his chair, because it's his chair, and he wants to, and stares at the ceiling of his office.

So, yes, Dr. Newton Geiszler has, maybe, a little bit of a poorly defined thing for Hermann Gottlieb? Which is fine. Completely normal. If Newt were going to make a list, in his head, of what he'd want to want in a significant other, a lot of Hermann's qualities would be high up there. Turns out that list also works if you replace "significant other" with "arch nemesis," but that probably says more about Newt than it does about Hermann.

Unfortunately, the romance thing just isn't gonna happen, contrary to all of Lightcap's coy commentary and *recherché* attempts to set them up [editorial note: of which this may be one].

On the plus side, the arch nemesis thing is shaping up well. He irritates Hermann in an Epic Rival sort of way, what with his music and his playing it loudly and his "slovenly habits" and his green streaked hair and his platonic bromance with Lightcap and his science-nannying of an orphaned Japanese girl and his fiery rhetoric and his hatred of military hierarchy.

Newt has given up on the romance thing. Newt gave up in 2015. Really, he did, little flashes of hope in the Pan of Possibility here and there notwithstanding.

Nevertheless, there's no reason they shouldn't be friends. Well, that might be going a little far for Dr. Gottlieb. But there's no reason they shouldn't be more friendly than they currently are. It's taken a while for him to get to this place, where he can, maturely, have this realization. Nevertheless, here he stands.

All alone.

Probably forever.

Which is fine.

It's better this way anyway. Newt isn't made for the romantic relationship scene. It's not really his deal; he never had any opportunity to practice with anyone in his peer group, so he's not good at it. Plus, it's not like he's got a huge biological imperative banging down his door all the time demanding he get good at it.

So. Friendship. He's pretty sure they could, eventually, get to a state that Hermann would, sometimes, on a good day, call "friendship," if Newt is extremely chill about things. Arguably they're already at "friendship," from a Normal Person Viewpoint? So maybe they could get to be, like, superfriends?

Hi, Newt, that's not chill. Forget it.

Forgotten.

New goal: maybe, one day, they can be arch nemeses who are really close and definitely secret friends, though that, of course, always remains unspoken. Like, not soon, but eventually?

Newt dons his jacket, checks his hair, reseats his glasses, and grabs his albuterol. The walk to Hermann's office isn't far, but once he gets there, he kind of stops in front of the closed door because what is he supposed to say? He's working on the perfect plan, and it definitely involves math, but before he can finish outlining his strategy, Tendo walks up behind him, reaches over Newt's shoulder, bangs on Hermann's door, and then walks away. Like a jerk.

"Hey," Newt says, weakly.

Tendo doesn't even turn around.

Hermann's door opens, but not very far. "Can I help y—oh. It's you."

"Yeah," Newt says, already exasperated. "It's me. Can I come in?"

"I don't know," Hermann replies, dry like a silicate packet. "Can you?" But he turns around without slamming the door in Newt's face, so that's basically the Gottliebian equivalent of: make yourself at home, sorry about the non-existent mess.

Newt rolls his eyes and drops into the seat across from Hermann's desk. Hermann resumes building his Nest of Higher Math, as though he hasn't just let Newt into his inner sanctum. The guy seems to be mid-thought, so Newt stays silent. It's not his usual deal, but he's unsettled to find that Lightcap might have been somewhat serious about the nature of Dr. Gottlieb's latest intellectual sprint. He does look worn down. His eyes are red-rimmed, he's got an igneous-type tension in his shoulders, and his hair looks like it's been on the receiving end of some frustrated pulling.

Hmm.

"I'll be back," Newt says.

Hermann doesn't acknowledge his statement or his leaving.

Newt heads over to K-Science Meeting Room Three, where they keep the good coffee. He makes himself a cup, and then makes tea for his esteemed colleague before heading back the way he'd come. He re-enters Hermann's office without knocking and sets the tea down directly over some fancy-looking quantum combinatorics.

"I was—" Hermann begins, annoyed, until he realizes that the thing currently blocking his math is tea. "Oh. Thank you, Newton." Finally, he looks up.

"You're welcome," Newt replies, appropriating his seat and proceeding to immediately scald his mouth on the coffee he tries to drink.

"To what do I owe the—" there is a pointed pause, "—pleasure?" Hermann finishes.

Newt is never put off by low-level Gottliebian hostility, and, in any case, this doesn't even really rate. "Are you okay?" Newt asks. "You look stressed."

"I'm fine," Hermann replies, brick-wall style.

Well, that settles that. Newt is going to get four thirds to nowhere if he tries to be solicitous.

"Mathematical symmetry?" he asks.

"What about it?" Hermann asks, softening perceptibly.

And this, right here, is why Tendo and Lightcap can never make any headway, but Newt can. It doesn't actually have all that much to do with Newt, or whether or not Hermann likes him. When you get right down to it, it's more that Newt is the only one who viscerally understands that Hermann has the most existentially terrifying job of them all. He's the guy under the bed, looking out for the arrival of nightmares, monsters and all other things terrible. And there's no one with him, most of the time.

Math like this is a solo sport.

Doesn't mean there can't be spectators, though.

Newt leans forward, taps the guy's quantum combinatorics. Lifts his eyebrows. Waits.

Hermann looks a bit taken aback, his mouth falling open and sort of staying that way. It's a little bit cute. So sue him. Friends can find other friends cute. It happens all the time. Case in point: he's doing it right now. "Ah," Hermann says, recovering. "Good eye. I didn't know you had enough Group Theory in your armamentarium to even recognize this."

"At this point all my higher math knowledge is acquired and maintained purely for the end goal of appreciating your work," Newt says, and yiiiiiiiikesssss that sounded wistful. That's Hermann's fault. He was wistful first.

"Want to help me brush up on symmetry?" Newt asks.

Hermann looks tempted, but he shakes his head. "What would be the point?"

"Oh I don't know," Newt says, dryly, draping an arm over the back of his chair. "Maybe you could use a little metaphorical hand holding in the face of the Quantum Crevasse out of which our Untimely Demise crawls at semi-predictable intervals? If you're busy, fine. All I'm saying is that I see the nature of what quantum cartography has become. Just because I gave it a cute moniker doesn't mean I don't realize how fundamentally unsettling it is."

Hermann looks like Newt just slapped him straight across the face.

They stare at each other.

Newt is surprised by Hermann's surprise.

In the wake of what appears to be pure shock, Hermann displays a complicated series of emotions that go by too fast for Newt to parse. The whole chain ends with, "You're very unfair, sometimes, Newton."

"What?" Newt asks, confused and slightly annoyed. Newt is unfair? Newt is the unfair one?

"Never mind," Hermann replies. "Yes. The modeling of breach mechanics requires the invention of techniques that, when correctly applied, may reveal something terrible about the lifespan of our species, and it's not a pleasant thing. So, thank you, but I'm capable of handling it."

"Obviously," Newt says. "But let me point out that if you leave me too far behind I'm never going to catch up. Plus, it's a nice afternoon and nothing," he leans forward, knocks on the wood of Hermann's desk, "is currently collapsing under its own weight or actively trying to eat us. You want to go to the roof?"

Hermann gives him a long, soulful look, and good lord, the guy must be absolutely exhausted.

A long span of seconds go by.

Hermann doesn't say no.

Newt grins, and he knows he looks a little too happy about this so he tries to mask it by clapping his hands together, getting to his feet, and speaking with authority. "Get your coat. So, did you know that biologists have the concepts of both rotational and reflectional symmetry, but we call them radial and bilateral because we're mathematical philistines?"

"Hmm." Hermann stands, reaching for his coat. "I can't say I'm surprised. How's your set theory?"

"Eh," Newt says. "I'm guessing you're going to find it functionally bad but philosophically good?"

"Explain." Hermann picks up his tea, and gestures Newt toward the door.

"Meaning, functionally, my notation is rusty, my understanding operators is conceptual at best, but, like, I understand that the thing four ducks and four sea urchins have in common is the concept of "fourness" and that concept derives from the set; so ergo set theory forms a good portion of foundation of mathematics, maybe, probably."

"It's a start," Hermann says, sounding almost fond.

"I like the idea of sets of symmetries, though. I can tell you that much."

For some reason, this makes Hermann roll his eyes. "Of course you do. You would."

"I have no idea why that's hilarious, but I'm sure it is." Newt gestures toward the door. "Roof?"

"After you," Hermann says.

Once they emerge into the upper reaches of the Shatterdome, Hermann takes the lead. Of course he hangs out up here. He loves to find vistas and gaze at them. Such a Hermann thing. Kind of a Lightcap thing too, come to think of it—the only difference being one of elevation. Huh. Thus far, Newt hasn't been invited to do any vista-gazing, but then again, they haven't been in Seattle very long. They climb up to perch on a wide cement railing-thing that would, if this were medieval Europe, be best considered a "rampart." Below, stretching away into the distance, is the Pacific. They sit loosely

facing one another. Newt is cross-legged, with a great view of the Space Needle. Hermann has his bad leg draped over the lip of the concrete ledge.

If this is not the cutest fucking thing Newt has ever done with anyone he'll surrender one of his doctorates back to MIT. Either Chemistry or Bioethics; he'll flip a coin.

"What brought this on?" Hermann asks, sipping his tea.

I want to be your friennnnnnndddd, Newt doesn't say.

"When I was recovering from that proteolytic disaster, which, by the way, I think I can prevent in the future for both myself and humanity by use of a small molecule inhibitor of a dormant protease, Lightcap took away my computer and told me if I wanted to read the only thing she'd allow was Quantum Physics Letters. And it occurred to me—"

"Stop stop stop," Hermann says. "What?"

"Yeah, well, Lightcap knows I love to fangirl about math, so—"

"No, not that part." Hermann shoots him a significant look. "I'm well aware of your proclivities in that regard, but did you just casually insinuate that you can prevent delayed onset interstitial lung disease secondary to repeat Kaiju Blue exposure?"

"Okay," Newt says, sipping his coffee. "So I'm not the only one reading outside my lane, apparently. I did imply that, but I'm not going to get credit for it. Well. I might get some credit for it. But I'm not pursuing it. I sent a bunch of emails back to my biomedical academician friends; this is more their deal anyway. It's going to be at least a few years before it goes anywhere."

"Would you mind terribly explaining what actually happened to you?"

"No," Newt says, looking out at the ocean and then back at Hermann, wishing he'd brought sunglasses up here. The sun is kind of merciless. "If you're, um interested?"

"I find that I very much want to know," Hermann says. He's in a much more advantageous sun-configuration than Newt is right now.

"Okay," Newt pushes his glasses up his face and squints into the brightness of day and sky and sea. "We call it Blue, because it's literally blue, but Blue isn't actually one thing. It's a whole mixture of small molecules that spontaneously assemble into the cellular version of lawnmower blades. It mows down whatever proteinaceous structure it comes into contact with. Kind of like the immunological inflammasome, but more aggressive. Plastic can contain Blue pretty well, depending on its molecular architecture, but if you put, like, a human hand or jaw bone or whatever into a bucket of Blue it would eventually dissolve into proteinaceous goo."

"Lovely," Hermann says, pulling sunglasses out of the pocket of his coat and handing them to Newt.

"Oh," Newt says, taking them. "Thanks. Yeah, I'm weak to the daystar." He swaps his glasses for Hermann's shades. The Space Needle de-crisps.

"Don't get distracted," Hermann replies.

"Would I do that? So if you inhale aerosolized Blue, or ingest it, actually, and then survive, which more people do these days given the budget mobile bronchoscopy units now being deployed, it turns out if you get enough of a toxic load, Blue may leave something behind. At least in me it did, which I know, because they saved my bronchoalveolar lavage fluid, thank god, so I could do some immunohistochemistry with a whole panel of anti-kaiju antibodies. Long story short, I identified a small molecule that had set up shop in my alveolar membranes."

"What do you mean 'set up shop'?"

"Like, it got in there during my Manila adventure and never left." Newt pauses, enjoying this life behind Hermann's shades he's living right now. Is the sunglasses thing a friends thing? Or would Hermann do this for his arch nemesis? Probably he would, damn it. "I thought maybe it would be a prion, but it's not. I was a little sad about that. That would have been cool. This thing is more like an adaptor protein for one of these giant cleavage machines that activate cellular caspases. And to be clear when I say 'giant' I mean subcellular. Just, like, giant relative to other intracellular protein conglomerates? Probably? You know what, just replace the word 'giant' with the word 'tiny'."

"So you had residual kaiju proteinaceous material inserted into the membranes of the cells in your lungs?" Hermann looks appalled.

"Yeah."

"That's appalling," Hermann says.

Nailed it. Can Newt read this guy's face or what?

"Eh," Newt says. "Yeah. So I didn't actually have to inhale Blue. I only had to inhale some small molecule partners that triggered aggregation of the Blue that was already sitting in my lungs. I'm still surprised it happened, but I guess Crimson Typhoon did make a mess of the tail-based lymphatics, and so more chemically active stuff was aerosolized than usual in the area I was in. And then it started chopping up my lung tissue. But only a little. This was nothing relative to last time."

"Newton, can I ask—" Hermann hesitates, sips his tea. There is a long pause. "Why did you allow her to send you out in the first place?"

"I really didn't think it would be an issue." Newt shrugs apologetically.

Hermann glares at him, but there's hardly any heat behind it. "You need to make a habit of thinking critically about more than just your benchwork."

"You'd miss our fights if I died, eh?" Newt says, trying not to show undue positive emotion about the fact that Hermann cares about him, at least a little.

"I'd miss more than our 'debates,' yes." Hermann admits.

Oh my god. This is going so well, Newt's brain opines, unduly impressed with itself.

"Well on the plus side," Newt says, "There aren't that many people who survived the early rounds of Kaiju Blue, and even fewer who got re-exposed and lavaged, so it actually turns out to be an extremely useful case study. So, worth it, probably."

Hermann shoots him a dark look, heavily implying that he finds Newt's reasoning suspect.

"But that's, like, so five weeks ago," Newt says. "Let's get back to the quantum, please. Your math downstairs looked like you were playing round with reflective symmetries of the transit pathway—"

Hermann looks like he's trying very hard to avoid displaying even a trace amount of happiness, and it's not working at all. "Hmm, well, I may have been sketching out some Coxeter group themed ephemera in the margins—"

"Coxeter group?" Newt says, sipping his coffee.

"A formal description of kaleidoscopic reflections."

"Nice. Good song title. Don't worry, I'll credit you."

"Group theory aside for the moment, I can tell by your comment that you're too grounded in the presumed physicality of transit. For a time I was too, it's a natural presupposition, but it will hold you back conceptually."

"What do you mean?" Newt asks. "The presumed physicality of transit? There are things physically transiting the breach, Hermann. Giant monsters, in fact."

"Yes, I don't dispute the physicality of their arrival, but the breach is not a literal pathway," Hermann explains. "As far as I can tell it doesn't possess length or width in the way we intuitively understand it."

"But your representational models—you're mapping it, and you're certainly representing it as three-dimensional. A spacetime landscape to be transited."

"Yes but the 'diameter' is a topological representation of extremely complex quantum probabilities while the 'length' is proportional to the time required to tick off those probabilistic checkboxes, as it were."

Newt groans. "Ugh, time?"

Hermann nods, sips his tea, but doesn't say more.

"Fine, fine," Newt says, thermodynamically knuckling under with poor grace. "'Time' as in sidereal time? Or 'time' as in arrow of time?"

Time is the worst. It's his least favorite.

Hermann actually smiles at him. A real smile. Better wattage than Newt's ever really gotten from the guy. What the heck is happening here? Newt is so surprised that he grins back, even though he has no idea why he deserves this.

Time is the best. It's his new favorite.

"The quantum arrow," Hermann says. "Yes. And this, I think, is what you've been driving at all along, even if you weren't quite aware of it. Because you opened with symmetries, yes? And the wave-function collapse required for breach transit happens in a time-asymmetric fashion."

"Ohhhh," Newt says, as pieces finally click into place. "And you're getting fancy with Group Theory to try do some temporal combinatorics that improve the interval calculations for, specifically, the quantum decoherence portion of your model?"

Hermann stares at him.

"What?" Newt says defensively. "I'm quantum literate. Mostly. Not sure I'm Group Theory literate. Is that not what you're doing?"

"It is what I'm doing, but—how on earth did you intuit that?"

"I don't know about 'intuit.' You have a whole stack of books on your desk about Group Theory, man, and you just told me the quantum arrow of time part yourself, more or less."

"That's still quite a leap. More like—" Hermann pauses, eyebrows raised. "A collection of leaps."

"Eh," Newt says, trying not to smile. "As they're all a product of reflections on the nature of symmetry and could therefore be represented as a Coxeter group, it's probably fair to count them as one."

Hermann has to fight hard to avoid looking both amused and impressed, he fails on both counts, and Newt takes this as the huge victory it very clearly is.

He raises his eyebrows at Hermann and, very archly, takes a sip of his coffee. Newt is fully intent on riding this silence into the conversational sunset, until something occurs to him.

"Waaaaait. So do you think there are partial transit events? Are there some kaiju getting, I don't know, lost to the vacuum or smeared into superstrings or what have you? Like, could you start a transit and not tick the probabilistic tick boxes? And also on a related note, if the whole thing is a spectrum of probability does it mean anything to say the breach is 'closed'?"

Hermann looks away, out at the ocean, because he's smiling again, and he can't do that and look at Newt, obviously; that would be poor form. When he finally gets his face under a little more control, he looks back, still extremely pleased, and says, "Newton, each of those questions would take hours to answer appropriately."

"Hmm," Newt says, looking at his watch. "We should probably get dinner then, what do you think?"

Hermann looks tragically undecided, and there are times when Newt could almost believe Hermann's antipathy toward the world is a weird sort of armor; offense toward anything as defense against everything. But people are complex and fundamentally unknowable, so even if he did develop this as a working theory of Gottliebian psychology, which he won't, there's no way for him to ever verify its veracity. It's not testable.

Trying to understand what's going on in anyone's head is both a colossal waste of time, and sometimes, paradoxically, the only thing that seems to matter.

It sucks to live like this, Newt is coming to realize, holding this depth of uncertainty about everything all the time. Are kaiju good or bad, in a Manichean sense, and should



Cait-Science fight them? Does Hermann like Newt or not? Are they living in a computer simulation? Is light a particle or a wave? Are thinking and action causally coupled or is consciousness a neurologic epiphenomenon? Is there a point to any of this? Trying to live, waiting to die? Lightcap has God, and that's great for her, but what does Newt have, really, at the end of the day? Nietzsche? [Editorial note: as company goes, Friedrich Wilhelm isn't exactly the life of any given party.]

Nothing matters. And, at the same time and for the same reasons, everything does.

Hermann thinks that way. He must. He very obviously believes everything matters.

So.

Newt can take a page out of that book. He'll make an effort. We will, in fact, make The Effort. Here, and everywhere. Now and everywhen.

"Come on," Newt encourages. "Don't slide into the lonely math abyss. Topology abyss? Topological abyss. You know what I mean. Definitely other mathematicians have completely lost their minds over way less terrifying things. Look at Gödel. And, speaking of the arrow of time, look at poor Boltzmann. Plus, you know that when you explain this stuff to me you give yourself a disproportionate number of new ideas. We should really do this, if only for the sake of your own efficiency."

"Well," Hermann says. "When you put it that way, Newton, it's difficult to argue."

"It really is, isn't it?"

## 2015 (Forty-seven – Chimes at Midnight)

As the year closes, Hermann becomes increasingly good at suppressing thoughts of Dr. Newton Geiszler. The rate of breach transit increases. Everyone is overworked. He shuts down all distractions. He loses touch with his sister, his mother, old friends. He stops imagining alternate futures for himself. He devotes himself to the math. The rest? It can wait for what comes after.

He brings a single-minded focus to his days. He tries.

The nights? They are OUT of control. It is utterly infuriating.

He dreams them far away from Alaska, far away from Caitlin Lightcap. Particularly bad is Berlin on summer days, Newton speaking flawless German, stray cats following him home, a garden that explodes with life, Hermann's mother, in the kitchen, watching Hermann cook, pinching Newton's cheek at every opportunity she gets. Newton indulges her, flirting shamelessly, mixing her a cocktail, becoming, in the span of a single visit, the most favored of her in-laws. Hermann has never seen him turn on quite so much domestic charisma with such rapidity. After dinner, as Newton makes tea, Hermann's mother turns to him and whispers, What a charmer.

He dreams them in America, in Boston, drinking coffee, wandering the farmer's market, running into students left and right. Newton struggles fetchingly through quantum mechanical insights as he distractedly appraises vegetables. Hermann in the kitchen, Newton sitting at the counter, chewing on a pen, chattering endlessly about chromatin remodeling on the level of the quantum foam. A leisurely dinner in a kitchen lit by candlelight. A bottle of expensive wine slowly poured out over hours. Newton does only half the dishes before Hermann pulls him away. I'm going to get you wet, Newton says, his voice rising in mock warning, his hands slick with water and soap up to the elbows. He holds them away from his body, and Hermann is reminded of another time, another life when the man would sterilize his hands before dissecting—what? It doesn't matter. Don't you dare, Hermann tells him. You stay just like that. Newton, laughing, keeps his hands held up, palms toward his face, sudsy water dripping from his elbows as Hermann pins him to the sink.

UNACCEPTABLE.

He buries them, to a one, as deep as he can.

Honestly? The days? Sometimes, they're just as bad.

Hermann threads his way through the crowded conference room at one of Lightcap's joint briefings. While not late, he isn't exactly early, and finds himself with relatively little choice regarding seating. He chooses the best of limited options.

Newton, on his phone, looks up as Hermann drops into the seat next to him. Before the man can get a word in edgewise, Hermann says, "Reading That Rag again, I assume?"

"Hermann," Newton replies, dragging his name out obscenely, but pocketing his phone. "What a pleasure." The words are dry, but he does look pleased. "Done any spiritual communing with the quantum foam lately?"

"Unfortunately, I find myself constantly interrupted by the mandate to attend briefings that don't pertain to me. The quantum foam will have to wait."

"Well, I'm sure it thinks you're worth waiting for," Newton says, deliberately lascivious.

Hermann rolls his eyes. "Touché. I find myself wounded by the rapier-like wit of a nine-year old."

Newton smirks. "I was a year into my first PhD at nine, so I choose not to be offended by that."

Hermann snorts, the briefing starts, but he's now distracted. Nine? Really? Ugh, of course really. He hasn't back-calculated the man's academic degrees since he was first trying to estimate his age. What had the first one been? Was it Chemistry? He tries to picture Newton at eight years of age. It's not hard. Undersized, glasses, winsome to the point of lethality, preternaturally dexterous even then. No wonder he's so obnoxious. No wonder he's not quite attuned to polite social norms. No wonder he has no native respect for authority, propriety, decorum. Who leaves a child that young at MIT, no matter how precocious? Terrible.

Lightcap drones on about organizational objectives.

No one in their right mind could dig anything substantive out of her technical legalese.

Hermann, absently, thinks of his most recent encounter with Newton on the roof of the Shatterdome. That evening light, the brisk wind dies away, and—

"I'm sorry," Dr. Geiszler says quietly, leaning against the metal superstructure, arms crossed. He doesn't explain himself further. His expression is serious. His eyes expressive.

"For what?" Hermann asks him.

"I'm no good at this," the man says, rueful. "But, please understand, I haven't been socialized in the way most people have. My parents abandoned me, you know? My uncle did what he could, but I couldn't tolerate the German academic hierarchy, so—" He shrugs. "I was raised by academic wolves, what can I say?"

"That is hardly your fault," Hermann reassures him.

"Well," Dr. Geiszler admits, shouldering culpability with a of philosophic calm that Hermann finds intensely stirring. "I could have applied myself more." He walks forward, approaching Hermann, approaching the rail. "Look at what I'm missing out on."

"And what's that?" Hermann asks him.

"I know I'm not what you expected," he says, looking up at him, all composure. "I know you expected someone older, someone with more gravitas."

"You have plenty of that to exert should the mood strike you," Hermann offers. "I've seen it."

"That's right," Dr. Geiszler says. "I can turn it on. And maybe I would, for the right reasons." He lifts an eyebrow.

That's all the invitation Hermann needs. "Such as?" He enquires, stepping closer.

"Oh I don't know," Newton says, reaching up to rest his hand on the nape of Hermann's neck, those eyes burning green in the light of late afternoon.

"Hey." The real Newton elbows him sharply, whispering. "Are you okay?"

"Yes," Hermann hisses, shifting uncomfortably.

"You're glazing over, Dr. Gottlieb," Newton says, his words quiet and amused. Hermann can feel the warmth of the man's breath on his neck.

"I was not," Hermann retorts.

"Were you thinking about math," Newton breathes suggestively.

Hermann flushes.

"You were," Newton continues in the same vein. "All those fascinating topologies? Don't you just want to run your hands over those incredible spacetime curves?  $G \text{ sub } \mu\text{-}\nu$  equals the quantity eight pi  $G$  over  $c$  to the fourth times the quantity  $T \text{ sub } \mu\text{-}\nu$ , am I right?" He presses his lips together, shuts his eyes, and moans almost inaudibly.

Hermann is going to murder this man. He is going to do it today.

"Will you pay attention," Hermann whispers, furious, sexually aroused, and furious about being sexually aroused.

" $V$  minus  $E$  plus  $F$  equals two," Newton purrs, invoking the Euler characteristic as though it's a particularly explicit piece of topological erotica.

"Geiszler," Tendo Choi says, tapping the man on the shoulder from behind with two fingers. He leans forward, whispering, "if anyone is aroused by math it seems to be you. Leave Dr. Gottlieb alone and go spend some quality time with a protractor later."

Newton laughs, one hand clamped over his mouth.

"You're bizarre," Mr. Choi informs the man. "Now shut up before Lightcap calls you out because she is looking this way."

## 2025 (Forty-eight – The Omen Coming On)

On the anniversary of Caitlin Lightcap's death, Hermann ignores her face, appearing, as it does, all over the newsfeed on his phone. He declines to read the paper. He overlooks the way Newton manages to avoid him in a two-bedroom apartment, taking to the balcony sometime in the early morning, the door firmly shut behind him.

Hermann's fairly certain the man hasn't slept at all.

He'd intended to stay home today, but, looking at the set of Newton's shoulders, it strikes him as almost cruel to do so. Already, he's unnaturally invaded a grief that would be private if they'd never blended minds.

So, Hermann makes the drive to UC Berkeley. Hwi turns on the news, and he suffers through five minutes of a Caitlin Lightcap retrospective before he hears her voice. An old recording, from the very early days.

"We were listening to David Bowie," Lightcap says. "Serge had requested Ziggy Stardust and it was playing as I ran. I wasn't dressed for it; I was sprinting in heels, and I was praying because what I had in mind was a Hail Mary anyway."

Hermann flicks the radio off and takes a deep breath.

Borrowed grief loses none of its ache, it seems. An awful, excavated feeling gnaws at his heart. It can't come from him. Nevertheless, it seems to be his.

Hermann flicks the radio back on.

"Jasper bolted me in," Lightcap says, and some completely horrendous human being at NPR has inserted Ziggy Stardust's eponymous track low in the mix beneath her words.

He switches to the BBC.

Lightcap again.

"—that's nice of you to say, but I couldn't do it without my team. Specifically, the Science Side. They get way less credit than they deserve as a general rule. I love them all. Especially what Serge and I like to call the Dramatic Duo, mostly because of their legendary—um—we'll call them 'debates.' They're both brilliant enough to blind entire roomfuls of bureaucrats. And, when they're together, they sharpen one another up."

"What are their names?"

"Newton Geiszler, who heads K-science, and Hermann Gottlieb, Captain of our Math Team."

Hermann rolls his eyes.

"Wait...Math Team?" the interviewer asks.

"Oh yeah. Can't get by without one. J-Tech keeps trying to steal them away from their applied quantum mechanics, but I do my best to protect their time. If you think about it, the Math Team probably has the most critical role of all."

"How so?" The interviewer asks.

"Well, I'd rather not spend my entire life fighting kaiju. I want someone to figure out how to shut that demon tear in the quantum foam. I'm hoping it's Dr. Gottlieb. I spend at least ten percent of my time protecting him from getting co-opted by the thousand other people and agendas that want a piece of him."

"Oh god," Hermann murmurs, feeling a chill as he pulls into the UC Berkeley parking lot. "You really did, didn't you?"

"To do work like that," Lightcap continues, "you need time. You need dedicated, protected time. You can't do it if you're lashed to the countdown clock, like some of us are. You need enough remove to see the big picture. The deep picture. I mean, we're talking about a threat that emerged from the fabric of existence. The deepest picture there is, or ever will be."

"You knew that, did you?" Hermann mutters, looping around the parking lot, failing to select a spot. He returns to the road.

"Sounds like an important job," the interviewer says.

"That's what I keep telling people," Lightcap replies. "The Jaeger Program is an epic answer to an epic threat, but people forget it's a stopgap. We're trying to cut the problem off at its source. That's the real goal. My entire job, in a way, is to buy time for Hermann Gottlieb."

He finds he needs to pull the car over.

Hwi takes it upon herself to neaten his parking job, then keeps the radio playing as Hermann sits there, staring at nothing but the inside of his own mind.

"You must have close relationships with your staff," the interviewer says. "Do any of them worry about you? The work you do is so dangerous."

There's a long pause.

"They do," Lightcap says, reluctance in her voice. "They all do, I know. Each in their own way. But we've all shouldered a huge amount of risk. We have to. The stakes are too high for anything else. I accept that I probably won't see the end of this fight."

Hermann feels his eyes begin to burn.

"That's—I'll be honest. That's hard to hear," the interviewer says.

"Sorry kiddo," Lightcap replies, quietly. "But there are a lot of good people who work with me who are more than capable of stepping up. If there's one thing I believe, it's that science is our way out. As long as enough people keep their heads out of the sand and their eyes fixed on the water—we'll be okay."

Hermann turns off the radio, this time for good. He pulls a pair of sunglasses out of his glove compartment. He gets out of his car. The day is beautiful, with bright sun and a maritime bite to the air.

He begins to walk, choosing a direction at random, trying to look like a man with a plan and a place to go while being possessed of neither. How is Newton coping? Will he go

to the Coastal Wall? Will he spend the entire day on the balcony? There's a strong chance that Hermann will find him outside with the tequila come half past five this evening.

Finding a bench, he sits, propping his cane next to him, resting his elbows on his knees, his face in his hands.

If she'd only lived longer. Six months longer and they'd have gotten, again, the international aid that had maintained their manufacturing supply lines. One year longer and she'd have weighed in on the Coastal Wall like a wrecking ball. Two years longer and they wouldn't have defunded the American Shatterdomes. Three years longer and they'd have kept their staff. Four years longer and she'd have known of Newton's plans for drifting. Five years longer and maybe Hermann would have been able to ask her the questions he most wants answered now.

"How would you interpret what he did? The creation of EPIC Rapport? The forbearance of monsters? What does it mean? Did we do the right thing, destroying their network?"

Lightcap cannot answer.

And Newton—well the man had described some kind of extraordinary blending of calculus and rationalism and Leibniz and monsters, taking place in a fiery metaphor of a lakebed. Hermann cannot find much peace in the description.

What happens to a fraction of a hive mind?

It turns to ash, as most things do.

Physical ash, belonging to the scattering wind.

Metaphysical ash, belonging to the avatar of Leibniz—now wise and vaguely monstrous, splendidly misunderstood.

Hermann gathers himself, sits up straight, smooths his hair into an orderly arrangement. He reseats his sunglasses and looks around to see if anyone has witnessed the maudlin display he just indulged in. It seems not. As he's taking in the street, he notices, directly across from him, a florist's shop.

Sighing, he stands, caves to a blended impulse, and crosses the road. He's examining the hours posted on the shop window when the days and times vanish. They vanish because someone has opened the door.

"Hi!" The proprietor, a middle-aged woman with red hair, greets him with a truly improbable amount of enthusiasm. "Need some flowers?"

"You're open?" Hermann asks, uncertainly.

"For you we're open!" The woman waves him inside with an expansive gesture. "Thanks for saving the entire world from being eaten by monsters from another dimension, by the way."

"You're quite welcome," Hermann tells her, stepping inside the shop. He's found it's easiest not to split hairs about these things.

"I'm a huge fan," she tells him as she leads him through a maze of flowers, toward the back counter. "Do you realize you're a walking advertisement for children's math homework everywhere?"

This unexpected but not unwelcome turn to the conversation startles a small smile from him, despite the dark cast of his thoughts.

"I had no idea, but I could not be more delighted."

"My youngest? He always wants to play kaijus versus jaegers with his group of little friends and I say, "if you really want to win, do your algebra."

His smile gains some staying power. "Well. He's lucky to have you. There's not enough value placed on mathematics in this world, I can tell you that much."

The florist nods sagely. "Yeah. I'll say. Question for you, just one. Sorry. But I've always wondered—what did math have to say about that Coastal Wall project, hmm? Because, it didn't even work and now it's just an eyesore, screwing up the local ecosystem. What was math's take on that thing?"

"Math was unimpressed from the start," Hermann says dryly.

"I figured as much. I'll tell you this though," the florist says, leaning against the counter, "if you drive a few hours north, along Route One? You'll get to some open coastline where the fancy people had their vineyards. Before the radioactive fallout, I mean."

"Really," Hermann says.

"Really," she confirms. "They're starting to tear it down in pieces."

"Hmm." Already he's wondering if it would be a good or bad idea to take Newton to Sonoma.

"So. What can I do for you, Dr. Gottlieb?"

Charming as this woman is, there are times when he truly detests being recognized so consistently.

He hesitates, sighs, and then, "I'm looking for something suitable for a memorial."

The florist gives him a look that sears right to his soul. Of course she knows the significance of the date. Who, other than digital recluses, can escape it? For weeks he and Newton have fielded requests for interviews. Well, Hermann has fielded them. Newton is still, even now, not fully aware of the extent of his fame.

"I have just the thing," the florist says quietly. "Wait here."

She vanishes into the back of the store, leaving Hermann to fret about the idea of Newton spending the day watching Caitlin Lightcap documentaries and crying.

Perhaps he will go home.

The florist doesn't return for almost five minutes. When she does, she's carrying a bouquet of white lilies, wrapped in paper, tied with string, well insulated against leaking.



"Perfect," Hermann tells her. "How much do I owe you?"

She sets the flowers down on the counter between them. "Hang on," she says, ducking down beneath the register, digging through a shelf he can't see. When she stands, she has piece of paper and a pen in her hand. She sets them on the counter. "You owe me one autograph. To Zach."

Hermann lifts an eyebrow, takes the pen, and writes:

Zach,  
Do your math homework.  
-Hermann Gottlieb PhD

"Perfect," the florist gives it her blessing.

"How much do I actually owe you?" Hermann asks.

"Nothing," she says.

"Nonsense," he replies pulling out his wallet.

"Hey," she says, one hand out. "Please," she says, her voice shockingly full of feeling. "Please let me give you these."

He looks at her in surprise.

"Are they for Doctor Lightcap?" she asks.

"They are," he replies, seeing no reason to evade her question.

"Then please," she says. "I've lived here all my life. Selling flowers. My husband died when Trespasser took down the Golden Gate. I've never done anything important, myself, but I used to watch her, you know. All the time. The briefings she would do on CSPAN sometimes. Her talks on YouTube. The movie they made about her. She tried so hard, you know? That's what I loved about her. She tried herself to death. In some of her interviews she would talk about how scared she was—when Sergio D'onofrio almost died, when she jacked into that rig, when she fought Karloff. But she did it all anyway."

"Yes." Hermann's voice is rough.

"Let me help you do this for her," the woman says. "Please."

Hermann stares down at the flowers. "Well." He clears his throat. "She always did enjoy a grand gesture," He's amazed to find there is no cut to his words.

"Not sure how grand this is." The florist ghosts her fingers over white petals.

"Grand enough," Hermann replies.

He returns to his car, flowers in hand. He texts Newton and receives a terse reply. He tips his head back against the seat, composes himself, then composes a message.

::I realize today carries some special significance. I'd rather you not be alone—unless you want to be. Do you?::

::Mako has already called me six times this morning::

::That's not an answer::

::Can't get anything by you::

Hermann sighs, trying to decide what Newton's evasiveness imports. The man probably isn't sure what he wants, exactly, or he's wondering about Hermann's own preferences in the setting of EPIC Rapport. He speculates on the issue for so long that he gets another text from Newton.

::You do you for a while. If I hijack your brain it's going to be a Feel Bad Night of EPIC proportions, if you get my drift. Go roll around in math for a while. That usually helps::

::Call if you need anything::

He can't quite imagine the drive back to the Math Building, a day of dodging colleagues and their well-meaning inquiries.

And so.

Hermann drives north, to the gap in the Coastal Wall.

At an abandoned overlook, he pulls off the road. He frees the flowers from their string and paper. He gets out of the car and walks to the cliff's edge. Below him is a rocky bay with white-laced waves. The wind is at his back. The sea and sky are fantastically blue.

The bones in his face ache as he looks down at the flowers in his hands. A profusion of white. He thinks of Caitlin Lightcap, standing beneath his chalkboards, looking up at the mathematics, smiling faintly, whispering reverently to herself. A count? A prayer? It doesn't matter.

"You did so well," he murmurs.

He flings the flowers along the vector of the wind. They fall, end over end, toward the sea.

## 2028 (Forty-nine – Like an Ill-Sheathed Knife)

Hermann wakes in the morning to quiet music. Cello and—harp, he thinks. It's a song he knows. A traditional holiday song: "Bring a Torch, Jeanette Isabella." He looks, puzzled, at the door to the bedroom. He checks his watch. It's a shade before seven o'clock in the morning. He has not had coffee, he is exhausted, Newton is curled up beside him, and it takes Hermann whole sets of minutes to understand what is happening because someone is moving in the kitchen, quietly opening cabinets.

Mako, he thinks. Mako.

His throat closes. There is something so terribly, terribly bittersweet, about Mako Mori moving almost silently about their apartment, alone, no doubt putting together breakfast, playing softly for herself traditional holiday music. He drops his head to Newton's shoulder, wraps an arm around the other man, and cries silently.

What is wrong with him? Is he happy or unhappy? He has no idea. She should—she should be elsewhere, he's certain. In another world, she would be. In this world, she has only a few people in her life who knew her before she was an international icon, only a few she can call family. Hermann has the terrible suspicion that after Newton's melt-down two days ago, she told Mr. Becket not to come. The bones in his face ache with the memory of Stacker Pentecost, Caitlin Lightcap—scores of Jaeger pilots who had walked into the sea and who had not come back.

Newton's hand comes to rest on Hermann's hair. "Hey," he whispers. "S'wrong?"

"Nothing," Hermann whispers, holding him tightly, trying to stop his tears, failing. "Nothing."

"Shh," Newton says, wrapping his arms around Hermann, dragging him up until Hermann is half on top of him. "C'mere."

Hermann presses his forehead into Newton's neck.

"You gonna tell me or what, Dr. Gottlieb?" the words are slurred, but gently delivered.

"Mako is in our kitchen making breakfast," Hermann whispers, not knowing how much of this the man will really take in.

Newton doesn't reply right away. He continues stroking Hermann's hair. "Why's this so hard for you?" Newton asks. His diction is a bit crisper. In two hours, Hermann will have to convince him to take another dose of Dr. McClure's taper, and he will spend the majority of the day struggling against a pharmacologic weight that is designed to be too much for him.

"It doesn't matter," Hermann murmurs. "It doesn't even make sense."

"Myeah, 's too much," Newton agrees. "You crying about Mako? Or me?"

"The war," Hermann says. "The time we all had of it."

"Hermann," Newton says, tapping him gently under the chin, clearly a directive to look up. He does so, and sees Newton looking at him through half-lidded eyes. The light coming from the windows is gray. Gray sky, gray water. Tiny flakes fall sparsely. "War's

over. Mako brought you Christmas presents. I'm literally cuddling you. We're both'n academics. Harp is coming out of our speakers. Harp, Hermann."

"I know," Hermann says.

Newton draws a thumb across Hermann's cheek. "Such high expectations," he whispers, smiling.

Hermann nods wordlessly.

"I know it," Newton sighs. "Let's go be super nice to Mako for a few hours before Hypothetical Rain, like, ruins my day. Again."

Hermann shifts, then sits, pulling Newton up with him. "You don't want to go back to sleep?"

"Pretty sure that's all I've done the last week," Newton says, petulant. "But I think I'm with it enough now that I won't torture you with crying about how I'm lacking my usual brain power."

"That," Hermann says sharply, "is in no way your fault."

"Meh," Newton says. "Little bit my fault."

"No," Hermann says firmly, arranging the pillows behind Newton and then pressing the man back against them. Newton grimaces slightly, doubtless still sore. "Wait here."

Hermann makes short work of his morning ablutions, then tries to help Newton with his until the other man forcibly shuts the door in his face. Clearly, he's feeling better.

Hermann exits their bedroom to find Mako in the midst of making what appears to be cinnamon scones and some kind of baked fruit dish. Cider appears to be mulling in their crock pot. Christmas music plays from their sound system. She has affixed a garland of some kind to the counter, and on the table is a wreath. Near the television, she has set up a tiered system of poinsettias to resemble a tree.

Mako gives him a delighted smile as he takes everything in. On impulse, he walks over and embraces her. She hugs him back tightly. When he lets her go, he sees she, too, is teary-eyed.

"Two hugs in two days," she says. "Better watch it."

"I'm sure I'm running behind," Hermann replies.

"He's working his magic on you," Mako says, wiping her eyes, returning to her scones. "You were a tough customer." She smiles at him, just a touch uncertain, because she is, perhaps for the first time, teasing him.

"I agree," Hermann says dryly. "On both counts."

Absolution, when it comes, comes from Mako. Hermann sits with her on a wooden porch, attached to the second level of her home. Raleigh is inside, making dinner. Newton, extremely popular with Hideo and Sayaka, is presiding over Homework Time.

Mako sips a colored drink and shows him photos from Sayaka's first science fair. It occurs to Hermann that the girl looks very much like Mako—not so much her features, but her upturned face, her expectant expression. When Hermann points this out, Mako puts the photos down. She closes her eyes, tightly, gripping her drink.

"Mako," Hermann says, gently. "Is something wrong?"

"No," Mako whispers. She opens her eyes, tucks her chin, and smiles at him through tears. "I just had a thought, and it surprised me."

"I know the feeling," Hermann says dryly.

"Not that kind of thought," Mako says. "I remember when you told me that we might have been co-pilots, if not for Raleigh. You were the only one besides me with any training." She wipes her eyes and continues. "But in the end, we formed a partnership all the same. And look at what we've done. Look at where we are. Look at who we saved." She looks at the picture in her hand. "Sayaka and Hideo," she says. "Ourselves. Raleigh, from a life of wandering loneliness and despair. Newt from more and worse. You and I. We did that. Alone, but also together."

Hermann feels his own eyes burn.

"He would be so proud," Mako says, looking at the picture of her daughter in her hands. She shuts her eyes tightly, struggling with the words. "He would be so proud that I didn't make the same mistake twice."

"Yes," Hermann says. "I believe that's right."

"Dr. Lightcap, too, would be proud of all of us. You I think, though, most of all."

"Me," Hermann says, taken aback.

"Because you rescued Newt," Mako whispers, "Newt, whom she loved best of all of us. But mostly because you made him happy."

Hermann wipes away a tear. "It seemed, at times, so unlikely," he confesses.

"I know it did," Mako replies, taking his hand. Together, they look out at the sky, over the land, as if from the cockpit of a Jaeger. Not toward the breach but toward the glitter of San Francisco. The city shines in the light of early evening.

"We're happy," she whispers, squeezing Hermann's hand. "All of us are happy."



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