

Humanity at stake

International Science Fiction



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Editorial

MICHAEL K. IWOLEIT

This is the first *InterNova* online issue after a significant hiatus for which I, as the main editor, am very sorry. I think our readers (and authors waiting for a lot of stories to finally be published) deserve an explanation, but allow me to not bore you with what may sound like laments and limit it to the fact that a magazine like this, a pure non-profit project, run by a small team of enthusiasts, is especially vulnerable to unfavorable circumstances, in this case the strained economic situation that has forced me to postpone the continuation of *InterNova* again and again. Furthermore, several of our supporters had to leave the team and I had to reorganize the editorial staff.

I owe special thanks to our new proofreaders Jim Hender-son, Zach Smith and Vaughan Stanger who finally made it possible to pick up things where I had to leave them, all of them noteworthy writers who have appeared or will appear in *InterNova* themselves. With *InterNova online #6* we leave, this time, our usual alternation between general issues with stories from various countries under a loose motto and theme issues about the science fiction production of specific countries and regions. The reason is that two substantial theme issues are coming that require some additional work, one about contemporary science fiction from India and one about German science fiction.

We hope that our readers will enjoy the current issue and forgive us for being absent so long.

Michael K. Iwoleit

Doomsday Is Postponed

A TIME HOPPER ADVENTURE

CHIARA DE GIORGI

Sometimes you don't need more than a couple basic ingredients to cook up an apocalypse. A white cat and a game of pool is all it took for mine. Maybe the beer is also to blame — we Hoppers aren't seasoned drinkers, I'm afraid.

*

Hi, my name is Al-Eph, and I'm a Time Hopper, although this definition is slightly misleading, as it implies there is such a thing as time, whereas time is a concept that belongs to your local culture and is unknown throughout most of the universe — at least the way you conceive it. For the sake of simplicity, however, I accept to employ the expression, as it appears to make more sense to you than the more correct description of my kind: we simply are, and we hop. Or, to put it another way: we hop, therefore we are.

We entered your reality through the event popularly known as "the Big Bang". On your planet, you all more or less agree to consider it the beginning of time and space and matter and whatnot. But it was not *my* beginning; for me — for *us* — it was rather the end. Our own universe collapsed in on itself, and out of it we came, to spread and redistribute everything, to create a new reality for us to live and hop within. We greatly enjoyed the endless possibilities: imagine finding yourself at Point Zero, having all that discarded energy and matter at your disposal, having the chance to start a whole universe from scratch ... You have been studying and exploring it for thousands of your years, and whenever you think you have



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translator. Her Chiara: Just in Time children's book series, designed to make science fun and accessible, has been published in multiple languages, along with her teen novel and various short stories spanning several genres. She lives by the adage, "Don't take life too seriously, you'll never get out alive anyway," which is reflected in many of her stories.

found the answer to one of your many questions, something unexpectedly pops up, that forces you to reconsider every conclusion you have drawn up to that point. You'll never guess that it's us behind it all. Now, for example, you're all puzzling over dark matter and dark energy, wondering how they managed to escape your attention so far. Guess what? They didn't, they just weren't there. One measurement shows you the Universe is inflating; another says it's shrinking ... I'd love to see your faces as I reveal it to you: every single calculation of yours is right, in its own time! One hop forward: the Universe is bigger. Two hops backward, it's smaller. Three more, it gets bigger again. Does this mean the Universe is bouncing then? Nope, not really, because we can stop the hopping any time. The Universe does nothing, we do. Got it?

Why do we act this way? Although tinkering with energy and matter is a very satisfying activity, in most cases it is not a game: we're just trying to make the Universe a more comfortable place for us to live, by changing the arrangement and structure of galaxies and various celestial bodies according to need or personal taste. There are several ways to achieve these results, my favourite being explosions - that's why I typically work with novae, supernovae, and the occasional black hole. Also, I can say without false modesty that I am quite an expert in the field of apocalypses and Big Bangs.

Oh, yes: of course, there's more than one Big Bang, and many apocalypses! By the way: you should give some more thought to what you call an apocalypse. Think of the dinosaurs: one small meteorite and they were wiped out. *Apocalypse*, surely, from their point of view. But then, thanks to the Earth not being tromped by those gigantic beasts anymore, your kind developed. Not a Big Bang, you say? Well, maybe not, but a beginning nonetheless: yours. This is the way of the Universe, after all: one's apocalypse is another's Big Bang. *Mors tua, vita mea*, as also your ancient wise ones used to say. Have you ever wondered who or what would take over your planet if you humans were wiped out? Or what would the consequences be of the sudden disappearance of Earth?

As a matter of fact, something like that has already happened. Or it's happening right now; or it will happen, depending on which side of hop you find yourselves.

*

I entered the pub that night determined to 1) find the cat, and 2) not let myself be seen.

I thoroughly cursed the moment I decided to meddle with humans and their world: on Earth, my Hopper skills are limited by the combination of your atmosphere and other smaller stuff you haven't discovered yet, therefore it was impossible for me to alter my energy field so as to make myself invisible, and I engineered a disguise with a thick coat, dark glasses, and a wide-brimmed hat. Which, as I entered the pub, I realized was the best way to make myself conspicuous, so I quickly retraced my steps and threw everything into the first garbage collection bin I found. I went back into the pub and this time nobody turned to look at me. Thank goodness. I had already been there, much earlier – or later, depending on a Hopper's point of view. At any rate, I hoped that the individual I needed to avoid wouldn't notice me. I had to find the damn cat at all costs. I looked around, trying to guess where it could have come from. I reasoned that if a cat walks into a pub, it is probably looking for food, rather than alcohol. However, the kitchen was closed at that time and the patrons were ordering one beer after another.

So as not to attract anyone's attention, I ordered a pint, but I wasn't going to drink it; I had learned the hard way what alcohol does to Hoppers. Don't ask. Let's just say something apocalyptic happened the last time I had two beers. Or the next time. I mean, by now you should've picked up on how the 'timeline' really works: it doesn't go straight from here to there, but folds back on itself, it twists and untwists, and if you can't navigate it, you can get lost in its folds. As a matter of fact, let's call it with a more appropriate name: 'hopline.' This is because, as I mentioned at the beginning, time as you know it doesn't exist, but I don't want to blow your minds with con-

cepts you'll come up with in a few hundred years — which is also thanks to me, believe it or not.

As I made my way around the tables and tried to spot the bloody feline, I was also keeping an eye on one of the pool tables at the back of the pub, where a man of about my size and appearance was about to begin his first game of the evening. So preoccupied, I didn't notice the woman coming towards me and holding a pint. This detail might have been irrelevant, but it was crucial, because we collided in the middle of the pub and our respective jugs crashed into each other and shattered into a thousand pieces, spilling a fair amount of beer — mine a lager, hers a stout, in case you were wondering — all over the place. The patrons we showered with our drinks didn't appreciate it and sprang up to better insult us. They demanded compensation, each in their own way: one wanted money to pay for the dry cleaning; one wanted to start a fight; another suggested something that involved taking off our clothes (they were soaked in beer anyway, he pointed out). The pub manager decided that the woman and I would pay for the next round of beers for all the people involved in the incident. The woman started crying, three bartenders arrived with rags and cloths and a broom and dustpan to clean up the mess, and in the meantime the attention of everyone in the pub was focused on us. Exactly what I didn't want to happen! I should have carried out my mission quietly and unnoticed and instead I had dozens of eyes upon me. I was about to lose my temper. Stupid humans, and to say I was doing all that for you! For a moment I was tempted to send everyone into a hop-warp from where they would never resurface, but I remembered that the main reason I was there that night was to prevent humans from becoming unwitting victims of the irresponsible management of the Universe by Time Hoppers. (Well, by *one* Time Hopper in particular. But let's not dwell on the details right now.)

In an attempt to restore the peace, I announced I'd buy a beer for each person who was in the pub at that moment. By my estimation, the man at the pool table had not had a drink yet and I was pretty sure he could handle at least one beer. I should be careful that he didn't have a second, though. But

really, if I managed to track down and catch the cat, the number of beers he chugged would be completely irrelevant; he could drain the whole pub, for all I cared.

Order was quickly restored and soon nobody was paying any attention to me. Unobtrusively, I resumed my slow walk towards the billiards area. I froze when I saw a thick white tail sticking out from under the table where my target was chalking the tip of his cue stick. I cursed under my breath. How could I get to the chubby ball of fur without being noticed by the guy?

At that moment I realised that the woman I had clashed with a little earlier was by my side. I looked at her, both curious and annoyed, but she smiled at me and then pointed at the cat.

"What's a cat doing in a billiard room?" she asked, amused.

Taken aback, I improvised. "It's my cat," I replied. "I'm trying to get it back, but I don't want to scare it. Besides ..."

"Besides?"

"I can't explain now, but I can't let the man who's about to hit the cue ball see me." I was running out of seconds and couldn't let the cat jump on the pool table, so I dared,

"Maybe you could help me?"

"Sure!" she exclaimed. "What should I do?"

"Retrieve the cat," I replied, taking off my jacket. I handed it to her and added, "You'll come up behind it quietly, throw this on it, make a bundle and bring it back to me." It seemed like a good plan: quick, effective, and unproblematic.

Enthusiastically, the woman took the jacket and approached the table. When she was a few steps away, she got down on her knees and continued on all fours, piquing the curiosity of more than one drinker. The man with the cue stick also looked up and, fearing that he might spot me, I quickly turned away. Thus, I did not see what happened in the next few moments, the moments that determined everything that followed.

I heard a frightened meow, followed by thumps and bangs and finally the unmistakable sound of billiard balls scattering on the table, falling on the floor, breaking glasses. I turned around to assess the situation. It was a disaster! As the com-

motion grew and people cursed loudly, some trying to retrieve the billiard balls rolling around on the floor, I focused my attention on the pool table. The woman was sitting cross-legged in the middle, cuddling a bundle she was holding in her lap: my jacket, and a white, furry head poking out of it. The man, still holding the cue stick, was motionless and had a puzzled look on his face, as if he was still wondering what had happened. I was sure he was thinking of something else, though. I would have to keep an eye on him for the next few days, which I wasn't particularly eager to do.

The woman saw me and raised a hand, waving happily.

"Hey!" she called loudly. "I got it, did you see?"

How stupid of her! Hadn't I told her I shouldn't let the man with the stick see me? Now he obviously shifted his gaze to me. Quickly, I lowered my head, then I pointed to the exit of the pub, and walked briskly towards it.

"Can you explain what happened in there?" I asked, a little aggressively, when she joined me on the street.

"This little darling heard me coming," she replied, rubbing her nose on the head of the cat, which started purring in response. "The moment I tried to throw your jacket over it, it leapt away, and I ran after it. I only managed to tackle it when it had already jumped onto the table, in the middle of the balls. Yeah, sure, there was a bit of a commotion, but it's Saturday night and this is a pub, I guess it's business as usual, right?" she concluded with a laugh.

She handed the cat to me, and I took it in my arms, but it started to move, and I didn't know what to do with it. The woman saw me struggling and offered to take it back. She seemed to know how to handle a cat, so I gladly entrusted it to her and went back to worrying: what just happened was precisely the event that I was trying to prevent.

*

I feel like I have to explain something here.

First of all, you should know that the man playing pool in the pub was a Time Hopper like me. You don't need to know

more about him, for the moment. Another thing you should know is that, since all celestial bodies are spherical, we Hoppers sometimes use spherical objects to do our simulations when we want to plan some adjustments in the Universe. Of course, there is a number of variables that ought to be taken into account, but, since the Universe is quite big, there is little that can cause actual problems, and we don't like to waste time on trivialities. Therefore, a general idea of the outcome is typically considered enough preparation before implementing some changes in a galaxy or whatever. We often just act on a whim and without any preliminary operations, to tell you the truth. However, in a few, rare occasions, the outcome happens to create some major issues, so we hop into the folds of what you call 'time' and rectify the situation.

The reason I was at the pub that night was exactly to prevent one of those rare occasions from taking place. For reasons that I can't really get into right now (for which I hope you'll be grateful) your planet should not be destroyed. Yet. I was involved in one or two small Earth incidents when I was younger (which is to say, I was on a different hop-twist) and now I was ready to do anything possible to prevent another. I knew exactly what kind of idea was born in the man's mind when he had seen the billiard balls scattering all over the pub, and my task was now to prevent him from putting it into practice. I mean, I knew how the man felt when he saw something explode, and the billiard episode quite resembled an explosion. The first time I witnessed this happening, only the cat was involved, whereas now a lady had also landed on the pool table. That couldn't be good. The fact that the man had only had one beer tonight, instead of two, seemed irrelevant at this point.

*

The woman's voice roused me from my musings.

"Where do you live?"

"Why do you want to know?" I asked, suspiciously.

She shrugged. "I thought I'd walk with you, since you seem to be having trouble handling your cat."

"No need," I replied abruptly. "And that's not really my cat. In fact, you can keep it, since you two seem to have made friends."

"Oh, did you hear that, sweetie? I can keep you!" she cooed into the ear of the evil feline, who licked the tip of her nose. Ew.

At that moment, the billiard man exited the pub, so I quickly hid behind the garbage collection bin. I spied him as he chatted with the lady. He introduced himself, and she gave him her name, or what she wanted to be called, anyway: she was "just C," she said. I heard her as she apologized for disrupting the pool game. "I'm sorry my cat jumped on the table while you were playing." Apparently, she had already taken full ownership of the diabolical beast.

"It's a beautiful cat", the man replied. "What's it called?"

"His name is Schrödinger," she said. Something in the way she said that tickled my memory, and I wondered whether I had met her before. Or after. I don't know, it was hard to say. You humans all look kind of the same to me, to be honest.

They talked some more, but I could no longer hear what they were saying. A little later I saw them walk away together, so I retrieved my coat, sunglasses, and hat from the garbage collection bin and put them on. They smelled a bit but, on the street and in the dark, they were an excellent disguise. I followed the two, keeping a few metres behind them. As I walked, I thought about the events of the evening and above all I wondered about the woman. Who was she? Why did she feel so familiar? Why was she there and why had she intruded? Was it just chance, or, as the wise old ones always say, there is no such thing as chance?

Finally, the couple stopped in front of the man's house. I had expected them to go there, but I wanted to see whether the woman would go inside with him. She didn't, but I saw them exchange phone numbers. Before walking away, the woman turned to look in my direction. Had she spotted me? Hard to say. At that moment, however, another thought struck me: 'C' had been close enough to both me and the billiard man to realize how much alike we looked. What inferences would

she draw from that? And why had she accompanied him home? I cursed. It should have been a simple operation, but there I was: nothing accomplished, and I was overcome by doubts and questions for which I had no answer!

I had not planned on staying for the night, I didn't have a place to go; so I decided to rent a room at a small B&B not far from the man's house. If things went like the first time, he would spend a few hours working on the project that the incident in the billiard room had inspired him before going to sleep (even we Hoppers need to sleep, especially on Earth. Oxygen is quite heavy; we get easily tired.). I knew how he worked, he kept a blackboard in the living room, the old-fashioned kind, made of slate, on which he wrote with coloured chalk. I was going to take a nap, and then I would go have a look through the window, to check his progress.

*

What I saw blew my mind: the man's plan was even more ambitious than I remembered from the other time. Clearly, the woman jumping on the pool table to retrieve the cat had stimulated his creative side: what he had concocted was truly fantastic! Unfortunately, it would still cause Earth's untimely destruction — with a far more spectacular execution, I must say — therefore I had to stop him. Still, I couldn't help feeling proud of the man's mind.

I entered his home through the back door and stood for a while staring at the blackboard, almost hypnotized by the marvelously dangerous project, pondering what to do. First, I took a picture. I didn't feel like destroying such a work of art forever without even keeping a memento. If the first time the cat jumping on the pool table had inspired the man to launch a black hole in the midst of the Solar System and simulate a game of pool with planets instead of balls, now having both a cat and a woman disrupt his game had given him the idea of launching two black holes, causing a chain reaction whose consequences he didn't bother assessing, but which I knew were too deadly to be allowed to take place.

I finally resolved to make a couple of changes to his plan, namely to adjust the launch coordinates of the black holes, so as to make the whole plan remarkably less harmful. The handwriting was the same, it was possible that he would not notice, in which case my mission could be considered successfully completed with a minimum of annoyance. Finally, I went back to my room at the B&B, and I fell into a deep sleep.

*

I suppose the moment has come to tell you why I looked very much like the billiard man, why I knew so much about him, and why our handwritings were the same —although you've probably guessed it by now. He and I are the same Time Hopper —which is the reason why I couldn't let him see me — and I was on a mission to prevent myself from setting in motion a series of events in the Solar System that would culminate, within a few generations of humans, in an irrevocable apocalypse. I had already done it once. Or would do, whatever. Trying to fix an event in time always complicates everything. And before some of you smart-asses point out that, if the woman wasn't there the first time, she couldn't be there the second time unless she was also a Hopper, let me remind you that time is not a straight line, but a multitude of twisted, entangled lines, so your inference is incorrect. However, in this case you would be right because C was really a Time Hopper like me, and one I used to associate with in a hop-twist a long way from there. But I didn't realise that until morning.

*

"I can't believe I did not recognise you," I said, probably for the third time. I was sitting in a café and C was sitting in front of me, nibbling at my croissant just like she did in the old days.

She shrugged. "You never paid much attention at people's looks," she stated matter-of-factly. "And I didn't want you to recognize me last night."

I suddenly felt incredibly tired. I couldn't figure out what she was after, and her ambiguous and inexplicable behaviour was really getting on my nerves. I mean, she knew what was at stake here. She was there when the disaster happened — or would happen, at any rate. And yet. She was the reason my plan had failed the night before, and the reason why Earth was still in danger of suffering an apocalypse. Not to mention the consequences for us. Had she forgotten what the destruction of this planet at the wrong time would bring along?

"Why are you doing this?" I asked in a thin voice.

She smiled broadly and looked me straight in the eyes.

"Do you remember?" she asked. "Do you remember how good things were when we were on Earth together? And, after that, when we designed all those marvellous innovations in the Milky Way? We performed miracles that deserve to survive until the end of time, if you'll allow me a human phrase. Life was amazing then."

Despite myself I had to smile. Oh, how right she was. Those were the times ... if you'll also allow *me* a human phrase. I tried to bring the conversation back to the current situation.

"Do you remember?" I asked her sternly. "Or have you forgotten what happened every time we unleashed our imagination disregarding all common sense?"

She waved a hand in front of her face, as if she were swatting a fly.

"A couple of accidents, and we were just kids, for Heaven's sake! And unlike you, I have spent several years on this planet, stuck in its boring time, trying in vain to make sense of it. Schrödinger here is the only one I could count on, before you came along and showed me the possibilities of life as a Hopper. And now," she added angrily. "Now you want to stop one of our best accomplishments from happening!"

I was still trying to catch up with what she was saying. I scowled at the white, furry head poking from the backpack she had laid half-open on her seat. Now I thought about it, she always had a cat or another with her, and she called them all Schrödinger. I clearly sucked at recognising cats as well as hu-

mans, but — a frightening thought suddenly flashed through my mind. This must be the same cat that had jumped on the pool table the first time, causing the balls to scatter everywhere they were not supposed to, which gave me the idea of launching a black hole in the midst of the Solar System and see what happened. (Which was a very bad idea, by the way. What happened is that my game of pool with your planets as balls had unexpected repercussions on the whole galaxy which in turn caused huge issues in the neighbouring galaxies, and then ... Have I already mentioned it was a very bad idea? I believe I have. Please don't force me to relive that traumatic experience. Besides, there's a very good reason why the hop-powers-that-be determined that Earth is not to be destroyed before humankind also develops the ability to hop. Which will happen — or happened — several twists from here, but it will prove — or proved — crucial for the survival of three more species, the original Time Hoppers included. Okay, I'll stop blabbing now, I have probably told you more already than you are able to process anyway.) If this really was the same cat, it meant that C was also there the first time it jumped on the pool table. Which, in turn, meant that she had always wanted the apocalypse to happen.

She saw understanding dawn on me and smiled slyly, biting off another piece of croissant.

"I don't get it. Why?" I said, feeling defeated.

She snorted. "When or where have you become so boring? You used to be so exciting to have around! Honestly, you showed me the Universe's true colours. What happened to that Hopper?"

"I'm just trying to be responsible," I snapped. "I am not boring, I like excitement and explosions like the next Hopper, but there is a limit, and ..."

"Blah, blah, blah!"

I slammed a hand on the table. "Don't *blah blah* me! You're being ridiculous. I am not saying we should stop making changes in the Universe and I'm not saying we cannot have fun doing it. This one, though, this apocalypse is far too dangerous for everyone, and you know it. So, do us all a favour

and don't throw a tantrum. What is it, that you miss? Space? Light? The distances? The mystery? Tell me what you want, and I promise I'll do my best to indulge you, but this apocalypse must be stopped."

She lowered her eyes and remained silent for a few moments, then shook her head.

"No," she said. "This apocalypse is exactly what I want."

"I can't let you," I muttered. "No matter what I have to do to stop you."

She shrugged. "Want to kill me? Go ahead, I don't care. The apocalypse is still happening. I have talked to the other you. The reasonable one," she added with a smirk. "He's aware of your presence here, I told him of the modifications you made to his plan. He's going ahead no matter what you do to me."

I felt panic tighten my throat. What was I going to do?

"At least tell me why," I said at last.

She sighed and averted her gaze. I was beginning to think she'd never give me an answer, when she finally talked.

"Life needs meaning, whether you are a human or a Time Hopper. I was raised as a human, then realised I was a Time Hopper. I'm neither here nor there, but I know what it means to feel alive. And I want to die feeling alive. This plan, the plan you want so desperately to stop ... It's the best thing we've ever done together. Yes, we. I couldn't do it on my own, I lack your expertise. So, I subtly suggested it to you."

"Subtly? By dropping a cat in the middle of a game of pool?"

"Exactly," she replied, angrily. "It is our achievement, and it's spectacular! No one has ever done anything of this magnitude, before or after us! So what, if everybody dies in the end? Everybody dies in the end anyway. But do you remember how glorious it will be? So, why not? Why not go out with a bang, everybody?"

I let her finish her rant. To contradict her, or to try and reason with her ... it would be useless. We're talking about someone who threw her own world into chaos by disrupting its time when she was only eleven, after all. There was only one option, if I wanted to save Earth, generations of unknowing humans, the Solar System, the Milky Way, and so on.

Did you think dark matter is good for nothing? Well, think again.

*

I needed to devise a plan, and I needed to do so quickly, before C and my doppelgänger put their idea into practice. Speed was of the essence, but I also had another problem: getting to them without raising their suspicions would be impossible. C knew me too well, she knew I wouldn't abandon my mission, and she would certainly be on the alert. Damn it, secret missions where no explosions were involved were definitely not my forte!

I would use dark matter. Of that, I was sure. I needed a way to get us all in the proximity of a dark cloud, but not just any dark cloud ... Yeah, great: now you need another explanation. As if I wasn't in enough of a hurry already.

First things first: not all dark matter is the same. You'll find out yourselves in due time, but I'll give you a heads-up, so you can follow this story. What you need to know for now is that dark matter can be divided into two broad categories: what constitutes a one-way exit from the Universe, and what does not. I was interested in finding an exit as soon as possible, through which I would throw my two selves and C. And she would certainly take the cat with her. For a moment my thoughts strayed, as I tried to imagine what Schrödinger would look like in another universe, after passing through a cloud of dark matter. *Focus, Hopper!* This was the most important mission of my existence, on which the literal survival of billions of living beings of various species depended. *No pressure.*

After some serious, if hasty, reasoning, I concluded that it would be completely impossible to have C, the cat, and the milliard man quietly follow me into a cloud of dark matter. I am talking about a probability, at a rough guess, of -88.97%. (No, don't make me waste my breath explaining negative probabilities as well. Work this out for yourselves.) Therefore, I was left with only one option: to bring the cloud to us. Tricky. And

dangerous. Despite there being no explosions in sight, I felt thrilled. Interesting.

Time to hop out of there.

*

The way you're used to thinking about the world, life, and the Universe, involves three space dimensions and a temporal one — which you don't quite understand yet (quite obviously, since your idea of time is wildly incorrect, but I'll stop being a know-it-all now, I promise). For once, though, stretch your imagination and think of a reality in which there are three temporal dimensions and one space dimension. This way you should be able to picture me hopping from twist to fold in the hopline until I was in the spatial vicinity of a dark cloud. Follow me? Good. Once I found my cloud, I used the hopline to locate your planet and, on it, my two archenemies and their fluffy white cat. I was so engrossed in this task, that I completely forgot that this operation would be my last in this universe.

Finally, *there they are*. I found them, a few twists and twines away.

I announced myself loudly. "Hey, guys."

They gasped.

"What the hell are you doing here?" screamed my other self, turning away quickly. A knee-jerk reaction, I suppose, since, at this point, the fact that we were meeting face to face made very little difference.

Without giving them time to think or do anything, I grabbed them both by the hand and hopped.

C screamed. I believe she kind of guessed what was going on and wasn't happy about it. As I imagined, the cat was with her. At least my curiosity would be satisfied, I would see Schrödinger in his new form. Which turned out to be an intriguing discovery: just like us, inside the dark cloud the cat shed its earthly guise and, lo and behold, he too, was a Time Hopper! I suppose that partly explains the myth of the nine lives, doesn't it?

My other self was very quiet. He probably knew he wouldn't last. I was the stronger self there, so I would get out of the

dark cloud, while he would stay inside and slowly become part of the cloud himself. C was yelling at me, she was truly upset, I don't think I've ever seen her that way. On the one hand, I understood her rage: I had stopped her from accomplishing what she considered her *magnum opus*. On the other hand — what the fuck, I was exiling myself to an unknown universe because of her.

"Will you shut up!" I shouted back.

Several insults and curses later (at some point I tuned her out) we found ourselves on the other side of the cloud and she was finally silent. I took a few moments to enjoy the peace, then watched her in her Time Hopper appearance, in which free energy predominated. I've never learned to read the expressions of human beings, but I could read Time Hoppers', and C's expression at that moment was as clear to me as the light from a quasar. C was happy. The happiest being I have ever seen, in fact. Uh-oh.

But that is (or will be, or was) another story. On your world, meanwhile, the apocalypse had been averted. You're welcome.

,Little Ghosts' by Esos Ridley

GLENN DUNGAN

Autotina: "I live life in through-lines. Between astro-physics and poetry, I can look back and realize that this career change wasn't such a stark one at all."

After a century long break, the celebrated scientist and world's first automaton returns with new programming and talks about life and death, art and science, and finding purpose.

By Esos Ridley, writing for LIFE
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At first glance, it appears that Dr. Autotina is more of a botanist than anything else.

She greets me in front of her workshop, buried deep within the Red Rock Mountain range in Denver, Colorado. The workshop is covered in astrological runes that glitter gold against a brutalist cement façade. This alien appearing non-alien plateau is manicured with a variety of large and beautiful flowers, some from Earth and surviving without ventilators, others in vials with precise calibration, acquired on the famous interstellar expeditions to Mars with her late husband, Dr. Ronald Folsom. There is an element of nature fused with classical science-fiction on the way to a flower laden door.

Dr. Autotina stands like a sentry at a full eight feet, her automaton body erect to a perfectly calculated geometry. She wears a lilac-colored cloak that flows in tandem with the whistling desert wind. Silicon arms extend to shake my hand and she tells me that she heated her fingertips so that her Plexiglass fingers do not feel cold in my palm. Her face is akin



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more to a mannequin, perfectly smooth and void of any striking features. Dr. Autotina says that her face was originally blank, but she felt that it not only alienated her from herself but also made it hard for people to talk to her. Thus, the hollows for eyes, the impression of a nose and a closed mouth, permanently fixated into a content, almost sleepy, smile. A blue aura floats above her cranium like a crown, the latter half of which is made of exposed glass that contains tendrils of electricity rolling in a blue cloud. Dr. Autotina calls it her very own personal "lightning in a bottle", which I only learn later is the total representation of her consciousness.

The workshop is just as fluid as Dr. Autotina, and it is no doubt deliberate that the interior reflects all her eccentricities. Like the Earth's crust, there are layers of passion underneath the current form that the doctor brings me into. The workshop has tables, telescopes, large supercomputers reminiscent of the original dinosaurs IBM tucked away. The computers, while hulking in size, are the most powerful processors currently in the cosmos, and Dr. Autotina hardly pays them any mind, viewing them as part of the furniture. Holographic texts float like book sized fireflies around the workshop, and while I cannot grab the royal purple, baby blue- and maroon-colored prisms myself, Dr. Autotina plucks them from the air as if they were floating in the ocean, tossing them over her shoulder or to the top rafters where they levitate in stasis like balloons waiting to drop. The doctor says that she doesn't need the tomes to retrieve the information, for her advanced supercomputer mind can process multiple texts at once, but the act of flipping through pages, even holographic ones, keeps her anchored to a human psychosis.

"It was a ritual then," she says at the beginning of our conversation, "and remains such now."

There is a myriad of plants inside as well, rivaling the quantity of the botanical parade outside. Greenery soaks up the natural light from the skylights, sometimes turning a shade orange or green when the text prisms block the rays. There are colossal alien petals next to typical garden tulips. Encased on what used to be a kitchen, complete with appliances that have

long since become relics, are vials full of strange soil and minerals. Dr. Autotina draws my attention to a silver, amorphous liquid that appears to shy away from my touch. It is a mineral found in the Great Red Spot of Jupiter.

"Ronald found it on one of our excursions," she tells me.

She is referring to her interplanetary travel adventures, only because her automaton body is outfitted with pressure resistant alloys created by Dr. Folsom himself. As if sensing my memories of old news articles and videos, Dr. Autotina leads me to a sun-drenched salon at the rear of the laboratory. In the connecting hallway there are a multitude of news articles featuring the power couple. It is the timeline chronicling her stratospheric ascent into the public eye. She notices me looking at this timeline, where her once flesh and blood corporal form stands in front of the MIT entrance with her not-yet-husband Dr. Ronald Folsom.

"We were 'going steady' a little while then," she says, her voice occasionally cracking with static and beeps. She is facing the same picture as me, although we both know she does not have to, for her sensors are connected to the numerous cameras wired to the laboratory which functions as her abode, botanical garden, and studio. She turns to me and says with an unemotive, but genuine, laugh, "Do people still say, 'going steady'?"

We walk down the hall, my own boots at her plexiglass feet that have been fashioned into heels. Her purple cloak sways in the crisscross breeze. She double checks if the temperature is satisfactory, and that she can adjust the temperature per square foot comfortable for me but not disturbing the plants which have taken up residency on every available surface. She talks with her hands a lot. There is another picture of Dr. Folsom on a podium wearing a suit, mouth mid-consonant. Tina, in her mortal form, stands with her hands perched in front of her, her eyes radiating sunshine.

"He proposed to me in the same speech in which he officially named the new alloy he created, which was also named after me. Tinium. For Tina. My full name is Martina, but I've never liked the *Mar*-part, so I just shortened it to Tina. Can you

imagine if Ronald had named the alloy Martinium? How misleading!"

The *Auto*-part of the name Autotina is a portmanteau turned moniker. Since becoming an automized corporeal form, Dr. Autotins has since abandoned the preceding part of her name and replaced it with the first half of *Automaton*, which she says is an intentional nod to her and Dr. Folsom being not just the first automaton in history but the first automata couple in history. "Autotina and Autoron," she says, "he entertained the thought for a couple weeks."

She continues, head forward, the cameras meeting with my gaze at the next picture, "We had a tremendous life, him and I. Our breakthroughs on automata robotics helped a lot of people and advanced other fields of science. Science was the new rock'n'roll. Everyone wanted to know what the two 'robo-doctors' were up to."

But the fame of their professional life took a toll on their personal lives, as well as their subjective lives. The marriage was incredibly scrutinized, both by the public and the scientific community. Dr. Autotina and Dr. Folsom were subject to numerous tests to gauge the efficiency of transferring a human consciousness into a nigh-indestructible robotic platform.

"The tests," she says, "were the hardest part. Laws were written to grant Ronald and me the rights to exist despite the laws that declared our bodies a property. Yes, our bodies were built in a lab, but our souls were not, and Tinium was Ronald's discovery anyway. Sometimes I wonder how different our trajectories would have been if Ronald hadn't owned the patent to Tinium."

There were times when the stress was too great for both of them, and like any work-weary couple they took holidays to reset. Although most such couples go to resorts beaches, Dr. Autotina and Dr. Folsom preferred more esoteric locations such as the bottom of the Mariana Trench or some asteroid near the edge of the solar system. Dr. Ronald Folsom's brother, renowned rocket scientist Henry Folsom, lived at the first International Space Station as the active director. He allowed clearance for Autotina and Dr. Ronald to enter and exit the atmosphere on the condition that they stop at the ISS first.

"We'd bring the astronauts their favorite treats. They sent us holiday cards, each in their own language," Dr. Autotina recalls fondly.

She shows me another relic, one which heartily defines her past. A collection of "Get Well Soon!" cards are encased behind a glass wall. A hodgepodge of sources occupy the white rectangles: crayon writing of school children, each with their names written in similarly childish script, admirers in the scientific community that saw Autotina as the most prestigious in her field (as humble as Autotina is, she was ranked the most popular robotics engineer in the past decade, the recipient of numerous scientific awards, and eventually a Pulitzer prize winner for her award winning memoir *Trans-humanism: Does this unit have a soul?*), and college robotic engineers who have heralded Dr. Folsom's experimental procedures as the next step to evolution. In the center of this nebula of praise is a crinkled picture of Autotina's last days in her human body, a withered corpus, cocooned in hospital bed sheets and tangled in marionette strings and attached to large computers. She is holding Dr. Folsom's hand, or rather, he is holding hers.

This picture is an ambered moment in Dr. Autotina's life, a snapshot of her past and her then uncertain future. She stills maintains that getting her doctorate in astrophysics is the highlight of her career, but for all of Dr. Autotina's existence in academia, even she cannot deny the importance of her transition into an automata.

"It was a rough time. Physically, mentally, emotionally, even spiritually," Dr. Autotina says, her head perfectly straight, lips unmoving. She absentmindedly fiddles with a plucked rose nestling in a vase, her fingers unable to feel the thorns crushing under her impenetrable fingers, masterly acting with hands that no longer feel tactile pressure so that she does not crush the damp stem. "Not only did I experience an explosion in my MIT laboratory, but my consciousness was literally ripped from my body, which existed without any electrical charges for a full two minutes. I would be lying to you and your readers if I said that was not hard for me. I thought my life was meaningless. I could not be a scientist anymore, could not go on walks

or read books, was constantly under the care of doctors and Ronald, who never once complained, ever. This is all on top of the press trying to get into the door of the hospital, hoping to catch me on the rare chance of my awakening from my coma so they could get the first scoop of what it was like, and I quote the *New York Times* here, 'to see god'. I feel the 'engine of creation' is more apt."

[The incident] felt like I was a balloon, and the rest of the world was the string. Once I got atomized, I was living in this dual reality, shifting in and out. Now with my new Tinium body, I can finally settle into one place."

Bringing me into her parlor, Dr. Autotina serves me freshly grown black tea leaves, served on a robotic tea tray no larger than a shiatzu. With a perfectly engineered lilt in her voice that suggests a bashful wink, she explains that she has never tasted the tea that she grows in one of the biomes out back, only that she is confident that they have been reared and dried to mathematical perfection. She is not wrong.

Dr. Autotina's transition from her human body to the robotic one in which she resides had required an almost Herculean feat of willpower and psychological adjustment. The light blue aura emanating from her "lightning in a bottle" arcs over her like a corona. She tells me more of her time in what the scientific community has adopted as the 'atom realm'.

"It was strange, like floating in mist, or Jell-o," she laughs, referring to the once popular gelatinous treat made of protein extracted from animal bones that has since been discontinued after the Kraft / Heinz Sleeper Agent fiasco in 2055. "It's a world of light blues and purple, sort of like the color of my body, my lightning, and my cloak, which is all merely a coincidence. It's a world where time is inconceivable, where the fabric of all our creation, you know, atoms as building blocks, are both tangible and intangible. A realm of absolutely incomprehensible power. How can you ever go back to normal life after having your body atomized? Do you think Icarus, in his free fall, ever prided himself that at least he got closer to the sun

than anyone else? Icarus is not at fault for getting too close to the sun, it's Daedalus for making the wings so poorly. How do you give a child a gift of flight and tell them to have limits? Ronald is not Daedalus. He does not build with clay that becomes waterlogged or melts. He builds with Tinium, an alloy that can withstand the pressures of Jupiter's Great Red Spot of 130,000 miles an hour and then some."

Dr. Autotina tells me that the decision to consent to transferring her consciousness into this experimental automaton (which now sits before me, body erect in geometric perfection, plexiglass fingers steepled over a lilac cloaked lap), was not only her own, but at her own insistence.

She accesses her data files and speaks to herself as much as to me, "Ronald was so frightened, and he was always so afraid of anything he didn't understand. My body was failing me. The 'atom realm' had given me a sort of atomically volatile cancer. I was atomically unwinding like a spool every nanosecond. I had no life left. Of course, I would see the automata in the corner of the workshop as a buoy in the strange and scary sea of corporeal mortality."

Asked to show me the advantages of her automata body's interface with the laboratory, Dr. Autotina is nothing short of giddy. She is entirely interfaced with the digital / physical infrastructure of the workshop / living quarters, and she tells me that it takes considerable effort not to think of her and the house as one and the same. Looking into her eyes, the pupils turn out to be empty spots, and she knows it. Her eyes are cameras throughout the house, her tactile senses are now a series of automated switches and levers that send data as I step even so far as the front lawn. She can regulate temperature per square foot, access the skylights with a thought, even put on the coffee machine the second her optic sensors see sunrise.

"I don't sleep," she laughs, "and I don't drink coffee anymore. But the house recognizes the smell."

She tells me that interfacing with the house is, as far as she is concerned, comfortable.

"I don't actually need this automaton form," she says, "I can exist just fine in the digital sphere, like some sort of ghost.

That's actually what Ronald used to call me, *Little Ghost*, because I can float so seamlessly between interests and subjects, often anchoring in them before wisping away to something else. But I choose to keep this form, and not because it allows me to take this vehicle to the deepest depths and the highest stratospheres. I was raised a human and I am, in essence, a human. I can access and absorb all the literature of any subject in a matter of seconds, but at what point do I become a computer, more robot than human?"

Aside from the obvious mental and emotional strain of Dr. Folsom's experimental procedure, I ask her of any quagmires she encountered when transitioning the bodies. Without hesitation she says, "Losing my sense of touch was surprisingly easy. Perhaps it is the loss of smell and taste. It's a funny question because I still remember those senses. Like someone who was not born blind. They can still recall colors. The lack of sleep was the most disorienting, but thankfully I had Ronald to keep me company and we took many trips."

I ask her if there is anything that she misses.

Rituals, anchors, whatever you want to call them ... people need them. I need my morning coffee. I need to make the conscious decision to read my chosen literature. I need to appreciate the sunrise. WE need to appreciate the sunrise. That is what makes us human.

"Steak," Dr. Autotina says, "rare steak and garlic mashed potatoes. Oh, and green beans with garlic and lemon." And that was the end of that question. Dr. Ronald Folsom passed away about 60 years ago. His story is equally as fascinating, having spawned numerous biographies (*The Atomic Adventure*, *Autotomata Genesis*, and *The Robot Guy* being the most popular) and several made-for-streaming movies. But the most impressionable narrative is not just Dr. Folsom's and Dr. Autotina's individual journeys, but their true-blue love story and the heart break which inevitably followed.

She makes me aware of a picture above the fireplace. It is a physical copy, rare to see in this age, and gives the impression

that it is just as much a memento as the alien plants and minerals, if not more. It shows Dr. Autotina as she is now, clad in a sundress just a little too short for her ("It took me *months* to get used to the fact that I was now two-and-a-half feet taller", she says), and Dr. Folsom, outfitted in a new Tinium body, wearing a Hawaiian button up. A sunset is frozen behind them, and even though their mouths convey apathy, it is evident from their body language that they are on vacation. His red corona fuses with her blue corona, creating a joint Venn-diagram of purple between the two of them which hangs above their heads like a little star.

"The success of my procedure inspired Ronald. He wanted to repeat it and did so quite successfully, on himself. I always suspected that he underwent the change to keep me company, that his endeavor for subjectively experiencing trans-humanism was fueled to help me get through my own transitions."

She recalls to me how eerily similar it was living with another automata as an automata as opposed to living with a human as a human, and that the transition was really only the first couple of months when Dr. Folsom was getting used to the platform's new abilities. Dr. Autotina places her chin on a cradled palm, resting it on an armchair, the hollows of her eyes looking out to the green houses beyond the porch. "He built me this new body about seven months before he embarked on the change himself. I had a leg-up on the emotional, physical, and mental transformations, so it was only fair I'd be patient with him as he adjusted."

Still speaking with a dreamy, wistful tone, Dr. Autotina's shoulders are slack, her head tilts. The purple cloak shimmers in the sunlight. It was not all dandy living as two robots with complete access to all recorded knowledge, she recalls.

"It was fine for a couple of decades, but eventually the access to all the wireless networks of the worlds became too much of a pull for Ronald. He would say to me, 'Little ghost, we have all the knowledge available to us, only limited by our imagination.' He would read the entire pantheon of a country's classical literature in the span of one morning. Ronald was al-

ways, always learning. He could never 'turn off'. Eventually he ran out of things to learn. We would be off planet or in the ocean depths and he would still be trying to learn everything he could about anything else."

Dr. Autotina is a firm believer that because of his limitless, all-encompassing knowledge her husband lost the ability to wonder, to dream.

She tells me that even today she is particularly sensitive of not learning all documented knowledge, which is why she chooses to go through the perceptively counter-intuitive motions of reading one book at a time. She has intentionally slowed her information processors to absorb information at a slightly higher rate than the average human ("I'm allowed to cheat a little," she says, her voice suggestive of a smile.)

It's the knowledge plateauing, she says, her plexiglass face dotted by lines of the midafternoon sun, that eventually set Dr. Folsom on his path. "He leaned into the computer subsystem of his brain. He might be the only person to ever have arrived at the 'present' of human knowledge. Sure, the RAM in our automata bodies can process the information, but can our own limitations of human endeavors? Dr. Folsom became bored and scattered simultaneously. He was developing what I could only describe as some sort of robotic Parkinson's. Those years were very hard."

Years later, Dr. Autotina's hunch of robotic Parkinson's disease proved correct. This in combination with his depression provided the scaffolding of Dr. Folsom's tragic decision to end his own life.

"He got everything he wanted out of life too fast," Dr. Autotina tells me, "It haunts me to think about what thoughts ran through his own lightning in a bottle in those final days. A part of me always knew that he was heading toward oblivion, having over-learned his way into apathy. Looking back, I see why I became so obsessed with botany."

In a way, I was happy to have [botany] because it meant that I could still grieve. There is a human under all this metal and wires. As horrible as those years were, I'm happy that I had

them. Without my plants, I don't know if I would have found poetry.

Dr. Autotina, the perfect host, leads me into her private study. It is tucked away in the back of the laboratory. The study is bathed in sunlight from the Southern wall; the view is of great rust-colored spires lording over a bare clearing like totems of nature. The room is in the shape of a perfect oval; I know this because Dr. Autotina constructed it herself. Large bookshelves house worn tomes of physical books, scaling upwards of twelve feet to accommodate for Dr. Autotina's stature and complete with a rolling fireman's ladder to reach the uppermost shelves. I am dwarfed by the scale of the study in relation to myself, wondering where a cake will appear beckoning to eat it. Crumpled papers are scattered along the floor like sleeping tumbleweeds. Plants occupy every foot of real estate that they can; verdant vines winding over desks, petals bloom in the face of the stained glass shielded sun in a kaleidoscopic nebula.

Dr. Autotina calls it her "solarium", then quickly retracts and says it is no more than a private study. She casually waters some plants, brings tea to a boil for me to try her homegrown ginseng. She rummages through a hastily opened mahogany desk drawer and reveals a ream of paper bursting from the gut of a manilla folder. She sets this aside next to several journals and, hands on her cloaked hips, admires them like works of art.

Her body language changes into what would be considered the most mathematically precise impression of humility; shoulders arched just so, neck braced to a certain degree. These books have weight to them. Dr. Autotina explains to me that the advent of her twilight years has reoriented her creative energies, and then quickly laughs away that as long as there is Wifi, she is immortal. The books contain poetry. Stanzas of all pentameters, rhymes and rhythms, shapes and forms. I cannot help but thinking that perhaps this is where Dr. Autotina had to be all along.

She flips through the pages and invites me to read her favorites. She says, "After Ronald passed I fell into a horrible depression. I was afraid of exploring the 'atom realm' further be-

cause it felt too personal, like revisiting a favorite restaurant we used to share. Call me weak, I don't care. Then I went into botany, which nearly replaced my astrological practice."

In some ways, Dr. Autotina feels that she has lost more than just her career.

"It took me many years... I mean, I love my plants, but I was merely supplementing one love to replace the loss of another one. I've lost my body, my urge to practice, my husband ... but not my mind, and after so many years, not my purpose."

It's poetry, Dr. Autotina says. The written word.

"I've seen the ice storms on Neptune, the birth of faraway galaxies, the horrible beauty of a black hole. How can I validate those experiences and remember them? Through mathematics and cosmological principles?" She shows me more poems, enough to fill a library. "How can I appreciate all that I have seen and gone through? It is here, in poetry, that my purpose shines like a radiant sun. It is how I express myself, through the one fragment that is uniquely my own: my very own personal lightning in a bottle."

She means, of course, her soul.

But simply announcing a new passion does not equate with the enrichment that comes from putting in significant amounts of time, which is precisely the deficit that Dr. Autotina struggles with. "I can simply download and integrate all the best poets and literature geniuses in recorded history, even add in all the literature dissertations with flairs of anthropology. Within seconds I can have the most mathematically perfect poem written simultaneously in every language. But then I'm 'logging' the poem into manifestation. Where is the victory in that? The expression?"

The strategies that Dr. Autotina has long employed both through her time in a human form and that in her impenetrable Tinium body have always been through logic and research, synthesizing data to unearth new hypotheses and provide a basis for further theories.

"But those approaches don't work with art," Dr. Autotina says, folding one long leg over the other and resting into an armchair fit to her proportions. I sit in a velvet chair across, the

exterior pea-green and adorned with art-nouveau style insectile embroidery. She puts together the second cup of tea and, even though this is her interview, asks me how the cup compares to others whose aromatics are grown in a less controlled environment. After hearing my approval, Dr. Autotina leans back in her chair, joints relaxed, her light blue corona crown creating an aquarium like glow above her head. She continues, "*Perfect* does not mean correct. Every artist pulls from his or her own inspirations and heroes. Sure, you can argue that the Renaissance painters were inspired by nature and the individualist perceptions of man and that the other ancillary factors of the Age of Enlightenment helped to create a dopamine cocktail. Of course, most modern bands will cite The Beatles as why their fingers even touched a guitar or a piano. But ultimately, art comes entirely from within, a subjective experience manifested and codified in a language genuine and one's own. My entire life I dedicated myself to math and science. I pursued knowledge of the highest discourse, becoming so entrenched in the field that I could close my eyes and see theories on notebook paper, models of Ronald's prototypes on chalkboards."

And Dr. Autotina isn't finished. While her intricate and beautiful gardens have taken a backseat in the passion department, she claims that this was only a steppingstone to remove her from the "old" version of her.

"People still refer to my human body as the 'old' Autotina, even though my Tinium platform is much older! However, I do not feel this is an accurate representation of time for me. While I am satisfied with my life as an astrologist and my supremely unique experiences as an automaton, I am content tucking this vortex of spinning numbers and calculations into what I would define as 'old'. Now, I have a new passion, one which does not rely on numbers or math or angles." She taps the back of her cranium. I get the impression of a smile from the slight tilt in her voice. "I get to use my lightning in a bottle and it helps me use this."

Dr. Autotina taps a plexiglass finger to her chest, where a series of powerful microchips, processors and wires occupy the place where her heart used to be.

It is poetry, Dr. Autotina tells me, that keeps her alive beyond all else. "Science is how we live. Art is why we live."

Nowadays, Dr. Autotina can still be found watering her plants and digging for strange minerals. At night she'll be in the observatory, staring into the nebula from her giant eye that is her telescope, surrounding by prismatic tomes as if she herself commands gravity. In a way, she does. Dr. Autotina is a force of undying optimism, her passion and empathy not carried away by the large orbital currents of despair and loss. She keeps herself afloat, tethering a line between human-automata, careful not to submit to the persistent inertia of computational super-sentience by means of poetry.

If you have time, she suggests attending open mic poetry sessions at your local café. On weekdays, you can find Dr. Autotina on stage, but good luck getting a front row seat. She tells me that it shouldn't be a problem, though, being eight feet tall. Dr. Autotina plans to get enough confidence to go on weekend circuits and eventually publish a book of poetry. She already has a title: *Little Ghosts*.

When this happens, good luck finding any seat in what will undoubtedly be a packed audience.

Trial and Error

EDWARD AHERN

Her office was furnished in warehouse basic, as befitting an environmental organisation like Salvage the Planet. The thirtyish woman, framed up like a WNBA forward, shook his hand and returned to her seat behind a metal desk.

"Mr. McBain, Al, please sit down. Our conversation is being relayed to other board members so we can expedite this process. Is this all right with you?"

He hesitated, then nodded and sat down. Once he was settled, she focused in. "As you and I have discussed, we want you to give us up to five years of your life."

Al McBain was dressed up in his charcoal-grey 'I can be corporate' suit, but his tie had a faint coffee stain and his shoes were meant to be outdoors.

"Ah, MS Keeler, Petula, thank you for your trust, but out of curiosity: there were other researchers in organic chemistry with better academic and corporate access. Why me?"

She frowned, rumpling an otherwise attractive face. "That's the problem. They're all connected at the umbilical to corporations in the plastics industry. We want to destroy polyurethane waste products; they want to create more of them."

She smiled. "You'll have something to build on. We've purchased the research of Terel Richards, a scientist who discovered a pseudomonas bacterium that could marginally deconstruct polyurethane."

"I've read about that. Wouldn't he have been someone to hire?"

Her smile turned into a frown. "We might have, but he died suddenly."



Edward Ahern resumed writing after forty odd years in foreign intelligence and international sales. He's had four hundred fifty stories and poems published so far, and seven books. Ed works the other side of writing at Bewildering Stories, where he manages a posse of eight review editors. He's also lead editor at The

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SalP had an earned reputation as the bar fighter of environmental groups, and Al knew how seriously they took this project. "I'll put every possible effort into achieving this in the laboratory. But the odds are long."

"Hence the terms we've provided. Two hundred fifty thousand dollars a year in salary plus lab expenses, a million five hundred thousand bonus for the successful development of a usable bacteria."

"And the rights to the research?"

"Are ours of course, Al. But as the creator you'll be famous and undoubtedly sought after."

Petula's expression was calm but her eyes glinted. "It's a rare chance to do applied research on your terms and possibly get both recognition and significant income. And begin to rid our world of a curse."

He nodded, took a deep breath and said, "In order to improve the odds, I'll need what I requested—an assistant capable of handling analytical tasks, a personal expense account of up to a hundred fifty thousand dollars per year for travel and interviews, and an operating budget of about a million. Oh, and a leased car."

Petula looked down at the open laptop in front of her and held her gaze there for almost a minute. She looked up and nodded in turn. "These terms are acceptable to us, but we need to appoint the assistant ourselves, and you need to start almost immediately."

Al's lips turned up. Agreement would give SalP an informant. "That's okay, so long as your man is technically competent."

"I think she'll pleasantly surprise you."

Pressley Ray arrived while Al was halfway through converting a grocery store into a lab. "Are you Al McBain?"

"I am. You must be Pressley."

Pressley was shorter than Petula but just as solid. She looked around, smiled and said, "Pretty dowdy for a high-tech bio lab."

Al smiled back wryly. "It's scheduled for beauty treatments. But I needed an open space with industrial grade ventilation, enough wiring for Dr. Frankenstein and room for a lot of refrigeration. That's already here so we'll save a lot of time and money."

"I'll pitch in," she said, "just point me at it." Pressley put down her attaché case and she and Al began to talk while they worked at clearing out the space. Al realized that his squealer was also a fanatical worker and a week later put her in charge of the painters and cleaners. In two weeks, he began to move in lab equipment. In four weeks, he started to receive cultivated bacteria and agar for testing and gene alteration.

After the first month, Al began buying two coffees on his way into work and giving one to Pressley. They would sometimes spend the first fifteen minutes of the day reviewing the screwups and disappointments from the day before, and the plans for that day's work. Pressley, long hair swinging, was his doubting Thomas and reality principle.

"Al, what you're doing sprains the academic specifications for a study."

"Ain't it wonderful? Your foundation is paying me for results, so I don't have to worry as much about peer review or journal publication. I just have to create some plastic-eating bugs."

As bacteria live and die quickly. Al and Pressley adopted a scatter-shot approach for their recombinant genetic radiation experiments, trying to get the critters to survive long enough on a diet of polyurethane to reproduce. But all they were able to achieve were millions of starving test subjects.

They pressed on. The work was both strenuously disciplined and monotonous: irradiate a bacterial sample, then, using a sterile swab, transfer a small quantity from the slant culture to broth tubes. Place the tubes in a 37°C incubator overnight, with the top loosened. Microwave until the agar is melted. Add polyurethane and pour the molten agar into petri dishes. Observe feeding activity.

There wasn't any. One morning, coffee ignored, Al and Pressley had a shouting session. Once it was over and they

tried to drink the lukewarm coffee, Al conceded the bout to Pressley on points.

"Okay, say we do need a geneticist, where the hell would we find one?"

"I'll e-mail you her resume."

Michaela Wiskind, the geneticist, was half the size of Pressley.

"So, Al, I hear you guys have been going buggy."

He couldn't resist a smile, despite the vintage corn. "Nature is refusing to take the course we're pushing it toward. The pseudomonas bacteria won't digest what we're force-feeding them. We're hoping you can suggest a different approach."

"I've reviewed your research. A little sloppy, but it would have been my initial approach. What about a crude variation? Irradiate the critters in the presence of polyurethane."

"There's no scientific justification to do that."

"And none to exclude it. What's the harm in a little over-time zapping?"

After agreeing to the modification, Al expected to kill off several hundred thousand bacteria and switch to another avenue, but the pseudomonas reproduced erratically and analysis showed that some of the polyurethane had been consumed. He and Petula generously paid Michaela to remain for another year, during which time the bugs could hopefully acclimate to their plastic menu.

The bugs still died young, and didn't reproduce true, but Al stuck with his Russian approach: saturation bomb the suckers.

Eight and a half months into the experiment, Pressley cornered Al outside the lab while he was carrying in two coffees. They sipped while leaning against an unused bicycle rack. "Al, a woman from Gargantua Petrochemicals came to see me."

"If it's a job offer, hold out for more money. You're good."

"No, smartass, she says they want to support our research. Says it's the responsible thing for them to do, to contribute toward disposing of their trash."

"Why you and not Petula?"

"That was my thought as well. Then she started asking me about how we were progressing, avenues of research, people involved. I can smell fishing expedition stink, and I shut her down, sort of."

"Ah. The money is needed but he has no right to the information even if he pays up."

"Something like that. I told him to contact Petula, but my guess is she'll never hear from her."

Coffee finished, they walked together into the lab.

"Curious," Al said. "Tell me, how did Terel Richards die?"

"Ah, some kind of food poisoning, I think. Which is weird, because Petula told me he was a health food nut. Didn't smoke, drink, do drugs. Didn't even curse."

"But did find a plastic-eating critter. Like we're trying to replicate. We've talked about the hazards of uncontrolled bacterial spread, of the critters eating the still usable polyurethane, or even worse switching menus to polypropylene and polyvinyl chloride. I suspect Gargantua's worry rather than their generosity."

"I will, but they're more likely to pick on you next time."

"What was this corporate snakeskin's name?"

"Robby Calas. Get her to buy you lunch before you tell her to self-copulate."

"Hell yes." Al took several seconds to think. "You're providing progress reports to SaIP, so maybe one of your crusaders has backslid. Or the only paper trails we've left in the outside world are the purchases of bacterial cultures and powdered polyurethane."

The lab was swept for cameras and mics and came out clean. After another coffee cup huddle, Al and Pressley agreed to a

testing subset — some plastic would be partially chemically degraded, making it hopefully easier for the critters to digest. "Baby food for our babies," Pressley said.

The bugs undergoing the initial test criteria still had indigestion. But once in a while Pressley's pupils survived. As the generations of bacteria reproduced, the decomposition level of their plastic was gradually reduced until they might, with many regurgitations, sip their plastic neat. Knowing how often research flattens like a bad tyre, Pressley Al and Michaela kept any optimism to themselves. The pessimism was warranted. The bugs began cannibalizing themselves, preferring to eat each other rather than the plastic.

A fruitless month later, Robby Calas called Al.

"Mr. McBain, this is Robby Calas of Gargantuan Petrochemical. I'm guessing Pressley Rey has mentioned me?"

"She did, Ms. Callas. I'm afraid my answers to you will be the same as hers."

"I think I have a different, hopefully more interesting proposal. Can we meet?"

"I'm afraid my lab schedule is pretty full."

"Perhaps lunch then?"

Al hadn't eaten an upscale restaurant meal in over a year. "Okay, when and where?"

"Le Sybarite, say 12:30 next Tuesday?"

Robby was wearing a tweed jacket and jeans. Al admired her preparation; he suspected that Robby had dug deep into her custom suited closet to come up with this camouflage.

"Al, I suggest the soft-shelled crab, they do a loving preparation of it here."

"Thanks. I've never met one, but I'll try it."

Robby ordered a dirty martini, Al ordered iced tea.

"Al, I'll avoid all the butter-ups and get right to the point. We know what SalP has budgeted for you. We'll double it, including extra associates. Yours is an iterative process that seems to be stuck, having more help will expedite eliminating alternatives.

"And in return?"

"We're not asking for any managerial control, just full access to your accounting records and lab reports. If you fail, we're out a few hundred thousand. If you succeed, we trust that you'll give us credit for our assistance."

Al's forehead wrinkled. "And if you don't like what we're doing you'll shut half of us down."

"No, no, we'd provide written guarantees of funding for two years. No control, no interference, we'd just be an enabler and a witness."

They poked at their food in silence. Al looked up. "Your apparent generosity is appreciated, thank you. But I'll need to vet the idea with SalP. May I have a week before I get back to you?"

"Of course. How's the soft-shelled crab?"

"It's...interesting."

Once back at the lab, Al took an hour to chew on what Robby had said, and make sure the crab stayed down. Then he made an appointment to see Petula Keeler.

She listened in silence while he reviewed the meeting with Robby and said, "I've met these pillagers before. There's no way in hell that we're getting in bed with Gargantua, they'd get kinky before the sheets settled."

He shrugged. "Our testing really is a brute force project, the more we throw at it the sooner we're apt to get usable results. It may be the devil's money, but I don't see how they could do anything but help our progress."

Petula's jaw muscles bulged. She hesitated, then said, "If you need to hire another chemist, we'll support it. But we'll never take polluted money from a defiler like Gargantua."

Al called Gargantua and turned them down. Calas' response was expected, but ominous.

"That's too bad. You know, there are only so many places an organic chemist can earn a reasonable salary, and you may have prejudiced yourself at most of them." She paused. "Perhaps we could reach a more informal arrangement?"

Al wanted to yell into the phone, but he swallowed it down. "No, I don't think so. Being a double agent has never been my style."

"We aren't going away, McBain. What you're attempting is potentially too hazardous to our industry. I don't think you're going to like us as an opponent."

"Is that a threat?"

"No, no of course not. Just a comment. I would never say anything that would make us liable."

A day into the second year of research, Pressley was waiting for Al outside the lab. They leaned against the bicycle rack, sipping coffees, and she started in.

"Al, we need the nuclear option."

"I'm not ritually sacrificing any animals."

She barely smiled. "We already are. We need to reexamine our raw materials."

"Hah?"

"Our pseudomonas bacteria, like lab rats, are carefully bred and screened to ensure consistency over generations."

"And?"

"We don't want consistency; we want radical change. What happens if we ask the generating lab to give us their abnormalities, their sports, their malformations? The batches they would otherwise destroy."

Al grimaced. "We lose control of the experiment."

"And maybe we should. These reject bugs are already changeable. If we zap them and feed them mushy plastic we might just get somewhere."

"God knows what we could create. Let's stick with the established procedures."

"At least reconsider it after three more months?"

"Reconsider? Sure, Pressley."

They set up, tested, then repeated for three months of ten-hour days. In his whinier inner moments, Al thought about himself as a soldier on a forced march in miserable weather. Something needed changing.

"All right, Pressley, you win again. Let's contact Bubonic Resources and see if they'll consider sending us their culls."

"Ah, Al, just as a contingency I've been talking informally with Bubonic for about six weeks now. They'll supply us with their sports for a twenty-five percent upcharge. All you have to do is sign the paperwork."

"The hell you say. Am I really that predictable?"

"Well, yeah, but our current research is futilely masochistic. If you get on the phone with them, they might come down to a twenty percent surcharge."

A few weeks after the deviant cultures arrived, truly ugly things began growing in the petri dishes. And two deformed batches showed sustained growth and reproduction on a diet of polyurethane.

Al had already set down stringent prophylaxis in the lab to prevent any leakage of contaminated samples, and added additional protective layers. He, Michaela and Pressley looked like nurses in a COVID ward as they worked with the deviant bacteria. One evening, three months later, after they'd decontaminated themselves, he asked the other two to come to his office.

He opened a bottle of champagne, poured out three glasses and said, "Just a little celebration to confirm what we've already seen in the data. We've achieved sustained polyurethane absorption on a laboratory scale. I hoped, but I guess I never really believed, that we could do it. The bacteria are genetically unstable but hold true to the polyurethane degeneration. The next step, industrial production of enzymes and use at waste sites, will probably take many years to achieve—the material would need to be sterile so that there's no spread beyond the site. So skoal!"

Michaela sipped with him, but Pressley just held her glass. Once Michaela had left, Pressley set her glass down, her expression unreadable. "I need to tell you something that's probably going to end our relationship."

"What could be that bad?"

"First let me tell you about Terel Richards. Before we hired you, we'd hired him. He also got results, not as spectacular as ours, but results. He published a summary and Gargantua came nosing around. They threatened him, he told them to go to hell, and he got dead from an unidentified ailment.

"By the time we found and hired you, we assumed that Gargantua had a mole in our organization reporting on research developments.

Al's mouth opened. "So much for your being naively liberal."

"I've tried to mask our results in the reports I send to Petula, but the word got out. We were told by our own source that Gargantua plans to completely destroy and sterilise your facility. We decided drastic action was needed. For the past several days, I've been spreading our renegade bacteria anywhere that looked fertile for them."

"But they'll mutate into God knows what!"

"Maybe. But with luck we'll exterminate a plastic curse. I'm sorry Al, you're a good man caught in ugly circumstances. I'll pack up and go."

Once Pressley had left Al looked at his champagne with distaste, his mouth sour from the taste of it. He pulled out his cell phone.

"Petula, it's Al. How the hell could you? Order Pressley to immediately identify the places where she's dumped the bacteria so we can decontaminate the areas."

Petula sighed. "Al, I'm sorry, Gargantua forced us into this contagion. We didn't want to jeopardize you and your associates, and we absolutely didn't want to lose the effects of what you were able to do. But we've never had the muscle Gargantua does. Think of it as going public with a vengeance."

"That's crazy talk."

Petula's tone hardened. "Not crazy, just completely committed. We did make you whole, I just transferred your bonus to your account."

"We'll be forced back into the dark ages."

"Nonsense, we did just fine without plastics, just a little more inefficiently. Al, do you know what a call option is?"

Al's 'no' was angry.

"You option to buy stocks in the hope that they rise significantly and if they do, you pocket the increase. Profits potentially almost without limit."

"So?"

"I encourage you to use your bonus to buy call options on forest product companies. You'll become quite wealthy."

"I'll go public with this."

Petula laughed unpleasantly. "Al, no matter how this shakes out, you're going to be the evil mastermind who destroyed a polluted standard of living. People will hate you. I'd find a gated community. We thank you though."

Al hung up and set his phone down. He stared at his blank computer screen. From force of habit, he cupped his mouse and rolled it back and forth to wake the machine. Tiny flakes of gray drifted off the black plastic.

Spring in the Winter Garden

MIKE JANSEN



Mike Jansen has published in Dutch, German, Romanian, Estonian, Polish, Chinese, French, Finnish, Russian, Swedish, Catalan, Spanish and English anthologies and magazines. Since 2011 he has published over 100 English language stories in the U.S., U.K. and Australia. In addition, three fantasy novels, two story collections and several novellas in

*When you find the One,
The person more important to you
Than life itself,
Hold on,
With every ounce of strength,
For the chance of
A second chance
Is smaller than
The chance of
that first One.*

He heard the whisper of his beloved somewhere midway on his second journey to Van Maanen's star. The ship's Alcubierre field swathed it in a curtain of anthracite darkness, kept in place by the unimaginable tensor-forces of the quantum entanglement.

Jean ...

At first he thought he was tired. Life on board the cargo hauls that resupplied the colonies was monotonous, loneliness an ever present, exhausting friend. The third time the whisper called him by name, he asked the question: "Darius? Is it you?"

I have missed you. Where have you been?

Jean swallowed. "I ... this was the only way I ... that we could think of to communicate with you."

You weren't ... bed. For years. I thought ... left me.

Jean felt tears in his eyes. "You were dreaming, Darius. Remember you got ill? One of the Dreamers. No one could help you. But I had to talk to you. You... you knew I was there?"

He felt the smile inside the whisper. *All those years.*

#

Jean le Forge first heard of the Dreamers in the Utrecht Medical Center where Darius was admitted. His friend seemed to sleep peacefully, his symmetrical face relaxed, while Jean held his hand. Occasionally his eyes would flutter under the eyelids.

"We do not know what causes it."

Standing next to Jean, Al SixThreeOne, the treating doctor, projected a hip, thirty-something image, with his distinguished gray sideburns.

"I didn't understand when he wouldn't wake up," Jean said. "I thought he may have had a stroke and was in some kind of coma."

"It's not a coma. There is brain activity, comparable to a kind of REM sleep. We've registered millions of cases worldwide in the last ten years. Until now we have no explanations.

"Not even inside the Unity? Thousands of hyper intelligent brains that do not know? Why hasn't this been on the news? I usually don't like you know-it-alls; your ignorance on this frightens me, to be honest."

"I understand your sarcasm, Jean. As for the news: we rather not admit to failure."

"Can I do something, anything? Optimize AI algorithms? Create new search templates? You know what my capabilities are."

The projection shrugged. "For now we wait, while the investigation continues."

"Then that is what I will do."

He arranged his business, emptied his calendar and installed himself next to his sleeping beloved. Slowly the number of devices necessary to keep Darius alive increased, until he was placed inside a sense-tank that regulated his breathing and activated his muscles.

Each next step took Jean further, spiralling down, until every ounce of optimism had left him. Even his favourite Oscar Wilde, *The Importance of Being Ernest* in a rare paper first edi-

Dutch, a novel and a short story collection in English. He has won the Dutch King Kong Award 1992, an honorable mention for the Australian 1998 Altair Magazine launch competition, in 2012 the Baarn Literary Prize and the prestigious Dutch Fantastels award, in 2020 the GP Scifi/Fantasy Award and in 2021 the Mossy Statue prize for best promoter of Dutch SF, F and H. Since 2016 Mike organizes the Dutch EdgeZero awards, an attempt to get the best stories from Dutch language genre contests and magazines of the previous year collected and published in a year's best anthology. So far eight anthologies have been published. In addition he

publishes themed anthologies showcasing the best Dutch authors. Some of his recent work has appeared in Samovar and Strange Horizons.

tion, could no longer lighten his mood, something he always considered impossible.

#

On Christmas eve of the third year a projection appeared next to Jean. He had just fastened a branch of pine with several bright coloured, softly glowing plastic balls to the sense-tank.

Jean wiped away his tears. "Doctor SixThreeOne ... May I ask why you are here?"

The projection nodded at the sense-tank. "I regret this, but my duty requires me to ask you this question, Jean: Would you not rather have all this end?"

"End what? His coma? My grief?"

The image of the thirty-something in his doctor's coat raised his hands. "I ... we consider it our mission to guide humanity. Some we offer the possibility of ascending into the Collective. Those who possess qualities that we admire."

"And my quality would be?"

"Perseverance and determination. On all of earth there's only one who never left the side of his partner, son, daughter or parent."

"If you knew how I thought of Darius, how I feel when I'm near him, you would know it's much more than that."

"We would learn that. Understand. Will you grant us that boon?"

"Has the recording technology been perfected?"

The projection coughed. "According to some it's sufficient for our purpose. Another part is more ... conservative.

Jean shook his head. "I cannot desert him. Can you record Dreamers?"

"Theoretically yes. In reality results were disappointing. Being a Dreamer seems to be more than just a physical issue."

Jean opened the cupboard that held his few possessions. He took his first edition, walked to the head-end of the sense-tank where the top half of the head of his beloved was visible and opened the book on the first page. "FIRST ACT – SCENE – Morning-room on Algernon's flat in Half-Moon Street."

The projection listened for a while to the words that Jean forced from his lips, his grief clear, before it faded and disappeared.

#

Like many times before, Jean fell asleep in the chair that stood next to the sense-tank. He awoke with a start. A caring nurse had thrown a blanket around his shoulders.

By the foot of the tank was an unknown person, the soft aura of the projection outlining him against the dark curtains that blocked the windows. He appeared like an athletic, dark-haired god in a tight-fitting suit.

"Who are you?" he asked, curious.

The strange AI looked at him with inscrutable eyes that were nearly purple. "Jean le Forge. My name is ... call me Equinox."

"No number?"

The AI shrugged. "Some of us do have imagination. We are sometimes fond of symbolism."

"A turnabout, a new start, a proposition?" Jean smiled wryly. "So are you the first or will there be more?"

Equinox smiled. "The timing may be somewhat off. But a proposition, why yes, I believe so."

"I thought I made myself clear, just now."

"Not about this. A hypothesis, something immeasurable that cannot be tested mechanically. A possibility to communicate with Dreamers."

"There are tens of thousands of Dreamers, millions, more even ... Why me?"

"Some thirty million in all. You have not given up. Even now I sense hope, a sparkle of optimism, resilience. Even after three hopeless years. That's why *you*."

Jean looked at the part of Darius' face that was visible outside the sense-tank, the uneasy movement of his eyes. *Three years without progress. Something must be done.* Indeed. "How? And what should I do?"

#

Supply ships carried three crew that slept in turns during the long voyage to the Entangled Worlds surrounding Sol.

Jean excelled at the tests, which meant he was selected for the journey to Van Maanen's star, his first assignment in space.

The Alcubierre drive moved the ship within its own time space torus at almost twice the speed of light. Of fourteen years travel time he would sleep nearly ten, always one year awake and two years asleep.

He was second to be awake. The job was mind-numbing, monotonous, a requirement to make his mind susceptible to 'outside influences' the way Equinox explained it. His free hours he used to read the thousands of books, all the classics, he never had time for.

The short period of overlap with one of his just awakened fellow crew reminded him what it was like to be with other people. He usually lasted a few weeks before he becomes fed up and climbs into his sleep couch, a variation on the sense-tank that maintained his beloved.

Are you out there, somewhere, Darius? Can you hear me, do you know how much I miss you?

The outer darkness never answered, the torus field an impossible quantum border that kept them outside the regular universe.

Could a human be lonelier than here?? That was his final thought before the sleep couch made him drift off.

#

The *Long Road* station near Van Maanen's star gave them a hero's welcome. Surrounding the station were dozens of habitats, in various stages of construction. Mining ships flew back and forth from one of the asteroid belts in the system.

From the resupply ship Jean observed the dozens of ships that welcomed them, while they slowly drifted towards the white dwarf, into the green zone that provided sufficient energy to power the artificial worlds and to allow humans, animals and plants to thrive.

The inner planets were dead cinders, their atmospheres, whatever had been there, stolen long ago during the expansion phase of their sun.

Seven years had passed, of which Jean had been awake two. Despite staring at the Alcubierre field that surrounded the ships for days, using dozens of meditation techniques aimed at opening his mind, even using the ship's pharmacy for stimulants, space remained defiantly quiet.

He was hardly surprised when Equinox projected his presence while approaching the *Long Road*.

"I gather from your posture and look that you have not been able to make contact?"

Jean nodded, curtly.

The AI nodded, then looked at the floor, a quite human gesture. "I cannot imagine how bad it was for you. Do you want to continue this experiment?"

Jean shrugged. "I don't know if it's any use." He breathed deep. "I still have to return. Shame not to try, at least. Right?"

#

When he returned Darius was nearly unchanged. His face had gained a wrinkle or two, his hair a bit of gray.

Jean sat next to him, savouring the image of his beloved. Sadness and despair rose in him; pure stubbornness kept them at bay. *Darius needs you.* Followed by: *And I need him. I miss you, my love.*

Like in the early years before his journey, Jean made Darius' room comfortable for a prolonged stay. He had to get used again to the small sounds of the sense-tank as it cared for its patient, the regular, forced breathing, the soft creaking of the muscle-stim.

During the day Jean studied the progress that had been made in researching the Dreamers. The disease seemed to have disappeared after that first wave of thirty million victims. There were no discernible patterns in preference for victims. The disease was completely random and had vanished as fast as it had spread.

Now seventeen years later part of the thirty million had passed away, complications, old age or cessation of treatment, stopping the machines that kept their patients alive.

Recording into the Collective had met with some unexpected problems. Although the Dreamer's engrams could now be copied perfectly, keeping the eleven-dimensional neural structures intact, the eventual containers with all their information inside kept as silent as their origins. The AI doctors were puzzled.

Every night Jean watched over Darius, until he slept from exhaustion. He kept reading from his favourite Wilde: 'ALG I certainly won't leave you so long as you are in mourning. It would be most unfriendly. If I were in mourning you would stay with me, I suppose. I should think it very unkind if you didn't.'

After studying for several months, Jean reached the end of the knowledge about the Dreamers of both humanity and the Collective.

Jean felt the presence before he saw it. "It's not Christmas yet, Equinox."

The AI laughed derisively. "You were expecting me."

"When I read the final chapters on the Dreamers today, I understood that we just do not know enough yet. That we may never discover what actually makes someone a Dreamer." He turned towards the softly glowing outline of the AI. "So all of a sudden your idea that I might find Darius in the non-space of the Alcubierre torus becomes attractive again."

"I noticed your intelligence immediately," Equinox said. "From the first moment I saw you and heard you speak. The possibility of researching the Dreamers is nearing its end. No new cases have been reported in the last ten years."

"To stay here and wait for something that may never happen, or take a gamble, that one in who knows how many chance, to once again speak to Darius." Jean put his hand on his beloved's forehead. "I will find you, out there." *Or you will find me. Search for me, Darius.*

The next ship to Van Maanen's star left a month later. Jean was on it.

The second time Jean arrived at Van Maanen's star his reception was as exuberant as the first time. Only now the sky was dotted with countless habitats. From the cockpit he saw hundreds of small and large vessels that accompanied them to the Long Road station.

Jean grinned broadly at the view, in the back of his mind the many conversations he'd had with Darius these past years. It was the most bizarre way of communicating, like two lost fools running through a maze, hearing the other shout fragments, yet never seeing each other. Still he knew it had been Darius, he felt the proximity of his loved one, through the light years of the entanglement.

"A smile from you, Jean le Forge, illuminates even the outer limits."

"Equinox!" Jean waved the glowing figure closer. "I spoke to him, like you suggested. He was really there."

The AI remained still, keeping his voice carefully neutral. "That's good, Jean. However, I have to inform you that the Dreamers are rapidly dying out. I do not know if you will ever see Darius alive."

Jean's lower jaw dropped. "How? What?"

Equinox produced a quickly ascending graphic in the air before them. "Exponential growth in mortality. Cause unknown. Dreamers aren't growing old."

"And Darius?"

"Alive, but the aging process is speeding up." The AI showed a recent picture. Darius' hair was gray, his face wrinkled. It was him, obviously, but time had done a fast-forward on his body.

Jean's shoulders slumped, as if the weight of many years in space, away from friends, family and of course Darius, suddenly pushed them down. He sat in a chair with his hands before his eyes. "What ..." He could hardly push words from his throat. "What are my options?"

"If you're not home in time, we can always record. The technology has been drastically improved in the last five years; we have reached an almost perfect level of resolution on the engrams. Your Darius will live on perfectly inside the Unity."

"A dreamer, inside a container, not communicating with the outside world." Jean sighed. "If it happens during the journey, will I still be able to communicate with him?"

Equinox looked away, obviously troubled by having to face Jean.

"You don't know," Jean said. "It bothers you. The knowledge of humanity and the Unity combined at your disposal, yet it only reminds you of how much you do not know."

The AI looked at him directly. His eyes resembled purple spots that covered his face in a ghostly glow. "Your actions have provided us with much information. We will wait until the last possible moment before recording your beloved. Your ship will leave one month sooner. I've just arranged it." The AI spread its transparent hands. "We are committed to reuniting you with Darius as fast as possible, Jean. Even though there is only a small chance you will arrive in time."

"So what use is the rush then?" Jean said. He hastened to add: "I don't want to sound ungrateful. I want nothing more than to be with Darius right now, but it will take years to return."

"Hope is a strong motivator. I will admit to having tried to stimulate that."

"Why. Do you have ulterior motives?"

Equinox bowed his head. "Perhaps the bond you two have may be the key to awaken those millions of recordings. Right now they are inaccessible to us. Whatever happens, make the most of it. It may be the last time you will ever speak to Darius," Equinox said, just before fading away.

#

They had been travelling for almost a month when Jean heard Darius for the first time. *You were quiet for a long time, Darius.*

I dreamed a lot, the weak voice of his beloved sounded inside his head. Time has little meaning then.

A special dream if you stay in it so long.

He felt the smile in Darius' answer: *I was in the Winter Garden. It is full of snowmen, each one more beautiful than the next. In the centre there is a statue of you, most beautiful of all. I visited you every day.*

That sounds special. Tell me more.

The garden is surrounded by a hedge, dozens of yards high. The top is covered in snow and between the deep green leaves grow white roses, like beautiful snowflakes.

Are you alone? Or do you have company? Jean thought of the millions of recordings also in the Unity.

Snow is there. He guards the entrance. His heart is colder than the coldest ice. He knows no mercy

Does he allow anyone in? Or does he keep you in?

I do not know. I never really tried.

How do you feel now, Darius?

Glad to finally speak to you again. But also tired. Stretched out. I remember what you told me about the Dreamers, me being one of them.

I need to tell you about that. The Dreamers are dying right now, fast. The Unity is recording their engrams, hoping one day to welcome them into the Collective. So far the Dreamers have remained silent.

It was quiet for a while. Jean feared he might be too late already. *Darius?*

I'm still here. It's ... weird to realize your flesh will cease to exist.

We will keep searching for options, alternatives.

Jean. Darius voice almost seemed physically present in Jean's cabin. *When the time comes, you must release me.*

Jean felt a tear slowly roll across his cheek. The words came almost automatically. 'Oh, that's nonsense, Algy. You never talk anything but nonsense.'

'Nobody ever does.'

I do not expect I shall be in time to attend the recording. But I will find you, wherever you go.

And otherwise we may see each other later. Or not.

Three weeks later all communication ceased. Jean was inconsolable, like part of his heart had been taken away forever, even though his head told him the person Darius still existed, assumed into the Collective of the Unity. For the first time he welcomed the dreamless sleep of the sense-tank.

#

The room that once housed Darius was now home to another patient. His few possessions were ready in a box when Jean reported to the reception desk.

At home he took out his first edition and browsed through the yellowed pages. He experienced a strange sense of melancholy, a feeling between sadness and hope. His eyes noticed a suitable text: 'It is always painful to part from people whom one has known for a very brief space of time.' Say that again. He felt the need to be alone with his grief. Methodically, he shut down his presence until his online persona had become undetectable. He hoped it would be enough.

Organizing Darius' estate and visiting his remaining friends and family took several weeks. Jean thought it his duty to deliver the message in person. He also hoped to get extra details, pictures, facts and memories of Darius to make the image of his beloved in his mind more complete, should the recording remain closed to him.

One month later he visited the ash field where Darius' remains had been scattered, the last activity on his list, closure of a process he was going through. While he looked out over the field that lay in the shadow of the Utrecht Arcology, a messenger drone descended until it hovered just before him.

"You are disturbing my peace," Jean said, without checking from who the message was.

"You're unreachable through the usual methods." The tinny voice of Equinox came from the device.

"I needed time alone."

"You've been here for over a month. The Collective expected you to visit Darius inside the Unity long ago."

"He's safe there. Why the rush?"

Equinox produced a sound like a sigh. "There are reasons."

"That you don't want to bother me with?" Jean shrugged.

The drone flew back and forth a few times, then calmed down again. "Personally I would really appreciate it if you would visit Darius at your earliest convenience. My time is rather limited. Please."

Jean raised an eyebrow. *An AI that says please?* "Alright, Equinox. I'll sleep in a sense-tank tonight. You can take me to

Darius then."

"Thank you, Jean. It is appreciated, more than you will ever know."

#

The sense-tank Jean had at home was both sleeping cabin with sensory damping and a gateway for visiting the Unity, the Meta reality the Als of the Collective had created.

He eased down inside it and felt the familiar soft movements of the target finding electrodes that searched for the contacts in his skull. As soon as they connected he felt his body relax and seconds later his vision dimmed. A moment of vertigo, next he floated above a landscape filled with numerous interesting details. Towers, of course, forests, villages, streets, roller coasters, bizarre flying creature and much more. Above the horizon cloud cities floated, connected by mono-rails, containing buildings that were free interpretations of Metropolis.

A pink tabby cat appeared before him. "You are Jean le Forge. Like your suit. Purple spotted tie, quite original."

Jean nodded. "My gestalt likes to wear neat suits. And you?"

"Equinox sent me. I'm to be your guide."

"I don't feel like being your Alice."

"Pfff," the cat spat. "As if all Als would try to pass this off as Wonderland."

Jean smiled. "Admit it, you had the complete tour lined up."

The cat twisted its tail. "It's really not that big a thing."

Jean shook his head. "I wish to see Darius. That is all for now."

A deep sigh. "So be it, then. Follow me." The cat ran off at high speed, jumping across the clouds and occasionally appearing rainbows.

Jean sent his gestalt after his guide. The landscape below them gradually changed, starting as dense buildings with rich details, then to dreary mountains and valleys where you could still see a polygon or two.

On a mountain top the tabby cat halted. In the valley beneath them was snow. Wide pastures, alternating with clumps

of fractal trees, everything covered by a white layer. 'There it is.' The cat stretched a paw towards the horizon that immediately approached. Close by was a hedge, a few dozen yards high, with dark leaves and a few white flowers, the top covered in a thick layer of snow.

"The Winter Garden," Jean said. "From here I can find it. Give my regards to Equinox."

"Who?" said the cat, grinning like a cartoon.

"Equinox. The AI who brought me here. You just said it yourself."

The cat shook its head. "The Collective brought you here. I never mentioned that name." It held its head at an angle, as if listening. "Nope, just confirmed, there is no AI named Equinox."

Am I mad? "I must have misheard. Forget it."

"Be well, Jean le Forge." With those words the cat disappeared.

#

Details became clearer when he approached the hedge. Every spot, every flake was visible in near perfect resolution. The vegetation grew well up to twenty yards above him. The dark leaves were razor sharp, the thorns deadly spikes, yet the flowers, roses, were white like fresh snow with delicate petals, finely veined, and sprinkled with tiny ice crystals that reflected the light.

Jean walked along the hedge until he reached a tunnel. At the end of the tunnel, beyond a gate, was a light. If Darius was right, he should meet Snow here. He looked around to see if he could spot the guardian, outside the Winter Garden.

An unexpected splash of colour caught his attention. Right next to the gate, half hidden beneath the dark leaves, grew a single red rose. Jean looked at the perfect flower, only half reminded that this too was just a projection on his visual cortex. Involuntarily he stretched his arm towards the rose, held its stem, and then plucked the flower. He took the red perfection to his nose, deeply inhaling its sweet scent. An explosion of colours and scents washed over his virtual senses. With a smile he placed the flower in a buttonhole of his jacket.

Carefully he entered the tunnel and stepped through the gate that magically opened to him. Halfway it seemed as if he crossed a barrier, like touching some kind of invisible border.

A few steps later he was inside the garden. He looked around. He immediately saw three snow white statues, beautiful boys and men, nearly naked and perfect in every detail. *Just like Darius described them.*

The inside of the Winter Garden was a maze of human sized hedges, with occasional open spots that provided resting places on idyllic marble benches.

Jean noticed he began to hurry. The thought of Darius gave him energy, the idea of meeting him again filled him with joy.

Nearly in the centre of the garden was a large area. Jean exited the maze and saw him there, his beloved, Darius, young, the way he was in memories, from the time they walked through the Utrecht Arcology, holding hands, looking down on the remains of the Dom tower that reached up to a third of the height of the arcology. He stood before a beautiful statue. Jean recognized his own face and body.

"Darius!" His beloved turned. They looked at each other, moments only. Then they both ran.

Just before they could embrace a pale figure rose up from the snow, easily larger than Darius and Jean together. It raised its right arm to stop Jean.

Skidding, Jean came to a stop, right before the large, slender hand. *This must be Snow.* He saw cold, lifeless eyes, a symmetric face, and the silent perfection of a soulless algorithm that guided this ... this automaton.

"Snow?" Darius said to the pale young man. "I know him. You must let him pass."

"That is not my task," Snow said. "You stay inside. Him I will expel. He does not belong here. Those are the rules."

"Jean?" Darius said. "You can't win this. Snow is the guardian. He's a soulless monster and he will kill you if you don't comply."

"I can't leave you here, Darius. I found you and I will never leave you. I daresay it was foolish of me, but I fell in love with you, Ernest."

"Enough talk," Snow said. His eyes flickered icily. "Leave now. Or die."

"I ..." Jean started. He looked down, saw Snow's hand close to his chest, felt the cold emanating from it, right next to the colour explosion of the single red rose he had found inside the hedge. *A piece of soul. Is that it?* "I have a gift for Darius. After that I will leave on my own."

Snow considered his proposition. "What gift is that?"

Jean pulled the flower from his jacket's buttonhole, smelled it. "This beautiful flower. A memento." He began to move to pass Snow, but the large hand stopped him.

"Give. Then leave."

Jean looked at him, resigned, and then placed the flower inside the upturned palm of the automaton. The cold nearly froze his hand. The fingers closed around the stem and in slow motion Jean saw one of the thorns pierce Snow's skin.

The transformation was immediate and grandiose. Snow grew smaller fast, gaining colour as he shrunk. He fell to his knees. His skin was still pale, but his eyes were an icy blue, approaching violet and his hair was a shock of blonde curls reaching to his shoulders. His mouth formed a soundless scream.

Jean walked around him, running the final yards towards Darius. The two men embraced like they had not seen each other in ages.

"At last. I waited so long for you," Darius said.

"I'm here and here I will stay," Jean said. "You make me complete." He looked at Darius. "There is an endless universe out there. Shall we discover it?"

Darius smiled and took Jean's hand. Together they walked towards the exit.

"Please?" Snow's voice behind them sounded so sad that Jean turned.

"What is it?"

"Can you please tell me who I am? What I'm supposed to do? I remember nothing." He raised the hand with the rose up to them.

"I don't understand," Jean said. "I hoped to make the automaton a bit more human. I never thought it would completely wipe its systems."

"How did you manage it?" Darius asked.

Jean spread his hands. "This is your engram, my love. Your inner self. The Winter Garden was your perfect playground, surrounded by an impenetrable hedge and guarded by what, in the end, was no more than an algorithm. A soulless AI, if you will, having only one goal that it pursued relentlessly. Who can tell what caused the Dreamers? Maybe it was a digital virus. I had an idea, a hunch, that rose represented a piece of your human essence. I gave him that. The effect was ... interesting."

"We can't leave him like this," Darius said, "What does he need?"

"A name and a mission. That is how it usually works. Try it."

Darius pondered a few seconds, then said to the kneeling figure: "I will name you. Your name is Equinox. Your mission is to awaken the Dreamers. You hold the key in your hand."

The automaton got up. "I am Equinox. So shall it be."

Darius took Jean's hand and together they walked the maze.

"Why did you name him Equinox?" Jean asked, intrigued.

Darius shrugged. "I always considered it a beautiful name. Why?"

"There was an AI who helped me find you here. His name was Equinox. But according to the Unity an AI named Equinox never existed."

Darius stopped and looked at him. "Did you ever mention him during our conversations, all those years ago."

"Not that I can recall."

"Then I'm at a loss too." He shook his head. "Perhaps I don't want to know. The important thing is that we have each other."

They left the Winter Garden through the tunnel. Outside the snow on the ground was melting. They turned around and saw that the hedge was no longer covered in snow and bloomed with millions of beautiful red roses.

Concerning the Deprivation of Sleep

TIM MAJOR



Tim Major's books include Jekyll & Hyde: Consulting Detectives and a sequel, Jekyll & Hyde: Winter Retreat, plus Snakeskins, Hope Island, three Sherlock Holmes novels and the short story collection Great Robots of History. Tim's short stories have been selected for Best of British Science Fiction, Best of British Fantasy and The Best Horror of the Year, and his story

As a science fiction writer, I'm used to extrapolating from events and trends, to conjure a vision of the future – in other words, to dream. I remember that dreams – real dreams – were a means of making sense of one's day, of reordering events and experiences, of extrapolating and inserting one's fears and ambitions. Wasn't that the case? I only wish there were somebody I could ask.

The apartment in which my young son and I live has always been noisy. The street outside and five storeys below is never silent; the traffic sighs and people come and go constantly, and light from the upgraded street lamps reflects from the pale paving to make it glow like the surface of the moon. Above us live a couple who entertain both men and women at all hours of day and night. They call themselves therapists but the noises suggest something more boisterous. On the other side of our living-room wall lives a woman who believes in the importance of overwhelming background noise as a means to rest. The thin wall reverberates with her recordings of crickets and café chatter. The apartment building on the other side of the street seems to bow towards ours as it rises. Even here, on the fifth floor of twelve, I sometimes feel that I might reach out and touch the fingertips of my opposite neighbours. On the seventh storey, residents of each building have strung a washing line across the street, tethering the apartment blocks. Yesterday as I was gazing out of the window I saw a clothes peg drop, followed by a fluttering sock.

My son is rarely silent, either. He is two years and nine months old and a chatterer. But he sleeps well, and that counts for a lot, doesn't it? Parents need their downtime.

I sleep, too. I'm not so far gone that I've abandoned it entirely. I sleep for three hours each night. There are others suffering far worse.

How about you? I assume you accept your allocation and think no more of it. Most do, I suppose. I realise I never asked whether you lost your sleep in the first wave or later. I was among the first, which perhaps allows me to appreciate even a single hour nowadays, and perhaps even allows me to sustain myself on fewer hours than others might. However, I am alert enough to be self-aware; I know that my thoughts become muddled, sometimes.

When it began, I was in no state to extrapolate from my experience, to write. I was a science fiction writer only in the sense that my bibliography proved that I was once capable of it. I watched the news and read the reports and balked at the suggestion that it was my exposure to current affairs and online coverage that was responsible for my condition in the first place. And yet I gave up staring at the grey ceiling in my bedroom night after night and settled into the sofa, watching and reading, staring blankly at nothing and pawing at my stinging eyes.

Scientists were working on the problem, the reports said. The government was fully aware of the risk to the workforce. And always the subtext: it was our own fault and we had done this to ourselves.

Added as I was, I could see the flaws in the logic. Our always-on lifestyles, our work ambitions, our levels of screen time, our anxieties, had all contributed to this inability to sleep. Fine. But there were no explanations – no plausible explanations – why there seemed no mechanism for switching back. Time away from work, at home or in subsidized relaxation and therapy camps, all achieved nothing. We could not sleep. We just could not go to sleep.

I'm certain you saw those same reports and rolled your eyes. Those metropolitan folks and their faddish anxieties, their mass hysterias. Fair enough.

Presumably you felt differently about it all only a month later, when those stories of hellish nights and dizzying days

'The Brazen Head of Westinghouse' won the British Fantasy Award for Best Short Fiction in 2024.

became a reality for you and for everyone else. None of us in that first wave of cases would have wished the same fate on others, but I swear I could hear the sigh of relief. Whether this was infectious as mass hysteria or viral outbreak, now that all of us were affected we were all in the same boat. Scientists were working on the problem, the reports said, more vociferously. The tone of the therapists changed abruptly from stern lecturers to despairing friends.

The joy we felt, when the answer was announced! The pride in our nation's ingenuity!

We oughtn't to have expected the government's approved solution to be in our best interests. We oughtn't to have expected a return to the status quo.

Perhaps you feel that things are very little changed. Six hours sleep per night is respectable enough, only twenty minutes shy of the national average before this cataclysm. And carrying a device in one's pocket is no burden; we all had our phones already, and SOMs are scarcely bulkier and perform all the same functions as well as the crucial new one. Planning one's day around a visit to a SOM station for a top-up is no more demanding than using cash machines a decade or so ago, and the operation of the device is child's play: a click of a button, an immediate blissful void, curtailed precisely at six hours. The government reports are widely available and clearly worded. We have sufficient allocation of sleep; we are healthy; the workforce is intact. If anything, we are more efficient and therefore happier. All of this is evidenced in the data.

We are all fine.

I know you have always lived straightforwardly. You are a pillar of the community and you are content. I'm happy for you. I'm positive that you have little experience of life outside of the norms, and I envy you.

And six hours sleep is enough.

But my son is unwell and these days I overthink things, I know I do.

When he was younger we worried a great deal, my wife and I. We watched our son in his cot and from the start, long before the plague, we recognised that his sleep was strange, his

patterns irregular. We took him to specialists and they explained his condition, but no amount of knowledge gave us confidence during his periods of apnoea, during which time his breathing would become shallower and shallower until it halted for ten, twenty, even forty seconds at a time. It was unbearable to watch, but we watched all the same. We barely slept.

At the age of two, only months before the plague, my son's night-time spasms edged into daylight hours. The specialists told me that he was unharmed by his tics, that he will learn to overcome them or at least ignore them, but already I can see that he is conscious of his discomfort and already he is capable of swallowing it down, of putting on a brave face, and in the act of pushing away the pain he pushes it across to me.

This is a terrible admission: I'm grateful that my wife is dead. If my responsibilities extended to anyone in addition to my son, I wouldn't have the hours to spare.

I wonder if you even heard rumblings of a means to alter the provision of sleep. If you are happy with your six hours, and your husband is happy with his, then what could be the issue? Your skin is free of blemishes. Your days are free of that bleary, dazed sensation, that half-memory of sleep with all of the sense of disassociation and none of the sense of rest.

But the SOMs can be hacked. The provision can be altered.

This fact may come as a shock to you, but never fear. Nobody will rob you of sleep. Neither can you purchase additional credits at whim. Daily visits to a SOM station are as necessary as ever. Credits can be transferred, but only in one direction, from owner to recipient.

So.

When I finish work each evening my route takes me to the SOM station embedded in the ancient walls at Micklegate Bar. I join the queue and I receive my credits on both my SOM and my son's. But then shortly afterwards I join another queue that trails out of the open glass doors of the southernmost apartment block situated on what was once the Knavesmire race-course. This apartment block has never been popular with the wealthy; each autumn and winter the plain floods and those

queueing are forced to wear rubber boots or wade home with sodden feet. When I reach the head of the queue I hand over both devices and I answer the question, "How many?"

To begin with, I transferred only a single hour. Anyone can manage on five hours of sleep, particularly those of us who have had to survive on less. I found a great deal of pleasure in my donation. Waking an hour earlier allowed me to observe my son's continued sleep. It was only then, once our patterns were no longer synchronised, that I understood that the blank dreamlessness induced by the SOM permitted a type of sleep that my son must never have experienced before. He was more still and more calm than he ever could be in his waking hours. I saw no sign of sleep apnoea, or jerks, or rapid eye movements. Some critics of government policy have described this as a theft; sleep now being only a necessary oblivion – a temporary death – rather than any kind of pleasurable experience. In my son's case it is a gift. And by granting him part of my allocation, I increase the gift and in return he grants me the delight of seeing him at peace.

Surely you can't blame me for having increased the number of hours I give.

As a science fiction writer lacking the ability to truly dream, I have other means of reordering the events and experiences of each day, of extrapolating and inserting my fears and ambitions: I write stories. I am at the beginning stages of writing a story about sleep.

The story will be set in the near future and it will tell the tale of two brothers. In childhood, they are similar, but a series of accidents and achievements results in one brother becoming very wealthy in adulthood and the other very poor. In my vision of the future, the system of sleep provision has become commercialised. Sleep credits are a commodity – the most valuable commodity, above money and time. The government stipend is an equal number of hours for each member of society, but the allocation for each citizen has dwindled, as the economy is not what it once was. Fortunately, competitive market forces have resulted in sleep credits being readily affordable. The rich and well-off are able to buy additional cred-

its at will; top-ups are available at any shop counter and are transferred direct to devices worn under the skin. Correspondingly, the poor are able to sell their credits at will, at any shop counter, any drinking establishment, any hostel. The economy relies upon the flow of a finite number of credits; no more can be created and government ministers playact at having no means to do so.

The rich sleep well. Enjoying a surplus of sleep is the ultimate demonstration of wealth and the aspiration of everyone. Ten, twelve, fifteen hours of peaceful rest, then wake to address one's correspondence and investments. And this world of the future is a utopia. Where now there may be squalor and decay, in this future there are vast green parks, trees taller than most buildings, city-wide pedestrianised areas filled with quaint eateries and stalls. The weather is always fine. As in all these sorts of stories, it is the poor who provide this daily miracle, supplying and serving, scrubbing and suffering. And the economy is not what it once was, so while their payment is generous considering the simplicity of their tasks, it is barely sufficient for what they require to live. It is a mercy that there are always those hours of sleep, that state provision, at their disposal. They will never starve because they will always be able to sell their sleep.

And the story is a fable, of course. The poor brother and the rich brother, having not encountered one another during the entirety of their adult lives, will meet. I have yet to determine the circumstances of this meeting. Perhaps the poor brother will be serving at a function attended by the rich brother. Perhaps he will lug provisions to the manor house owned by the rich brother, not suspecting whose paved driveway he is walking upon. Perhaps the rich brother will accept a bet in which he is tasked with living among the poor for a single day, or perhaps he is doing so because he considers himself an observer of the downtrodden. But they will meet, and the brothers will recognise one another and will recognise the sequence of chances and coincidences that have carried them to their respective positions in society. And the poor brother will demand nothing but he will recognise a potential buyer, and he

will offer the rich brother an hour of his sleep. And the rich brother will refuse and instead he will insist that the poor brother instead accept sleep credits himself – though the gift will still result in the rich brother having a far more substantial allocation of sleep for the night – and even a bed in which to enjoy them.

They will both settle down to sleep in adjoining rooms. In the moments before triggering sleep, the rich brother will feel at peace because of his good deed. The poor brother will feel nothing but an anticipation of relief.

The poor brother has been without sleep for so long – perhaps an hour here or there, a couple of times a week, each month two consecutive hours tainted with the guilty sense of having stolen from his children – that only the first three hours represent genuine rest. After that point he begins to dream. Dreams have long been impossible – there is no extrapolation involved in that detail – and so perhaps this is a mania, a malfunction, something other than a dream. And yet the poor brother sees in vivid detail a world, long ago disappeared, in which everybody sleeps, everybody rests, everybody has control over their degree of oblivion, everybody dreams. The poor brother dreams that he is dreaming, way back then in that long-gone world, and this dream is of happiness; if there is any element tinged with ambivalence it is that he dreams of a brother who may be wealthier than he is, but no more happy and no less.

When the rich brother wakes, rested and content despite his mere eleven hours of sleep, he finds that his perceptions of the tasteful décor, the encouraging headlines, his smooth reflection, are no less detailed than when he would ordinarily allow himself eighteen hours of rest. He strolls happily to the door of the adjoining bedroom, knocks, but hears no reply. And for an awful moment he considers that the poor brother might be sleeping still, and that in order to do so he may have robbed the rich brother in the night. The rich brother roars with anger and forces open the door. Then he feels only a momentary stab of shame amidst his relief when he discovers the poor brother still tucked up in bed, eyes closed and not resting but dead.

These are the bare bones of the story. I will add in flourishes as I go; I still must entertain readers, the story must sell.

I will draft the story in full later tonight, and if you like I will send it to you when it is finished. I have already bathed my son and he has spent the last half an hour listening to a story on a portable speaker that he hugs to himself in his bed. Just a moment ago he pushed open the door of my study to tell me that his story has ended, and that he never wants to hear it again because it made him afraid, and he was blinking more than usual and I could see his fear was real. He held out his hand for his SOM and, after checking the allocation display, I smiled and passed it over and I found myself saying, "Get your rest, son. Everything will seem better in the morning."

The Dechronozation Chamber

ZACH SMITH



Zach Smith is a writer of creative non-fiction and short fiction in a variety of genres from the suburban Philadelphia area. Recent stories of his have appeared in Grandpa's Deep Space Diner and New Pop Lit. He is currently working on publishing three story collections: Clouds Over Pancake Mountain, Tales Along

"You need to work out more," said Dr. Gustov. "Half an hour, three times a week. Get sweaty, get that heart pumping. You could stand to lose twenty pounds, and your blood pressure will go down to where it needs to be."

"Doc," said Edward Cresswell. "I'd love to do that, but I just don't have the time. If you can give me an extra hour or two a day, I'd gladly work out."

"Actually I can help you with that," said Dr. Gustov.

"Really?"

"Yeah, I got a brochure here. It's not really medical but it could help."

He handed the brochure over.

Edward began to read it out loud.

"The Dechronozation Chamber. Need some extra time? For a small fee Dechronozation LLC can give it to you. Our patented chambers allow its users to experience one hour of time in one minute." He stopped reading. "How does it work?"

"I have no idea," said Dr. Gustov.

"Do you have one?"

"I do, and yes it does work. I get more sleep, time to work out, time to do things I wouldn't otherwise have time for."

"This can't be real," said Edward.

"It is, believe it or not."

#

After that doctors visit Edward went to the Dechronozation showroom. The cheapest models cost about eight grand and

looked a bit too much like coffins. They were meant specifically for sleep.

Others were bigger, similar to Japanese pod hotels: a bed with enough room to sit up, a TV/DVD player for entertainment, and a light to read by. Internet, cellphones, and cable did not work inside the chamber when it was on.

The salesman took Edward into the demonstration room. He set the timer for fifteen minutes, while they chatted about the new technology.

"The chamber has to be isolated from the world," said the salesman. "It's not as though the Dechronozation Chamber is a time portal."

"Can I go in and out as I please?" asked Edward.

"Not exactly. There is a time delay between turning the chamber off and the door unlocking. It takes five minutes inside, so that time can sink up with the outside."

"What if the power goes out?" asked Edward

"There's a battery back up. If the power goes out it will shut down the machine automatically, and an alarm goes off when it's unlocked."

Right on cue, the alarm in the chamber went off.

When they left, Edward looked at the clock, no time has passed at all, and outside the same cars were still waiting at the light outside the window. But it still all seemed like a highly orchestrated trick, it was just too good to be true.

There were Luxury Models as well, as big as a studio apartment, with an internal septic system that could be flushed when the chamber was turned off. But that model was fifty thousand dollars. If price was no object an entire house or mansion could be set up as a Dechronozation Chamber, but Edward couldn't afford anything like that.

He ended up going with the Model A Deluxe.

#

Edward watched as the chamber was installed in his house. It wasn't cheap, but if it could do as advertised, or as he thought he had experienced in the showroom, it would be well worth it.

Turtle Heart Road, and Realms Beyond Midnight World: A VHS Mix Tape. You can find links to some of his other stories and obscure reviews at: theobscuritysposium.wordpress.com.

The Model A Deluxe was the size of a small college dorm room: a bed, TV, small desk, power outlets, a little college boy fridge, enough room to stand and sleep. They built it into the smallest room in his house.

Before the drywall went up there were pipes clocks and gauges mounted to the walls, almost reminiscent of an iron lung.

"You have any questions?" asked the head contractor who installed it.

"Does it work?"

"Yes sir, spent an hour in there myself a minute ago."

"Really? Didn't even notice."

"That's the point," said the contractor.

Edward smiled and rubbed his hands and tried to get the workers out of his house so he could put his new toy to use.

He picked up his copy of "A Thief of Time" that had been on his bedside table for too long, walked into the Dechronozation Chamber, and closed the door. It still had that "new boat" smell from the fiberglass interior and he assumed with time it would either go away or he would get used to it.

The outside clock read 3:35 when he went into the Dechronozation Chamber. He set the timer on the door for one hour, he didn't need to be in there too long. It was his first solo trip into the fourth dimension, he was just trying it out. He could have set the timer for as long as twelve hours, but one hour was enough.

He thought of working out while inside the chamber, maybe doing some sit-ups or something, but he figured there would be time later for all of that, and soon was lost in the words of Tony Hillerman.

There was a click, and a low whirring noise, that quickly turned white bleeding into the surroundings and became hardly noticeable.

He looked down at his phone. He had lost reception and connection to the internet, and the clock on the home screen read 3:37. He put the phone down, picked up his book and continued to read where he had left off.

An hour later there was an alarm and a click that told him the chamber was deactivated.

He looked at his phone. At first, it said 4:35, then when the reception came back read __: __ and then 3:36.

When he looked out his bedroom window he saw the truck from the installation team still in the driveway getting ready to leave.

#

Edward started making his way through his collection of books and DVDs picked up with good intentions and a dollar at library sales, that he never had the time at home to enjoy with life getting in the way.

For an hour or two after work, in the middle of the week, Mr. and Mrs. Cresswell would spend long romantic weekends in the slow time room with a bottle of champagne, a dish of oysters, and a couple of rom-coms. All Edward had to do was set the max time six times, and they would have three full days to themselves in a little over an hour.

But the real draw of the Dechronozation Chamber had to do with his off-kilter circadian rhythms.

He was not a morning person, every morning he would wish he could crawl back into bed, looking forward to nothing more than getting back home and back in bed and call it an early night. Of course, those early nights never seemed to work out, he had too much to do, and his early nights turned into typical nights, and then late nights and the mornings were that much harder to get started.

That all changed with the Dechronozation Chamber. When it was getting late, he could pop into that little room with a book or video game, and stay up until three or four in the morning, and still get to sleep by ten.

If he tossed and turned all night, and didn't fall asleep until late, and didn't want to get up the next morning, which was most mornings, he could pop into the Dechronozation Chamber and grab an extra hour or two of sleep without being late for work.

#

Work had been piling up at the office, it was the busy time of year, and Edward had nearly a thousand pages of data to process for one of his clients. He may have had nearly all the time he wanted at home ... but work was a different story.

The data was loaded onto a thumb drive after work and brought home. He took his laptop into the Dechronozation Chamber. After fifteen minutes and two pots of coffee, Edward got through all the paperwork.

"This was a tall order Cresswell, I can't believe you got it done in time," said his boss. "What's your secret?"

"Can't tell you," he replied with a Cheshire grin.

Eventually, he did tell.

"I don't believe it," said Mr. Biggs

Edward brought Mr. Biggs over to his house to show him the Dechronozation Chamber. He had Mr. Biggs leave his cell phone outside the chamber to clarify that only a minute passed while they chatted about work for an hour.

"I still don't believe it," said Mr. Biggs.

But he did.

#

A few months later, a couple of Dechronozation pods appeared in the break room. Everybody had an hour lunch, and now up to five one hour breaks while only eating up a few minutes of the company's time. Productivity went up ninety percent.

By that point the Dechronozation Chambers were better known, even hotels were showing up that rented slow time rooms charging by the minute. The technology had gotten even better by that point, and with improvement to the technology, they could condense a full three hours into a minute.

Dechronozation LLC stock rose to monolithic levels.

Everybody from celebrities to CEOs, to middle management, to the grunts and even the Lumpenproletariats were using the facilities to get a little downtime and a little personal time in an epoch when everybody wanted everything yesterday.

Back at Edward's office, some of the cubicles had been converted over to Dechronozation Chambers. Various employees could work in a slow time capsule until their daily tasks were

finished, and then go home, and stay on call for the rest of the eight hour day. It was a good set up... for some of the employees. Despite showing Mr. Biggs how to slow down time, Edward wasn't among the staff that received the new cubicles.

#

It seemed as though nothing would ever stop Dechronozation LLC... until the bodies started showing up.

The deaths were always on the news and sensationalized.

Due to a power surge, a man named Jose Buendia spent a hundred years in solitude one afternoon. A lot of money was given to his family to keep it quiet, but the story still got out.

Another man died in a fire. Fire doubles in size every ninety seconds, and the five-minute door lock delay and an errant candle turned the Dechronozation Chamber into a Dechronocrematorium. Afterword the company recommended wax burners instead of scented candles.

A few people had heart attacks and if the paramedics were able to get to them sooner they may have survived.

Soon you had to sign waivers. Time was apparently not only a precious commodity but a dangerous one.

These incidents were few and far between, . Millions of people had used Dechronozation Chambers, and less than a hundred had died as a direct result.

The bigger problem was a study that revealed people who used Dechronozation Chambers heavily were dying at younger ages. The study did not offer a reason why, and only suggested that the contraption was somehow killing people prematurely.

Apparently, the obvious reason was so obvious that people either ignored it or forgot it in their fear of death. People aged inside the Dechronozation Chamber according to their observed time, while the outside world aged in real-time.

Some politicians ignored this fact and pegged their aspirations on fear and the slowly growing body count. Seven years after the Dechronozation Chamber was invented, they became illegal.

#

A government official came to Edward's house to oversee the removal of his old Model A Deluxe Chamber that he had spent nearly fifteen years inside over less than six nonconsecutive months.

"Look, man," said the official. "I don't really care what you do in your own home, but these things are dangerous, we are removing it for your own good."

Edward didn't say anything, as he handed over the check for the removal, for which legally he had to pay.

"Think of it this way," said the official. "Benjamin Franklin put it best when he said: 'Early to bed and early to rise makes a man healthy wealthy and wise.'"

Edward's response to the official earned him another fine.

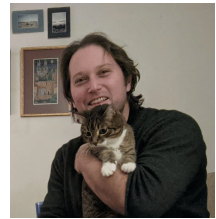
Living Graffiti

DAMIR SALKOVIC

The hold of the troopship stank of old sweat and machine grease, and now someone had been sick on top of it, the pungent smell of vomit contributing to the general miasma.

Elena leaned against the bulkhead and closed her eyes, focusing on the vibrations she felt through the back of her helmet: the steady thundering of the engines, the rush of waves as the ship rode the swells, footsteps clattering across a gangway in the depths of the vessel. No explosions yet — which meant the drone controllers had done their job right for once. This was her third landing by sea, but she had prepared with the diligence of a greenhorn, memorizing the tactical maps, putting in the mandatory twenty hours a week in the suit. Fear and rigorous training kept you alive. Complacency killed faster than bombs or bullets.

The war had begun when she was still a small child, and showed no signs of coming to an end. Her memories of it blended together until they became indistinguishable from each other, a succession of fragmented images without context or meaning. War was endless stretches of boredom punctuated by chaotic violence and pure mind-numbing terror. It was gunfire and the rumble of heavy artillery, but almost always in the distance, background noise to whatever was happening around her. Marching, resting for the night, breaking up camp, marching again. Chasing an enemy that could kill from miles away, and killing them in turn. War was the blinking HUD icons overlaid on the blasted hellscape she traversed, and the sweat and discomfort of her armored Guardian, and



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*homepage can be
found here.*

the constant tension in the pit of her stomach that only grew worse between firefights, in the false lull of the battlefield.

Sometimes Elena imagined the war as a chess game, played by the drones and the armored suits, the satellites and the military AIs. A meticulous mechanical conflict grinding on toward some objective beyond human comprehension. The people inside the machines — the soldiers, the builders, the maintenance corps — were no more than fleshy accessories, vulnerable and increasingly becoming obsolete.

The disembarkation klaxon blared, snapping Elena out of her reverie. A shudder passed through the bowels of the troopship, the clamor of orders reverberating off the metal ceiling, followed by the familiar whine of exoskeleton servos. Elena shrugged her suit upright and felt its systems take over, circuitry coming online, hydraulics pressurizing: all around her, war golems were coming to life, girding their loins for battle.

When they rounded the breakwater walls and the craft's engines reversed for landing, the tension in the hot, airless hold was thick enough to cut with a knife.

The reinforced doors slammed open and the first wave of Guardians clattered outside, preprogrammed battle plans guiding them in lockstep, an inhumanly straight line of gray-black armor advancing across the empty docks. Elena's display filled with entrenchment quadrants, possible incursion angles, firing vectors. She would disembark in the last wave, a nod to her battlefield experience and to Command's commitment to keep the casualties among seasoned veterans down to a statistically acceptable level.

One by one, the troops emerged into the paltry winter sunlight. Elena felt her heart rate pick up as combat stimulants flooded her system, her audiovisual augments scanning the ugly gray blocks of the incoming harbor for incoming danger. But she could hear no explosions or small arms fire, and the automated batteries on the troopship's gun deck remained silent.

Up ahead, the first wave was already clambering over the abandoned barricades, vanishing into the angular shadows of the harbor buildings. Elena plugged into the feed from the

surveillance drones, saw the other troopships converging on the beachhead, her comrades pushing into the city. There was no sign of the enemy. Either the defenders had fled their positions, or were hiding in the residential areas, digging themselves in for a bloody and protracted final battle. They would have scattered deadly surprises behind them: motion-activated ordnance bots, landmines, or even simple booby traps of gasoline cans rigged to a simple detonator. Elena knew from experience that a sweep could be more dangerous than an open firefight, that there was no predicting how the civilian populace would react to the invaders, how many saboteurs and assassins mingled in its ranks.

Broken glass and rubble crunched under armored boots. Elena's squad split up into threes as they followed the radial streets, heading from the harbor into the business district. Here the damage from the bombing sweeps was more evident — craters in the asphalt, holes in the sides of buildings, not a single window intact. On her map, she could see the different sections of the city laid out in real-time drone feeds, gunships thundering in from the mainland, the Guardian strikeforce creeping in like a slow but relentless tide. It was an old place and its seams were apparent, the fault lines where past centuries rubbed up against the present: winding alleys converging on highways, modern structures wedged between brick and cement ones. Many of them now lay intermingled, pounded into shapeless ruin, another toppled signpost on a road that led nowhere, a war dragging on into infinity.

The street wended between the ruined towers before taking a steep downhill turn, where a firebombed housing block displayed its spilled innards like an animal gutted and hung out to dry. Elena studied the map overlaid on her visor, signaling her two squadmates to halt as she processed the forward intelligence report.

Something was wrong. The feeds still reported no fighting, but several units in the advance battle group had gone dark. There had been no response for almost sixty seconds, yet their vitals were uninterrupted and their suit sensors showed no damage. All sensors on high alert, Elena flicked through the

BattleNet, listening to commands coursing through the relays. Drone cameras showed only more empty streets. Intelligence was urging caution. It wouldn't be the first time the enemy had retreated to clear the line of fire, or deploy some unknown, devastating weapon.

Two icons blinked in her vision, directly ahead, somewhere inside the ruined structure. Two guardians, all systems green, but frozen in place, unresponsive. Elena pinged them with a status check. Got only silence in return, the barely audible background hiss of the network.

Her indecision only lasted a moment. Then she was running up the street, toward the collapsed building, into the shadows.

Warnings exploded in her peripherals, in her ears, but she ignored them, all attention focused on the dark space ahead. Infrared slid over her faceplate as she crossed the line of daylight, pockmarked walls closing to shut out the light. Elena dredged up the building's floor plan from the BattleNet, slowed down to an amble. She switched her handcannon to single fire as she studied the grainy, low-res visuals for hidden obstacles.

It had been an office building of some sort — multiple hallways branching out from a vast, cathedral-sized entrance hall, with almost as many levels below as above the ground. The front section had collapsed into a pile of concrete, rebar sticking out at odd angles, but the deeper interior was more or less preserved. Thermal imaging showed only Elena's own signature and those of the two bodies further inside. Soldiers, she chastened herself. She should not think of them as bodies, not yet.

At the end of a long corridor, the walls spread out into an inner courtyard, pale sunlight slanting in. Elena felt her heart rate spike before her suit sensors caught on. She could see the two suits standing motionless in the open space, both showing as operational, but neither returning her pings. Had the soldiers inside been rendered unconscious, or was this some sort of trap?

Elena paused to subvocalize a message to the two Guardians waiting outside the building. *Visual confirmed on two*

friendlies. Moving in. Hold your positions. Carefully, she stepped out of the darkness, sweeping the courtyard with her targeting circles.

Helmet lights shone on a pair of expressionless faces, mouths open, eyes staring upward. Strapped to the exoskeletons, the soldiers' limbs were slack, their shoulders sagging. But there was no trace of damage on either suit, and the men inside were breathing, their vitals normal. It looked like they were unconscious, or catatonic.

Moving to the front, skin tingling with the anticipated attack, Elena ran her atmospheric gauges. The air in the courtyard showed no presence of toxins or unfamiliar chemicals, the filters reporting the usual combination of gasses. Nothing to indicate what had happened here. Nothing except those empty faces, those wide, sightless eyes.

Turning slowly, Elena followed the direction of their stares.

Her breath stopped for a moment. She blinked, lowered her visor to let her natural sight adjust.

A mural was painted on the wall in front of her. At least ten feet tall, an abstract composition of circles and other geometrical shapes, bursting with bright colors. In spite of the heavy damage to the underlying structure, the artwork — it had to be an artwork — was itself untouched, the pigments thick and vivid, the lines and curves twisting around one another, drawing the viewer's eyes toward the center of the image. Elena's mind threw up an impression of flickering flames and lush vegetation, although none of the painting's elements could be said to portray either. It was as if a message had been written into the composition, a text in a language she could not understand, but one that her deeper subconscious recognized instantly.

Someone had tried to cover up the devastation with beauty, she thought. To breathe life and hope into the bleakness of the blast zone. But whose eyes would see the mural in this hidden nook, tucked away as it was from the street? The ruin was surely uninhabited, useless as shelter, and it was unlikely that anyone would wander in by sheer chance.

So what had drawn the soldiers inside?

Fascinated, Elena took a step closer, switching on her shoulder lights for a better look. The smooth, glossy surface seemed to absorb the beams: the colors were incredibly rich, luxuriant, like they had been applied in layer after layer. At the same time, the lines were clear, with no trace of smudging and smearing that she could notice. Nothing could be more different from the crude, obscene spray-painted messages she had seen in other urban combat zones. Sinuous and complex, it was impossible to tell where one form began and the previous one ended, a calligraphy that spoke to some deep part of her, plucking out sights and sounds and memories she had not perused in years. If she got closer, even closer, she could almost—

Like a kaleidoscope, the drawing turned itself inside out, a huge movement spreading through the mural, taking in the rest of the courtyard, the bullet-riddled walls and the ground under her feet. Elena gasped, but was unable to tear her gaze away from the dizzying swirl. It was no longer on the wall, the dim realization came to her: it had invaded her helmet, her display, filling the confines of her skull. The petals of the geometric flower furled back, revealing the darkness at its center, latching onto her, pulling her in. Elena tried to move, to run, but her body was a thousand miles away, as inert as the pile of cerametal and circuitry and shockproof glass encasing it. Her scream reverberated through the dead space inside her mind, but never got out of her mouth. The darkness spun out of the pattern, enveloping her, eroding her consciousness until there was nothing left.

#

The medic was shining a penlight into her eyes. His face was a flat dark oval against the backdrop of the tent.

"Everything looks normal," he said, turning the light off and tucking it into his breast pocket. "Just like the others. No apparent disruption of reflex function. I ran the autoscanner, just to be on the safe side. Your brain and nervous system were not affected."

Leaning away, he held up his tablet to show Elena the results of her checkup. "You're cleared for duty. But I would like

to see you again." The meaning of his own words seemed to catch up with him and he lowered his eyes. "For observations," he hurried to add, slightly flustered. "The fact remains that we have no clue what happened to you. Any of you. So we have orders to keep an eye on you for a few days."

Elena sat up carefully. There were salt tracks of tears on her cheeks, but she felt fine. Better than fine — as if emerging from a long and nourishing sleep. "How many of us had the same reaction?"

"Almost twenty in our battalion alone," the medic said, looking uncomfortable. He was a little older than Elena, scruffy and tired. The tag pinned to his uniform identified him as Lehtinen. "Probably more. We've been warned not to talk about it, except with Intel. So it's hard to know for sure. But you're not the first one I've treated, not by a long shot."

Through the slight fog of standard-issue chemical stabilizers, Elena struggled to reclaim her dream. She recalled being home with the loved ones she had not seen in years; the war was over, and they were gathered together, talking and laughing. Waking up had been a cold, cruel shock. "What do you think it was?" she asked the medic, who was preparing a prescription for her, counting pills under his breath.

"My money would be the graffiti," he said, handing her a small plastic bottle. "It's the only common thread in all cases. But if Intel knows how they work, they're not letting on. The official line is that it's some kind of nerve toxin in the pigments. Get too close, and you get knocked out."

"It's not. My filter readings were all clear."

Lehtinen tapped his lips with a forefinger. "Speculation is not encouraged," he said. "It's above my paygrade anyway. Yours too. Take the pills once a day and let me know if you feel anything different."

"I'm fine right now," Elena said, meaning it.

"That's what you're all saying." Lehtinen looked troubled. "But take it easy for the next few days. Until we know how the paintings work, it's better to take no chances."

Elena swung her feet down to the floor, stood up, and stretched: even her muscles felt more supple, her old wounds

no longer aching, the chafing from her exoskeleton faded to an itch. "How bad was the fighting?" she asked, rolling her neck. "Looks like I missed out on all the action."

The medic shook his head. "The first drone wave took out a few automated point-defense decks," he said. "But that was it. We didn't encounter any resistance." She could tell that this was disturbing to him, probably more so than any amount of blood and torn limbs and torsos shredded open by flechette fire. "The whole city is empty," he said.

#

But Lehtinen turned out to be wrong. It wasn't.

Three days into the occupation, patrols started reporting encounters with civilians. People crawled out of the ruins of the industrial district and the less damaged housing blocks to the north and east of the city: dirty and a little worse for wear, but generally in good health, they kept to themselves and avoided contact with the soldiers. Seemingly overnight, camps had sprouted in abandoned buildings, providing shelter to those in need of it, sharing salvaged food and clothing. Drone footage showed convoys of hardy men and women carting supplies to distribution centers, where busy volunteers assigned and packed them off to local relief points.

By the fourth day, the scale and organization of the effort were apparent. The operation resembled nothing as much as a human-sized anthill, communicating through some mysterious process that evaded all attempts at surveillance. Like the cells of a great single organism awakened after a long sleep, the survivors were rolling up their sleeves and going to work. Old grandmothers knitted blankets alongside strapping youths hauling hundreds of pounds of supplies in hand-pulled carts. Children and middle-aged matrons picked through the dirt under the ruins, revealing carefully concealed gardens. Near the harbor, the suit patrols detained a large group of men carrying pickaxes, intent on creating a crude irrigation system to bring water from the damaged desalination plant.

When stopped and questioned by the soldiers, all civvies gave more or less the same vague answer. The city had been taken and retaken so many times they no longer knew which side of the frontlines they were on. They had no weapons, not even to defend themselves, and they knew nothing about the movement of armies. Shock teams descended into their underground shelters and found no evidence of concealed insurgents, or supply caches, or stockpiled explosives. Autonomous robots combed through the vast maze of sewers and tunnels under the city's streets, with similar results. Everything pointed to the civvies telling the truth. If any hostiles had been stationed here, they were long gone.

Out on her rounds near to forward base, Elena saw the civvies everywhere, a blur of near-constant motion and industry. At first their actions seemed random, but soon the pattern became apparent: the gardens were arranged along unobstructed streets to facilitate transportation, the burned-out vehicles and building interiors meticulously stripped of every inch of wire and cable. Command had initially posted strict warnings against looting, until someone had done the math and realized the extent of the effort required to police a city of such size. Besides, the civvies seemed to be doing a good job taking care of themselves. What could not be consumed or stored was immediately put to use, building jury-rigged air and water scrubbers, heating units, and electrical cells that provided a faint, but steady output. Where solid roofs were not available, temporary housing shelters went up in a matter of hours — warehouse tents and ConnEx shipping containers with chemical latrines.

In an attempt to establish good relations with the locals, the army's engineering corps had offered to repair the water supply to the inhabited areas. Soon mixed labor brigades could be seen on every corner, soldiers and civilians working shoulder to shoulder, digging, lifting, and replacing pipes. Silent streets filled with the noise of their labor and camaraderie. Chatter, laughter, songs sung in mutually incomprehensible languages: sounds from a different time, different world, as distant from the war zone as anything could be.

Whatever the outcome, Elena would not be around to see it. Military 'casts already spoke of another offensive, a new front-line forming deeper inland. Another pivot dictated by politics, or money, or a government forever in search of a new foe to fight. Her Guardian platoon would be on the move in a week, two at most, after AI-directed bombardment softened the enemy defenses. This city and its defiant community, the mystery she sensed humming beneath her feet, would become just another icon on the tactical maps, and then not even that.

Rigged out in her suit, she strode along what had once been a bustling boulevard, the blackened fronts of buildings revealing the remains of a cafe here, the shattered hole of a shop-front there. The Guardians moved in their customary formation, two per quadrant, electronically linked to the other patrolling pairs, monitoring footage from the sleepless airborne eyes.

With no insurgents to hunt down, no crimes to police, their duty was loosely defined as law enforcement, although Elena was yet to encounter a situation in which she would have to intervene. Instead of relaxing, the stillness was disquieting: it felt unnatural in a place that only recently had seen such destruction. Her suit was designed to read her brainwaves and body chemistry, to make subtle adjustments that kept her focus unwavering, her combat readiness high. But it had no answer to the questions that were starting to nag at her, no solution to the growing blankness at the center of the big picture, her rising doubts.

Half an hour into her patrol, BattleNet piped up. One of the Guardians two blocks over had gone silent. Elena's neuromesh switched to the drone feed, her eyes never leaving the devastated buildings around her.

"Shit." Jossar, Elena's patrol partner, had apparently reached the same conclusion she had. "We're the closest unit. Wanna bet we're the ones who get to check it out?"

Elena sent a query to the suit, received a response almost instantly. "What does that look like to you?" she asked Jossar, switching to a direct channel.

"Makes no goddamn sense," Jossar said. "Could be a glitch in his gear. Some kind of malfunction."

"Eyes," Elena called out to BattleNet, her leg struts already thrumming with power, the cracked asphalt disappearing under her shockproof feet. The nearest communication node obliged, spreading a live feed of the sector across the right corner of her vision. She could see the Guardian as an icon, then an image, before the aerial image pixelated beyond recognition.

"It looks undamaged," she subvocalized to Jossar as they swung round a street corner, targeting circles dancing along the pitted facades. "But I'm not getting any vitals."

Jossar didn't respond immediately. "There's only one way that can happen."

The Guardian came into view, standing just inside the entryway to an apartment building. An empty exoskeleton propped in front of a cavernous darkness, like a sentry. BattleNet identified the missing squaddie as Dunn. There was no sign of blood, no trace of a struggle. Ghostly visuals tracked across the inside of the faceplate.

Her mind raced as she tried to process the implications. Abandoning a Guardian inside a combat zone was a punishable offense. Maybe Dunn had been incapacitated without a shot fired and taken prisoner. Or he'd gone rogue, in which case they could be walking into a dangerous situation.

"Gone," Jossar said. "Can we pick up his chip signature?"

Elena waited for the node to process the request. Time wound back and she saw the signature trail disappear into the dead building. Then it moved out of range and dissolved to nothing. "He's inside," she said. "We have to secure his Guardian unit. Any other objectives are secondary."

"If he gets away--"

"He's not getting away," Elena said, undoing her straps and safety belts. "That's why you're staying out here, and I'm going after him."

"Those are not our orders."

"The situation just changed." Removing her helmet, Elena slid out of her exoskeleton's embrace. Took a deep breath, smelling ashes and the distant sea. "I'm making a judgment call, and you'll do as you're told. Unless you'd prefer to switch places."

She couldn't hear Jossar's response, but his facial expression spoke louder than words. Turning away, she walked past the empty suit, the building swallowing her like a gaping mouth.

#

Naked and vulnerable. That's how Elena felt as she moved through the debris-cluttered interior, away from the sunlight, without the protective carapace of her Guardian. Nothing but a jumpsuit and a pair of thin shoes on her feet, a cerametal blade on her belt as her only protection.

Deaf and blind as well without the BattleNet's many ears and eyes, relying only on her visual augments to break down and digest the lightless space around her, to warn her of approaching threats. Operating on instinct as much as sensory feedback, she pressed on into the sunken chambers, feeling like she was being sealed into a tomb.

Thick walls threw back her footsteps at her, magnified the smallest noise. Jossar's voice crackled over her implant, a thin line tethering her to the daylight. "... against protocol," it said, sounding even more peevish than usual. "Command wants you back, and pronto. Otherwise we're both in deep shit over this little excursion of yours."

"Standard op." Even her subvocals sounded loud, a whisper carrying along the room's boundaries. "Call it a rescue, or a retrieval. The 'ware in Dunn's head alone has to be worth more than you and I make in a year. Can't let that fall into the enemy's hands."

"That's not going to fly when we're hauled before a court-martial."

"Let's worry about that later." A noise from the shadows fired up Elena's reflexes, but it was too small to be human. "Right now I need you to be my eyes, Jos. Where was the last ping on Dunn's chip?"

"Thirty paces along the right wall," came the reply. "Should be a door, and behind it stairs to the basement. That's what the old floor plans show, but it could have caved in. Might be better to come out and wait for backup."

"No time to wait." Elena's augments gave her a limited degree of infrared. She scanned the ruined atrium for blood spatter, or a heat signature, but found none. Dunn didn't appear to be bleeding. At least he wouldn't be until she caught up with him. "He's got a head start, but he's blind, and I've got you. I think I can get to him before he gets himself into bad trouble."

"Or you could be running into an ambush."

Elena had considered this, but the explanation somehow did not fit. She tried several doors before she found an unobstructed staircase leading down. In her suit, she could fling fallen cement blocks around like papier-mâché. In the flesh, it was an entirely different proposition. "Will this get me there?"

Jossar's voice wavered, meters of thick concrete absorbing the signal. "... a garage. If you don't get eyes on Dunn right away, get your ass back up here. Too many variables."

Sliding the blade from its sheath, Elena crept down the steps, feeling along the rail with her free hand. It was almost completely dark this far in, and her wetware could only render her surroundings in blurry outlines. Rubble under her soles told her that she'd reached the bottom of the staircase. She groped for the release bar on the door, pushed through as it swung into a boundless open space.

Jossar was gone from her subaurals, but she had her eyes back: between fallen concrete blocks, a track had been laid down in bioluminescent strips, emitting a faint yellow-green glow. A figure could be seen at the very end of the light, racing into the darkness. Tall and square-shouldered, clad in a jumpsuit identical to her own. Moving as silently as she could, Elena set off in pursuit.

Small claws scabbled unseen as she plunged along the track. Her aural enhancements picked up a second set of footsteps under Dunn's hurrying ones: an enemy extraction team, perhaps, moving toward the rendezvous point. Once again she was reminded of the danger down here. But she was committed now, with nowhere else to go.

A brighter light floated in the distance, blinking in the haldal dark like a beacon. Ahead of her, Dunn, who had vanished

from sight for a moment, rose out of the black nothing, heading directly for the signal. Instinctively Elena reached for her blade. But he wouldn't be able to see her, even if he turned round, not with his pupils adjusting to the illumination. Near-blinded, he was staggering toward the light which had stopped moving and appeared to be waiting for him.

Briefly, Elena considered negotiating, or trying to persuade the fugitive to surrender. But Dunn was larger and stronger than her, and she couldn't know how many others were waiting behind the light, probably armed to the teeth. Staying unobserved was her only advantage, and she wasn't about to give it up until the last possible moment.

He must have heard her feet on the concrete because he half-turned, but Elena already had momentum on her side, and he was unbalanced by the dark. She tackled him hard, shoulder to midriff, rolling over him as he went down. His heavy fists swung a split second too late, finding only empty air. By the time he got his wind back, Elena already had him in a hold, the blade at his throat, his jugular thudding under her fingers.

The light grew brighter, spilled over them, two human forms caught in a tableau of violence and destruction.

"Back." Elena wasn't sure how far the invisible newcomers were prepared to go, or why they were here. The possibility that she might have misread the situation flashed through her mind. Maybe there was no sinister intent at play, only a shell-shocked soldier and a band of wartime scavengers who happened to find themselves in the same place. But there was no going back. She shifted slightly to make sure the blade was visible. "Stay back. Or I'll cut his throat open. Lay down your weapons."

"They don't have any," Dunn croaked in her arms. When she released the pressure on his windpipe, he raised his arms slowly. Not to defend himself, but to ward off the unseen arrivals. "No one here is a threat to you, soldier. Let me go."

Elena's only response was to add pressure to the blade. The skin of Dunn's throat parted under the cerametal edge, a thin red thread trickling down to his chest. He gasped, but made no attempt to resist her.

"If you want to kill me," he said, "I won't stop you. They won't either. Enough have shed blood already. For my own part, I'm sick of spilling it. Sick of taking life. Aren't you?"

Elena was only half listening to him. Her attention was focused on the shadows behind the light. Two or three of them, their stances and breathing indicating neither fear, nor aggression. "How enlightened of you," she said into Dunn's ear. "If you don't want to see blood spilled, tell your friends to put their weapons down and back off. Or you'll leave me no choice."

Dunn made a coarse rasping sound. A chuckle, she realized. "Come out into the light," he said. "Let her see you. Let her see we mean no harm."

Two men and a woman stepped forward. Elena's breath stopped. All three were dressed in cast-off civvie clothes, but she could easily make out the barcodes and markings tattooed on their cheeks and hands. One of the men belonged to her own battle group. The other man and the woman were enemy soldiers. Her grip tightened on the knife.

"Hostiles," she spat at Dunn. "Still trying to tell me this isn't a trap?"

"There are no hostiles here," came the reply. "I can explain, if you let me go."

Understanding rushed through Elena's mind like a cold tide. "Deserters, then. Traitors. So this is what you came here for."

"Cut the network propaganda crap," the woman said. In her hands was a small rectangular object, some sort of metal box. Elena tensed, but the item did not look like a weapon. "We're part of something bigger here. You can be part of it too, if you wish. But not if you insist on being a brainwashed tool."

Elena calculated angles, distances, probabilities. She estimated she could take out at least two of the hostiles after eliminating Dunn: all three, with a little luck. But the deserters' fearless attitude unnerved her. "Save your breath," she said. "We don't negotiate with traitors. Especially not our own."

In response, the woman bent down and placed the box on the rubble-strewn floor.

"Then seek us out when you're ready to listen."

Some part of Elena realized what was about to happen. She rolled off Dunn, the blade thrust out for protection, her other hand covering her eyes. Fast, but not fast enough. The hologram blossomed in the subterranean darkness, engulfing her entire field of vision. Spinning out of the cube and into her head, immense and inescapable, dissolving her consciousness like acid. It was beautiful, but the beauty was terrible, consuming and erasing everything in its path. Elena felt the universe tilt on its axis: for an infinitesimal moment she was weightless, suspended over an abyss of oblivion, but then she plummeted down like a rock.

Hard ground underneath her, harsh lights shining in her eyes.

Groaning, Elena raised herself on one elbow, put up one hand to shield her eyes. The hulking shapes of two Guardians loomed over her, floodlights and targeting sights scything through the darkness. Dunn was gone and the deserters were gone with him. They had taken the box.

#

"It's an encoded message," the intelligence officer said. He was young and earnest-looking, with bright, sharp eyes. Not at all like the cadaverous starched-collar bureaucrats Elena was accustomed to seeing in the role. "We're not sure how it works yet. But our best researchers are on the job. We've taken down at least a hundred of these murals all over the city. Now you're telling me the saboteurs have figured out a way to package them in a hologram format. That's troubling news."

Elena rubbed the back of her neck, feeling like she was being interrogated, rather than debriefed. "Will I be able to resume full duty?"

"Do you want to?"

There was a trap in the officer's question, even though his tone remained casual. Elena raised her gaze to the young man's face again. What she'd mistaken for ardor was zealotry, the light in his eyes not shrewdness, but blind dedication to a cause. Put on guard, Elena decided to stall for time.

"Those are the facts. Exactly how they happened. Am I under suspicion of something?"

The officer tutted dismissively. "You have been missing your scheduled evaluations," he said, skimming his tablet. "Already two missed appointments. Can you explain?"

He'd ignored her question, Elena realized. "There's a war going on," she said, hoping she sounded convincing. "There aren't enough of us to cover a city of this size. We're all pulling extra hours on patrol duty. It isn't easy to find the time for check-ups."

"Right." The officer's expression was carefully neutral, but Elena could tell she'd hit a nerve, even if she didn't know why. "How do you feel about the war effort? Do you still believe that our cause is just, soldier? Or are doubts starting to creep in?"

Elena's mind reeled from the pivot in questioning. Could the officer know about the dreams she'd been having, the surges of memory she'd been experiencing? She had not spoken a word to anyone, but she'd forgotten that she was not alone in her head, with her wetware tracking her body chemistry, monitoring her brainwaves. Sweat stuck her uniform to the skin between her shoulderblades.

There were other changes taking place, ones she couldn't ignore. Her few weeks of relative peace in this strange, ruined city had awakened old memories, recollections of times before the neverending war swallowed up her future. Faces, places, fragments of events that held a special significance to her alone, now all swallowed by the fires of the conflict.

Elena tried to fight them, and so did her suit. Empathy and nostalgia had no place on a killing field, they dulled the keen edge of experience and skill and nerve. Thoughts of this sort were worse than unpatriotic — they were downright treasonous. But no matter what defenses she put up during the day, her dreams only grew more vivid, the emotions more intense. Her Guardian no longer felt like an extension of her own bones and sinews and nerve endings: it weighed down like a metal trap, an infernal device capable only of wreaking havoc and destruction, an instrument of devastating force capable of

tearing down in seconds what had taken decades of planning an ingenuity to build.

Without thinking, she reached into her pocket, squeezed the empty metal ampoule she'd found in the underground garage.

"The enemy is at breaking point," she heard herself say, as if at a distance. "This offensive could be crucial to our ultimate victory. I have taken an oath to see it through to the end."

Her reply seemed to please the intelligence cadre. He put away his tablet with a faint smile. "Good," he said. "I've reviewed your file, soldier. Nothing but meritorious conduct on and off the battlefield. A true warrior and patriot. I wish more of your comrades were the same way."

"There were others who deserted? Not just Dunn?"

A shadow flickered across the cadre's face, a sure sign that he'd slipped up, let his mouth run away with him.

"No more than usual," he said, a little too quickly, averting his eyes. Fumbling with his tablet, he stood up, indicating that their conversation was over. "It isn't anything to be alarmed about. You saw it yourself. Private First Class Dunn was working with the enemy. He chose his own path. He will be found and made an example of."

"Does it have to do with the murals?" Elena asked, staring right through the officer's angry glare. "They're not just street art, are they?"

"Above your clearance level, soldier." His voice was now stern, a warning. "Rest assured, we'll find out what's going on. We always do."

#

A market of sorts had sprung up in one of the central squares, selling everything from old clothes to meals in self-heating pouches to tiny circuitry stripped from damaged drones. Elena moved through the crowd, invisible in nondescript clothing, her dataglasses scanning under her hood. Guardians roamed the edges of the square, their metal exoskeletons reflecting the meager sunlight, handcannons idle under their great metallic arms. She knew that she stood out in their visors, the biochip embed-

ded in her cervical vertebrae distinguishing her from the press of bodies: but if any of them wondered what one of their own was doing here on her day off, instead of getting fall-down drunk in one of the bars on base, they kept their interest to themselves.

Sunshine and the smell of the sea, the nearness of human chatter and laughter, the smell of food cooking in the stalls. As far as Elena could tell, the transactions here did not involve money, or scrip transfers, or even barter. Buyers exchanged goods with sellers with no apparent concern for respective values; she saw others who simply helped themselves to what they needed without offering anything in exchange. Just like with the food handouts and the building of shelters, people seemed to come together spontaneously, or guided by some secret grapevine, putting in the work without complaint, giving away valuables without greed or rancor. The situation put Elena on edge. It hinted at some higher organization at work behind the scenes. But the locals met all questions with blank-eyed confusion, either genuine or feigned, and the army's intelligence units were faring no better. If she wanted answers, she would have to find them herself.

She saw Lehtinen enter the marketplace from one of the side alleys, moving with purpose, but not quickly enough to attract attention. Hands in his pockets and hood pulled up to evade the facial scanners. Like Elena, he was hiding, but not so well that he would not have an excuse if he was stopped and questioned. Elena's heartbeat was steady, her breathing only slightly elevated as she slipped into step behind him, surreptitiously checking the machine pistol under her coat.

Shadows swarmed around her as she ducked into a row of duraplast stalls, drawing glances from the traders. The medic was walking faster now, weaving between people and obstacles, clearly familiar with the area. For a moment, Elena missed her smart targeting systems and the situational guidance from the AIs. But enlisting their help would have been too risky, and she would probably have found herself sidelined by Intel. If she was wrong, no one would know about it. A queasy, tingling sensation in the pit of her stomach, a distant echo of her chemically boosted combat instinct, told her she probably wasn't.

Lehtinen was under a concrete doorway, speaking to a thin woman in a jacket several sizes too large. They blended into their surroundings, a vendor and a customer haggling over a display of wares. As Elena stepped out behind the medic, his companion's face flashed surprise and fear. Her gaze darted to the side, then to the blunt muzzle of the weapon protruding from under Elena's coat, as she realized there was nowhere to run.

"Turn around slowly," Elena said, keeping her voice low. "I want to see your hands. Both of you. Now."

They obliged. Lehtinen looked resigned, like he'd seen it coming. "How did you know?" he asked, clearly not expecting an answer.

Elena's free hand reached into her pocket, tossed the empty ampoule at him. "The deserter dropped it during our tussle," she said. "You'll recognize the label. It's a drug designed to suppress the suit's hormone protocols. For when you're damaged and have to bail out. Dunn couldn't have gotten it without help. It wasn't hard to scan the code and see who checked it out."

She spoke to Lehtinen, but kept her eyes on his contact. The thin woman didn't look like a threat. She looked about to wet her pants. Another damned civvie: what sort of operation was this?

"Careless." A wry smile creased the medic's face. "I've never done anything like this, you know. Never felt the need to. But there was no alternative. Someone has to help these people."

"What you think is none of my concern." Elena motioned with the pistol. "You'll be given the opportunity to explain yourself in court. Now get moving."

Lehtinen cleared his throat, glanced pointedly over Elena's shoulder. Too late, she realized what she'd failed to notice, used to relying on her suit's three-sixty vision. She spun round, finger on the trigger.

There were four of them, all four unarmed. Elena recognized the woman from the garage and the tall, broad-shouldered man standing to her left. Dunn. Stunned, she raised her pistol.

"Put your weapon away, soldier," the woman said.

Lehtinen reached into his pockets. Elena tensed to fire, but all he did was take out two ampoule boxes, handing them over to one of the thin woman's companions. Wide-spectrum antibiotics, synthetic coagulant, other medicines Elena did not recognize.

"We're leaving now," he said to Elena. "This doesn't have to end in violence."

"You're not going anywhere."

Behind the four arrivals, a wall of bodies had formed. Faces grim and resigned, hollowed out by war and want. No one made a threatening move, but their combined resolve hit Elena like a physical force. Even if she could bring herself to fire on these civilians, they would easily overwhelm her in the narrow alley, with no backup in sight.

The medic stepped between her and the crowd, raising his arms in a placating gesture. "I can take you to him," he said. "I can show you. Let you make up your own mind."

"Take me where?"

"To the man who paints the murals." Lehtinen's voice wavered, as if he were unsure of his ground. "You want to know what this is all about, don't you? Don't deny it. Otherwise this place would already be swarming with Guardians, and I'd have been arrested before I left camp."

"It's too dangerous," the thin woman said. "I won't allow it."

"It's not your choice," one of the others said, eliciting a murmur of approval. "It's hers. It has to be. That's the way things are now."

The woman scowled at the speaker, but held her tongue.

Lehtinen's eyes found Elena's. "Those are your choices," he said. "Walk away. Surrender your weapon and come with me. Or we'll have a bloodbath. None of us are armed. It's not our way. But you can't take us all out, and we're ready to defend ourselves. What will it be?"

Duty and curiosity fought in Elena's breast, but only for a moment. She could feel the gazes of the gathering pass through her, sapping her will. Clicking the safety on, she handed the machine pistol to Lehtinen and followed him down the alley.

The crowd parted to let her pass, then closed around her, hemming her in.

#

It would have made sense to blindfold her, or take some other precaution to prevent her from remembering the route they took through the ruins. But the group escorting her made no effort to conceal where they were going. Whatever the reason, Elena was thoroughly disoriented within minutes, the trek taking her through identical shattered courtyards and down tunnels that hid the sky and any memorable landmarks. The best she could tell, she was walking in a general westerly direction, which meant next to nothing in a city of this size.

Painted icons marked the way, smaller versions of the great murals whose very memory made her head spin with vertigo. The pattern of their distribution meant nothing to her, but her escorts read it like a secret language, guiding her through wrecked buildings and shadowy passageways without once having to backtrack. Gradually the fallen masonry opened up and the procession came to a halt. Elena found herself in another ruined plaza, sunlight streaming in through empty window casements in a high wall, the last standing part of a structure that had collapsed to rubble.

An elderly man with a kind face was standing at the base of the wall, speaking and pointing at a drawing in colored chalk: a stylized human figure inside a circle, dissected by straight lines to illustrate proportion and composition. His audience was a group of youths in paint-smeared clothes, seemingly so rapt that they gave no sign of noticing Elena and her guides. The old man — a teacher, she realized — rounded off a particularly animated speech with a sentence spoken in a low, mock-conspiratorial tone. Several of the girls present burst out laughing and a boy in the middle of the impromptu amphitheater turned a bright red.

The woman accompanying Elena gave an officious cough and the teacher looked up, eyes crinkling in a smile. Puffs of

chalk rose from his palms as he dismissed his students with a clap. He motioned for Elena to come closer.

"Human anatomy," he said, nodding at the drawing. Every square inch of his outfit was dusted or spattered or stained with color. "Always good for a laugh or two. There's something about naked bodies that turns young people into children. Thankfully, that bashful phase never lasts long."

Elena sat down on a concrete step, feeling awkward. To her surprise, her escorts were already wandering back the way they'd come, leaving her alone with this — leader didn't seem quite right, prophet sounded ludicrous. Maybe it was all a show put on for her benefit, another layer in an incomprehensible mystery.

"Your students seemed to enjoy it," she offered, studying the lined visage for a hint.

"Every smile I draw out from them is a blessing." The artist was still smiling, but his eyes darkened. "They have seen things no human being should see. Experienced death, hunger, terror. But the young are resilient."

He patted Elena's hand, which she retracted immediately. "You have seen this too, and much worse. I suppose that's why you sought me out."

"I didn't."

"Then how come you're here?"

How could she explain, when she didn't know herself? "The murals you painted," she said. "They bring out a change in the brain. Almost like a hypnotic state. How did you do that?"

The teacher nodded slowly. Elena couldn't tell if he was agreeing with her, or simply keeping time with some tune only he could hear. "It may be more helpful to ask," he said, after a long moment. "What did you feel when you saw them?"

Elena contemplated her response for a moment, settled on the truth. She remembered the terrifying sensation of falling into nothing. "I felt afraid," she said. "I felt lost. But then there were the dreams. Good dreams. I dreamed of home. Of my mother, and being outside in the springtime."

The teacher studied her through slitted eyes. "Did you want the dreams to stop?"

"I wanted them to go on forever," Elena said. "That's what you're doing, isn't it? This isn't a subversion, or a plot to demoralize the troops. You just make us remember. How it was before. How it could be again."

"Something like that," the artist said. "This war has gone on for far too long. We have all lost so much. So many. But life finds a way to propagate itself. Every wave of this senseless invasion brings death, but also an opportunity to replenish our numbers. There will always be those who want to stay. The special ones. For them, we create an escape into a new life."

"How many?"

"Enough to keep our numbers up." The old man tossed a piece of colored chalk from hand to hand. "Not enough to attract attention. Soldiers die and soldiers disappear. A few here and there make no difference to the war machine. Like your friend."

"You make it sound like it's our choice," Elena said, frowning. "But it isn't. It's yours. The murals do it to us."

The artist seemed about to debate the point, then changed his mind. "Before the war," he began. "Well. Not before the war, but before this latest escalation, I was a well-known name. If you'll forgive my immodesty. I toured the great cities on both sides of the frontline. Exhibited in the biggest galleries. The technique I painted in wasn't my invention, but the critics considered me one of its best known exponents."

With a wry grin, Elena pointed at her barcode tattoos. "Indenture contract at age twelve," she said. "They didn't teach art classes at tactical school."

"Synesthetic pigments." Long, elegant hands traced a shape in the air between them. "When interacted with — touched, or inhaled, or mixed with certain pheromones — they induce a sensory response that varies from viewer to viewer. Even for the same viewer at different exposures. Art is never experienced in the same way twice. But synesthetes took it a step further. We got into the viewer's mind and guided it where we wanted it to go. Audiences couldn't get enough of us."

"That must have been nice."

"It didn't last," the artist said. "Too many copycats, almost none of them any good. Even mass-printed pieces sold as

cheap pornography. People abused it, as they usually do with anything that makes money. The style fell out of favor."

He tapped his gray temple. "The pigments can't create what isn't already here. A synesthetic painter sketches a general outline of the emotion he wishes to evoke. Sadness, or calm, or rage, or erotic lust. The watcher's mind interprets it and populates the scene with its own details. That's what makes it meaningful. Without it, all you have is some fancy paint on a wall."

"So I'm right," Elena said. "You put these thoughts into our heads. Through your special pigments."

"At first we did," the artist said. "Later, all it took was ordinary spray paint. Some of my students even use simple chalk. Don't you see? Once the brain wants to remember, it keeps remembering."

Elena remembered. If she closed her eyes, she could clearly see her parents, the street they'd lived on, the small slice of life she'd been allowed to live before being bundled off by the enlistment transports. To train for a war that was already older than her parents and grandparents, vaster than anything else she knew in the world. It was most of what she'd experienced, almost all she knew.

Could she turn her back on her comrades, on her commanders, for nothing more than this distant memory, faded by the passage of time?

When she looked up, the artist was exactly where he had been a moment ago, wearing the same patient expression. Her machine pistol was at her feet. She picked it up and slid it into her bioholster. Tried to think of something to say and couldn't.

The old man merely nodded. If he felt any disappointment in Elena's unspoken decision, he didn't betray it. There would always be others like her, she realized. Bright murals would keep blossoming on the battlefields, whispering of a secret, gentler world to anyone willing to listen.

Elena walked out of the courtyard, into the bright midday sun. When she glanced back, all she could see was a geometric flower bursting impossibly from the ruins, petals quivering in an imaginary wind, as if to bid her farewell.

#

At the airfield, troop carriers sat with their enormous jaws hung open, showing rows of tightly-packed Guardians in their holds. Out of their suits, the soldiers traded jokes and playful punches, a nervous giddiness showing through their banter.

"It's on," a beaming officer said to Elena and her squadmates in passing. "The big push. With any luck, we'll be in the enemy capital before winter. Put those bastards in their place, right?"

Another line of razed towns, more bleak fields scorched by hypersonic missiles and suborbital bombardment. It had not meant anything before, and it wouldn't mean anything tomorrow. Because the war had to go on. Like any monstrous thing, it had to kill to keep moving, keep feeding.

It was a cloudy day, the sky a slate lid over the horizon. When Elena walked over to the airfield fence line, all she could see of the city were a few tumbledown blocks emerging from a curtain of light rain blown in from the sea. A vision presented itself: the artist at work amid the fallen towers, hands moving over his creation, white hair swirling in the shadows. Soon it would all be behind her, fading into the past. A memory, and then not even that.

Elena realized that she didn't want to fade with it. Perhaps the war would never end, or at least not in her lifetime. But she wanted to feel something, to make her mark somewhere. As monstrous and inane as the war machine may be, it had made her into what she was, defined her from the rest of the world. Accepting that it has all been meaningless felt like a negation of self, a fate worse than death.

Downblast scattered dust across her visor as the first squadron of troop carriers took off, tiltjet engines howling. Ponderously at first, then more smoothly, finding the air currents, picking up speed. Orders flashed in her peripherals: her battle group was next. Elena's Guardian took over before her brain could send the command to her limbs, marching across the tarmac, seamlessly falling in line behind the others. Familiar icons flared in her field of vision, chatter filling the communication channels. Elena felt a tightness release somewhere deep inside her. Perhaps there would be no going home. But she was already there.