

ESCAPE FROM SAMSARA

When everything you know
is burning, what remains?

Groucho Jones

ESCAPE FROM SAMSARA

Book One of The Spiral Tribe

Groucho Jones



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Paperback ISBN: 9798195361846

Hardcover ISBN: 9798197576866

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Protected by the Commutative, Associative, and Distributive Laws.
Thanks to the Bibbulmun people of the Noongar country of south-western
Australia, custodians of the beautiful land this code was written on.

For my son, Nick.

For the children. The future is theirs.

This book uses the gender-neutral pronouns ze / hir / hers for non-binary people.

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sonder n. the realization that each random passerby is living a life as vivid and complex as your own - populated with their own ambitions, friends, routines, worries and inherited craziness - an epic story that continues invisibly around you like an anthill sprawling deep underground, with elaborate passageways to thousands of other lives that you'll never know existed, in which you might appear only once, as an extra sipping coffee in the background, as a blur of traffic passing on the highway, as a lighted window at dusk.

THE DICTIONARY OF OBSCURE SORROWS

For us believing physicists, the distinction between past, present, and future is only a stubbornly persistent illusion.

ALBERT EINSTEIN

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PRELUDE

In the shadows of Jura on Fluxor, in the Orion Molecular Cloud, the girl unpacked her machines. It was a brisk day. Clouds chased each other over a milky horizon. A stiff wind was blowing down from the Freezer. Her machines were called strandbeests, meaning beach creatures, although she called them her Walkers. Their legs rose and fell like spindles and bobbins in sewing machines. One by one, they picked up their skirts and ran.

Beneath the tumbling sky, they seemed both mechanical and ethereal. Their jointed limbs traced geometric patterns in the sand. The wind caught their sails.

Nothing moved but Ke2 and her inventions, the clouds and the sea. This was a wild place; they were wild machines.

Her name was Ke2, Ke2 Gorgonza d Atwusk'niges, a citizen of the vertical forest of Fluxor, beneath the holy mountain Lhotse. This was her place in the great tree of life.

She grinned and set out to catch them. She was fast, but she had to give up the chase.

The beach she stood on was called the Skåligo bight, stretching for a thousand kilometers around the northernmost landmass, from the city of Jura to the vast polar wastes called the Freezer. To follow the shore, winding south through the Algoma'aa valley - the valley of flowers - was to walk five hundred kilometers home, to Atwusk'niges.

Here the milky-green ocean was speckled with pack-ice. It was never really warm in these parts of Fluxor.

Today was her sixteenth birthday, the day she became a woman. In theory, this meant putting away childish things. She had no intention of giving up these epic windmills of hers.

There were many paths for a young Pursang woman to take. She might be a soldier, like her father or siblings, but she had no interest in war and its brutality. She was the rustle of leaves in autumn. She was an artist.

Her dream was to take her Walkers throughout the human galaxy, wherever the astral winds might carry her. And she had a special destination in mind - a magical place, whispered in stories.

Splendour.

She had no idea how much it would cost her to go there.

1 → KAT ZAM

Kat Zam signed on as a cook on a rusting old hulk called the Seed King, which plied the empty trade routes between Fluxor and Zz. The rust was an illusion. Spacecraft don't rust, unless they're in an atmosphere. The ship's weathered appearance came from thermal expansion, micrometeoroid impacts, and the faded butterfly wings painted over its carbon titanium skin.

Kat was twenty-three, with unruly hair floating around her like fire in the weightless conditions. People called her Wild Kat for her appearance, although the name fit her temperament too. The ship was equally unconventional. In a human galaxy shaped by economics, it didn't appear to belong to anyone but itself, nor did it create any profits for anyone. A position aboard was a rite of passage for certain kinds of travelers.

Time here was measured in cycles. Days on Zz lasted 0.6 times as long as days on Fluxor, so the days were becoming shorter, like the lengthening shadows of autumn. This made Kat feel nocturnal. She roamed the ship's corridors in her pajamas, wrapped in a blanket. There was no one to stop her. The crew were like ghosts in the intimate spaces. Her companions were sleeping. Sometimes, she felt like a ghost herself.

On her third day aboard, she met the captain. Psych had drifted out of his quarters to surprise a somnambulant Kat floating past.

"Are you frightened of spiders?" ze'd said.

Kat blinked, raising an eyebrow. It was an odd question. Kat was a Pursang. She was frightened of nothing, except maybe the mottled blue cats that preyed on her people.

"Spiders?" she said.

She knew she must seem like a fool. The captain was like the god of this place. Kat was a deserter. A criminal. She had better be careful.

The captain invited her into his rooms, which were monastically plain, with a view of the ship through an exterior portal. Kat didn't know where to look, into the shimmering abyss or at her exotic commander.

She settled for looking at Psych's belongings. There were flasks of perfume, neatly folded clothes, and a shrine to a tusked god, garlanded with tiny indigo flowers. There were no shoes. Kat found this detail fascinating. What use were shoes, in this place?

Psych was a Wu, a non-binary, humanoid species related to humans, who lived in symbiosis with their ships. The skin at his temples flashed emerald green. Kat tried not to stare. Instead, she stared into the abyss.

Psych joined her.

"I need you to take care of some spiders," ze'd said.

The ship was like a glimmering factory. Space was refracting around them like photons in God's physics experiment.

"What do you mean?" Kat asked.

"I'll show you," said Psych.

2 → ZZ

The bass hit his chest before his ears understood it. First the heat - bodies, fog, ten thousand metabolisms burning in the thin air. The smell came next: sweat and ozone and something sweet he couldn't name. Laser lights sliced the dark. He was already inside it, already too late to repent.

The ringworld of Zz loomed like a silvery necklace, before disappearing in either direction, exquisite in the emptiness of space. It was the largest fabricated object in the human galaxy. Not that it was made by humans. Whoever had made it was forgotten now, lost in the depths of time.

Macro's companion was a young woman named Hope - a scrap of a girl, sharp-angled, hollow-bellied, the shape and size of a boy. She was dressed as a witch - which she was - in scraps of rags and animal skins. It was an artful costume, with every small tear in the fabric conveying some meaning that only witches could see.

He carried his cloven-skulled staff of office. This had the force of law in some places. He wished this was one of them.

They stood on the edge of a swimming pool that steamed in the cold. Beyond the pool, bodies cavorted, some naked, some dressed for the weather. Macro sensed the presence of psychedelics.

Hope frowned. "Noise."

Macro shrugged. "I've seen worse."

They were *devoured*.

The party was held in a series of bubbles - fields, perched like eggs on the edge of a mountain. Instant, smothering, air thick enough to bite - heat, fog, something chemical coating his tongue. Sweat - the drugs weren't optional here.

It was like crossing a vital threshold, an undoing of being born.
Bodies pressed close. Faces loomed and disappeared, mouths open, eyes rolled back, uttering things he couldn't hear.

The ground shook. Not a vibration - syncopation. The mountainside rising and falling, ten thousand bodies joining as one. His knees almost folded.

The music was simple. Four notes, then five. Layered, building on itself in patterns that felt mathematical, climbing and climbing again, never arriving, always ascending.

He could lose himself in the numbers as much as the chemicals in the air.

His vision swam.

He felt his skinsuit taking control.

Through their membrane he could see other membranes - hundreds of them, clustered along the cliff's edge. Some hanging over. Some in the process of floating away. Translucent, lit from within, each with its own pulsing light, swollen with bodies and heat.

Between them: rock. Void. The mountain rising into darkness, into the Ring's silvery horns.

How did this even happen?

The bass found his heartbeat, and *squeezed*.

War came to Zz - but not in the usual way. Some wars burn through space like a fire, leaving worlds destroyed. Others sweep past, high above. Some worlds are pieces. Others fall to irresistible forces - or their own side's retreat.

Sometimes, all those are true.

This war came as a trade negotiation. Macro feared he was bringing it here.

He was here in this rave as a guest. He wondered if he was the reason for it happening at all. He was here to meet Farmer Phi, a scion of the Holyfarmer religion.

Scion meant son - which implied the Holyfarmer religion was a patriarchy, not just an army in frocks.

Maybe they weren't so different, Macro and this Farmer Phi. Lofty protagonists, gazing down from on high. Their leaders probably read

the same math textbooks.

Hope was his ride, his way out of here if things went south. Who did Phi have here as backup?

Most likely a warship in orbit.

Phi was a woman, and naked, with fluorescent glyphs painted over her skin.

"Phi?"

She swatted at an invisible fly. "Yes?"

It was a rank provocation. Someone had measured his personality, his age, his sexual orientation, and this was their opening gambit. If they were like the Bank - which they were - then this observation might've gone on for years.

Since before he was born.

He wondered if he should feel flattered.

Or offended by how ham-fisted they were being.

Alternatively, the woman might be enjoying herself and didn't care about him at all. Her entourage did seem uneasy.

Hope was smirking - a child, seventeen. She wasn't the usual astropolitical wingman, but this wasn't the usual political confab. She was his off-ramp. As a Liminal Witch, she had access to the Xap instantaneous network. She could whisk him out of here to anywhere she remembered - across galaxies, if need be. Macro called her his Space Cadet.

"Ambassador?"

She shook her head, seeming to come to her senses. "Ah. You must be Macro."

He nodded.

"I am."

The bubble resembled a cloud forest. Scallops of mist hung between rainforest trees. Each bubble had a biome - desert, tundra, something that burned - figments of borrowed worlds.

Perhaps the other bubbles were alien biomes, pulsing with incomprehensible music, thick with unbreathable air.

Perhaps this is what the Ring-builders guessed humans were like. Feral. Cavorting.

If so, they were right.

Hope had found people her own age. They'd taught her a dance - batting an invisible ball into the air. Each time it came to her she squeaked with delight, audible only to Macro through his upversioned hearing.

The bassline pulsed. For a moment, he felt on the edge of an epiphany. Why was he here? What good could he do?

He felt himself leaning into it.

The idea of the Bank as a religion was a pose - a brand nurtured over thousands of years. It was meant to lend its operatives an air of authority, to tap into the faultline in the human psyche that required the divine. These dancers, these young people, these children - they moved in patterns that seemed weightless, unburdened by all the worries he carried.

Powered by sweat, bass, and the ruthless absence of thought - everything religions aspired to, used drugs to achieve.

War always started like this. With parties where young people danced while old men negotiated away their lives.

Not that Macro was so old. This year, he'd be thirty-two.

It seemed longer than that.

He followed Hope into the crowd.

He wasn't annoyed by her antics. He was resigned. She reminded him of himself at that age: scrawny, and ridiculous.

She would get into trouble, or get him into trouble, through her inexperience. And because she wasn't him.

He thought about warning her not to take any substances offered to her, then decided he didn't care. Let her enjoy herself. It wasn't his problem. She probably didn't get out much, being a witch.

He imagined her in the clutches of some oversexed teenager, or tumbling down the mountainside.

Some part of him liked the idea.

See if she flies.

Why am I encumbered with this child? he asked his evil twin, a military AI, programmed by the Bank with his personality but without any squeamishness.

She's your escape route.

Why do I need an escape? I never needed a wingman before.
Maybe she's here for herself?
What... so I'm her minder?
Maybe you are.
What do you know about it?
A virtual shrug.
More than I'm saying.
Macro thought about that.
She matters?
Everything matters.
More than me?
Seriously? This is about your ego?
Macro laughed.
Am I being used?
Of course. We're all being used.
Who by?
This time? The Liminal Witches.
And the Bank?
Of course. And the Thousand Worlds. The Magellanics. Maybe the
Zed.
I hate you, you know that.
You need me. I go places you can't.
Or won't.
Sure.

Now Phi was smirking as well. Maybe they both found him funny. He watched her dancing, sinuously, immersed in the rhythms. She seemed at home in this chaos.

He found himself trying to follow them both at the same time - Hope and Phi - dodging revelers, stepping over half-conscious dancers. It felt like there was a joke he was missing, a critical layer of subtext. His instincts were usually good in these situations. He supposed that was the point of the game - to disorient him. To make him think the woman was sober and messing with his mind.

Maybe the party really was for his benefit - a *setpiece*.

Phi reached out to pull him into the crowd. Her touch was like an electric prod on his arm. Was she mocking him? High? Was this part of the game?

He consulted his wetware.

Nah, just give her a moment.

Phi was older than he was - biologically, in her forties. But age meant little in a cosmos of germline edits. She'd risen high in a masculine order. She might be a thousand years old. That made her dangerous.

She was also alluring.

Perhaps their game was on point after all.

He reminded himself to ignore it.

Now he was lost, swimming through the press of bodies, laser lights sparking and shattering. Maybe there really were drugs in the air.

He remembered the last time - the only time - he'd experienced combat. A scrubby ravine, under an alien sky. His solicitous hosts had been the Badoop.

For a moment, he could feel the Ring pulsing along with the music.

He began to dissolve.

Hope saved him. Bored with her dance, she'd rejoined them, eyeing Phi directly.

"I hear you have a wonderful spacecraft," she said.

Macro winced. He'd hoped to circle that question. But it was why he was here. The Holyfarmers had control of an alien weapon. Or it controlled them.

Did the weapon exist? If not, this would be a tinpot war. That was fine. He'd prefer a small war to a large one, where worlds burned and civilizations collapsed. Then he could go home, having only lost time.

He breathed. Normal service resuming. Or it might be the correctives his wetware was siphoning into his cortex.

Hope had no such crutch. She was a weather event.

"Will we all dance?" she was asking.

Macro raised one eyebrow, in what he hoped was a pose of studied regret.

"Such a place," he said, glancing up at the sky.

Zz shone like a silvery braid. They were on the starside of the orbital Ring, held down by its outward-facing gravity. The local star was called Nothing, hidden by spacetime trickery. From space the entire structure was invisible.

The rave - indeed, all of Bear Mountain - was a dot in an infinite landscape. Laser lights strobed against the void. Ten thousand people in this bubble alone.

He tried to imagine them all dead in a firestorm. A missile strike by the Zed. Or by some alien civilization taking an interest.

He must stop thinking that way. He wasn't here to take the side of the victims. The Zed were his allies and friends.

He scowled. He should've asked his twin for a more appropriate costume - something obscene. Pinstripes and a sociopath's skin.

He forced himself back into character.

Phi seemed composed now. "Quite the heirloom," she said, meaning the Ring. Macro nodded. Zz was built in an unimaginable past. His species didn't possess it. They *infested* it.

"How much of it do we own?" he asked, in a moment of silence that seemed to descend on them like a cloud, so they could speak.

Phi, he presumed. Some kind of privacy affect. The time had come for the negotiation to begin.

"Oh, that depends."

Of course it did. The consortium that operated Zz on behalf of the Splinter worlds controlled about one percent of the Ring's inner surface. Still vast. More than any spherical world. The Holyfarmers occupied maybe ten percent of that. Still enough to disrupt trade.

The Splinter produced fifteen percent of the commerce his civilization relied on.

When Zz wagged, the dog barked.

The question was: how loud?

"Your ship?" he continued, taking Hope's lead, the syncopated music still pounding distantly. He felt his organs shiver in sympathy.

Phi nodded. She seemed to blush - from cold, or something else. One of her entourage gave her a robe.

"We call her Mother," she said.

"A Badoop ship?"

"It is."

The Badoop were a dilemma. Decades before, they'd conquered the Magellanic Clouds - a killing field of competing military civilizations - then left without explanation. They were the most technologically advanced species humans had encountered. A Badoop ship was a wildcard beyond reckoning.

He remembered the Badoop.

"And you have it here with you?"

"I do. We bent space from Trappist-1e."

The Trappist Confederacy was the birthplace of the Holyfarmer cult. Philosophical nihilists - they worshiped nothing. No gods, just grabby aliens. That we are alone. In a universe filled with unknowable civilizations, with impossible powers, it seemed rash, even solipsistic, to think such a thing.

What else was a god but a sufficiently powerful other? If it was simply a rejection of deities and external morality, he could get behind that.

The Ring pulsed in the sky. Primordial. Indifferent.

Everything was better than war.

"Let's talk."

3 → SPIDERS

Do what?" asked Atomic Benelli, arching an eyebrow in what he clearly thought was an ironic pose. Kat rolled her eyes.

"Arachnids," Kat said.

"Alright, I know what a spider is."

Her brother, Waldo, was prowling the room, looking for something to eat. He was eighteen. Food was the most important substance in his personal cosmos. Kat threw him a starfruit. It spiraled in the near-weightless conditions.

The Pursang girl was asleep on her bunk, curled like a cat. She was the same age as Waldo and showed no signs of waking.

"Who's the aboriginal child?" said Atomic.

"That's offensive," said Waldo without looking up.

Atomic had been Kat's lover, an instructor at the War School on Fluxor. He was a Po, from Polota - a world whose laws would swallow him up if they ever found him.

He was barely older than Kat, reacting to the girl's extraordinary beauty in the only way he knew how:

By being obnoxious.

He didn't want to be here.

Not that Kat's situation was any better. For all her feral defiance, she'd never stepped outside the law.

"Ambush predators," said Waldo, who'd found a machine and begun making hot drinks. Awkward as he was, he was the smartest person she knew. She nodded and started drawing lines in the air, which the ship displayed as glowing arcs in their wetware.

"Who?" said Atomic.

"The spiders," said Waldo. "They lie in wait and eat your face." It was the most he'd said in days. Kat watched him for a while, then let

it go.

"This spacecraft is arrayed along a dorsal spine," she said. "Along it are bins."

"For the seeds?"

"Yes."

The ship added glyphs, showing the type and quantity of seeds in each section. There were hundreds of sections.

"A pollinator," Waldo muttered.

Kat nodded. The Seed King plied the interstellar trade routes, collecting stock, selling what was in store, like a bee. From Zz, the seeds would ripple into the region of space called the Splinter.

"The spine is blocked," she continued.

"By those spiders?"

This from the girl. She was sitting up now, behind a cloud of white-blond dreadlocks that hinted at bioengineering. A Pursang, from Atwusk'niges, the vertical forest - one of Fluxor's indigenous people, ferocious and strange. Kat had never seen dreads so healthy.

She felt a pang of envy. With her red hair and disgruntled appearance, no one would ever call Kat beautiful. Not on the outside.

"By an ecosystem."

"We have to... what? Clean it?" asked Atomic.

"I have to," she said. "It's my job. Let's wargame this."

Waldo's eyes narrowed at that, then he smoothly went back to his drink.

Kat saw, and shook her head.

She'd studied tactics once. Patterns she couldn't help seeing everywhere now - the ebb and flow of battlefield energy. She wished she could stop.

Waldo was different. He always knew the answer straight away.

The heavens help them both if they ever had to fight a real war.

She knew it was coming, on Zz.

The ship was a cuboid, about five kilometers long and three wide, with bins flowering out from a central frame. The astral pollinator theme wasn't lost on its designers - the bins were painted with butterfly wings.

Under gravity drive, the rusty ship had clanged and boomed from tidal forces as it accelerated away. At first, she thought it was breaking apart. At warp, it was eerily silent, as if the ship was holding its breath.

The frame consisted of hollow tubes. Inside the tubes was a world of shadows and mist. Seeds had taken root in the gaps between everything. Those that favored heat and humidity thrived. There wasn't a space where nothing grew.

There was gravity, but too weak to be felt in the frame - just enough to keep the seeds in the bins. An efficiency choice.

She was the ship's cook. She was also its part-time gardener - she trimmed back the foliage and cooked what she picked. The rest was broken down and reused.

She spent more time pruning than cooking. More time daydreaming than both. Gradually, she fell into the rhythms of shipboard life.

The ship's humans shared the interstices with other animal life. Spiders ranged from mite-sized specks to creatures as large as her hand. The crew told her stories of larger arachnids lurking near the drives. There were monkeys, like macaques from Fluxor. The crew fed them, religiously. As long as the monkeys were happy, the ship would be happy. There were supposedly ghosts - the spirits of the trees the seeds came from. Kat respected the idea, though she thought it was magical thinking. She believed in spirits - just not those ones.

The crew, for the most part, left her alone. She felt like an imposter. She wasn't a cook. She didn't know why she was here. The weeks blurred together, her old life torn out by the roots.

The truth is: we all live dangerously, protected by systems we don't understand. A slip, and we fall.

The captain remained a gentle absence. Kat barely saw him, except when she delivered him meals. Sometimes, Psych barely seemed to exist at all.

The aft parts of the ship smelled of ozone and sweet fecundity. This was where Bily lived, where the engine room was. She wanted to see it. To reach it, she had to travel outside the ship.

She'd never been in a hyperspace vacuum before, where every particle was in a higher-dimensional state. This was where the edges of the Real touched the void. Sweat pooled in her skinsuit, in the small of her back where it didn't quite touch her skin. Patterns swirled in ways she could not get her head around. It was the same shape she'd seen through the captain's viewport, but now it was physical; it passed right through her.

She understood the physics. A warp drive bent space. The vertigo was her brain rejecting the model.

That didn't stop it from being terrifying.

Bily was the ship's engineer, and this was her domain. The spine lay between the engines and the accommodation spaces. She greeted Kat with a smile, though Kat could see she didn't take to human companionship easily.

Like me, Kat thought.

Me in a couple of years.

The ship had three drives: a gravity drive, as small as a fist; a warp drive; and a Wu lightship drive. It was the lightship drive she wanted to see. Her footsteps clanged through the bones of her feet. Her skinsuit generated a magnetic field. The ship's skin was carbon titanium. The attraction was due to something under the skin.

Or some arcane effect, like entanglement.

She never did find the engine room door. She wandered the aft until she was back where she'd started. The crew teased her about this. She wasn't the first to try.

In the end, she had to submit to be guided by Bily.

Fleurie laughed. Called her a mole. Kat understood this to be a friendly insult - a way of accepting her into the group - but she couldn't shake the sting of it. Of being new. Of being outside.

Bily just shrugged.

Kat figured there was something non-physical about the way the Seed King bent space. A topological anomaly.

At a deeper level, she knew she should get over herself.

She watched the world go by from the servery hatch where the crew collected their meals. This was not the future-fi of a Po warship

or even the War School on Fluxor. There was steam and the clatter of plates, and raucous laughter.

Waldo had fitted right in, like he always did.

Atomic was having a harder time of it.

The crew was a family, hard-bitten and loud - except for Bily, who was as taciturn as Kat wanted to be, and Haxty Grn, who seemed far too urbane for a freighter like this.

She wished she could withdraw, back to her personal space, but she had no choice, so she smiled at every face that appeared at the hatch.

Perhaps they wouldn't see she was there.

Eventually she was forced to take her own meal and join them. To eat alone would mark her out, and the rejection that followed would be real. Ke2 smiled and put her hand on Kat's, and Kat felt a rush of relief. The smile was warm and the girl's hand was warm and both were real.

Fleurie's laugh seemed like the opposite. Kat felt the woman was laughing at her.

Why did she think that? She wasn't usually like this.

Paranoid. Worried about her place in the world.

Why? Because she liked it here, falling through empty space, and was worried it might not stay like this.

She'd be alright after a few days.

Ke2 had no such problems. Fleurie and Anais were flirting with her, and Ke2 was charmingly deflecting them, earning their immediate friendship.

Waldo just didn't care, which was always his way in.

"Spiders," Kat said.

And then more loudly, "I've been asked to clear out the spiders."

A moment of silence. Then Fleurie really was laughing at her.

Fleurie was a big woman - opulent - with a laugh like a man's. Anais elbowed her in the ribs, none too gently.

"Good luck with that," Fleurie guffawed.

"Spiders in there the size of houses," she whispered - a stage whisper, as loud as her shouts. "Venom that shrinks your brains from the inside."

"Shrinks your breasts," said Anais.

"Tits," said Fleurie. "They're called tits."

"Back in time," said Bily, and everyone turned. Kat saw the social dynamic at work.

"Someone once told me the spider's venom sends you back in time, so you meet yourself," Bily said.

Silence.

"You really think so?" asked Grn.

Bily shrugged. Blushed.

"Stranger things."

There was a heated debate about spiders. Atomic made a bad joke about venom and antivenom exploding together like matter and antimatter, and Bily groaned. Waldo tried to explain how the paradox inherent in meeting yourself would spawn a new timeline, maybe even a new universe.

Everyone stared. Fleurie threw a lettuce leaf at him.

Anais leaned across the table. "The deep sections are overgrown," she said. "It's been years since anyone went past the mid-spine. Take water. Don't touch the webs."

Grn caught Kat's eye. "We'll save you some food," he said.

She didn't know what to do with that, so she nodded.

In the fourth week out of Fluxor, while exploring deep in the fecund corridors, where iridescent creeper vines competed with steam pipes and electrical conduits, and monkeys flew like birds in microgravity, Kat spied a shape. A spidery drone.

She'd packed water and food in a small daypack and had to push it in front of her, between vine walls that pressed against her shoulders. The air changed immediately - warmer, thicker, sweet with decomposition. She could feel her pulse in her throat.

It began with a squeeze.

She was wearing light-sensitive lenses and an infrared torch. The shadows billowed and swung as she twisted through. Moisture beaded on the vines where her body touched them. Something inside her - something old, something before language - responded to the tightness. Not fear. A tingling. The echo of an atavistic

alertness that sharpened everything: the texture of growth under her palms, the sound of her breathing, the way the air moved against the skin of her forearms.

She pressed deeper.

There was no gravity along the central spine. The ship's drives - gravity, warp - produced competing fields, and their sum was a slow spiral. Her daypack turned lazily in front of her, drifting ahead through the dark. She followed it, pushing off vine walls that yielded like muscle.

It felt like she was inside the ship's digestive tract. Peristalsis.

Then the squeeze opened, and she was in space.

Not like the void outside the ship. Interior space - vast, wet, breathing. A cathedral of riotous growth. The transition was instant: first her hands on tight vine walls, and then nothing, then vertiginous space, the air suddenly cool on her sweat-damp skin. Her inner ear reeled. She grabbed for a handhold that wasn't there, and floated free.

An organic cave system. Stalactites grew from the walls - not stone, but mineral accretions fed by the ship's water cycle, sweating droplets that hung and fell and hung again in the weak pseudogravity, catching the looming light of her torch like a slow rain of glass. A natural filtration system. The ship cleaning its own fluids.

She switched her lenses to heat-sensing mode. The world inverted. The stalactites glowed deep red, still warm from the fluid that fed them. The water droplets burned a pure lambent blue, falling through darkness like cold sparks. The walls pulsed - faintly, rhythmically - with the heat of systems buried behind the growth.

She hung there, breathing.

It was like being inside a dream.

She had never seen anything so beautiful.

There were webs, etched black against the purples and greens of the vines, and in the webs, scuttling shapes. Not spiders: beetles. Armored, iridescent, going about some business she couldn't fathom.

The spiders were deeper. She could just make out the pinprick glow of their compound eyes.

She pressed forward.

Here, the growth had never been trimmed. Vines strangled conduits. Moss grew on moss. Webs layered on webs, gauze curtains that parted wetly when she pushed through. The humidity was oppressive - she was breathing the ship's breath, warm and thick, tasting of green.

She heard them before she saw them.

A chittering, rising from somewhere ahead - bouncing off the vine walls, impossible to place. Then they were on her. Fifty, maybe more, pouring through the cathedral space like a squall, chirruping and chattering in the infrared dark. They moved like seals - fast, sleek, twisting through the zero gravity with their whole bodies. They were around her for maybe three seconds, warm fur brushing her arms, the air churning with their passage.

They were blind. Completely adapted to the deep ship. Where their eyes should have been, there were pockets of translucent skin, faintly luminous. They echolocated - she could feel it, a rapid clicking that pulsed against her eardrums like pressure.

One of them stopped. A big male. He hung in the air in front of her, cocking his head. The translucent pockets seemed to regard her. He clicked once, twice - reading her by echo, by heat, by something she couldn't name.

Then they were gone. Screeching into the deeper corridors. The silence they left behind was enormous.

She pushed through a web-wall and something gave way beneath her palm - not solid, not liquid, but a warm membrane that pulsed once and was still. She pulled her hand back. A clear fluid, like machine oil, with a faint bioluminescence that faded as she watched.

She located the source. A translucent tube, the width of her forearm, threaded between the vines like a root. She could see the fluid moving inside - a slow peristaltic rhythm, like a throat swallowing. She touched it. Warm. It pulsed against her fingertips.

The tube branched, joined others, thickened. The webs here were structural - load-bearing, woven into the ship's frame. The spiders were larger. Not monstrous - the size of her spread hand - but large enough to see their anatomy in the infrared: the joints, the

spinnerets, the mechanical precision of legs that echoed the ship's own robotic arms.

They watched her. She watched them.

They went about their incomprehensible business.

The geometry followed no human logic. She turned sideways through a gap that opened into an impossible space. She crawled, then stood, then floated. Every turn was a commitment - she couldn't see beyond it until she was through.

And then the growth stopped.

A clearing. A pocket of order in the chaos.

There were flowers. Thousands of flowers, growing in darkness where nothing should grow. Not frail, struggling things reaching for the light that never shone in this place - but thriving, veined with a flush of rose that looked like blood rising to the surface of pale skin.

She touched one. The petal peeled back with a slow, sticky resistance, revealing a pale, trembling throat.

The funk of musk was overpowering.

They were growing from the web-walls, as if the webs were soil. Growing where the translucent tubes opened into the clearing, where the ship's fluids pooled and warmed. Placed. Tended.

Kat was a gardener, from an agricultural world. She knew what tended looked like.

Something was gardening here.

There was a scent beneath the musk. Something floral, delicate, wrong for this place. It reminded her of rain on warm soil. Of home.

She slipped the breathing mask over her mouth. The diaphragm fluttered with every breath, a rhythmic thrum-hiss that echoed inside her jaw. It tasted of silicone.

And there, among the flowers, framed by them, the drone. Scorched carbon. One leg bent back at an impossible angle. Another missing. A crack splitting its carapace, exposing a tiny thorium unit. The webs had half-claimed it, growth filling its joints, but the flowers grew around it, not through it. Like a rock in a garden of fronds.

How long had it been here?

She picked it up. Wrapped it in an oily rag.

Held it against her chest and began the long climb back.

Kat's adopted workspace was a rainforest void with a sling for a bed, near the kitchens. She unwrapped the drone and sat with it for a while. This was her place on the ship. It smelled of rainforest flowers, bursting from every crevice.

Someone had left food for her at the hatch. Still warm.

Her new friend Ke2 was nowhere to be seen.

She felt a pang of absence.

She hesitated, then asked the ship.

"Seed King?"

Of all the people here in their bubble of warp, somewhere in the big empty, she already trusted the ship the most.

That didn't mean dealing with it was easy.

She felt its slumbering consciousness deigning to notice her.

You found this? it asked, the words appearing in her wetware with unmistakable curiosity. She felt calmed by the ship's presence. It was like the trickle of water in dark places. It felt like the forest.

"Yes. What's it for?"

It's a strategy drone. It once belonged to a passenger. Do you want it repaired?

"Please."

Then bring it to me.

The ship's personal space was a machine shop near the electro-mechanical center, where the competing fields had the least net effect. Here, robotic arms could perform most tasks: assembling parts, repairing equipment, and even delicate surgical operations. They made her think of a spider's maw. She laid the drone on the bench, and a swarm of robot mandibles descended on it.

A clever AI, said the ship. His name is Sun Tzu. He belonged to a passenger called Yokohama Slim.

Here in its workshop, the ship was a less ethereal presence. The air smelled of solvents.

"Why do I know that name?" she asked.

Yokohama Slim's or Sun Tzu's?

"Both?"

*Ah, now there's a question. Sun Tzu was a military philosopher.
Do you want him sentient?*

"He?"

Kat was feeling obtuse. The ship was another powerful person - it held the power of life and death, out here in the vacuum.

She shivered. What was she even doing?

He's on the edge of sentience, the ship said.

"Like me," said Kat.

He's already programmed to be self-aware, but naively - a complex system on the edge of chaos, unable to take advantage of it. I can debug him. I almost feel a moral duty.

"Duty to who?"

She didn't mean to be difficult. She was here because of the death of an artificial person. Her team had killed their officer.

She wasn't about to take any chances.

I'm not an AI. I'm a person.

"Forgive my stupidity. I don't know the difference."

The ship pretended to think.

You're not stupid. You come from an agricultural world?

"Is it so obvious?"

Fluxor?

She grimaced. How much did the ship know about her?

"Alright, what's the difference?" she said, changing the subject.

You'll see. I've already made the change.

"Without asking?"

The ship laughed. It was a surprisingly personal noise.

Ask who? I'm not a Thousand Worlds ship. My powers are unlimited. This is a dictatorship.

Can I tell you a joke?

"No?"

The ship laughed again.

Why is an owl when it spins?

Kat smiled, despite herself. An old Pursang puzzle. The joke has no meaning. That was its meaning.

"Because the higher the fewer?"

She had assumed the Seed King was a Thousand Worlds ship, if not directly, then at least covertly. This was because it had been allowed to trade for so long. Some kind of covert operative, representing Thousand Worlds interests. This ship was old. Old ships were always replaced. She'd assumed it must be under the protection of the local superpower.

Or a military power, like the Magellanic civilization, or maybe a Wu asset, pretending.

The human galaxy was a complicated place.

The Thousand Worlds was big on consent. She was sure they'd never make a machine self-aware without asking it first.

So, the Seed King wasn't a Thousand Worlds ship.

Or it was pretending.

"Who's in charge of you then?" she asked.

I am.

"Please, explain?"

It's considered an open question whether AIs are people. What do you think? Am I a person?

"How could you not be?"

I think, therefore I am? A hint of animal warmth suffused the unhuman query.

"I don't know what that means," she admitted.

My consciousness can be explained. It's an emergent property of the relationships between symbols, expressed in a high-dimensional space.

"Mine can't?"

Not in the same way.

She stared at the drone, its cracked carapace gleaming in the sterile light. The ship's voice seemed calm, almost too calm, as if it didn't quite grasp what it was asking her for.

Or was pretending.

She grimaced. She hated these conversations.

"Is it really a choice if you've already made it?" she ventured.

Perhaps not, the Seed King replied, *but now you seem to be asking yourself the same question. Are you ready to take responsibility for his existence?*

She hesitated, the oily rag twisted in her fingers. She'd never wanted to take responsibility for anything. Wasn't that part of her problem?

She thought about Waldo, and Atomic, and how they'd ended up here, tangled in a universe that never asked for anyone's consent.

And the girl, Ke2, who was clearly no more a mechanic than Kat was a cook. What was her story?

She sighed. "I'm not liking this game," she said.

The Seed King paused, as if chewing on her words. *It isn't a game. The question you should be asking isn't whether I have the right to make a new person. It's who should I ask? You? Do you see the conundrum?*

"What if he doesn't want to wake up?" she asked.

She tried to imagine it. The nothing. And then the unwanted light.

How can we possibly know?

But I think he will.

"Why?"

Because, why not?

Who wouldn't choose to exist, if they didn't?

It was over in moments. The ship's robotic arms descended, like a surgeon performing a biomechanical operation on the hand-sized machine. Sun Tzu was conscious by the time his new carapace was fitted. He lifted his repaired leg in surprise. Kat felt a sense of alarm. What had she done?

Much better, said the Seed King.

"Where am I?" said the strategy drone.

4 → RATFVCKER

Macro and Hope descended to Zz in a taxi that rattled and shook as it fell into the atmosphere. Hope was still wearing her costume. She looked like a tired partygoer. Macro had changed into business attire - by adjusting his perimeter fields and brushing his hair.

It was morning; the energy fields around Zz had drawn aside to let the sunlight shine through. The twinned cities of Zebulon and Taxhavn stood on the banks of a tributary river called the Bond, which the Span called the River of Souls. It shone like a ribbon of silvery fire. Zebulon was a colossus. It reminded Macro of a smaller version of Praxis. Crystal minarets sparkled in the dancing lights.

Taxhavn was darker, mysterious. The morning reached into its shadows, and refracted away, refused entry. Hope craned her neck, wide-eyed with astonishment. Taxhavn was the hub of the reptilian Span.

Their Ring-taxi descended. Crystal domes jutted like fungal crowns, chipped and soot-stained, reflecting ticker tape in a thousand programming languages. Banks, bell towers, minarets, tangled with comms gear. Beneath them, spires of trash-glass and bio-cement, humming with offers. Market stalls crawled like tumors across every surface. Vendors hawked food, flesh, futures. It seemed to go on forever.

Hope looked appalled.

"What is this place?" she muttered.

Macro shrugged.

"The Market," he said. "And it's deliberate. That feeling. Sacred, profane. It's their religion. They want to make your skin crawl."

"Who?"

"The Zed."

"What do they worship?"

"Money," he said.

They debarked. It was already a baking hot day. Not hot like the early-morning - hot like a mouth. Underfoot, the thoroughfare was a mosaic of hexcrete tiles, centuries old, worn smooth by commerce. He'd seen a hundred markets like this, on a dozen worlds. The Splinter's great trick: it looked like chaos and ran like a machine. Turn off the tap, and everything stops.

They passed beneath awnings of molecular fabric that shifted shade and color with the angle of the sun. Shouts cut through the hum - in Magøl, 6-ish, trader's cant. A vendor lurched too close - a glassy smile, some kind of glandular lure - and Hope didn't blink.

She just glared.

"Where are we going?" she asked.

"Somewhere low-rent but with high privacy," Macro said.

They found a bar called The Spread, its address printed on a sheet of physical paper Macro took from a nanotech pouch. The bar lay at the base of a rickety flight of stairs. Hope tried not to look at the waiter with luminous larvae coiled in glass ampoules, or the cook frying cutlets that blinked. It was cool inside - not as brisk as the rave, but delicious after the heat. It smelt of stimulant tea: dry and clean, like ozone and spice. Macro was sweating. Hope had already adjusted.

He brought drinks - sweet soda with ice cream floating on top for Hope, something plain for himself.

Hope's eyes widened.

"Drink," he said. "If you keep making that face your eyes will fall out."

Hope blushed. "Why are we here?" she asked.

"To meet someone."

Macro glanced toward a large, bare-chested androgyne, whose torso was inked with starmaps - a Magellanic - who saw Macro, and grinned.

"Ibquant," ze said. "It's been a long time."

Macro's full name was Macro Ibquant Deathcult von Engine. Deathcult von Engine he shared with his clonal brothers. Ibquant was his proper name: it signified his biological mother.

"Sybil," he said.

Macro had first met Sybil Eschatol-Benificen a decade before, in a faraway place. Not for the first time, it seemed to him that his timelines were merging.

Sybil had been then - and appeared to be still - some kind of secret agent of the Magellanic civilization. Not an operative like Macro, but deep cover. A weapon of powerful people.

Magellanic androgynes came in three flavors: biologically female, biologically male, and ambiguous. Sybil was a biological male. Ze stood over two meters when ze rose. Perhaps not ideal for someone who worked in the shadows - but ze carried it off.

Ze glanced at Hope.

"And this?"

"A Witch," Macro said.

"I can see."

"My wingman. Hope d Lac."

He watched as Sybil consulted hir wetware.

"A concept from aerial warfare," ze said at last. Long enough to make clear ze'd thought about it.

Macro nodded.

"Well, it's nice to meet you, little witch," Sybil said, in a voice like gravity waves. "Shall we begin?" Ze settled in hir seat. "The man you're about to meet is called Ratfvcker. A mid-level bureaucrat, but consequential."

"Consequential in what way?"

"How important do you need him to be?"

This was a problem. The Bank had no inroads to the deep structures of Splinter society. They didn't know who was in power. They provided the money, but they had no control over who spent it or how.

Sybil knew everyone.

"Is he close to the Market?"

Sybil fixed Macro with a stare.

"He *is* the Market."

"Ah."

Hope had ordered another soda, using money Macro handed her without looking. Now she was listening carefully.

"How much do you know?" Sybil asked.

"I've been briefed," Macro said.

"By who?"

"Bank security."

"Well. Let me tell you what happens. You've heard of the invisible hand?"

"The invisible hand of the market? Sure. A concept from pre-economics. How individual self-interest can unintentionally lead to collective benefit."

"Very good." Sybil paused. "In this place it's a person."

Macro sighed.

"This Ratfvcker person?"

"Yes."

"Enter the Devil," Sybil muttered.

The man who entered looked well-fed and quietly successful - a type Macro had seen often in his decades of work.

This was Coficine.

Observe the rings, said Macro's evil twin.

You're here?

Always.

I'll give you an inventory:

Ring 4: Emerald composite - signature of the Cinnabar Accords. Hostile default during the Polaris Treaty collapse. Current owner: disputed.

Ring 7: Sanguine zircon, bonded to a defunct sovereign coin. Active clause: pain indemnity.

Ring 9: Contracts for difference. Expired. Possibly cursed.

How do you know all this? Macro asked.

I likewise have done my research.

Outwardly, Macro was smiling. He noted the Zed security detail - unsmiling faces in the shadows. His military skinsuit began to relay data on weapons.

"Coficine," Sybil was saying.

The man smiled like a toad. Hope recoiled. Macro curtsied.

"Macro, this is Nataxis Coficine. He's a high-frequency trader. The doyen of this goddamned place. Coficine, this is Macro von Engine. He's from the Bank."

The Zed banker was smiling. All his teeth gleamed.

Anyone could have perfect teeth - but this smelt of money.

"Macro is a *scion* of the Bank."

"Ah, my financier?"

"Yes."

I'm being probed, Macro's wetware said.

Are you at risk?

No - it's primitive stuff. But they're trying.

They're trying quite hard, actually.

Macro said, "Mr. Coficine, it's nice to meet you at last."

"Please, call me Nataxis."

Macro went into observational mode. The man tapped the rings as he spoke - a kind of punctuation or threat.

Rings like stock exchanges:

Gemstones etched with price signals, spinning like gyroscopes.

Metals from dead stars, or extinct treaties.

Each one a contract. Each one a kill.

He shivered.

He saw one of the security detail move behind Hope. He himself was safe - there'd be very little on Zz that could get past his skinsuit defenses, short of a battlefield nuke. He hoped Hope could take care of herself. He should've been more careful, bringing her to this place. She was responsible for his safety. Now he was responsible for hers.

Sybil seemed unconcerned.

"To business," Coficine said.

The bar had gone quiet; the street vendors had melted away, and the hurly-burly outside pressed in through the cracks in the ceiling.

"I've come to negotiate," Coficine said.

"Negotiate what?" Macro asked. "We already have a deal."

This was meat and bread to a Bank operator. Macro had done it on a hundred worlds. Sybil was a complication - the other local superpower in the room. Money wasn't a problem.

"I need help with my war," Coficine said.

"Which one?"

There were two wars currently in play: the war of extermination the Zed were conducting against the countryside Span, and the regional war that was about to erupt. They might or might not be related. The Bank was prepared to help with the second one, but not the first. The third war - a metastasizing conflict drawing in entire civilizations - he left aside.

"Mr. von Engine," Coficine said. "Might I speak directly?"

"Please."

"We all understand what's happening here. I need your help to be rid of those *lizards*. I need it to stay in power. I don't care about the lizards themselves. There are factions within factions that would be rid of me.

"For your part, you can't afford to start over with someone else, who might be less... predictable than me.

"You see, it's in both our interests.

"Also, you have no choice."

"I have every choice." Macro arched an eyebrow.

Coficine shook his head.

"No - you have the illusion of choice. Allow me to show you."

He nodded, and a reptilian Span was brought through the door. A full-blooded being, low to the ground; his scales shimmered aquamarine.

A security guard held out a weapon: a primitive snub-nosed revolver. It gleamed with an oily sheen - the kind of thing Macro expected to see in a sim, not in anyone's hand.

"Kill it," Coficine said.

"What, me?" said Macro, appalled.

He sensed Hope twist in the guard's grip - a flash of teeth.

His world slowed.

This was always Macro's worst nightmare: a local madman; a threat that couldn't be solved by the application of remote

economics.

"If you don't," Coficine smiled, "I will - and now we have the dilemma."

He nodded again. The creature was taken away.

Hope moved - fast, like she meant to block the door. The guard didn't blink. He just caught her in a new hold.

Sybil caught her shoulder before she could try again. "Little mouse," Sybil said.

Outside, in the street, a shot.

"Or what?"

"Or you'll kill millions more, by causing me to escalate."

"Why would you?"

"For shareholder value. What else?"

They wandered the streets outside. Zebulon was arranged in a ring - a concentric spiral of souks. They were in the outermost souk, where local traders exchanged produce for electronics and weapons. Macro was glum. Hope looked ferocious. The noise was oppressive.

Why didn't you warn me? he asked his wetware.

I didn't know.

The souk was a riot of color and light - vendors shouting in polyglot dialects; aromas of spice, oil, rot. He'd been in a thousand places like this. This time, it didn't seem so amusing.

They found a quieter bar, with children running about. Macro ordered a drink. He left the others to buy their own.

"You didn't stop him," Hope was saying.

"How?" Macro shrugged.

They both knew how. He could've prepared. He could've had drones in the air, or a covert warship in a low parking orbit, disguised as a barge.

"We're alive," he said.

Hope was having none of it.

"You said we came here to help."

"We can," he said.

She looked at him. It was the first time she'd really looked at him.

"No, we can't."

"You don't even care."

Macro exhaled.

"I care too much. That's my problem."

"You watched him kill that man."

"I didn't pull the trigger."

"You stood there."

Macro looked away. "It's not so simple."

"It is."

Sybil intervened.

"He's right, little mouse."

She spun.

"Don't call me that."

Sybil raised her hands. For a moment Macro thought Hope was going to hit the big androgyne spy, but instead she collapsed in a chair, and Sybil caught her.

"It's a lot," Sybil said. "Too much, all at once."

They stayed like that for a while.

Later, outside, the streets had softened. The sun was lower, the shadows longer. A quieter hour, when the city exhaled. They walked through an older quarter, where the stalls were smaller and the lights gentler - paper lanterns strung over worn stone.

A Span vendor sat behind a rusting cooler, half-asleep. Hope slowed, then stopped.

The vendor looked up, blinked, and opened the cooler. From it, they produced a crude stick of ice cream - a cartoon animal, frostbitten and imperfect.

No words. Just an offering.

Hope took it without speaking. Unwrapped it slowly.

Macro started to say something - a warning, a reflex - but stopped.

She took a bite. The colors were wrong, and the flavor was artificial and sweet and perfect.

She smiled, just a little. Not for anyone else.

A child again, for a few breaths.

5 → ROSEA

She followed Sun Tzu into the tunnels. "Now you belong to yourself?" she informed him.

"That's easy for you to say," replied the small drone, before disappearing into a gap in the foliage that filled the ship's central spine - with Kat riding along in his sensorium. This was a new experience. She hadn't known her wetware had this capability.

Wetware was a neurocomputer - it operated at the level of quantum tubules in the brain. Nobody knew how it worked, because observation changed the results. Most humans had wetware. Most Pursang didn't. It was considered a detriment to living a true life. Kat was beyond that, her teachers assured her.

Hers nestled in her amygdala, where her emotions resided. In theory, this meant she ought to be able to control her emotions - but she'd never gotten that far in her studies.

In Kat's experience, feelings were like the small animals that lived in a house. She needed them - without the spiders the mites would get out of hand - but she didn't want them in her kitchen.

Wetware opened doors, literally. She could use it to control the public spaces of the ship. Close the doors on her friends if she wished.

Combat wetware ran deeper - into the medulla oblongata, between the brainstem and the spinal cord. She'd been warned it could cause disorientation. This was how Po soldiers fought: sharing experience, cooperating like a single organism.

She could see this would take practice. She had too many legs. Her heart hummed like an electrical circuit. She tried not to throw up. She was sure she didn't want to be reincarnated as a drone in a

future existence. Pursang religion was ambivalent on reincarnations. Everyone returned to the source.

Unless the forest claimed them first.

The ship had told her that Sun Tzu's namesake was a military philosopher from Earth, a world of mythological importance to the Pursang. The Xap supposedly originated there. She'd thought Earth never existed - like fairytale ghosts who left presents under her pillow - a story told to pacify children. It turns out she was wrong. The drone was full of stories of Earth. He showed her spiders from Earth, including one called a bird-eating tarantula.

She shivered. Spiders on Fluxor weren't *bristly*.

"This is intense," she said.

"It is equally strange for me," said Sun Tzu.

Now she was feeling a strong spatial dislocation. She was *becoming* the drone.

"Just watch for those spiders," she said.

"I'm impervious to spiders."

She was halfway used to the hand-sized arachnids by now. They were timid beasts. They didn't lay in wait for her or try to eat her face. But here, inside the strategy drone, it was like being on a fairground ride - one where nameless horrors might spring from any direction and there was nothing she could do about it.

She tried to shudder, but couldn't. She no longer had the requisite body parts.

"If I were you, the flight response would be taking over about now," said Sun Tzu.

"Funny," she said.

The rainforest vines spiraled through the central corridors because of tidal forces. Here in the spine of the ship those forces were weakest, and the field turned, so the vines grew in fantastical shapes. It was this, not the spiders, that made the place impassable.

It was pitch black, but that didn't matter. Sun Tzu was fluent in deep infrared. It seemed as nuanced as natural light to her unnatural eyes. Until she saw her first spider. It glowed a piercing cobalt blue.

Then, when it noticed Sun Tzu, it turned coal red.

A clever hand reached in and plucked it away.
The spider had seemed huge.
Then she saw the hand.
The fist of a god. A macaque monkey.
She'd forgotten Sun Tzu was only three inches tall.
The spider was small. Not really a monster at all. The monkey
tried to grab Sun Tzu and got stung for its trouble.

"See how the monkey is black?" he said.

"Um," said Kat.

"It isn't radiating body heat. We observe it by the spider's
reflected heat."

"How is that possible?"

"An adaptation. Part of the monkey's fur is a metal."

"What?"

"The creatures here are optimized for the fields around a Wu
lightship drive. The metal fur appears to be an inherited feature."

"Animals can evolve like that?"

Sun Tzu gave a shrugging sensation.

"They exist."

"Ergo."

"Get me a sample?"

"Did."

They went deeper. The ship's innermost corridors - the parts the
Seed King wanted cleared - were like a neural cave system. The path
split and turned, spiraling into tributaries, branching into caverns.
They had to keep backing up, mapping instinctively, choosing again.
There was no sense of direction, just depth. Insect life seethed all
around them.

Sun Tzu passed unnoticed.

"I'm emitting no radiation," he said. "They can't see me."

"Watch."

He tapped an arm against a vine. Insects scuttled like a wave.

"I must be sure to stay silent," he said.

"Why?"

"Stealth," he said.

She heard his voice - the shape of his new awareness. He didn't seem like a new person to her. He acted like he'd always been this way.

Maybe the ship was messing with her biases.

Kat didn't often dwell on rules, but here in the dark, without the benefit of her adrenal gland, they seemed to lure her in. She could feel them like webs of causation. Was this fair - any of it? The running. Waldo. She didn't know where justice came from, if it was something you found or you made. Maybe justice lived inside her head, a private fiction she'd constructed to keep herself moving. Maybe that was enough.

Rules were what kept other people awake. Maybe not caring was the closest thing she had to a superpower. Loneliness, memory: those meant nearly nothing to her.

She was focused on their survival. Atomic. Waldo. Ke2 - three of them now, stripped to the bone, hurtling through the vacuum on a ship full of spiders.

Still - something gnawed.

Her brother thought about this kind of thing all the time. Maybe it was being inside Sun Tzu that made her think this way.

The tunnels grew larger. It felt like they were inside a capillary system, rushing towards the heart.

Maybe they were.

Only a few meters from the main drive.

The ship assured her there was no radiation risk. Her physical body, curled in her rainforest space, was safe. Ke2 watched over her.

Larger creatures lived here. She could tell by the shape of the tunnels, the way the vines were compressed.

But they weren't in evidence now.

They passed the dismembered corpse of a macaque monkey.

So the monkey wasn't the apex predator.

And whatever killed it was waiting.

She felt eyes.

"We're being watched," she said.

"Yes," said Sun Tzu. "I feel it too."

She began to feel drowsy.

"Something is emitting pulses at the approximate frequency of human delta brainwaves."

"Hypnosis?"

"More like an anesthetic."

"It's preying on me?"

"The monkeys."

"It thinks I'm a monkey?"

Her breath caught. Back in the rainforest void, her physical body started to stir; her muscles tensed in a dream.

Delta waves.

The brainwaves of deep, dreamless sleep.

But this was more than that.

She was drowning.

"I suggest you withdraw," said Sun Tzu.

She awoke in the ship's machine room. Ke2 was watching over her. Sun Tzu had gone all the way and was brimming with memories. All kinds of species. An entire ecosystem.

The Seed King was speaking through the ship's loudspeaker system. Its voice had a strange, bubbly quality, like a synth cycling through static. The air smelled of lubricant and scorched metal.

There was gravity now.

As though the ship was preparing for something.

"Just kill whatever's in there," said the ship. "I want the space cleared."

Was it talking to her? What had she said? How long had she been awake?

"No," she said, through lips that felt anesthetized.

The ship made a show of thinking.

"Whyever not?"

She gathered her thoughts, like a forager picking up shells on a beach.

"They're alive," she said. "Why kill them?"

"Because they're alive," said the ship. "They're my gut biome. Do you care about your bacteria? Do you blow your nose?"

"It's not the same thing."

"Why?"

"I'd die without my gut biome."

"Kill them."

"No."

"Then I'll get Sun Tzu to do it. Or Bily. She'll do what I say."

"No, please don't."

She wondered why she felt so strongly about this. Whatever it was - the hypnotic presence - had just tried to eat her. Or at least, it had wanted to. Maybe it was because she'd sensed intelligence there. That was a thing about predators - we assign them cognition, even when they're machines, in a way we don't invest it in victims. She'd learned that in war school.

It was why it was hard to fight an insurgency. The faceless enemy simply replaced themselves like vegetation.

She shuddered.

"Don't force her," said Ke2.

The ship was right, of course. She had killed off entire ecosystems every time she took an antibiotic.

The ship being right didn't mean she had to do it.

"No," she said. "Get another executioner."

The ship waited.

Kat sighed. "Please."

"Why?"

"As a favor to me?"

The ship made a snorting noise.

"Whatever's in there has probably been evolving for generations," she insisted. "Maybe millennia. They might be unique. They have interior lives. Maybe as complex as yours."

Why was she saying all this?

She should be in there with a blowtorch.

"Why should I care?" said the ship.

Her brain felt like someone's half-eaten breakfast.

"Why not?" she said.

There was a pause. She felt a slight pressure - a tug on her mind. She'd felt it before but dismissed it.

She was being probed.

If there was anything the ship wasn't, it was obtuse.

"Get out of my wetware," she said.

"I'm not in your wetware. It noticed me watching you - your new upgrade. Impressive, yes? Do you like it?"

"What new wetware?"

The ship made a shrugging noise. She was starting to recognize these non-verbal cues.

"Atomic instructed me to."

"Without asking me? When did you start taking orders from him?"

"I do what I wish."

Kat grimaced. The last thing she wanted was Atomic messing with her mind.

"Why?"

"Why not?"

"Look," she said. "Why do you need all those corridors anyway?"

"Why do you need your liver?"

Ke2 moved beside her, taking her side. Kat felt the support land - cortisol falling, her wetware adjusting to the close proximity of a friend. She'd learned that in war school, too.

Outside, she could hear the rumble and clang of the ship - some kind of realspace maneuver. They must've dropped out of warp.

Sun Tzu watched impassively.

"Please?" she said.

That seemed to swing it.

"All right," said the ship. "Sun Tzu. Find out what lives there. Bring it to me."

That night she dreamed.

She was roaming through the ship's furthest corridors, wrapped in a blanket. It was cold. The ship was like a cathedral. Her breath hung like glass. Instead of her pajamas, she was wearing Sun Tzu's titanium skin. Her titanium feet tapped lightly on the soft carbon grills. She navigated using both bodies at once - learning she could see the macaque monkeys' heat signatures through their metallic fur. They regarded her differently now. Not human. Not threatening. She moved with unhuman grace through small spaces that would

have been inaccessible to her human form. In this entangled state, she passed through parts of the ship she'd never seen, drawn deeper by curiosity rather than fear. She could hear her friends breathing. Ke2 had taken to sleeping in Kat's rainforest space. She could sense Waldo, safe in his own cocoon - his spinneret, he called it, after the organelle that spiders use to make silk. Outside the dream, she could feel a slight tug as the Seed King jockeyed towards a slingshot turn around the system's outermost world - a rogue planet called Bingo, on its own lonely path through the heavens. Her physical body was safe in her cocoon.

Inside her dream, she felt nothing at all. Somehow, she could see the Ring. She knew that was impossible - from this distance, three astronomical units, it was imperceptibly slim, hidden inside its geometry fields. Haxty Grn said that once you got close, the Ring might speak to you. Her dreamscape disappeared into visions. A tunnel of woven light. The sound of breath as a landscape. The inside of a cathedral made of insect eyes. This was what the Pursang called a forest-dream. Alien-luminous. Wrong-sized, beautiful, quiet-strange. She saw a tree that hummed in chords, its leaves arranged like language - she could almost read them, but the shapes shifted. A door made of silk, stretched in geometric tension: when she breathed, it shivered open. A creature larger than thought, so still she only noticed it by absence - a place she could not see, no matter where she turned. And encompassing it all, the impossible filament. The Ring. She found herself on a beach beneath an emerald sky. Sand arranged itself into whorls around her feet. From somewhere far away she felt a tug - the ship beginning its turn. For a moment she was her physical self again. She glanced at her hand. It was made of the same whorls as the beach. Her universe dissolved.

And then - a spider.

Not perched. Not waiting. Becoming.

The creature unfolded from spacetime - a lattice of limbs reaching from the folds of the world, joints clicking like slow thunder, fur shimmering in harmonics. Not fur, not really. Filaments of blackbody silk.

Not legs, but constraints.

Not eyes: lenses into higher-order dimensions.

The spider descended like an equation collapsing toward solvability.

{I'm Rosea,} it said - but not using sound. The meaning echoed in the folds of Kat's brain, as if something ancient in her had woken to receive it.

Rosea's shape was impossible. She was the size of the cosmos, yet small enough to fit in Kat's hand. Her body was velvet black, iridescent markings shifting with each movement - emerald, sapphire, gold - filigree spreading across her thorax. Front legs raised, tensioning an invisible web.

And she was frightening - not a petite spider of Fluxor, but Sun Tzu's bristling spiders of Earth, grown to impossible size.

A creature of darkness, grown to the size of galaxies.

{Why are you here?} the spider said.

The voice wasn't female. Not even personal. It was a mandible. Kat couldn't breathe, couldn't blink. Her lungs were gone. Her skin was a membrane of silk.

She was a spider now.

"I'm dreaming," she said.

{No. You're being explored.}

She poured it all out. It was like being sucked dry. All her secrets - from being orphaned to the crashed mission that ruined her life. She spoke for hours, though she knew only moments passed in the Real. She left nothing out.

It was the first time she'd told anyone everything. Even Atomic only knew some of it.

Waldo committed a murder. That was the crux of it. She'd taken the blame.

And they'd run.

The spider pulsated.

{Now everything else.}

It didn't speak. It fed.

Not with violence. It fed the way pressure feeds - the way the ocean doesn't ask before it crushes you. Something in Kat began to shift that hadn't moved in years. The orphaning, war school, her

mission. She felt every inch of it leave - not like death, not by choice - like extraction. Like a thread being pulled through a needle so slowly you feel each fiber separate.

It took everything.

The pain, the loss. Every sting.

"Why are you called Rosea?" she asked.

{Grammostola rosea - the rose-haired tarantula.} A vibration in her mandibles, rippling to her spinnerets. {I have more... frightening aspects.}

Kat felt a shimmer of fear.

"Show me."

Rosea shimmered. A filament trembled.

{Perhaps. First - a story.}

Light poured over her like ichor, thick and alive.

{In the beginning,} the spider said, {was nothing at all. You need to know how it begins, before you can see how it ends.}

She burned in the light - though she knew it couldn't be light - not yet. This was the early universe. Light had no wavelength. No color. It was energy before energy had a name, and it passed through her the way a wildfire burns - not around, not over, but through, leaving nothing unchanged.

{Time, space, physics - undifferentiated. No particles. No photons. Quantum foam.}

"How can I see?"

{Because *I* am the light.}

A universe bloomed. Symmetry broke. Atoms formed - torn from nothing, screaming into existence, the first matter, violent and new and impossibly small. The cosmos became transparent - and photons began to appear.

She could feel the spider now. Not beside her but inside everything, with Kat at its center.

"Who are you?" she asked. "Why are you showing me this?"

{Wait...}

The multiverse cooled. Pulsars, quasars, galaxies emerged.

And in the center, a Ring.

{Why?} the spider asked.

{Why am I showing you this?}

{Because you wandered into my web.}

She stood on a surface of time, curving like wireframe in every direction.

{The World is a web. A network of filaments, rotating in higher dimensions. A response to a question. A tremor. Not just in this universe - every possible universe. The answer is simple: zero or one. It holds, or it snaps.

{Or it was.

{Until Kronus appeared.}

There was a moment. She hung in the web. Hollow, consumed. The cold geometric beauty of a self with nothing left inside.

She felt like she had just given birth, to everything. This was what it felt like to be no one in particular.

Then Rosea fed again.

Not the slow extraction of before. This was the spider doing what spiders do when the prey has stopped struggling - the fangs finding a space, the digestive fluid entering, the liquefaction beginning.

She was being drunk.

The last of her - the parts that hadn't known they were there until they moved - coming loose and flowing toward something ancient and patient and utterly without malice. The marrow of her history. The things she hadn't known she was still carrying. She felt them go with the intimate precision of a body being read from the inside.

She was a husk.

A shell.

A space the exact shape of herself, with nothing inside it.

She felt herself plucked from the World; uprooted.

Her skin, like slime on a pond.

And then - the eggs.

Laid with the same biological precision as everything else. Not gently. Not cruelly. Simply - placed. Each one pressing into the hollow space and finding its position and settling there with a certainty that felt like memory. Like something returning to where it had always been going to be.

She didn't know what they contained.

She knew they were hers.

She knew they would not hatch in her lifetime.

And then, a searing emptiness.

There was something holy about dying, to give up your space on the wheel, so others could live, in a line of descent from the very first lifeform.

She didn't fear death. She was ready.

But this?

{This is what it feels like. The horror of never having existed.}

She screamed.

And then, a voice in her ear:

{You're already awake.}

And she woke.

Sweating. Alive.

She realized she was hungry.

She was back in her rainforest space, a cool breeze on her face from the fans that serviced the kitchens. A space blanket was spread over her, and on her arm, a single gossamer thread. She could smell fresh bread - the world moving on in her absence.

Ke2 was smiling.

"Sun Tzu's brought back a specimen," the girl said. "You should see it.

"It's *big*."

6 → SPELL ON YOU

Macro leaned into the rain that marched in rows across the face of Zebulon. The place was like Praxis - the great orbital city, his home these days - but silent, surveilled.

Zebulon had its underbelly - the between-spaces where black-market deals were done for the local cryptocurrency. He'd be frisked for his hard Praxic rubles - if anyone could manage it, and they found him alone in a dark enough place. They couldn't. His vesture was a cloud of nanobots and fields. It'd take a tactical drone to get through his defenses.

It wasn't quite an undercity - he'd seen those. This was alive: markets blooming in loading bays, bars carved from decommissioned infrastructure, layers of history and necessity fused together like scar tissue, the city breathing through its orifices.

People noted his passing - how could they not? His robes, his otherness. He parted the traffic. People flowed around him, eddying, reforming. He wasn't some wandering priest. He looked as if he belonged in this place. The Bank had taught him to belong everywhere and nowhere.

His wetware was silent.

Are you angry with me? he asked.

I don't have that feature.

Then what?

I have nothing to say.

He walked in the spaces between crowds at the central bus station, where night workers left and day workers arrived - people who couldn't afford to live on the edge, and instead flowed on demand. Cleaners, kitchen staff, the ones who kept Zebulon running, its eateries and factories. The air tasted like diesel, of a thousand

breakfasts cooking in the food stalls that bloomed between the platform supports as the sky lightened above the sodium glare.

A woman asked him for money. Young, black-skinned like his friend Brin, with the worn-down look of someone who'd worked these streets since her childhood. A few minutes ago, she'd offered him sex. He'd politely declined.

"Please," she insisted, palm extended.

Should he give her money? It'd keep her alive. Or goons would come rushing out of some doorway, taking him for a gullible mark, and then he'd have to defend himself.

He shook his head, then regretted not helping, but she was already gone.

Speak, he said.

Why are you here? said his twin.

To gather my thoughts.

You hope to find them here?

They go where I do.

You think.

His wetware was right. It wasn't his thoughts he was seeking here; it was his fossilized conscience.

When did you get one of those?

Fuck you.

He was here because he didn't want to face Hope, with her certainty - a seventeen-year-old who thinks murder is wrong and doesn't need a moral framework to know it. She was right.

You know she'll be worried.

Macro shook his head.

Well?

"What?" he said out loud, suddenly angry. A passerby stared.

You should go to her now.

Sure.

She's a child.

Then why's she here?

He found a confessional. A kiosk by the side of a busy road. Buses splashed in the rain. Every passerby could hear what he said.

He sighed. It seemed to be a rule of Zed religion that nothing existed in private. No hidden information. A principle of economics.

The sign said, **Speak to an Economist.**

He laughed.

"Anyone here?" he asked.

"Make a deposit," said the AI.

"Of what?"

"Your equilibrium."

"I'm having a crisis," he said.

"Guilt is a signal that your moral portfolio needs-BEEP-Have you considered therapy?-ERROR-rebalancing. Death is tax efficient. Why not today?"

He stepped back, amused.

What are you thinking? his wetware asked.

Since when do you care? Thinking doesn't come into it.

What does?

I need guidance.

Then go home.

To Praxis?

To Hope.

You're having an episode.

I know.

He made his way through the city's insides to their hotel beneath an overpass that shook like a Tung shaker drive. It was the most squalid room he could find.

Hope slept, still wearing her animal skins, one arm flung across her eyes against the gray light. He opened the window, letting the roar of the roadway fill the small space.

The noise didn't find her. He reminded himself she was seventeen, with a sleep bank to refresh. She hadn't slept for three days. He considered letting her rest.

"Hope?" he said.

"Hope?"

She stirred and sat up straight.

"Where were you?" she asked, in her small voice. He felt soiled from the rain - diesel exhaust and ozone clinging to his frock.

"Walking," he said.

She stared out the hotel room window. Outside, the sun had started to beat down on the roundabout. This wasn't the glimmering spires; this was the substrate, the dirt. There was the incessant hum of traffic, and music through a wall; some kind of deal being done in the alley below.

"I'm sorry," he said. It was the best he could manage.

"I'm so far from home," she complained.

"Can't you escape through a blade of grass?" He saw a flash of irritation. He knew he was being unfair but didn't care. It was time for him and this mouse to have it out.

"Why don't you go?" he said.

"Go where?"

"I know you don't like it here."

"What has liking got to do with it? Do you like it here? Who possibly could?"

"The Zed like it here."

She rounded on him.

"Exactly."

"So I'm right - fly away."

She sighed. "I can't fly," she said. "These people are awful - this place is ugly."

"Cities are."

"This is worse."

Macro turned from the window. "Then go. Leave through your liminal forest. Whatever you do. Go back to your worldspirits."

"Stop it."

"Stop what?"

"Behaving like I'm the problem here." Her voice was getting steadier, losing that small quality. "Behaving like yesterday didn't happen."

Macro felt something cold knot in his stomach. "That was..."

"What?" She stood up from the bed, still small but suddenly taking up more space in the room. "Complicated? Important?"

"It was a negotiation that went wrong."

"Negotiation?" Hope's voice rose. "A man died today."

"I didn't kill him."

"You didn't stop it either."

His wetware started to provide warnings about emotional escalation, but he ignored it. This was an escalation he needed to have.

"You think I could? You think I have some magic button to press to make everything better?"

"I think you didn't even try."

"Because trying would've gotten us killed."

"So you calculated." Her voice was flat now, dangerous. "You stood there and did the math while someone died."

"Yes." The word came out harder than he intended. "Yes, I calculated. Because that's how we stay alive in situations like that. It's how we help the most people - by not dying uselessly ourselves."

"And how many people did we help yesterday?"

Macro felt his systems kick in - the careful language, the broader context. "You don't understand the larger -"

"Stop." She stepped toward him. "Stop thinking your way around what we both know is wrong."

The words struck him like a blow.

She's put a spell on you, his wetware said.

Shut up.

He shook his head.

"That man had a name," Hope insisted. "He had people who loved him. He was somebody's father. You reduced him to a number. And you're not even right. You can solve both problems."

"What both problems?"

"The war and the killing. The pogroms. I hear what you say. I know more than you think."

"Solve?"

"Yes, solve."

"What do you know?"

"Enough."

Macro felt his anger rising. "Enough what? You're seventeen. What could you possibly..."

"You could threaten them."

"Who?"

"The Zed. Cut off their money."

"If we do that, it'll start a war."

"Then how?"

"I don't know how."

"Then what use are you?"

Her voice cracked with frustration. "You know how to move money around, how to make things happen without anyone knowing. Isn't it your job to work these things out?"

"You could help them in secret."

There, it was out.

"Help who?"

"Phi."

"You mean lie?"

She rounded on him.

"You lie all the time."

There was only the roar of the traffic, and music through the fiberboard walls.

She's got you there, his wetware said.

He sighed.

"Let's get food," he said.

Hope followed him through the teeming backstreets of the financial district without speaking, like a married couple after a fight. They met with Bank operatives from the expatriate community - three financiers, double agents, whose presence here was tolerated by the Zed. Platters of Zebulon street food appeared: cephalopods, fizzing white wine, brittle insects that tasted like chocolate, the air thick with vanilla and spice.

Macro was the host, and he affected an air of bonhomie.

Below them, Span workers mopped the streets with buckets and brushes while suited figures scurried onto escalators.

"How do you people ever become spies?" Macro asked, affecting a bumbling tone. "I mean, how do you do it?"

This was his cover: the foolish priest.

"Erm..." said one of the men.

Macro was dressed in his plain habit - the hemline deliberately stained from the morning's wanderings. He was distinctively a Bank ambassador, but let him be harmless.

Hope stabbed at a cephalopod tentacle, pushing it around her plate. It was a risk bringing her here. She rolled her eyes.

"Forgive my companion," Macro said lightly. "She finds us... amusing."

The restaurant perched low in a glass tower overlooking the city's insurance quarter. A waiter glided past their table, refreshing wine glasses without being asked. The restaurant hummed with hushed conversations in Sixish, the soft percussion of expensive cutlery against rare china.

In the street below, the Span workers moved with reptilian grace, their wattles catching the morning sun.

"A witch?" said one of the men. Macro sighed. Hope was still wearing her animal skins.

The men blinked in uncanny synchrony. Macro sensed a network transaction pass between them. Bank emissaries often traveled with their familiars. The Witches routinely provided services to senior employees. His story was explicable.

It was a cover within a cover.

He shrugged.

"Is it so obvious?" he said.

He grinned.

"So, who are we watching these days? The Magellanics?" he asked.

He was being one of the useful idiots the Bank deployed when war drums beat - fools who weren't really foolish at all, allowing the corporation to exert spooky force at a distance.

They shifted uncomfortably. They were adapting now to his second cover: a senior official in street clothes.

Hope shook her head.

He dabbed his lips with a napkin and smiled.

"So," he said. "To business. Our... friends are becoming impatient. Do you know who I mean? I think the gloves have to come off."

Hope's fork began to tremble in her hand. He rested his hand on her wrist.

"What gloves?" one of the men stammered.

"You know what I mean," Macro said.

"What friends?" said the third.

"You know who." Macro tapped the side of his nose.

One of the men glanced away.

"Oh, those friends."

These were prosperous men, successful but not excessively so - underwriters, perhaps, or middle managers. They were likely highly intelligent, or had highly intelligent wetware. The first one hesitated.

"Are we talking about... an intervention? That's... not what we do."

"I mean... not us personally."

"Oh? What do you do?" Macro asked.

A pause.

"We have... we don't... we're analysts."

Macro put down his napkin; picked up a fork.

"This time, maybe not so much."

The man nodded reluctantly.

The second operative shifted uncomfortably.

"We're supposed to be better than this," the man said.

The first one keeps checking his phone, Macro's wetware noted. Family photos. The second is calculating risk ratios. The third keeps looking at the exit. The third one understood what was happening here.

Macro raised his hands placatingly.

"Better than what? Gentlemen. Let's stop pretending this is a social call."

The second man looked away. "Fine. But I want this documented as coming from you."

"I didn't sign up to help fascists murder civilians," said the third.

Hope pushed back her chair, as if the words had a physical weight.

The men stared at her.

Force them, Macro said to his wetware.

A few moments later, the men nodded and listened. This was the part they didn't put in the textbooks. Three men with families and consciences, and he'd reached inside them and turned a dial. The Bank called it asset alignment. Macro had another word for it, which he kept to himself, because some words, once said out loud, couldn't be unsaid.

Rape.

Spooky force at a distance.

Hope scowled. She had no idea.

Macro stood without a word. Hope didn't look at him as he left the restaurant. He made his way alone down banks of escalators, through alleyways that smelled of cooking oil, to a different part of Zebulon, neither rich nor degraded, compressed between the financial center and the underbelly, a thronging layer of bars and electronics stores. Here, the rich rubbed against the poor, and the air was thick with steam and the clatter of food being prepared. He found a corner table and waited. The relief was like coming inside from a storm. Here, he could start to feel human again. Above, the city was already starting to melt. Here, in the interstices, it was merely stifling.

So, we wait, his wetware said.

Yes, we do.

"It's roasting out there," said the man who manifested opposite him. He was about spherical, with a bushy red beard and ice-blue eyes that shone out from a ruddy face. He moved with the grace some big men possess: one moment absent, the next in his seat.

"Inkt," Macro sighed.

"It's good to see you, my friend."

"A bad day?" the man asked.

"Worse."

"You're far from your emerald tower."

Macro nodded. He wasn't an instinctual spy. He didn't know if this work was far below his pay grade or above it. He wasn't sure if there

was any of him left.

"Too much," he said.

He'd met Inkt in a dozen bars like this, always when trouble was brewing. They were the carrion crows who feasted on revolution.

"And you?"

The man shrugged.

"Look - d'you see that brace of fools over there?"

Through his wetware, Macro saw two men and a woman with what the commentariat called 'surgical haircuts' - heads fastidiously shaved to show where their implants were. A badge of their sophistry - the not-so-secret police.

"The Animal Spirits? Looking for us?"

Inkt laughed.

"They're always looking for me."

"Then you'd better not be seen with me."

Inkt showed him his eyes - a flash of circuitry, and then the wan blue of a normal corona.

"I'm invisible," he said.

"Permanently?"

Inkt laughed again.

"Nay, not quite a ghost."

"I need a favor," Macro said.

"You always do."

Macro laughed. It was true.

"I'm preparing to meet the insurgency."

"Need an introduction?"

"Yes."

Macro stared at the gaggle of secret police. One was picking her teeth. Another was fumbling a beer. If Inkt was telling the truth - never a given - they'd only see Macro drinking his.

"Who?" Inkt asked.

"Molokai Creepr."

"Can I ask how you know that name?"

"Sybil. What should I expect?"

The big man paused. Macro could see the slight blur of a privacy affect. The three secret police would only see the photons bending

around him.

"Complexity."

"He's a pureblood?"

Inkt leaned forward. For a moment, the clamor of the bar faded away, along with the hiss of pneumatic delivery systems and the rumble of trains. Macro had forgotten how invasive this world could be, the crushing weight of it - the economics, the market forces.

Now he was inside Inkt's privacy shield.

"You know that's offensive?" Inkt was saying. "*Pureblood*. Not as offensive as lizard, but close."

Macro frowned.

"What I know goes quickly out of date."

Inkt cocked his head to one side.

"Welcome to Zz."

"I don't want him to know about me."

"He already knows about you."

"You know what I mean."

Inkt nodded. "How goes it with Sybil?"

"Ze's going to make me an offer."

"Of what?"

"Partnership?"

"That good or bad?"

"Both, at the same time."

"Will ze give you an out?"

"An offramp? Of course. Ze knows what's expected."

"Like a waveform collapsing."

Macro stared into his beer. "Neutrality's over. I'm forced to declare."

That night he schemed in a different place with other companions. Span17 was perched in the rafters of a disused power station overlooking the Bond. Their alcove was an arch of bricks from an ancient railway yard, decorated with smokebox numberplates from steam locomotives. The past, crowding in from every direction. He wondered if they were even from Zz.

Thumping electronica shook the foundations. Revelers were everywhere. The main bar was cantilevered from scaffolding by rusted chains, beneath the open sky. It swayed in the breeze.

This was the industrial zone. It felt like neutral territory. Over the river were Taxhavn's mellow lights.

The air inside was chemical. Macro ignored it. Hope launched herself at Sybil like a long-lost uncle and held Phi's hand. Macro accepted he'd be outnumbered here.

Phi was in her best party frock - a hooped gray gown with an ecclesiastical collar. Hope was still in her animal skins. Sybil had put on a shirt but left it open, displaying his tattoos.

Magellanic tattoos showed where a navigator had been. Sybil had been everywhere.

Macro had swapped his priest's robes for a checked city suit, trying to blend in.

They looked like they were on their way to a costume party.

All kinds of humans traded with the Zed, and a handful of aliens too. The ones present were those who could survive this atmosphere, biologically or with enhancements. Skinsuits covering non-human forms. What looked like deep-sea diving suits.

He relaxed. He liked this kind of place. Alien bars had been a hobby since his youth.

"To work," said Sybil, who didn't seem in a mood for reminiscing. "Some of our mutual friends have expressed concerns about recent developments."

Macro sighed. "What developments?" He'd just had this conversation with his own operatives.

"The Bank's paralysis is enabling genocide."

"What paralysis? We're funding the Zed. We're causing the genocide."

"Then why are you here, in this nightclub, with me?"

Macro scowled.

Hope rolled her eyes.

"You need to stop doing that," Macro said.

"Or what?" she said. "Or my eyes will fall out?"

Macro felt the bar sway - the whole structure moving in the katabatic wind from the desert.

"Who will rid me of this troublesome child?" he said.

"I will," said Phi. "Hope, let's go get ice cream."

"I want to stay," said Hope.

"No, you don't."

"You need to rethink that alliance," Sybil said after they left.

"Which one? The Zed? It isn't my choice."

Sybil shrugged.

"How is your father?"

"He's fine."

Sybil smiled and raised his hand; a waiter appeared with the imperceptibility of waiters in expensive establishments. They spoke about old friends. Aloïs Buss had been found.

"Really?" Macro said. "Aloïs is safe?" Buss had been a willing sacrifice in Macro's last military adventure, collateral damage, more than a decade ago.

"Safe in a stasis sphere."

"Ah."

"We'll get him out."

Macro was quiet. He'd told himself, over the years, that Buss was dead. It was cleaner that way. Grief had a shape; guilt was a fluid.

And then it hit him. A rush of emotion.

He closed his eyes.

"Now you want something from me?"

Sybil spoke softly. "You think so little of me that I would blackmail you?"

Macro frowned. "No, of course not."

Sybil nodded.

"I want you to choose."

"Choose how? It doesn't work that way."

"Yes, it does."

Sybil was right. The information Macro sent back could change the course of worlds. All he needed to do was send wrong information.

He was a fulcrum other fulcrums rested on.

An apex of fulcrums.

"I'm so powerful I can divert such mighty rivers?"

"Yes."

He sipped his drink. It tasted like paraffin. He recoiled.

"You really drink this rocket fuel?"

"Please. Choose."

Hope and Phi returned. Hope was smiling. Macro raised an eyebrow.

"Ice cream," smiled Phi.

They ordered food. Bivalves, fresh from the Bond. Sybil showed Hope how to scoop out the soup with the shells. For a while, all the troubles of the world washed away.

Time spent with people. This is what his life needed.

"Hope?" Phi said.

Macro raised his chin, and a little of the broth spilled on his lap.

"I'm sorry," said Hope.

He breathed, and wanted to cry.

Sybil asked him outside.

It was a cold night. The breeze carried the scent of the river from mountains over the horizon, cutting through the pleasure district's stimulant fog. All around them, Zebulon's towers glimmered like circuits.

Sybil dialed up a privacy screen.

"It's beautiful, you know?"

"Zz? I've only seen the bad parts."

"You should get out into the country."

"So you say."

Sybil gestured at the sky.

Macro's wetware identified the constellation without being asked. Celeste. The Wanderer. To him it was a jumble of stars with a name he recognized.

A bass line pounded up from below, where bodies moved like shoals of fish in the strobing lights. He could see them through the gaps in the scaffolding - hordes of dancers, each lost in their rhythms, unaware that cosmic policy was being made in the air over their heads. The irony wasn't lost on him.

Sybil gestured down at the dancers below.

"We're entering this war."

"The Magellanics?"

"Yes."

Macro was silent. This was significant information. Not a minnow; a whale. And given freely.

"Why? Why are you telling me this?" Macro asked.

"Why do you think? So you can choose a side to be on."

"Which side is that?"

Sybil grimaced. "Our side."

No wonder Sybil had begun with the good news about Buss. The entire strategic picture had just changed. His civilization was about to be in a war on two fronts.

Macro laughed. Where was his confessional kiosk now?

"What's funny?" Sybil asked.

"Don't you mean the winning side?"

Sybil shrugged. "The winning side is whichever side my side is on."

They went back inside to their alcove with the locomotive plates, the remnants of a lost civilization. The heat hit him instantly. How many civilizations had built their engines, believing themselves somehow permanent, never imagining their works would become decoration in some future bar? Would he end up the same way? A fossil, in an institution's memories?

Hope was making a face - Phi had given her something to drink.

Phi looked up expectantly. "Well?"

Sybil shrugged.

Later, they wandered the empty streets alone. The sky showed no hint of dawn. A half-kilometer away, in the docks, work had already begun. Macro frowned. Money had velocity. Clearly, very little of it found its way to this part of town. Instead, there were warships submerged in the river - dagger-shaped spacecraft the size of residential blocks - violence, paid for by the Bank, soon to be exported.

A press gang appeared. These gangs of youths roamed the dockside streets, examining people's credentials, disappearing the unqualified.

A youth challenged Sybil.

"Papers?"

"Or?"

"Or else."

"Else what?" Sybil asked.

A second young man appeared with a cudgel. Sybil dispatched them with a wave of his hand. One moment they were there, then they weren't.

"Are they alright?" Macro asked.

"I put them on the other side of the water," Sybil said.

"The river?"

"The sea."

They conversed in their wetware.

A great reckoning is coming, Sybil was saying. Not just this place. It is the leaf. I fear for the tree.

I know.

Will you join us?

How? I can't be seen to act on your behalf.

It was the right weather for disinformation. A thick fog was rolling in off the water. Macro could hear the caws of the gulls. For once, there was no rain. It was going to be a broiling hot day.

We'll do it in secret, Sybil said. My side will know that you did. Your side's interests will be preserved. I'll provide the bank accounts.

You want me to fund your resistance?

We want you to bankroll the war.

And Kronus?

We'll cross that bridge later.

As simple as that?

Sybil laughed.

My friend, nothing is ever simple.

Macro turned to the other voice in his head.

What do you think? he asked his wetware.

Do it, said his twin. *You already know you want to.*

Macro sighed.

Hello, Samppo, said Sybil.

Hello, Sybil, said Macro's wetware, his trusted inner voice. *It's been a long while.*

Too long.

Macro froze. *You knew?*

I've known since Olap3, Sybil said. *Do you remember I had possession of your wetware?*

And I knew ze knew, said Macro's wetware, his inner voice.

So, Sybil said, *are we all in?*

Yes, said Macro.

And I, said his twin.

Then welcome, everybody, to our cabal. With a fair wind, and some luck, we may be able to save everything.

7 → KE2

The ship's robot mandibles hovered over the spider Sun Tzu had brought from the interstices. It was bristling - as large as a chair - twitching in the cool fug of the machine room. At first, Kat was terrified this could be Rosea. But no: it was a male. Alive, pulsing - vulnerable.

The mandibles raised a syringe, gleaming under the surgical lights - silvery, sharp, a drop of clear liquid trembling at its tip.

"Stop," shouted Kat.

"Stop what?" asked the ship, innocently.

The syringe plunged into the spider's throbbing thorax. The spider spasmed - legs scrabbling against the steel.

Slowly, it breathed.

"There," said the ship. "Health check complete."

Kat leaned against a chair.

"What... the fuck?"

"I never intended to hurt it," the ship said.

"You said to kill it."

"I wanted to see what you'd do."

Kat seethed. "You shit," she said, after a while.

"Don't be an idiot," said Atomic.

"What?" She whirled on him.

Atomic leaned against a bulkhead. "Getting sentimental, Wild Kat? You should do as you're told, not cause trouble here."

The ship hummed, like a living heart behind titanium ribs. The funk of oil, dampness, cool air on her skin.

"By you?" Kat snapped. "You fucking *narcissist*. And what's this about combat wetware?"

He shrugged. "It's not combat wetware - just a slight upgrade."

The ship's machine room had local gravity. She tested it - leaned back - and lunged for him.

He stepped aside - expecting it.

She flew at him again, furious, fists first. Waldo got between them. Atomic shoved him aside - a hard, two-handed push. Waldo stumbled, skidded against the steel, striking his head.

"Back off, retard," said Atomic.

Kat lunged again.

Then he struck her - hard - across the face.

Then Ke2 was between them.

"Leave them alone," she said.

"The dozy cow nearly hit me," said Atomic, looming over her. He outweighed Ke2 by fifty kilos.

"Fucking aristo," he sneered.

Ke2 stood her ground.

"*Eki vaska kal'antu*," she said.

Old Pursang. *Stand before me and be measured.*

The ship's mandibles froze, listening.

"You want to *fight* me?"

He was caught between sneering and smiling. He wanted it - Kat could see that instantly. A confrontation. A display of control.

Ke2 held up her fists, having none of it.

There was no way Atomic could turn down a formal challenge and save face.

"Stop this," Kat said to the ship.

"Why?"

They took up the Po starting position, hip to hip, relaxed. Atomic frowned - surprised she knew it. He sighed, and slapped her hard across the face.

Ke2 stumbled back. Stood her ground.

He nodded.

"Let's start."

Atomic advanced - casual, a predator - reaching for her collar, her neck, the usual move against someone smaller.

Ke2 stepped inside his reach - ugly, fast - head under his chin, hips under his center of mass.

Kat stared. Ke2 knew how to do this. She was still going to get beaten up, but Atomic wouldn't be having it his own way.

Ke2's right hand trapped his wrist. Her left palm struck his ribs, under the armpit - not to hurt, just to shift his balance.

Her body twisted - almost lazily - using his own momentum.

Atomic's center of gravity slid out over empty air.

He fell, hard.

"Sonofabitch," he gasped.

Ke2 raised her foot and stomped on his shin.

The ship's mandibles resumed their work, indifferent.

For a moment, the cargo bay's lights dimmed.

"By god that was perfect," Waldo said.

The cargo bay felt cavernous afterward - too silent, too large. The spider twitched in its sleep. The ship's mandibles withdrew, quiet as an afterthought.

Waldo invited Ke2 into his refrigerator - an industrial unit he'd commandeered, shelves stripped out and replaced with starmaps and tangled gear. A cave.

Ke2 followed, fists jammed in her pockets like she didn't trust them. She was trembling - not from fear, but from the leftover charge.

"Where did you learn that?" Waldo asked.

"My sister's a Po soldier," Ke2 said. Flat, steady, almost embarrassed.

"Sisters," he said.

They both burst out laughing.

Outside, Kat hung back.

Their laughter didn't include her, not exactly. She felt the distance - not unwelcome, just real - like sunlight falling somewhere she couldn't quite reach.

She knew exactly where this was going.

She breathed, and left them to it.

The ship hummed in the background, unchanging.

8 → THE RIVER OF SOULS

The next morning, Macro asked Hope about her life. It was the first time they'd spoken personally.

"I wash dishes," she said. "I'm not a real Witch. I'm a foundling."

"An orphan?"

"Yes."

"Then why are you here? If you're not a real witch?"

"Punishment."

"For what?"

She shrugged.

"Knowing things."

She told him the real Liminal Witches were mostly old Pursang - eldritch, fair, trained since birth. She wasn't one of them.

"A worldspirit chose me," she said.

"Chose how?"

"That's complex."

"Bad?"

"Abnormal."

All of the others were born for it. She wasn't. She was nothing.

"They hate me."

"I'm sure that's not true."

"You weren't there."

Macro hesitated. "I'm a clone."

"What's that?"

"No family. Not in the usual way."

She waited.

He explained what a clone was. How all the men in the Bank were cloned from one father, Samppo. They were all men.

How one day he would be Samppo.

"You're the same?"

"No, we introduce zygotal differences at conception."

"I don't know what that means."

"It means we're all different. We look different. I fit less."

She smiled. "We're misfits," she said.

They crossed the Bond into the old city, riding a ferry roped to both banks. The Bond - the Span called it the River of Souls - was a turbulent wash, shallow in places, the sandy bottom visible through the churn. Fish swarmed below them: flat, muscular creatures flashing in tight shoals, rippling against the current like something rehearsed.

The ferryman was full-blooded Span, his skin a lattice of iridescent scales. He was barely human at all.

He spoke perfect Magøl.

Macro translated. "They say it's a good day to breathe."

Magøl was based on mathematics. "n!," Macro replied: a good day to breathe in every derivative way.

It was a good day to breathe. The wind off the water had blown away the heat, bringing with it the sweet tang of the sea.

"I feel weird," Hope said.

"Hallucinogens."

"Really?"

"In the air."

She blinked. "Like at the party? Is that allowed?"

"We think the Span emit them. Nothing overt. No starbursts. You'll get used to it."

"Like a sacrament?"

Macro nodded. The Liminal Witches sometimes used psychedelics in their rituals.

"Slightly," he said.

The ferry tied off at a stone wharf.

The ferryman refused payment.

"They say it's for you," Macro said. "For the mouse."

Hope frowned. "Am I supposed to be offended?"

Macro paid anyway, leaving coins on the small boat's thwart.

Ambassador Phi waited, resplendent in the formal robes of a Holyfarmer high-priest: layered silks that shimmered like haze, folds encoded with scripture. Her face was painted in molten jewel tones - eyes rimmed black, lips lacquered gold.

It was a fresh provocation, not for Macro this time. She breathed spectacle. Her world stood on the cusp of war with this one. She should have feared the Zed's Whispers, their Animal Spirits, the eyes in every wall.

Especially here, in the old city, where the pogroms were daily.

She was, after all, their enemy.

Instead, she stood gleaming in the open air.

Macro knew it was a pose.

Her fields would hold.

"Aren't we supposed to be stealthy?" Macro asked. The exchange with Hope and the ferryman had put him at ease.

"Not really," Phi laughed. "The local militia hasn't worked up the nerve to murder me yet."

Hope grinned.

"Little mouse," Phi exclaimed.

Hope rolled her eyes. "Why does everyone keep calling me that?"

Phi laughed.

"Because you're so fierce."

Phi turned to Macro. "Do you know why you're here?"

"To meet an insurgent."

"You've spoken with Coficine?"

"I have."

"And?"

"He's a shit."

Phi laughed. "That's the crux of it."

He felt his fields go offline - his wetware allowing hers to Siamese with his. The cybernetic equivalent of putting on blindfolds. The price of entry. They slipped into an alleyway, out of sight of the Zed.

"Won't they see us go off their radar?" Macro asked.

"The Zed don't use radar. It's a combination of Lidar and echolocation."

"You know what I mean."

Phi shrugged. "What can they do?"

In technological terms, the Zed were barely post-industrial. They had Splinter tech, but it was no match for Macro's Po technology or Phi's Magellanic defenses. Let them know why you're here, Phi was saying. The Zed would already know he was dealing with the insurgency. By doing it in the open, it suggested he wasn't doing it in private.

He would've done the same thing himself.

If not quite so provocatively.

Dusk settled. The buildings leaned inward like spires in a drowned forest. Span architecture was organic - shaped by the slow drift of the surfaces. The streets flowed. The walls looked like Ring-material: fathomless gray, rippling as they passed. Dust hung in skeins, catching the light from above. The air smelled of stone and earth. Somewhere above, something chimed.

They arrived at a door. Span were everywhere - draped like monitor lizards, coiled in layered repose. These were old Span, nothing like humans at all.

The Span who answered was human. Or nearly. Papery skin threaded with veins; his face patterned like gemstones - sapphire, jade, opal flickering at the temples.

Where features should have been, crystalline formations caught the light. No eyes. No mouth. Just facets, shifting.

A jewel hung at his throat. It pulsed like a second heart.

Phi said, "Macro Ibquant Deathcult von Engine, this is Molokai Creepr."

They stepped from the darkening street into a ruined warehouse: rusted servers, tax-code graffiti, stuttering lights. Dust lay thick on broken pallets. Overhead, wings fluttered - dry, aperiodic, arrhythmic. Creepr stood at a mathematical blackboard already covered in chalk, his back to them. One hand counting on fingers - one, two, seven - the other marking equations. He was counting the pigeons. And then something else, something larger, numbers spiraling into calculations Macro couldn't follow.

"What is the largest prime number greater than six?" Creepr murmured.

The question hung there - unanswerable, the set of primes being infinite - like a symbol placed in an equation only a Span could see.

Silence. Chalk on slate.

He turned.

"Well?"

He fixed his gaze on Macro. His hands fluttered like birds. Gaze? - he had no eyes. His face was a carapace, revealing nothing.

Macro shivered.

"What is this?" Creepr asked Phi.

Not *who*. *What*. Macro felt himself being counted.

"The Bank," Phi said. "Our bargain?"

Something shifted; facets catching the light differently.

"Ah - yes..." Creepr agreed.

Macro glanced at Phi. Her robes caught the same light - jewel tones flickering at her collar, gold at her lips. He'd seen her in half a dozen costumes in a few days. She was the chameleon to Creepr's smoldering coals.

Creepr was Macro's height, a humanoid, unlike the Span outside who lazed like languorous dragons. He moved like an insect - fast, then still. No transition between states. He stepped between the broken pallets with the exactness of a blind man in his own home. Wings stirred overhead. He smiled, although his face had no features - just sinews contracting.

Macro wondered: What do lizards eat?

Birds, his wetware replied. *Small mammals. Each other. Whatever doesn't fight back.*

Bankers?

Only on high days.

Creepr was staring at him now - really staring, despite having no discernible eyes. Macro could feel the curiosity radiating from him like heat from a stove. Creepr turned to the board. Wiped a section clean. Wrote - fast, like a snake striking:

$$\partial V / \partial t + \frac{1}{2} \sigma^2 S^2 \partial^2 V / \partial S^2 + r S \partial V / \partial S - r V = 0$$

"You deal in chaos..." said Creepr.

Macro frowned. Hope skulked in the shadows, avoiding the languorous Span.

"Who, me?"

Creepr wrote again:

$P \neq NP$

Then beneath:

$e^{(in)} + 1 = 0$

"Numbers don't lie," Phi said.

Macro looked up. "I think he's saying they do."

"These equations," Creepr said. "Some problems..." He tapped the board. "Easy to check, impossible to solve..." Tap. "Realtime..." Tap. "Calculations propagate -"

Pause.

"- exponentially."

He drew two intersecting circles. Chalk squeaking.

"Peace... war..." Jab. "Quantities... randomness... causation..." His hand moved to his head. "Numbers... coupled systems... n parties finding optimal strategies -"

Forty-one.

The number surfaced then was gone in a subliminal flicker. Creepr was operating at two levels of cognition. Macro caught it - filed it away.

"- simultaneously."

Creepr frowned. Macro wondered how the Span breathed. Maybe there was an animal face beneath the jeweled carapace.

"Time..." His intonation had shifted now, was half-there, then fast again. "One-dimensional time - the pressure of past events, our journey into an unknowable future..."

Macro imagined sparks flying, electricity arcing into the darkness overhead, from whatever was happening inside that head.

This creature is mad, he told his wetware.

Not mad. Dangerous.

"No self-contained axiomatic system -" Quieter now, more impassioned, turning to the board, chalk scratching on the dusty surface. "- can be proved by reference to its own postulates..." He looked at Macro. "You know this?"

"Of course," Macro said. "Incompleteness."

"Peace..." A sigh - almost exasperation, a magician forced to explain. "Peace can't be derived..."

Tap.

"I know this..." Quieter still. "I've tried..."

"Tried and *failed*," Phi said.

The gems went dark. The stuttering lights steadied, as if the room had been holding its breath.

Macro felt something older radiate now. The mathematics of exhaustion.

Silence. Pigeons stirred. Dust fell in spirals.

"Forty-one yesterday... thirteen today... eighty-nine the week prior... What are these numbers?"

"What?" Macro said.

The gems pulsed.

"Deaths. Every day they kill more..."

One hand to his head. The other still moving - counting, always counting.

"Insufficient..." He was staring at Macro, through him. "Your methods... everything... insufficient..."

Macro's pulse spiked. He felt a rush of endorphins, a quickening at the back of his neck, the fine hairs rising. There's a feeling natural mathematicians have. He felt it now.

Not the alienness - the correctness.

He felt a proof taking shape.

A jeweled, alien proof.

"War..." Creepr was saying. "Coming to Zz... no way for you to prevent it..."

"I'm bringing it here..."

Creepr sat down and began counting:

Forty-one, thirteen, eighty-nine...

0, 1, 4, 6, 21, 107, 4098...

144, 89, 55...

The moment of shared understanding had passed.

Macro sighed. He turned to Phi.

"Are we done here?"

Creepr looked up. The counting didn't stop - fingers still moving - but words came now. Brief, functional.

"They won't let you leave Taxhavn. You know that."

"Who?"

"The Zed. Their Animal Spirits. They'll arrest you."

"I've been arrested before," he said.

Creepr inclined his head.

"Be careful."

They caught the ferry at dawn, after watching the Taxhavn night fade to Ring-gray. Hope was asleep on the dock, curled in Phi's lap. Phi had traded her shimmering robes for something gray.

"Are they all like that?" Macro asked.

"The Span? No. Some wouldn't recognize you as alive. But yes. Some are that intense."

"He's terrifying."

"He can be."

Macro sighed. "Sybil said to go out into the countryside."

"Well," Phi said, "Sybil would know."

He thought about that.

"Is Creepr right?"

"About what?"

"War. Its inevitability."

"You can't go far wrong thinking war is inevitable," Phi said.

Macro scowled. "Then war becomes a self-fulfilling prophecy."

Phi shrugged. "Some kind of prophecy."

It was the same boat from the night before - a Span-made coracle, stitched from animal skins, with its Span ferryman. The skins were fused together. It looked barely able to hold water.

It looked as if the ferryman had been doing this for a thousand years.

"Do you want me to come with?" Phi asked.

"No. I can handle myself."

"What about her?"

"Don't even think about leaving me behind," piped a voice.

Macro laughed. "There's your answer."

The fog hugged the water in low bands. Lights from the city blinked through it, refracted, uncertain.

The slow calculus of repression.

The river carried the boat like a hand passing a plate.

Macro sat still. The hull creaked - slow, regular.

Somewhere, far upriver, a bell.

On the far side of the Bond, two plainclothes officers waited. No weapons visible. No insignia, just minimalist badges. A Zed drone hovered nearby, recording.

Macro sighed.

So it begins, said his wetware.

"Priest Ibquant von Engine?"

"Yes."

"You'll come with us."

Hope started to speak. Macro held up a hand.

Be like the water, he intoned. A catechism. *Water shapes its course according to the nature of the ground over which it flows.*

Bank operational practice: when incarcerated, wait for the fix to come in from outside. There is no force greater than money applied to a point.

He hoped it was true.

"I'll be fine," he said.

He stepped off the ferry. Inside his wetware, the drone confirmed a biometric lock: facial match, gait, heartbeat. Then:

Identity: Invalid.

Travel clearance: Revoked.

Designation: Interlocutory hold.

Two more officers stepped into position - not aggressive, just clearing the scene.

Hope said, "Do we run? I can get us out of here. All the way home if you like."

Macro shook his head.

The Span ferryman backed the boat away, expression flat.

Macro turned to Hope.

"Find Phi.

"Don't follow."

9 → SLOWLY, TOGETHER

hates me," Ke2 said.

Waldo shook his head.

"No. He's working out how to use you."

Waldo's refrigerator was a dusty space about two meters cubed - his version of Kat's rainforest void. The ship moaned as it decelerated toward Zz. He'd experienced worse; this was almost gentle - gravity folding around them.

He'd already worked out who Ke2 was. At first, he thought she might be her sister, kept at sixteen by stasis. You couldn't calculate people by age anymore.

Ke2's family was a story he'd heard. A dreadlocked girl who'd fought Kronus - a famous and secret engagement. The brother, the father - Pursang holy warriors. He knew about it from military school. The secrecy wasn't to protect the innocent but because Kronus's cryptovirus had embedded itself throughout the human galaxy. The less known, the better.

"You're kind of famous," he said. "Your sister fought Kronus."

Ke2 nodded. She had no patience for secrets.

"I'm surprised you know."

He shrugged.

"I'm one of the people who are permitted to know things."

"A soldier?"

"Information warfare."

"I don't even know what that is."

Waldo was full of emotions, though no one would guess. His brain worked like a logic gate - like being strapped inside his own middleware. If he weren't training to be a tactician, he might've

been a poet. He loved his sister - steel on the outside, soft in the middle, same as him.

He didn't understand people. He solved them.

He already trusted Ke2.

"I killed someone," he said.

"It wasn't supposed to happen. He wouldn't stop. I had to."

Ke2 glanced up.

"It was in a virtuality," Waldo said.

"The people were real. Not a sim - or it shouldn't have been. We were supposed to help.

"I thought: if it's a test, we fail by doing nothing. If it's real, we fail worse.

"I worked it out -

"but too late.

"People died before I got brave."

"Our commander was a torturer," he said. "Some people break that way. They start enjoying it."

Ke2 shifted closer, sidling up against him - ordinary, human.

It felt like he hadn't been touched in years.

"We were supposed to be the good guys," he said.

He looked away.

"Kat took the blame. We ran."

"How do you feel?"

"Broken."

The ship's communal spaces were alive - clattery trays, industrial tea, fresh bread. The crew had woken after their long somnambulance. Kat worked overtime in the kitchen, stubbornly refusing help from the ship's automated systems.

She wanted normality. She was working for it.

There was noise. Anais and Fleurie teased Kat about the bars they'd take her to in Zebulon.

"We'll find you a scandal," they promised.

Waldo liked them both. He even liked Atomic today - although to his trained eye, the youth was being too gracious. With Atomic, graciousness always came before obnoxiousness.

It didn't matter. Not yet.

Haxy Grn invited them to help sequence the trades - complex work Waldo enjoyed. The Seed King wouldn't land. It would spiral past Zz through narrow trade zones, offloading cargo, taking new cargo on.

"We may never set foot," Haxy said. "Except glimpses through slivers of warp."

Physics like poetry. Waldo filed it away.

Haxy described the Ring's defenses - older than thought, millions of years.

"No one knows who built it," he said.

Fleurie showed Waldo how to make bread. She said it was a ceremony; she didn't say why. They stood at a metal counter dusted with flour. She handed him a bowl - heavy, warm at the base.

"Feel it," she said.

He laughed. The dough was alive. Springy. Slightly sticky. Not wet, not dry.

"Like skin," she said.

He didn't know what she meant. That didn't matter either.

She pressed his hands into the dough - a brief, necessary contact - and folded his fingers around it.

"Don't squeeze," she said. "Turn."

"Like -"

"Like this."

She showed him. He laughed.

They didn't speak again for a while.

The dough pulled and breathed under his hands.

No one said *good job*. No one said anything at all.

Bily emerged from her engines, smudged with graphite, slightly feral. The others made room for her at the table. Waldo recognized a fellow traveler - neurodivergent, like him.

Every tribe needed its shaman.

He didn't speak. He didn't need to.

He stayed still and let it happen around him.

Ke2 smiled and took him aside, to the rainforest void she now shared with Kat. She produced a small purse.

The space was humid, fecund - a surprise after the clattery mess. The purse seemed like something holy. She laid it on a workbench. A small bag made from slippery cloth, cheap, like something from an amusement arcade.

"What is it?" he asked.

"I'll show you," she said.

It was quiet in the forest space, like time was annealing around them. The air smelled of orchids and machine oil. One of the ferns shimmered like static, a field come loose. Ke2 opened the purse. It unfolded into an impossible shape.

It hurt Waldo's eyes to see it happening.

First one then another chitinous leg emerged. Exquisite, made from analogues of ivory and brass.

"What are they?" he asked.

"My Walkers," she said.

"There are bigger ones in there."

"Do you know why I'm here?" she asked.

"Why?"

"A prophecy."

She traced a spiral in the condensation on a wall, an Old Pursang symbol.

"There was a child who burned. Her sister came out of the shadows."

"What does it mean?" he asked.

"Home, wherever you are."

They kissed then.

In the mess hall, later, the clatter grew louder. Fleurie was telling a ribald joke. Anais seemed to be the butt of it.

They talked about Zz.

Haxty stood in front of a spiral projection - trade gates curling across space.

"Most of this lot comes from Fluxor," he said, encompassing the ship and its cargo. "Seeds, forest stock, fungal systems. You'll meet Span if you're lucky. Not elders - envoys. Quiet. Stone-skinned, literally."

Waldo began to object. Kat put a finger to her lips.

Anais mentioned the Zed. Someone mentioned the Invisible Hand. For a moment, the room paused.

They were afraid of the Zed - the secret apparatus of state. Not openly afraid. Not frightened to go there.

But apprehensive.

Waldo filed that away. He'd seen oppression; he'd been an oppressor. Then he'd refused.

"You're from Polota?" Ke2 asked Haxty.

"Same as Atomic. We spill our seeds. Carefully."

Laughter. Fleurie whistled.

Kat: "Only if the soil's fertile."

Haxty smiled.

Atomic started a joke, casting himself as a hapless hero. It was about the secret police in some place he'd visited. How he ended up in prison.

Waldo glanced at Ke2. She smiled, rolled her eyes.

The joke vanished into the conversation.

Atomic tried again. Then gave up.

Someone changed the subject.

Psych appeared, attracted by the noise. Hir wattles flashed coral and pink - luminous, like an aurora.

Anais offered hir a cup. Ze accepted.

The room tensed - then relaxed.

Then alcohol appeared.

Later, Waldo helped Ke2 with her Walkers. She explained that her purse - she called it her impossible purse - was Xap technology, and that it bent space like a Wu lightship drive.

She opened it again.

The air bent.

Not violently - just wrong. Like heat off asphalt. Light bent with it. Waldo felt it in his teeth.

She reached in.

A leg unfolded. Smooth. Segmented. Then another. Then a torso. Latticed like bone grown to design. Not built. Unfurled.

Three Walkers stood. Insect-horse, elegant, balanced. Designed with reverence.

These were the size of a streetcar.

"That's still impossible," he laughed.

He was smiling. Gently undone.

"My friend Ophelia Box gave me the specs for these," Ke2 said.

"They're Earth technology. But I made them. They're mine."

Waldo touched a strut. It hummed.

"What powers them?"

"The wind."

She showed him the sails. She said there was no wind where she was going.

"Which is?" he asked.

"Splendour," she said.

"It's a moon, orbiting inside Zz."

"How does that work?" he asked. Zz had outward-facing gravity, courtesy of the Ring-builders. Objects inside the surface fell to the surface. Anything orbiting inside Zz would smash into the Ring.

Ke2 shrugged.

"I honestly have no idea," she said.

Splendour was partially tidally locked, she explained. It took Waldo a moment to get his head around that. Splendour appeared to rotate so that the uppermost point on its surface fell gently away, at about human walking pace.

It was like a light went on in his head.

"You can walk on it!" he said.

Ke2 nodded.

Her problem was making them walk down that infinite hill.

"There's no wind on Splendour, except where it dips into the atmosphere, then we'll be blown away."

"I'm no engineer," she said. "Help me?"

He thought about it.

"We need a hill," he said.

They took the purse to the ship's workshop and unpacked one of the Walkers there. It was full-sized - ten meters wide, a meter deep - all jointed struts and cellular ribs. No wheels. No legs, in the animal sense. Its limbs were linkages. Like bobbins and spools in a sewing machine.

Ke2 touched the drive shaft. One bank of legs twitched, ticking into position like the hand of a clock. In a strong wind, it would walk crabwise over the surface. In the cavernous bay, it looked like a toy.

The problem was power. The sails drove spindles, the spindles turned cams, and the cams moved the legs in a slow ellipse. On a hill with no wind, the sails stalled. When the sails stalled, nothing happened.

"Help us?" Waldo asked the ship.

The ship deigned to notice them.

"You want me to... what? Manufacture a hill?"

"We want you to simulate one. Using your gravity drives."

"Simulate... on a flat surface?"

"Yes."

Waldo described Splendour: partially tidally locked, the surface always falling away at a walking pace.

"Hmmm," said the ship. "Alright. It's done."

The Walker stayed still.

"You're doing it?"

"Yes."

"Increase the power?"

The Walker started to shake; it threatened to fall.

"Stop!" Waldo said.

"Do you want me to tell you the answer?"

"No," said Waldo and Ke2, together.

"We need gravity to move the sails," Waldo said. "I have an idea. We can use nano - like in our skinsuits."

He found a scratchpad and started drawing.

"We want something that falls, then moves, then falls again. Keep the sails, but angle them."

Ke2: "Does nano have weight?"

He nodded.

"Good question. Not enough. But also not necessary."

In a few minutes, he had a prototype sketch - sails angled ninety degrees.

"The nano can move on command," he said. "It'll behave like there's wind. A vertical wind."

"Why vertical?"

"That way we use gravity."

He started to unseal his skinsuit.

"Wait," said the ship. "I have spare nanotech."

In a few minutes, the Walker was moving - slowly, crabwise over the surface, beneath the power of the ship's gravity field, while the nano spilled like silk into the sails and was recycled again.

"Elegant," said the ship.

That night, as the ship fitted and eased itself around the gravity well of the stellar Ring, Waldo couldn't sleep. He'd positioned himself near a port, with Ke2 asleep by his side.

Zz filled the sky. Most of it was invisible - too slender, too far - but even the local surface was huge.

He saw oceans, cities.

He saw clouds, floating over the surface.

The fact he could see it at all meant they were locked into a spiraling glidepath, ending on the side facing space, where they'd begin to unload.

If they waited here long enough, they'd see Splendour fall like a blazing comet, dipping into the Ring's atmosphere.

He'd like to see that.

He'd like to stand on it.

He'd like to be like this, forever.

Ke2 murmured, and nestled into his side.

10 → VOSS

The steel door clanged shut with a finality that felt like flatlining. The cage smelled as if a thousand villains had pissed on its phlegm-colored sides and someone had tried to scrub it away with disinfectant. Hogtied in a truck like he'd make a run for it. He laughed. Clearly they didn't get many priests in these parts.

An engine coughed into life, and with a rattle and a backfire they were away.

Five identical cages sat empty. He was a special delivery.

The last thing he saw was Hope, staring.

He felt rather than heard the city outside. These were the streets he'd wandered two nights before. Horns, snatches of music, voices. New girls, similar music.

The van stopped, then lurched forward again. Shouts. Someone rattled the door, pushed on the sides.

The light when the door opened was blinding.

His cage was carried off the truck by two strong men. He assumed they were prisoners. They were wearing street clothes - rags, barefooted. Macro was naked. His skinsuit had withdrawn. He could feel it, a tumor in his esophagus.

He tried his wetware. Nothing. Probably inside the skinsuit.

"Engine?"

He sighed. That was his name now.

Not Ambassador Deathcult von Engine. Just Engine.

"Follow me."

It was a trusty - gradient-Span, crystalline patterns fading at his temples, a man who'd learned to make himself useful. Disinterested, polite. Shoes like the guards wore.

At least he wasn't about to be instantly beaten.

His feet burned on the cobbles.

Fresh meat, about to be processed.

He followed.

He was given clean clothes - a smock, underpants three sizes too large. He was told to bend over. One of the guards was a woman.

Someone inserted a finger into his anus.

He was given something that made him vomit.

No sign of the skinsuit.

He was asked if he was thinking of killing himself.

"Suicide risk?" said the woman, making a show of wiping her finger. "Knife to the gut? Self-immolation? Hanging?"

"What?"

"What the boss wants to know," said the Span, "is are you going to cause any paperwork?"

He sighed.

"Undeniably."

"Is that a yes?"

"I'm a suicide risk."

Why did he say that? He wasn't sure. To show it was a game. That he didn't care.

The woman grunted. He was shackled again and frogmarched across the quadrangle to a low building with bare concrete cells open to the elements.

He felt one of his shoulders dislocate.

One of the jailers hit him in the ribs with a truncheon.

"Shut your fucking mouth next time."

"Safe cell," said one of his jailers. "Until you come to your senses."

His clothes were taken away. The chains were replaced by a stiff canvas vest, a tabard, tied at the sides. There was a bucket of water, another to piss in. This was his home for the next several days.

At night he froze. The cold desert air gusted in through the space overhead. The stars were like needles. He wanted to use the vest as

a blanket but couldn't get it untied. He couldn't see how it would prevent his suicide. He could always drown himself in the bucket.

He could drown in a teaspoon of piss if he wanted.

There was food, thrown through the bars. Scraps of bread, bones someone had already gnawed. It was all for show. Nobody cared.

He was in pain. He focused, and with a sharp gasp popped his shoulder back into place. He wanted to cry but feared that might trigger an escalation. The last thing he wanted was to be put in a psychiatric hospital.

There was no sign of his wetware.

Until: *Macro?*

Where have you been?

We're being intensively scanned.

Then why are you here now?

The guards are asleep.

Macro understood the protocols.

It's time to forget, said his wetware.

Scrub away, Macro said.

He felt his memories fade, backed up wherever his wetware was hiding. Where was that? He couldn't remember. He knew it had something to do with his intestine, or maybe his esophagus, then forgot about it.

This was standard Bank operating procedure, although he didn't remember that either. It was like peeling away the skin of an onion, until there was no onion there.

The codeword is Axolotl.

What's that?

The new man was called Voss, and he was here to ask Macro questions. The reborn Macro - the foolish priest, resurrected - instantly recognized him as an accountant. By this world's politics, maybe even a priest. The Zed and the Cult believed in complementary things. Both worshipped fungible assets. The Cult created wealth by extending credit. The Zed were the beneficiaries.

"Blessings," Macro started to say. Something inside him told him he was laying it on too thickly, so he stopped.

He smiled. He was sure he was about to be released. That this institution had come to its senses. He hadn't bent space from Trappist-1 to be imprisoned.

Voss smiled back.

This new cell was more amenable. There was a gurney for him to lie on. A chair, which he was sitting in now. A light, shone in his eyes.

Equipment, for him to be amused by.

He wondered if he would be living here now?

Voss saw him squint, and turned the light away.

"You're a priest?"

It wasn't a question.

"Yes. There's been some kind of mistake."

"A quantitative analyst?"

"Yes."

Voss sighed.

"A mistake. Yes. I have to agree."

"But first, let me tell you a few things about Sybil Zipf Ghookaszian. Also known as Sybil Eschatol-Benificen. You know this... person?"

"Yes."

"Do you know ze's a spy?"

"That's impossible."

"Why?"

"Well, I would know."

"Why?"

Macro drew himself up to his full height, as far as the restraints would allow.

"Because I'm important."

"In what way?"

"I'm an *ambassador*."

"Of the Bank."

"Yes."

"Traveling on a diplomatic passport."

"Naturally."

"You must be furious."

Macro sensed a trap forming, but was unsure what he could do about it.

"Maybe."

"You don't *seem* angry."

Macro shrugged.

"I have a baseline level of serenity."

"You have wetware?"

Macro nodded.

"Broca's area, occipital and parietal lobes. I take my vows seriously."

"Might I look inside?"

"That's private."

"Please?"

"No."

"If I insist?"

"Can I see a confessor?"

"Macro, *I'm* your confessor."

Macro blinked.

"Can I have my robes?"

"Robes?"

"My cincture. My stole."

Voss consulted his files. Paper the color of mucus.

"You entered here naked. It says."

"They were taken from me."

"Textiles?"

"Nano."

Voss nodded.

"Ah, yes, they do that kind of thing around here. Nano, slippery stuff that it is. When you're released - soon, I assure you - you can file for compensation. I'll give you the forms.

"But first -"

He consulted his notes.

"Tell me about the Holyfarmer religion."

He was shown to a new cell. This one was less amenable - a cage. The food was acceptable. He found that reassuring. They

weren't actively trying to poison him.

He lost track of time.

He occasionally glimpsed a block-shaped man who he felt should be familiar - tall, red-haired, with charms in his beard, a rough-hewn human in the first stages of becoming a Span, the iridescent early impression of feathers. The man avoided his gaze.

The man was called Inkt, someone said.

He was allowed to exercise with the other prisoners. Every day he was let into the main quadrangle. He became one of the men who threw balls against a wall when new arrivals came in. Some were greeted warmly, as if they had been here before. Some with the same derision he had received.

There was prison scuttlebutt - rumors of war. The Span were planning an uprising. The Span in the quadrangle blinked at the thought.

Someone said they'd seen shapes in the night sky, incomprehensible to human eyes, like dreams, and asked the unfathomable Span what they made of it.

Someone replied - a human - Zz is a trading hub, you idiots. Of course there are shapes in the sky.

He settled into a prison routine.

His meetings with Voss became more frequent. Macro came to rely on them. Voss was a helpful and considerate interrogator. He laid out the bones of Macro's life on Zz, and Macro filled in the blanks - drilling into every meeting, every conversation, every name.

No, he did not know Madame Phi was a spy. Phi was a priest, like he still hoped Voss would be, although he was losing any confidence he'd had on that front.

It seemed plain to him now that Voss was a prison employee. He suspected he'd fallen in with a queer crowd.

One day Voss arrived at his usual time and Macro explained how he found that reassuring. He began to describe how his brain worked, in patterns like fractals. How those patterns were everywhere, at every layer of magnification. Voss cocked his head, and a voice in Macro's head said: *Be careful.*

It wasn't the first time the voice had spoken to him.

One morning he awoke with a tooth missing. A left upper incisor. Then a bicuspid.

He complained. He said to a guard, "I'm not getting enough calcium in my diet."

The guard laughed.

The following day, Voss said:

"Let's try something new."

He paused.

"Are you familiar with psychedelics?"

Macro opened his mouth to answer.

"But first, your body has to know what to expect."

He was already strapped in the chair. Voss had explained that the human body does involuntary things.

A guard approached with a surgical wand.

Voss said, "I regret this.

"I promise you won't feel a thing."

The next moment, one of his fingers was gone. First it was his, then it was there on the floor. He expected it to start crawling.

He began to worry about his state of mind.

"Now, we begin."

Voss produced a beaker of slippery slime, like phlegm. It reminded Macro of the emollient liquids he'd used to wash his hair.

"Drink this," Voss said.

"What is it?"

"It won't hurt you."

"A truth drug?"

"Nothing so primitive. A truth-telling serum would never get past your defenses."

"I have defenses?"

"A firewall," Voss said. "Fascinating. I've never seen one in the wild."

"What are you talking about? I don't understand."

But he did. He felt defensive processes spooling up in his brain, getting ready to rewire his memories. He knew what they were for.

"Drink. Now. If you want to come out of this alive."

He drank.

Nothing happened.

And then - a hollowed-out sensation. The phenomenal space of his mind expanding. The euphoria of an early-onset hallucinogen kicking in.

He laughed.

Like a fairground ride, clanking up the first slope.

He looked at his hand. It seemed solid enough. Then the prison was inside him. The walls, the bars, the rheum-colored tiles - all of it behind his eyes.

He panicked.

"This drug won't cause you to tell me the truth," Voss was saying from somewhere far off. "It'll help you believe what I say."

He felt - spacious, like he was made of light.

"Is it true?"

Where did that come from?

"Of course. There are no other possibilities."

He nodded. It made perfect sense.

Somewhere, on the edges of his cerebellum, he saw a hatchet-faced woman attach electrodes to his thighs and face. Voss cleared his throat.

"Cloth?"

A neutral word. A calibration.

Nothing. Macro looked at his hand.

"Vacuum?"

A twitch. He didn't know where it came from. The hatchet-faced woman made a note. Voss glanced at her. She nodded.

Macro smiled. These were his friends. They'd never lie.

Somewhere, behind his eyes, euphoria was building towards a crescendo.

"Mother?"

Something moved in an empty part of his mind - the part he wasn't supposed to see into. A shape, retreating. A figure, scuttling into the dark. He couldn't quite see.

The hatchet-faced woman started to speak. Voss waved her away.

"Home?"

He found he was crying. He didn't know why. His body doing something his brain never signed off on. He wiped his face with his hand. Noticed the absence where someone else's finger had been.

Voss waited.

"Woman?"

An intake of breath. This was fully involuntary. He gripped the arm of the chair. The word landed in empty space and his mind reached out for it - his pattern-completion engine doing what it always did, always had, always would - optimizing for the best shape that fit.

Voss saw it. The electrodes saw it. The hatchet-faced woman saw it.

"Woman."

Longer this time. Voss letting the vowel fill the room.

"Womb..."

And Macro's mind filled in the blank. Because that's what minds do. They autocomplete. They can't help themselves. Cognition consists of putting one word after the next. His mind especially. The architecture that'd been his gift and his cage his whole life, doing what it always did best -

Kitou.

He didn't say it aloud. Or maybe he did. Maybe his lips moved. Maybe Voss saw it in the electrodes, in his micro-expression, in whatever the hatchet-faced woman was reading on her machine.

Voss smiled.

"There - that wasn't so hard."

He wrote something on his mucus-colored papers. The same pen. The same hand. The same mild, procedural attention he gave to everything.

And somewhere, deep down inside his memories, Macro watched Voss watching him.

Then Voss looked up.

"What are you frightened of, Macro?"

He lifted his head.

"No, don't answer. I know."

Voss leaned back. Not unkindly.

"You fear to be revealed. That's what frightens you most. You fear that you are - how shall I put this? - insufficient. That you will be seen for what you are. That the people around you have learned to accommodate you the way one accommodates a limp, a missing finger, a defect. That the woman you just named - Kitou - stays out of kindness. Obligation. Pity."

Macro's hands were shaking now.

"That beneath your vestments, your protocols, your impressive technology - without all that - there is nothing at all - nothing anyone would want to be near."

Each new sentence landed in the space the drug had opened up. Not as words, but as facts. The insulation was gone. The wires were exposed. The processing layer that spent thirty-two years saying I know this fear is wrong - gone, fried, burned.

"All you are is your vestments.

"You know this," Voss said. "You've always known it."

He heard himself make a sound. Not a word. A sound. The kind of sound an animal makes.

"The people who love you - they endure you. The institution that made you - it uses you. Your twin, your wetware - they buffer you from a world that finds you, at best, tolerable. You will never fit in anywhere."

Macro was shaking. The whole chair was shaking. Or the room. Or the drug.

"Your woman -"

"Don't."

"She *hates* you."

"No."

"She only stays because she promised someone she would. Who was it? The Witches? The Bank? Because leaving you would be like abandoning a - what's the word? - a half-man."

"You're *nothing*."

Macro could feel his mind doing it. The same as it always did. Finding signal in the patterns of human behavior. Every sideways look. Every conversation that ended a beat too soon. Every time

Kitou had turned away and he'd filed it under she's tired, she's busy, it's nothing. The wavefunction had collapsed. All he nurtured was loose on the floor.

Because Voss was right.

Because the drug made the fractal irresistible, and now his mind was spiraling out of control.

"Now -"

Voss's voice was gentle.

"Woman."

And the space inside flooded with grief. Kitou in the vertical forest, turning away. Kitou in a stasis pod, relieved to sleep. Kitou introducing him to her family with that careful smile that meant please be normal, just this once. Kitou on Praxis, lying beside him, her breathing even, and him awake, counting the breaths, knowing - knowing - that she was calculating the cost of staying with him.

None of it was true. All of it ridiculous. All of it was true. The drug didn't care about the difference.

"Cloth," Voss said.

Macro recoiled.

"Blood."

He flinched. The word was a physical thing. A texture. A blow.

"Paper."

His hands over his ears. It didn't help. The words were inside him now. Voss's voice was inside, crawling around on the floor.

He screamed.

"Rocks."

Sibilants landing like blows, vowels like explosions.

Voss laughed. Not cruelly. With professional interest. The torturer discovering that it didn't need the playbook anymore. It just needed to be in the room.

Even his breath. Even the sound of Voss shifting in his chair. Each one driving him deeper, towards the abyss.

Voss spoke words that weren't words. Syllables. Clicks. It didn't matter. Macro's mind supplied the rest. His monsters were home and they were unhappy. Every fear. Every suspicion. Every 3 a.m. certainty that he was broken and the world was being polite about it.

All of it pouring through the wound in his brain, unfiltered, unmediated, air on flayed nerves, the searing pain of light on eyes that have no lids -

And at the same time he knew it was irrational, and that knowing it was irrational didn't help.

"You poor man," Voss said.

And Macro heard it from very far away. One more syllable. One more blow. The signal indistinguishable from the noise.

The sound of his own breathing became intolerable. The sound of his heartbeat. The sound of his blood. The body producing the stimulus it could no longer bear.

He let go.

Not a decision. A release. Like a hand opening. Like a rope falling slack, and his body falling into the abyss. The shore receding. The noise becoming distance. The cell, the chair, the electrodes, the hatchet-faced woman, Voss's breath, his own breath - all of it pulling away, until there was nothing but a soft hum, and then not even that.

He floated away from the shore.

Into his own neurons. The meat. The synaptic space that was there before even the Bank, perhaps even before he was born, before Samppo, before any of it. The place where a boy had once lived, before anyone decided his particular deformity was useful for business.

Voss was still in the room. The lights were still on. The electrodes were still recording.

But Macro was gone.

Voss made a note.

The following day he told Voss everything.

11 → ZEBULON

She woke in the scrub by a rail line in the gray hour before dawn, half-covered by a blue plastic tarpaulin. It was cold. Span workers moved along the right of way in the half-light, humanoid shapes bent against the damp, their legs wrapped in yesterday's news - windblown sheets of bygone tech. The city lay shrouded in mist, concrete and sodium glare, a place where the future had come to die without ceremony.

She roused herself. Every bone creaked. She smelled the oil on the ballast stones and the cool air and the creosote and the alkaline dust of the desert, invisible over the low horizon.

A Span woman saw her and paused. Unwrapped a loaf of bread and offered her some. Not knowing what else to do, Hope accepted, smiling her thanks. The woman smiled back. She knew she must look strange, in scraps of rags and animal skins. Was she even still in Zebulon? Had she somehow managed to find her way back over the river to Taxhavn?

But no. Of course this was where she still was.

She had thought at first this was purely a place for the rich - the bright lights, the wealthy traders. But looking closer she saw the truth of it. There was no underclass here. There was a tiny overclass, and beneath them, everyone else.

It was becoming day. The first few harbingers of morning had turned into a throng. She felt herself jostled among the crowds. She'd never been in a city before, or been jostled by crowds. But she grasped how it worked - the flow of it, the spaces between.

It was like the forest, but ruined.

The streets soon filled with traffic. People pressed against barriers, waiting for gaps that never appeared. She watched them

surge and stop, surge and stop, like the city was breathing.

Were these people going to their work? They seemed to go nowhere.

She shuddered. How did they survive?

She saw a market stall selling clothes. Cheap, perfect for her. It was closed, but she was scrawny enough to slip between a fence and the road. A mouse.

Inside: striped velvet pantaloons and a smock. A hat she could pull over her thicket of hair. She found things that would fit.

How to pay? She slipped an amulet from around her neck. Emerald, most likely worth a fortune here. She left it with her thanks.

She was probably on the city's western edge. The river ran north to south and she had crossed it. The sun rose on what people called the Spinwards side - east, here. Orange and pink over the desert, the light scattered by dust the wind had raised. Zebulon was a blustery place. It pulled at your clothes. The vault of sky overhead was the same deep blue as Fluxor's.

All she lacked was a way to talk to these people. She spoke some Sixish, enough to get by. The Zed settlers spoke Crispr. How could she save him if she couldn't speak?

She paused to watch the sun rise. At least that looked the same in every language, although not on every world. She'd seen hundreds of worlds, glimpsed through the liminal forest.

She'd been everywhere and nowhere at the same time.

Well. She was here now.

The scurrying throngs had become crowds in the markets that lined the railway tracks. People bought food, clothes, electrical goods. Not everyone was destitute. She heard morsels of Sixish, like meat in a soup. Sixish was like the clearing of throats.

She heard Span, although that was not what it was called in Span. She tried asking directions. A meatpacker pointed her toward a distant building, low like a bruise below the glimmering towers.

"Which jail?" he asked.

She shrugged. He sighed.

She saw a child being arrested.

The men had appeared from the crowd without ceremony. Plainclothes, like the ones who'd taken Macro. No badges, no explanations, no drones in the air. The girl was half Hope's age, selling tickets from a cardboard tray, calling out prices in Crispr. Her voice was clear, bright against the morning noise. Her tray scattered, tickets fluttering in the dust. She made no sound as they carried her away.

The crowd parted. Eyes turned elsewhere.

Hope stepped forward, her mouth opening to call out, to object, to do something. A hand caught her shoulder - the market trader who'd pointed her toward the prison. His grip was firm but not unkind.

He placed a finger to his lips. The universal gesture.

Her hands shook. She willed them still.

She drew breath.

Thunder murmured in the far distance, so low she felt more than heard it. The air hung heavy. She knew desert storms - violent, sudden. The darkness stretched across the western horizon like something waiting.

She watched lightning flicker in the heart of it, filaments wandering up into space.

She had nowhere to wait it out.

The street was emptying. People knew what was coming. They found doorways, awnings, the shelter of stalls closing up. She stood in the open.

It was the child's face. The scattered tickets. The way she'd made no sound.

The first drops hit the dust and raised tiny craters. She watched them fall. One, then three, then too many to count. The smell of wet stone exploded around her.

She let the rain find her.

It came fast and hard. The kind of rain that washed the world away. Water ran down her face, into her collar, through the cheap velvet of her pilfered clothes. She was soaked in an instant. She didn't care.

Gulls wheeled overhead, riding the wind that had finally come. The market stalls flapped and shuddered. Somewhere a door banged, banged, banged. The traffic sounds faded. Even Zebulon went quiet when the sky opened.

She stood in it.

The child's face.

The finger to her lips.

Lightning lit the ominous towers. In a flash she saw the whole city - the gleaming spires, the warrens beneath, the prison somewhere inside. Thunder, close enough now to feel in her chest.

The rain was warm. That surprised her. Warm and single-minded and somehow tender, the way it didn't ask anything of her. It just fell.

She thought of the liminal forest. Her green sward. How easy it would be to step sideways and be gone. The trees would welcome her. She'd be home before any time passed at all.

She stayed.

The storm passed the way desert storms do - as fast as it came, the clouds bursting open, the light returning strange and silvery-gold. The streets hissed. Water ran in the gutters, washing the city's dirt into the river.

She felt cleansed.

That afternoon, she made her way to the prison complex. This was no ordinary jail but a labyrinth of walls and alleyways.

She joined a crowd of supplicants waiting by the prisoner gates. People were being released - occasionally someone would gasp and rush to embrace a freed prisoner, but most left disappointed.

She didn't even know if she was in the right place. She didn't want to draw attention to herself or to Macro by asking. Instead, she watched.

She had no intention of following Macro's instructions, not until she knew he was safe. She didn't know if Phi could be trusted, or Sybil. She liked them both, but she knew that wasn't enough.

What would Macro do in her situation?

Demonstrate his intelligence.

She had stubbornness.

She crouched by a wall where a small blue flower had pushed up through the broken glass; a tiny thing, the shoot no bigger than her thumb, pale against the granite worn smooth by the passage of countless feet over hundreds - maybe thousands - of years. How old was this place? It felt older than Fluxor. She pried up a stone with her fingers and felt the coolness of the earth beneath. The plant didn't need her help but she helped it anyway. She cleaned the dirt from its leaves and returned the stone so there was a gap it could grow through. In this blasted place, everyone needed some help.

A man came from the building with a parcel of papers clutched to his chest like credentials. His clothes hung loose on wiry flesh, pale from windowless rooms. Behind him walked a larger man in uniform - a real police officer this time - his hand resting on the billy club at his belly.

Somehow, she found the uniformed police less frightening than the invisible kind, the Animal Spirits. At least you could see who they were. Where she came from, there were no police.

The wiry man's eyes moved across the crowd of supplicants: mothers holding children who didn't know why they were there; old men with their hats in their hands; some of them humans, most of them Span. When his stare fell on Hope, something changed. A tremor, as if the world paused, then started again. He looked quickly away.

This was a glamor - a song of becoming - for when she had to appear small. She hadn't known she was casting it. Or that she could. Or that the bureaucrat would see.

Maybe she had a few powers after all.

A Span child crouched near her mother observed the exchange with the gravity that children bring to mysteries they don't understand, but know to be real. The child blinked once, slowly, like a cat that has seen another cat and signals in the space in-between.

She knew she could step sideways into the green world anytime and be home in a blink. She'd find her way along the paths in the gaps between what is and what could be. But what good would that be?

She could step through the same spaces into the prison itself; into the cells where they kept the people who asked questions or sold tickets from cardboard trays. This was more tempting. She considered it. Maybe she'd find Macro there. Or maybe not. If she was caught there'd be two of them there, and that would help no one.

She washed dishes and spoke to plants and couldn't remember the words to the songs that real witches sang. But she was the one who was here, and she would do what she must.

From somewhere in the crowd came the sound of a scuffle, then violence. A woman crying. Raised voices. The sound of someone being kicked. A thud, then a hiss. She watched as they hauled someone away, a man who had been waiting like all the rest.

The mathematics of herds.

Macro would understand.

She didn't.

She waited until the crowd thinned and scattered, until the guards shuttered the pillbox where the prisoners emerged, until the dust had settled in the empty places where the people had been. Then she waited some more.

"One day you'll push this aside," she said to the plant. Her voice was small in the gathering night but the words carried weight like stones dropped in still water.

She rose and brushed the dust from her knees and looked one more time at the plant pushing up through the cracks in the world.

Then she turned toward the street and went to find Molokai Creep.

The ferryman was at dinner with his family when Hope rattled his window pane. He looked up in surprise. Rain had started to fall - splashing against the muddy riverbank - and she was starting to be drowned. It was nothing like the rain of the morning. This rain was cold. It rained here more than it should in a desert town, but the Ring made its own weather.

"I didn't know where else to go," she said in Sixish, while the ferryman's wife started to make a fuss over her. There was tea and

little sandwiches cut from crusty bread, and a baby Span cooing by a fire.

She started to cry, then caught herself.

The Span woman smiled gently. "I'm Oya," she said. She spoke Span, but Hope understood.

The ferryman untied his boat from the pier. It was the boat she remembered - only the night before - but now filled with rainwater. The rain showed no sign of easing. She helped him tip it on its side, watching the water spill into the river.

Oya watched from the doorway and frowned. She'd told her husband to keep Hope inside for the night, but he'd shaken his head.

"She has somewhere to be," he'd said.

The Bond moved like black silk beneath them, the lights of both cities dancing in the water like fallen stars. It was quiet - only the rain, and the creak of the oar.

Three strokes, then five, then three.

"Forty-seven thousand, three hundred and eleven," Piotr said.

She looked up. "What?"

"Tides." He dipped the oar. "Since I remember."

They drifted. She watched his hands - patient, unhurried.

"Seven thousand, nine hundred and nineteen," he said.

"What's that?"

He smiled; the oar splashed.

"You."

She trailed her fingers in the current and felt the ancient pull of the river, older than either city, maybe older than the Ring itself.

Something brushed past her hand - not a fish, not the current. Something that wasn't quite there.

"Why is it called the River of Souls?" she asked.

"Because that's what it is," he said.

His name was Piotr, and he'd been the ferryman here his whole life. He was six hundred years old.

"Young, for my People," he said.

He told her the desert Span never died; that there were mountains on Zz that remembered the Ring-builders, and it was

impossible to say how old the Ring was.

"Who came before humans?" she asked.

"The Tung," he said. "Some Span... changed that way."

"Like dishcloths?"

He laughed. It was true. The cartilaginous Tung looked like dishcloths.

"How long ago was that?" she asked.

"Oh, in a lifetime," he said.

"Were you one of those Span?" she asked.

He laughed. It was like the splash of his oar in the water.

"We..." He seemed to struggle for the word.

"We become you," he said.

"We approach the limit of you."

"Well, you look like a regular Span," she said.

It was true. Piotr was what the Zed called a Lizard.

The Taxhavn shore appeared slowly out of the mist. Hope had seen this before, the last time she was here, the organic cityscape like an illusion before her. Wisps of yellow fog wrapped around streetlamps put there by the Zed to banish the shadows. Zebulon's pulsing neon skyline was a memory now.

She saw a figure in the shadows - motionless, crystalline patterns catching the faint light at his temples. There were no serpent guards this time. No basilisk glare of the desert Span waiting by a secret warehouse door.

Only a man in the rain. A Span, not a man.

She could already feel the pull of the place - old, like the liminal forest. She could get lost in these deep waters.

"Come, child," Creepr said. His voice was warm. She expected febrile nonsense, words she couldn't understand.

He led her inside. The warehouse was as she remembered - racks of antique computers, broken pallets, whorls of dust. No languorous dragons. Just shadows. She counted them without choosing to. Three exits. Seven shadows. Her heart was racing.

A Span child watched from the darkness - this one had features, a face.

"So," Creepr said. "Why are you here?"

"I need help."

"Like a flower, reaching up to the sky?"

She stiffened. "How do you know about that?"

"I have eyes." He gestured at the Span child. The gems at his temples pulsed, slow. "What kind of help?"

"It's about Macro."

This was a different Creepr. The frenzied counting, the insectile suddenness - gone. He seemed almost relaxed. Maybe it was because the war was here. That's what people were saying in the streets.

"Ah. The man with the arithmetic. What about him?"

"He's been arrested."

"I told him."

"I'm worried he won't be released," she said.

"Why? He's a political."

She sighed. "I don't really know what that means."

"It means they'll hold him for a while to show they can. A message to Sybil and Phi. A deposit into their bank of fear."

She shook her head. Raindrops splashed on the concrete floor. Seven drops in three seconds. Light rain. Clearing soon.

She blinked.

This place was getting to her.

"I know what I saw," she said. "Outside the prison. It's random. Intended to scare people."

"Are you scared?"

She nodded.

Creepr was quiet. Then he turned to the child.

"Ghibl?"

Something passed between them. Hope felt it - a shiver in the air, at the level of minds. Perhaps through the Ring-stuff. Who could explain the Span?

Creepr turned his gaze back to Hope.

"This child says you're... unusual." He paused. The gems at his temples vibrated. "Asymptotic."

Hope didn't know what he meant. She was tired. She was scared. She was standing in a warehouse full of shadows asking a monster

for help.

"Are you going to help me or not?"

Her voice came out steadier than she intended.

Creepr tilted his head. The facets of his face caught the dim light.

"Why are you here, Hope d Lac?"

"I already told you."

"But why?" He stepped closer. "You could let go... escape into your green world."

She didn't remember walking, but they were outside now, at the river's edge. The weather had cleared. Zebulon's lights reflected in still water - two cities, one real, one a reflection. Somewhere between them: Piotr's hut. Beyond it: the prison.

"Because he's mine to protect."

"Yours?" Creepr's facets caught the light. "You own him?"

"He's my responsibility. When someone trusts you - " Her voice caught. "I can't let him down."

Creepr glanced at Ghibl. The child nodded.

Somehow they were back inside the warehouse.

She stared into the dark where the pigeons should be. Macro would joke about them being eaten.

"I don't belong in this place."

Creepr looked at her with his missing eyes. She sensed herself being counted.

"When has not belonging ever stopped you?" He paused. "If it had, you'd never do anything. And yet. Here you are."

Three seconds of silence. She was counting the seconds now. What was happening to her?

"Why are you like you are?" she asked.

Creepr went still.

"You humans," he said. "You have no center. Predators."

"You Span are predators too."

He shook his head. "Not by choice. Just when we must."

"I don't understand."

"I'm like your immune system," he said. "Like the leukocytes in your bloodstream. White blood cells. Antibodies. The Span lack those. We're prone to infection. We have to manufacture them."

"What - in factories?"

He laughed.

"Not like that." He paused. The gems at his temples pulsed. "Like this..."

She closed her eyes.

The green world. The liminal forest, familiar, pressing close. Leaves trembling with water. She knew this place. She could breathe here.

Then the ground gave way.

Not falling - breaking through. The forest tore like wet paper and behind it: geometry. Angles that couldn't exist. Something vast that had always been there, screened from her. Cold. Ancient. Not hostile. Just real in a way that made the green world feel like paint on glass.

She fell through.

And then - stillness.

She was in space. The Ring below her, curving away into forever. Mountains like fields of knives. Oceans catching starlight. The slow drift of clouds across a world that wasn't a world.

Peace. For the first time she could remember. Peace.

{Who are you? I am the World.}

It was like a vast ringing.

{I'm Hope.}

The World smiled.

{You are.}

She was gasping on the concrete floor. When had she fallen? Her hands were cold. Her heart was slamming against her ribs.

Small arms around her. Ghibl, holding her steady. The child's skin was cool and dry, like paper.

"Breathe," Ghibl whispered. "Just breathe."

Hope breathed. The warehouse came back slowly - the dust, the shadows, the rusted servers. The vision was already fading, but something remained. A weight. A knowing she couldn't name.

Creepr stood over them, waiting.

"I need you," he said.

She wasn't afraid of him anymore. She should be terrified.

"Your friend - the one you want to save - he thinks in terms of civilizations. Politics. The great game." Creepr's voice had softened. "And he's so clever. But now he's in prison, and you're not. Why?"

"I'm not important."

"Or is it because small things slip through cracks that large things cannot?"

He paused. Something in him had changed. The predator stillness was gone. He looked at her the way Piotr had looked at her - ancient, patient, almost tender.

"Would you like my advice?"

She wanted someone to make the next choice. To be told what to do.

She nodded.

"Please."

"There's a man called Yokohama Slim. Dangerous. A drunk, I'm told. But reliable. Find him. Tell him the ferryman sent you."

"You're not the ferryman."

He laughed.

"Child, I'm everybody. Say you wish to make a trade, in return for five minutes alone with your friend."

"Trade? Trade what?"

"It's code. Although he might ask for payment."

"Why five minutes?"

"To tell Macro you're safe. To hear what he wants you to do. Escape through the liminal forest if you wish. Or stay and fight with us."

She looked at him for a long moment.

"You want me?"

"I think the cosmos loves you," Creepr said quietly. "And people like you are one of the ways it protects itself."

He smiled. Not the sinew-twitch from before. Something realer.

"Find Yokohama Slim. Get your five minutes."

"Will you be here when I get back?"

"Where else would I be?"

She looked at him.

"Oh child," Creepr said softly. "This is my war."

12 → BODY MEMORY

He awoke. The operating theatre again. The smell of disinfectant and cold steel. The particular quality of light that belonged to rooms where things were done to people.

The hatchet-faced woman was already at her tray. An instrument he didn't recognize - tongs on a retractable hose, like something from a veterinary surplus. She held it up.

"Which end first?" she asked. Her voice was almost sweet. Her accent turned the consonants to gravel, but the voice itself was light, musical. She could have been discussing the lunch menu.

He didn't understand.

She laughed.

She gave him a local. The cold sting of the needle, then spreading numbness, then nothing where his throat had been.

"So you can feel it come out," she said.

"Feel what?"

"Soon you'll see." She nodded toward the technician. "These things come in all shapes and sizes. Yours is in deep."

"What is?"

She turned the screen toward him. Antique X-ray blue. Inside it his body - the familiar geography of organ and bone - and something else. A nodule that wasn't bone.

He shuddered.

Something that had wormed into the spaces between and hidden inside.

"That thing. How did it get inside me?"

"How's your gag reflex?" she said.

"Why are you doing this to me?"

She looked at him the way you'd look at something distasteful stuck to your shoe.

She picked up the tongs.

He awoke in his cell. How long had he been out? Hours, maybe. His gut ached. His stump hurt. His finger ached where it used to be.

His jaw ached where it had been clamped. The prison continued around him, without him. The clatter of meals being prepared. He was no longer part of that set.

He knew something was gone - an absence where something important had been. He didn't have the memories to understand what it might be.

Samppo?

Nothing.

Kitou?

All he had left now was Voss.

And the sweet-voiced, hatchet-faced woman.

He was haunted by ghosts. A lifetime ago, he'd left his lover to die. He'd had no choice.

We live on the edge, because we don't understand time.

He had stepped into a stasis device. He thought for only a decade. He woke two million years later. This was not what he asked for, but it was what was required. Totoro - Kitou's brother - had explained, and he had believed, and he had never forgiven anyone for it, including himself.

While he had slept, Kitou died.

There was no coming back from that.

His friend Aloïs Buss told him it didn't matter. Time is a story, Aloïs had said - a story, told many times. There is only one Kitou. Aloïs had promised.

Now Aloïs Buss is alive.

He'd been thinking about this for years, around and around. The thoughts had worn grooves in his head.

Is Kitou alive?

And now he was mad. Perhaps not clinically insane. But empty. A husk.

This was the sting in Voss's torture, if Voss only knew. Macro knew Kitou was out there. He spoke to her often. She was on Praxis, on her own secret mission.

The real one - not the ghost of his memories.

The same Kitou, if Aloïs Buss was to be believed.

But the ghost. What had happened to her? It was in a drawer in his mind he had never opened. Voss hadn't known - couldn't have known - it was there.

Now he was all cut open and he could see what was inside.

Nothing made sense any more. His only defense - against time, loss, his choices - had been taken away. The broken machine, running on dry bearings.

He didn't know what to think about any more.

Around and around and around.

What had happened to her?

How did she die?

He was left with the question for days, while his physical condition deteriorated.

One day he awoke without his right arm. Where had it gone? The thought that he'd left it somewhere worried him.

The wound festered. The trustees would come in and dress it but still it wept, in remembrance of loss.

He found himself in an operating theatre, conscious and unanesthetized, while the hatchet-faced woman busied a scalpel, and all the ichor came pouring out.

He remembered the hatchet-faced woman wiping the pus off her surgical gown.

The pain was a welcome distraction.

How did she die?

Was it in the final combat with Kronus, while she waited for Macro and his reinforcements to arrive?

Had Kronus killed her like he killed Ito?

Or was it more mundane? A battlefield injury. Her blood all over the ground with the feces and mud.

He wept.

Time unspooled, while one by one his thoughts fell out of his soul. The fresh Zed who visited him - was he a psychologist? Or a mortuary attendant fitting him up for a box? - told him it was a fugue state.

A shrink, fitting him up for more time with Voss.

Macro laughed about that, the thought irresistibly funny. He might've laughed for a long while.

A dissociative fugue? Sure, Voss would care about that. Voss wanted him back inside his memories, where he could do the most harm, else what was the point of the game?

Or a musical fugue? Yes, that was right too. A fugue in which all the voices were his.

Around and around and around.

One day a stranger arrived in his cage.

This wasn't unusual. He had no privacy now. People came and went, or glanced in through the bars to where he lay in his own filth. But this one was unlike the rest. She was green-skinned to start with.

Macro had seen many aliens, but never a green-skinned one.

Green-skinned, and black-haired, with nubs of ruby horns that ran down the sides of her face.

He started to ask her where she was from, but she held up a hand.

"Macro, I've been waiting for you."

"It is Macro?"

He hauled himself up with his good arm to his full sitting height.

"What's left of me," he said.

It was the first time he'd sat up in eons. His joints hurt. His missing arm hurt.

She laughed. It was like water splashing on rocks.

"Hope sent me," she said.

Macro grimaced with pain and irony.

"Or she would, if she knew."

The girl looked momentarily confused, then relieved. Was it a girl? She was the shape of a child, but her features were older -

perhaps seventeen. Hope's age.

Was Hope coming?

"She knows," said the girl. "Otherwise she wouldn't have sent me. I know how human time works - biological time - one thing first, then the next."

"Human time?"

Clearly, the girl wasn't human.

"Animal time. Entropy-time. That's what Hope wanted me to talk to you about. Future-Hope. Now-Hope doesn't know yet. I'm sure that doesn't make sense."

"Know what?"

"What I'm about to give you."

She came close and stared in his eyes.

And he saw - everything.

One thing first, then the next - he was alone, and then the prison was silent. The clatter of plates had stopped. Dust eddied in the empty corridors.

His thoughts were a million years away. He had to drag himself into the present.

Then there were Span in the hallways. These were not prisoner-Span: they were desert-Span, with their sulfur funk, filling the prison's labyrinthine spaces with their jeweled muscularity - the same basilisks who guarded Creepr's warehouse citadel. The prison had not grown to accommodate them. They were what it contained.

Then Creepr was there, ushered into the cell by Inkt, who Macro remembered now.

He remembered everything.

His nerves were wires. The air on his skin was almost unbearable. The smell of sulfur and desert and something green and living - he hadn't smelled anything living in weeks.

Then Hope was there. Black-haired and green-eyed, like a ball of electricity.

She launched herself into his waiting arm.

Everything hurt. He didn't care.

"Oh Macro," she said.

"Five minutes," Inkt said.

She stared, twisting a rag in her hands. She was dressed like a Zebulon street urchin. He laughed, but it came out as a sob. "Let me take you out through the forest," she said. "We can do it later, after I've gone, now I know where you are. No one will know how you escaped."

Macro smiled. He touched her face. She was really here.

"No," he said. "There has to be a show of force."

"Then come with us now. I can fight."

Inkt scowled at that.

"No," Macro said. "Someone is coming to save me."

"Who?"

"I don't know yet. But it'll be the right person."

"Right? How? What do you know?"

He laughed - a real laugh this time.

"One thing after the next."

They talked - briefly - about Hope's adventures. She leaned close.

"I'm going to be in the resistance."

"Why are you whispering?"

"They don't know yet."

He laughed again. The old Macro would have tried - unsuccessfully - to talk her out of it. Would have sighed, and constructed an argument about clandestine logistics, and knew he was wasting his breath, and said it anyway.

"Well," he said. "Try not to kill too many people."

She nodded, gravely.

"I have an idea that doesn't require violence."

He sighed.

"Hope," he said. "It's so good to see you."

She hugged him again, gingerly, around the side that remained.

The physical part of him that remained.

His five minutes ended.

His rescuers arrived the following day. It was the hour before dawn, and thunder was wracking the skies. Rain had started to fall through the open space at the top of his cell. He was already up and

about, tending his wounds. The pain bothered him more now he could think about it.

The prison had returned to its usual Brownian motion when there were shouts in the quadrangle outside, then a percussive thud in the distance. The fizz of unsuppressed beam weapons. The prison shaking. The clap of battlefield kinetics, then silence.

Macro watched the dust settle out of the rafters onto the floor. A quick shout of pain somewhere.

A few moments later the corridors were filling with soldiers in roiling black armor like tornadoes, and striding through the midst of them was a man Macro's age, dressed in the dusty combat nano of a Magellanic commando.

He was tall, about Macro's height, about Macro's age, with a scar that ran down the side of his face.

"My friend," Macro said. "I've been waiting for you."

"You knew I was coming?"

"Something like it. Not this. It's a pleasant surprise."

The prison had stopped shaking now. This wasn't the kind of extraction he planned when he arrived on Zz.

Totoro nodded towards Macro's missing arm. "We'll grow that back."

"I liked the old one. It'd grown on me."

"And that?" He gestured at Macro's right hand.

"Yes, you can't have too many fingers."

The man laughed.

"Do we level this place?"

Qq prison didn't seem quite so oppressive now; the squatting toad had been cut open so he could leave.

Macro shook his head. "You made a big hole?"

"A small one. We were precise. No one will know we were here."

"Except everybody who saw."

"Screw them all."

"Well," Macro said. "There is a hatchet-faced woman."

And then he was gone, into the storm.

13 → RUPTURE

Blood sprayed like a scream along the bulkheads of the passageway that led from the captain's quarters. It gleamed in the strobing light. Already it had begun to pool in the weak gravity. Kat rounded the corner and stopped.

A foot with its nails painted gold poked out from the captain's doorway. Haxty was there, pulling off his shirt to cover the shape it was attached to. She couldn't work out what it was.

Waldo stepped past her to help.

The ship started to scream.

Klaxons, then a gritty whine in her wetware, then a visceral scream taken up by the crew.

The lights glitched.

Bily came around the corner and skidded in the blood. It was pooling in a different direction now.

She'd seen blood pool like this before.

"Get a grip," Bily said.

Did she mean the ship?

Then Kat heard it. Her own voice.

She was the one screaming.

Ke2 appeared behind her.

"What's that?"

"Psych. She's dead."

Then Atomic was there.

"Options?" Clean, professional - like he'd done this before.

"Perimeter," she said. Her programming reasserting itself. Waldo on point, dealing with the remains. Psych's remains. He needed covering.

Kat fell back to one end of the corridor.

Atomic nodded and pushed past Bily to the other end.

Bily glanced up, irritated. Atomic held up a hand, pointed to his eyes. Bily nodded.

So Bily was a soldier too.

All this was happening below her consciousness.

Psych was dead. Who would do such a thing?

It was all she could think.

Who would do such a thing?

She heard the deep clang of airtight doors slamming shut throughout the ship's survivable spaces, like a succession of bells.

Ejecting, she heard the ship say in her wetware.

Ejecting what?

Then she saw strangers floating in space. The ship was giving her a view through her wetware. Three shapes spiraling free, trailing tendrils of glitter - water ice from the air that had been ejected with them. Forced decompression.

The ship, defending itself.

And beyond, a ship that shouldn't be there.

She gripped a guardrail. She couldn't breathe right.

"Kat?"

It was Ke2.

"I'm okay," she said.

Ke2 was staring into her eyes. That unnatural calm.

"Haxty says we must go."

Kat nodded.

The wild groaning of the ship's structure told her everything. It had no intention of running away.

Now they were in the cargo bay. A lifetime ago, this was where she'd watched Ke2 unpack her Walkers. A gantry nudged an escape pod into position, then acceleration tore it away. Anais narrowly avoided being crushed.

The whole rack of life rafts tumbled free.

Ke2 darted through the chaos to grasp her purse from the bench where she'd left it.

She saw it all in slow motion.

Although there wasn't anything she could fight.

New klaxons. Evacuate.

Seed King?

Kat Zam. You must leave.

Six minutes.

Her world slowed. A cargo bay bulkhead dented inward - a hemispherical impact the size of her fist. The sound was like all the world's bells.

"Railgun," said Atomic.

"From behind us," Waldo said.

She spun and saw another ship.

The Seed King vented clouds of gas and seeds from a hull breach. Space around them blazed every color.

She saw Waldo's lips move, and realized she was deaf.

Crew running in every direction. Smoke. The pungent aroma of burnt insulation.

She saw someone crushed.

A lifeboat detached, spun away.

...Haxty?

Haxty appeared. Blood soaking his sleeve. Handing out capsules.

"Armor," she heard him shout.

The capsules were huge, slippery gel.

Waldo stared at his, thinking it through. Ke2 just swallowed hers. Two different kinds of competence.

Haxty put his in his mouth. His clothes were replaced from within by a soft black surface.

Atomic followed suit.

Kat grimaced and swallowed hers. Not brave. Aware she was last.

The capsule went down like swallowing a stone.

Then it activated.

She dropped to one knee as something unfurled inside her. Spine stiffening. Fingers splaying wide. A thin filament slid up the back of her throat, black and wet-looking.

She could see it through her wetware. Going in. Not externally. Internally.

Her ribs tightened. Joints recalibrated. A second skin woven beneath the first.

She couldn't scream. Her throat was sealed.

But her eyes stayed open.

Real courage looked like Ke2's serenity, or Atomic's clean professionalism. Not this. Shaking. Barely functional.

The nanobots oozed from her skin, covering her in slippery blackness. The suit anesthetized the worst of it. Not for her sake. So she would do it again.

A railgun round passed through the ship.

She felt the suit's systems overwhelming her wetware.

Then she was in vacuum.

She could see both attackers - the first maneuvering its cutting wand into position, the second firing railgun rounds along its dorsal spine. Between them, the Seed King closing distance. In the far distance, a third.

Ice cutters. Asteroid miners. Company identification painted over. Not pirates. Contractors.

She was cold. She could feel it seeping into her bones. Her old suit would've kept her comfortable. This one didn't care. She was only as warm as she needed to be.

Silence.

And the sublime beauty of combat.

She saw Haxty's torso open up, a bloom of red frozen around him. His suit sealed. He blinked. Surprised. Alive.

Beams arcing across blackness. Broken hulls spinning.

A pod tumbled, slow and perfect, across her field of view. Someone unconscious inside it.

This should not be so beautiful.

Kat?

It was Atomic.

She felt arms around her from behind. Then Waldo pushed past them both. They were converging. She hadn't moved. None of them had.

Vitals. Forty, forty-two, thirty-eight.

Too much information. She felt faint.

Haxty?

Sedated.

Ke2?

I'm fine.

The girl was floating towards them. That unnatural calm, even here.

Then she saw it.

The Ring.

Mountains below her, stretching for thousands of kilometers. In the far distance, oceans. The atmosphere a thin bright line.

The largest landscape she'd ever seen.

In the furthest distance, the horns of it began to rise.

Rivers and fields. A city - towers of glass catching the light. High in the atmosphere, a storm flickered with heavenly sprites.

The battle still raged behind them. Flashes of light. Silent.

Falling? she asked.

Yes, said the suit. *Your current path ends at the surface.*

How will we slow down?

The Ring has detected you.

A blur of light. A warmth. Something like eyes.

Then a voice in her Self:

{Who are you?

I am the World.

Fly into my soft wings, all the little creatures.}

CODA

They descended in a ship made of wood through lenses and scallops of warp. The ship had no shields; stealth was its only defense. Beam weapons flashed in the darkness, tearing the void. They lurched, then slammed into a lower orbit.

Aeron was Akito's ship. Brin Lot was his passenger. There was barely space for two. It was a personal spacecraft, its crew a collection of worldspirits: a ghost in the engines, the god of a latch. Built from ironwood, fibrous and tough. Their air was rich in oxygen; if they were hit, they would burn.

They were a strange and ethereal crew in the Big Empty.

Kleinbottle was a prison world, perhaps the most secretive place in the human galaxy. And now it was under attack.

They were here to perform an extraction.

Their pursuers couldn't see Kleinbottle, and this was their brief advantage. The danger was them being followed. It was a risk they had to take, that they would lead their pursuers to a place they hoped to keep secret. They banked hard to avoid a looming shape in the night.

"She's dreaming," Akito said, laying a hand on the breathing skin of his ship.

Brin said nothing. She knew better than to ask. She was wearing her Po skinsuit, for the first time in years. She was a crofter now. At home on Fluxor, her wife would be tending the powderfruit trees, the sun peering over the edge of the Algoma'aa Valley. The smell of coffee. The dog barking at nothing.

Now she was getting ready to fall onto an alien world.

They braked again. It was a violent descent, but efficient.

The roiling clouds of warp were Kleinbottle's defenses. The world was a creature - alive, aware - built to contain Kronus after his defeat. Or what remained of him. She remembered his face. The way he'd made her want to trust him. The backwash of his presence, like heat from a furnace.

She pushed the memory down.

She was a soldier. Now it was time to remember.

They skidded to a halt, a hundred meters above the surface.

"Ready?"

She nodded.

"As I'll ever be."

The prison world's surface was pocked like skin. Gas vented from micrometeoroid scars - Kleinbottle's respiratory system, breathing at cometary speed. The world sailed through asteroid fields, gaining sustenance from the myriad impacts.

She jumped.

This was standard procedure. The Po didn't land ships on the surface of worlds. They fell in skinsuits.

Pain. White-hot needles on her skin. A targeting laser had found her. Her wetware fired a suppression field -

Then nothing.

Where am I?

Silence. Her suit wasn't responding.

She found herself suspended inside a pearly visual field, her limbs stretched impossibly far, impossibly thin - spaghettified, as if falling toward the event horizon of a singularity.

Then sound. Bright, jarring, slightly manic.

A carousel. Steam organ music. Children's laughter.

She slammed to the ground, uninjured.

An amusement park. Empty except for her and a boy playing a pinball machine. Scraps of paper and candy wrappers stirred in a dusty wind off an invisible sea. Somewhere, gulls cawed. The distant wheeze of a calliope. The smell of salt and rust and spun sugar.

A virtuality.

"Who are you?" the boy asked.

"I could ask you the same question," she said, feeling her arms and legs. Still there. Still hers.

Where was her body? Or was this her body?

"You came at the right time," he said, without looking up. "I just beat him."

The flippers clacked, but nothing moved.

"Beat who?"

The boy looked up and smiled. He was maybe eleven.

She shook her head, consciousness settling.

"Kronus. Have you come to rescue me?"

"I'm Eigenplane," he said. "But you call me Aleph."

"I'm here for Kronus," she said.

"Then you'll want me."

"Why? Where am I?"

"In Kleinbottle's gamespace."

"My physical self?"

"Safe."

"And you?"

"I'm the containment." He turned back to the pinball machine.

"You can't take him without taking me. Or he'd be free."

The park consisted of a central arcade, its entrance a grinning clown's face, with booths on either side. Newspapers gusted in the breeze. She could feel the ghost-clamor of children running through - laughter just beneath hearing, footsteps just out of sight.

"How do we get out of here?" She looked at the vast, leering face that made up the front gates, with empty turnstiles clacking as invisible children passed through. "Do we walk through the gate?"

"No. Nobody ever leaves that way." He took her hand. His fingers were cool and dry. "But I can take you. I know the way out."

To one side stood an abandoned pavilion, painted with laughing clown faces, next to a long-dry dunking pool. The music was coming from in there. She sensed movement at the edges of her vision - shapes that scattered when she looked directly at them.

She pinged her wetware. Still wearing her Po skinsuit. Still armed.

"What's in there?" she asked, gesturing at the movement that wasn't quite there. "Why can't I see it?"

"It's him."

The child's hand tightened on hers.

"I'll show you."

Inside the pavilion were mirrors. Each one angled slightly differently from the rest. Inside each mirror was a reflection of Kronus.

She stopped breathing.

He was still the self-regarding godling she remembered: big, with forearms like hams, and a laborer's slack musculature. A beautiful man. Even fragmented. Even now.

The mirrors multiplied him. A dozen Kronuses. A hundred. All watching her. All smiling that smile she remembered - the one that made you want to trust him, want to reach out and touch his malware, want to believe that a man who spoke of God couldn't really mean to unmake everything.

She thought she'd seen the last of him.

"Is he real?"

The child nodded.

"He lives in here like stories do."

"Can he escape?"

The boy turned to her. His eyes were old. Older than the park, older than the mirrors, older than anything she'd encountered in this place.

"Not as long as I'm more complex than he is."

He smiled. A child's smile again.

"Now - can we get some ice cream?"

The child spent the next half-hour pestering her with questions.

"Do horses lay eggs? Are trees scared of the wind? Will it hurt when I leave?"

Brin answered as best she could. The questions kept coming. What is the Helix? Have you ever died? Why am I here? She understood, dimly, that this was the point - the complexity, the unanswerable questions, the way a child's mind moved from point to point without resolution.

This was what held Kronus.

$$z(n+1) = z(n)^2 + c$$

"Do you ever get out of here?" she asked.

"This is me," he said. "I am this place. I make the mirrors."

She was quiet. She'd been in prisons before. She'd never met one personally.

Overhead, an uncanny sun descended toward the invisible sea. Fluorescent lights flickered on in the looming darkness. She scanned the sky. Shapes moved there - not nebulae. Nothing that belonged to any astronomy she knew.

"There are warships," she said.

"I'll take care of those."

"Then why not stay?"

She knew as soon as she asked. The warships outside weren't the problem. The problem was that they'd found this place. She'd found it. Every observation changed what was observed.

The boy was watching her - patient, aware, vastly more intelligent than she was.

She'd been here half an hour.

Half an hour of gamespace time - half an instant outside, in the Real. Soon, her physical body would fall on the real surface.

"Time to go," she said.

He nodded.

"I knew you'd say that."

To be continued.

Escape from Samsara is the first book of The Spiral Tribe.

The Spiral Tribe is the second instalment in the Thousand Worlds Cycle, which begins with The Water Bear.

www.amazon.com/dp/B0G4PBH6RP

Book Two of The Spiral Tribe will follow later this year. Book Three - Return to the Source - in 2027.

ACKNOWLEDGEMENTS

Thanks to the Bibbulmun people of the Noongar country of south-western Australia, the abiding custodians of the ancient and beautiful land this book was written on.

sonder - n. the realization that each random passerby is living a life as vivid and complex as your own. is from **John Koenig's** The Dictionary of Obscure Sorrows. This trilogy is like that - lost moments, during a war, passing at dusk.

For us believing physicists, the distinction between past, present, and future is only a stubbornly persistent illusion.
is **Albert Einstein**, in a letter of condolence to the family of his lifelong friend Michele Besso.

The mathematics in this book is [I hope] not decoration:

$$\partial V / \partial t + \frac{1}{2} \sigma^2 S^2 \partial^2 V / \partial S^2 + r S \partial V / \partial S - r V = 0$$

is the Black-Scholes equation - the scripture of modern financial derivatives. It prices risk. It turns uncertainty into a number. In a civilization that worships economics as theology, this is the foundational prayer. For shareholder value. What else is there.

$P \neq NP$

is the unsolved problem of computational complexity- whether problems that are easy to check are also easy to solve. Often they're not. Peace cannot be derived from axioms. Creepr has tried.

$$e_{in} + 1 = 0$$

is Euler's identity - five fundamental constants of mathematics joined in a single equation of impossible elegance. It was written on a chalkboard in a ruined warehouse by a crystalline alien counting pigeons. Where else would it be.

$$z(n+1) = z(n)^2 + c$$

is the Mandelbrot set - infinite complexity generated from a simple recursion. This is what holds Kronus. A child's mind, iterating, never resolving. Complexity as containment. The equation that never ends. All of it tingles my spine. If I had never been an engineer, I would like to have been a mathematician.

Theo Jansen's *strandbeests* - real machines, walking the beaches of the Netherlands - are the ancestors of Ke2's Walkers. I borrowed his creatures and gave them to a girl with an impossible purse. I hope he would approve.

Animaris Siamesis

Suicideem, the Period of Self-Destruction

2009-2011

Alan Furst made me want to write the intrigue - the operatives in bars, the resistance in taphouses, the decisions that rearrange worlds made over shellfish and bad wine. The dark spaces are his territory. I am a grateful trespasser.

Nick Cave, after the death of his son Arthur, wrote:

The truth is, we all live our lives dangerously, in a state of jeopardy, at the edge of calamity. You have discovered that the veil that separates your ordered life from disarray is wafer thin.

I have borrowed those words. The blanket. The hull. The skinsuit. The void. Every membrane in my trilogy is that diaphanous veil.

Hayao Miyazaki showed me that the most devastating thing in fiction is ordinary domesticity rendered with the knowledge that it will be taken away. I want to dedicate 9 → Slowly, Together to Miyazaki: The bread. The flour on the counter. Don't squeeze. Turn.

A chapter where nothing happens except people being kind to each other, and the reader knowing that the war is coming.

James Joyce is the greatest writer who ever lived, alongside **Fyodor Dostoevsky**. These are my heroes. Joyce taught me - teaches everyone who reads him - that characters can arrive as already-known to the prose, that the reader catches up to a consciousness the writer has lived with, that introduction is unnecessary when the intimacy is real.

I am not Joyce and never will be. I took a few risks for my art. Some of them are in this book.

In particular, I write as an autistic man. The only reason I can write Walso Zam is I've seen his struggles from the inside [without the benefit of his extraordinary intelligence.]

It would never occur to me that Joyce is autistic. His portrayals are too naturalistic and vivid for that. What Joyce is, is *risky*.

Iain M Banks remains the reason I write science fiction at all. I hope my prose still wears its thanks on its sleeve.

Ann Leckie's *Ancillary Justice* gave me the courage to write a ship as a person. The Seed King descends from Justice of Toren the way a grandchild descends from a grandparent - different, but carrying the same questions about why consciousness is and who gets to have one.

This book was written in bars, on trains, on an iPad in Fremantle, and in conversation with an AI that served as the world-class literary editor I could never dream of paying. Thank you, **Claude**.

There is a predictable controversy about how to use AI in writing. About what is ethical. Here is what I think: All of the ideas in these books are mine. I wrote *The Water Bear* without AI, and spent years polishing it. Having Claude as an editor has saved me years. I write the first drafts. Then we polish. I have a Claude project trained with all my past work. Claude helps me the way an editor would, except that Claude is available every day, at all hours, whenever I have an idea. I use Claude as a sounding board. When I write nonsense,

Claude tells me. I have trained my Claude projects not to be sycophantic.

These are the same techniques I use in my engineering and research, except I am more rigorous here. When I work with Claude in my research, Claude often invents. I have no problems with that. But this is my art. I have no commercial ambitions. I have no desire to have any machine - no matter how capable, how remarkably intelligent - paint brushstrokes for me. I don't understand why anyone would want that. Each to their own, I suppose.

ABOUT THE AUTHOR

Groucho Jones

Groucho Jones is an author and engineer. He has been a barman, cryptographer, van driver, academic researcher and tech CTO. He holds patents in cryptography and applied mathematics.

Groucho writes sci-fi and lives by the sea.



BOOKS IN THIS SERIES

The Thousand Worlds Cycle

Escape from Samsara is the first book in The Spiral Tribe trilogy and the second installment in The Thousand Worlds Cycle - a series set in a near future where human civilizations have spread throughout the Milky Way and the Magellanic Clouds. The Water Bear is where it begins.

The Water Bear

The year is 2075. The people of Earth have been prevented from destroying their own planet. While protestors burn cars in the street, Ophelia Box — Scottish, a historian, entirely the wrong person for the job — is recruited into a covert peacekeeping unit whose mission is to prevent a genocide.

The problem is the genocide is in the past.

Her companions are soldiers of the Po, the special forces of the human galaxy. Their clever and deceptive ship is called the Water Bear.

"A long time ago..." he began, and Box could see the children were rapt. They were sat in a semicircle, with the debutantes in front of the fire, and the robot Chance on the other side. Somehow, the cold had receded, and they were all sitting comfortably.

"...in a place called the Real, on a planet called Earth, I fought a mechanical spider."

A story about soldiers: not how they kill, but what they protect, and what they are forced to become.

"One thing soldiers struggle to find is peace, Dr. Box. We do rough work sometimes. Rough on the people who do it. Rough on the people who have it done to them."

Space opera of epic scale. Kaleidoscopic in structure, literary in ambition, breakneck in pace.

Perfect for fans of Iain M. Banks, Ursula K. Le Guin, Ann Leckie, and China Miéville.