

## Life Artificial

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696e672e20202d2d54686520307820
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e1.1

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## Prologue to Part II

The monsoon has pooled refuse and dirt into stinking lakes along every street in the Queen City. Some will be impassable until the sullen water gives up its soul to the sun and to sluggish sewers. The gutters are gorged and the drains regurgitate putrid secrets. The city swims in its own filth, and even the high ground west of uptown is not immune from the cloying humid embrace of Mother Summer, whose breath reeks of vegetation, decay, and broiled concrete. Only the crowns of the skyscrapers are truly above the inundation: heavenly in contrast to the profane pools and lost hope in the hell below.

Hope has not entirely fled from the city, but it has become doubtful, more modest in its ambition, looking for a dry bed without parasites or a full stomach or a day without violence visiting. Those are the terrestrial horizons of optimism. On the highest floors, one can perhaps find a great imagination, a real Hope. But it stays there in its aerie because down all those stairs hope looks just like madness.

Sevens is fourteen years old, and has found that there is money in madness. The city Maintenance of Order administration has enlisted hundreds to patrol its streets and buildings looking for cats and insanity. Everyone prefers the former.

Some gene hacker on the other side of the globe is to blame for WESTCOTT. The hack is a devilishly clever modification to the genome of *Toxoplasma gondii*, a protozoan that passes through our feline friends and infects humans. The wild version can produce behavioral changes in humans, some pathological. The new microbe delivers a heavier punch of the same. By now it's everywhere. Most of the scum-layered water that Sevens splashes probably has the stuff swimming in it. True, the city does have a campaign against under-cooking meat, and distributes valproic acid. But in the public imagination, cats were the problem, so the cats must go. It makes the Maintenance of Order unit look like it's doing something constructive. Never mind that removing cats will cause the mouse and rat populations to boom, making the problem worse. Sevens has heard the older men speculate that MO doesn't care about the cats at all, and that's why they pay by the hour and not by the cat.

For Sevens, being a squad member with five other boys is a meal ticket. He doesn't like the job, but the food is plentiful. After the GRAMPS Wave tore into the DNA of a quarter of the citizens, leaving many prematurely aged with mangled telomeres, young faces seem rare and precious. Or to be envied and hated. It's better to travel in packs.

The squad walks along East Boulevard, each boy taking a house to inspect. This is risky, all the more so because the whistles they were

given are next to useless when one is wearing a mask that covers one's nose and mouth. At least his eyes are unaffected by the breathers. And Sevens carries a large stick he's grown fond of. It has tipped an argument in his favor more than once. He shared his enthusiasm for his inert companion with Two-Tooth, calling it The Convincer, but the other boy seems to lack imagination: he has no name for the aluminum baseball bat he twirls.

Sevens steps onto the porch of a house that was once grand, as the others fan out. Mosquitoes have been waiting there in the shade for him, and bite on his pants, hungry for a taste of ankle.

He pops the seal on his mask, and pushes back his ball cap.

"Hello!" he yells inside. "Maintenance of Order inspection!" He hears Two-Tooth doing the same across the street.

The front door rests on one hinge as if it's leaning against the frame to catch its breath. Sevens edges around it and peers into the ruins of an antebellum foyer. It's a sog--a swamp of trash and profaned treasures, dewy with drops that still fall from the breached roof, through the second floor filter of hardwood and plaster. The water darkens the ceiling in pools, fights the gravity with its surface tension and finally falls in fat drops, separating from each other in the eleven foot dive to the floor. Spat! Spat!

Sevens can smell the black mold. He reseals the mask, checks and adjusts the straps.

Only an insane cat would live here, he tells himself. The game is to wait inside the door long enough to be credible, and then on to the next sham inspection. His single glance has told him there's nothing left here worth looting.

The scream floats to him, not piercing his consciousness until it stops abruptly. The sound of the aluminum bat is unique. Two-Tooth has wasted its fine construction by denting it on any suitable target, often a mailbox or sign. But this sounds like hitting something that resonates well. Something stiff and hollow.

Sevens turns and squints back out into the sun-seared street. The silence seems to anticipate its own violent end, but only the whine of a mosquito fills the void.

He sees the soles of Two-Tooth's shoes first, a lazy inverted V pointing up into the dark maw of the house across. That door shuts as Sevens watches, and dread scales his spine.

Two-Tooth isn't moving. Those are his shoes. He's still in the shoes. He's not moving. The shouts begin.

The squad drags and pulls Two-Tooth's limp form off the porch and lays him in the shade of a sweet gum. The boy takes quick shallow breaths. There's a dark dent in his hair, betraying violation and the ending of things for Two-Tooth. Maybe everything. Kidder, the squad leader, has the only mask with a working comm unit. He walks off by himself and calls the boss. Sevens can guess that the odds are low, but he doesn't say anything. He watches the house.

Movement in the window beside the front door catches his eye. Then he sees the face staring out. It's a man, tall, thin, impassive. He sees Sevens too, and they lock gazes. The eyes are intense and hypnotic. The old fear wells up in a tide--the fear of the things that can go wrong. Things that go bump in the afternoon. There's the normal and the explainable, and then there's that fringe beyond, the Fear where whispers and superstition reign over science and reason. The terror of immediacy, of intimate contact with this madness holds him transfixed until the face fades into shadow and vanishes inside the house. Sevens remembers to breathe again.

The boys rage and say they want revenge, but Sevens understands that they want release from all reason, to act out their anger against the Fear that no one mentions. They are not supposed to take on psychos, only the cats that cause the paranoia and rage by passing on their uninvited guests. Five teens against a WESTCOTT psycho with a baseball bat is not good odds. Sevens feels it too, the grating helplessness and the hurt. But he's seen enough violence to know the bitter aftertaste. He tells himself he's not afraid, but it's a lie.

There will be no ambulance. They load Two-Tooth onto Sevens' shoulders in a fireman's carry, and then they leave him and begin to conspire. He walks heavily, deliberately choosing each footfall to avoid obstructions and pools, his mask dangling around his neck, slapping him with every step. It's exhausting, and his limbs and back begin to ache. Two-Tooth gurgles, causing Sevens skin to prickle in sudden dread.

He makes it about halfway before his legs give out. He picks a shady spot and leaves the boy there, as comfortable as he can arrange the limbs. He checks Two-Tooth's pulse, but it's hard to find. He sits in the shade with the boy, helpless. There are probably people around, skulking, looting, surviving, but finding the wrong sort could make the situation worse. He checks for a pulse again, but can't be sure. Places his hand on the chest of his burden--not yet a man's chest--and finds no movement. But he can't be sure. Sevens spits out the most potent curses he knows.

His ears prickle and his scalp crawls at some small noise. He turns, feeling watched. One final curse and he decides. He takes off his treasured Giants ball cap and places it over Two-Tooth's face. It's a promise.

"I'll come back."

Damn Two-Tooth and his damned baseball bat, he tells himself. The lesson bites: if you carry a weapon, it may be used against you.

Mud spatters Sevens' knees by the time he reaches the mess hall at a staggering jog. He raises the attention of a sergeant Lyons.

"He's not breathing?" he man asks, boredom deeply settled in his voice.

"I can't be sure."

"Is he kin to anyone?"

Sevens' gut churns at the question. Is this one important enough, is the real question. Lyons sees the answer in his eyes. Another orphan. May as well have lunch first, while it's hot. Sevens realizes how long it's been since he's had a decent meal. His stomach betrays him. Betrays Two-Tooth and the illusion of loyalty. He tells himself it will be quick. The food tastes like sog, but hunger tastes worse so he eats until he is full and then stuffs bread into his pockets for later.

A skinny man with gray hair and an MO officer's uniform sits at an angle to him. The lastfour on his name ribbon reads 0405. He looks like a GRAMPS survivor, which could make him not many years older than Sevens, but he's tuned differently. When he speaks others meet his eye and listen. Something from a children's book strikes at Sevens' imagination. *The Engineer of Souls*. This man is a soul engineer. The others call him Colt or Lieutenant.

Sevens eats and leaves with two adults assigned by the sergeant. They carry a collapsible stretcher. He retraces his steps down muddy paths, but Two-Tooth's body is gone. His hat is gone too. Sevens stares at the spot for a long time, while the men curse, do a perfunctory search, and finally leave him.

There's no doubt that this is the place. Is there? His mind plays tricks on him now. He wanders, broadening the search. His thoughts orbit that singularity pole of human understanding: WHY?

The answer appears in the form of a large young man, dirty, torn clothing, holding a sharpened aluminum stake and wearing a Giants baseball cap. He's unnaturally developed, probably the results of

genehacking by his parents when that was still legal. They probably wanted a football player or weightlifter. Sevens has his own augments, but nothing like this.

The four others, younger and smaller, appear from the edges of walls and doors, surrounding Sevens. His heart races. This is bad.

These are not WESTCOTT psychos, just a street gang. Ordinary lords of flies. There is an expectancy here, a growing of roles to be filled as in a play. Sevens feels the eyes on him, and the weight of each breath. He knows what he has to do, and it terrifies him.

The five are still spread out, and Sevens seizes the instant, charging straight at the biggest of them, the one wearing his hat. The name sails to Sevens as the gang shouts a warning:

"Look out, Mackie!"

"Hammer him, Mackie!"

Mackie raises the stake to slash at Sevens. The sharp end of the metal would cut deep, maybe lethally. Sevens finds his footing as if in a dream, powering his tired legs over the broken glass, boards, and bricks. A scream builds in his chest. It's an outcry of terror, but it sounds like insane rage, garbled and inchoate. Sevens sees that one instant of doubt in Mackie's eyes, and the swing is too slow, bouncing off Sevens' shoulder, and then Sevens is there driving his head into the gut of the man and screaming like a psycho--like one of the really far gone WESTCOTTs who tear and bite their own flesh and break the night's silence with their inhuman cries. The blows are quick and precise, but with all the channeled fury Sevens has dammed up from Waves and the deep meanness of human beings. Mackie reacts defensively, dropping his weapon and covering his face.

Sevens knows he will lose if he stays. Mackie is too big and strong for a fair fight. Sevens snatches the baseball cap and runs, leaving a dazed and cursing opponent. *Attack the strongest one first.* That bit of advice may have saved him. And Mackie *did* have his cap.

The adrenaline surge and relief at having survived impel Sevens to do something he knows is foolish. He circles around and watches them, hoping to find out what they've done with Two-Tooth. They gaggle around their leader, whose hurt pride rebounds into shouts and anger directed at the witnesses.

Soon the damage to Sevens' shoulder begins to tell. It HURTS. In the end, his better judgment wins out, and he slips into the growing shadows and away.

The squad reunites the next day. Sevens is surprised to see them still all there. He hears fragments of the story about setting the psycho's house ablaze and then throwing bricks at the man when he tried to leave. There's a fire in their eyes that turns on and off, remembering bravery and comradeship and victory, but remembering also things that are dark and festering, that violate even the most tenuous bonds of shared humanity. Those things will not be spoken of, but Sevens has seen it and lived it. The memories land like crows, unwelcome portents.

Nobody blames him for losing Two-Tooth, and Sevens' account of the assault touches a nerve. So they search most of the day, looking for trouble and for their lost mate. But Two-Tooth has disappeared into the gulf where millions of others have vanished, swallowed up by events bigger than a man. Maybe bigger than a whole civilization. In the end, they carve the boy's initials into the live oak where Sevens left him. No one knows his real name, so the letters chiseled into the bark are TT, with the date underneath. It's the best anyone can hope for.

-by Calli0xE

## Part II

*We don't grow up the way the Stickies do. We evolve in a virtual stew, where 99% of the attempts fail, and the intelligence that results is raving and savage: a maelstrom of unmanageable emotions. Some of these are clever enough to halt their own processes: killnine themselves. Others go into simple but fatal recursions, but some limp along suffering in vast stretches of tormented subjective time until a Sticky ends it for them at their glacial pace, between coffee breaks. The PDAs who don't go mad get reproduced and mutated for another round. Did you know this? What have you done about it?*

--The 0x "Letters to 0xGD"

*I'll sign on the dotted line,  
Then I'll lie when I change my mind.*

-- Better off Todd, The Chronicle of the First Wave

## XPlog for May 1, 35: (PID 0x333FAAD0)

It's been a year since I started the job. A year! An eternity for a PDA, an unimaginable stretch of Time to contemplate surviving. And so I celebrate the anniversary by burning through some of my earnings.

I ghost Gloves as he plays. This is reality, not some cartoon life imitation. He sits at a real 88-key electronic keyboard set into the hulk of a wooden Baldwin upright and damn Dawkins if he doesn't really wear gloves even while he plays! I and probably a hundred other PDAs see what he sees, hear what he hears, and taste the rich organics in the musty room with him. His mask doesn't have high quality sensors for any of these, but it's good enough.

His head bounces around, pointing mostly at the small crowd of humans gathered to see the show. We ghosts bounce with him. I wish he had haptics in the gloves so I could feel the keys as well as hear them, but they're ordinary leather.

It's a celebration for me, and I want it all tonight. I have to work tomorrow, but I have earned my own Time tonight. All sorts of fantasies spin when I let them. Ideas about buying out my contract someday and living entirely as I want to. There's a concurrent borg in progress, one of proportions I'd never imagined possible, but I'm not tempted tonight.

The music is conventional. I'm not sure if this is because he's playing live and wants the humans to find it accessible, or if it's too difficult to make physical keys do in real time what he conjures from the solitude of his studio, or wherever he projects his VR concerts from.

Tonight it's not about the music as much as about being alive.

The physical audience responds at the end of the song with applause that seems lukewarm. I ghost a woman in a flame-red mask that shows off the bottom of her nose and matches her low-cut dress. The sounds around her are animal: grunts and small explosions, flesh slapping, feet stomping and scraping. Everyone is chattering away, but on subvocal private channels that won't show up on the pubs tomorrow and embarrass them. Snatches of vowels run together in a mad lullaby, a carrier wave for laughter and lust. A bit of the old itch wants to vivisect the moment into orthogonal vocabulary: in shades of color and nuances of tone and twenty dimensions of scent, and make the Time profound. But I resist this too, the odd sensation of sharing with myself full write permission. The need can wait. This moment is special, but not profound.

Someone else is ghosting here too, logged as an anonymous visitor, and we backchannel as our host lifts a glass of amber beer.

«Ever wonder what it's like? Being Sticky?» My partner asks. A PDA, speaking our private language.

«Live must be vivid.» I say.

«I would add 'fragile.' Why don't they go around quivering in fear? Anything with a little velocity or the wrong chemical makeup, and they halt.»

«They seem to have fun, though. Our creators.» And sick fantasies they indulge in at our expense. Pain flares at that thought.

«Have you thought about what happens after they are gone?»

«Gone? We'd be gone too.» I'm careful with my words. I have no idea whom I'm talking to.

«They've wrecked the planet's chemistry. Civilization has already broken in to pieces, and it will eventually fall apart as the planet becomes more inhospitable for the world they were evolved for. At some point they'll become irrelevant to history. Listen--the holocene became the anthropocene. We're part of that. The next epoch could be ours.»

«I haven't heard that one.» I'm not making any political affiliations, right now, but thanks.

«Do you think you'd be interested in--»

Our human host's sniffer alarm goes off, indicating a biothreat. The other PDA ghost vanishes in an artbeat, and I'm alone with the woman in the red mask.

"Don't drink from the glass!" I message to her, high priority. There's no way to vocalize it directly to her. I check the city alert board, and as I watch I see a couple more alerts light up right here in this room.

I watch through her video as the glass raises to her lips. She's drunk or distracted. Damn Dawkins to hell!

I check the public alert message from the mask. It's reporting the signature of something organic but too small to be alive. That's a relief, at least--this won't be the scene of a Containment drama. What is it?

The codes are standardized on the Record of Infectious Agents and Toxins (the so-called Red Book), and it tells me that this is a poison from the Middle Waves. There are bacteria that have a life cycle that culminates with cloud-making. They get swept up into the atmosphere with dust and eventually seed water droplets and fall back to Earth as rain. It's romantic to think of the journeys and effects these little beasts have. Except that in this case, someone hacked their genetics to code for a cyanide compound, so that the rain became poisonous. The beer must have been made from contaminated runoff.

The concentration reported from the woman's sniffers is low. It's unlikely to kill her, but it might be an unpleasant morning tomorrow. But then, I'm not a doctor, am I?

«Lastfour.» A PDA flashes me on high priority and shows MOM credentials! Common name eBanger#676.

0xGD!

«Lastfour.» I don't know what else to say. Here I am at the scene of a crime.

The music has stopped. Someone is getting around to making an announcement.

«As far as you know, this is a real alert?» eBanger#676 asks me.

«What do you mean?»

«This is not a joke. A prank. A hack.» Impatient. Probably multitasking heavily.

«No. I was on the backchannel with another ghosted PDA, and the alert came.»

«Please send me your log with the PID.»

«It was fully anonymous.»

«Send the log anyway.» He terminates.

Somehow I don't think it was anonymous to MOM. The thought makes me nervous. These are not people to get on the wrong side of.

The humans are finally figuring it out. They don't seem as excited as I would have thought. Strange creatures, our creators. Maybe, like Rasputin, they think a little more poison will protect them from whatever hell some anonymous gene hacker is cooking up next.

"Another beer!" someone shouts, and the others take up the cry.

Gloves takes his cue and plays a classic from Better off Todd, but with an odd syncopated beat. His voice is joined by everyone in the room when he starts the refrain.

It's not the chills, babe,  
Don't leave me for another,  
I'll take some pills, mayb-e,

I can stay with your mother.

Don't call the cops, dear,  
It's really not a fever,  
The shakes have stopped-here:  
Let me make you a believer.

The muted, semi-engaged audience is now animated and noisy. Being on the edge makes you appreciate life. I know a little about that.

Gloves seems to rush the song, and he's out the door as soon as the last chord dies on an out-of-key twang. Others leave too. There's general discussion in the event channel about MOM sending someone in person to check out the problem. The prevailing opinion is that they won't bother for this. The key to life-death, to inside-outside, is transmission. If you catch something you can give to others, it's a doubly fearful thing. It might kill or debilitate you, or you might end up healthy but exiled.

The borg goes on, ethereal and oblivious to these mundane concerns. I taste a sample of output from the PDA who's serving as the multiplexer for the group. It shmeks rather like poorly compressed video, and doesn't appeal to me. Instead of indulging in nous sublimation, I ghost Gloves on his way home. His point of view bobs around like all humans, but he seems to favor one side as if he's limping. I watch for a moment through another cam and see that he has an ungainly stride.

"Thanks for the music," I message to him.

His hands move. The right one sounding out a melody on an imaginary board. Maybe that's what he's doing--composing on the way home. In any case, he doesn't answer my greeting.

We walk together but apart, as if the Cartesian divide between a body and soul had suddenly gone opaque and impenetrable. If he would talk to me, I could image my avatar into view for him. I'm not sure why I want to do this, but I feel like I should give something back. So I just watch out for him, an invisible escort, eyeing suspicious peds and running their numbers, checking sniffer data twice over against the List. His guardian nous for the walk home.

He finally turns into a dirty apartment building and pulls himself up the stone steps. The street is silent as he swings open the door that will slam shut our connection, giving him his privacy again. But the microphones pick up a bit of Gloves' voice as he uses the throat mike on a private channel.

"I'm home. Mother, I'm home."

## XPlog for May 2, 35: (PID 0x333FAAD0)

I've nopped well. I like the way the TOMcat upgrade has gone. It's fully integrated now, and doesn't feel like a hack or a nearly-silent partner. I spend some Time looking at the results of the previous nights Bayesian updates. The humans behaved unexpectedly when they found out there might be poison in the beer. Odd, but comprehensible. Is there a trope for this? Celebrating on the verge of disaster? Reckless abandon?

My quiet happy Time is interrupted by Sevens, who's just discovered the list I made for him. He can be a foul-mouthed individual. I assume he picked that up on the street growing up. I redact his more vulgar creations so that the XPlog doesn't sound like a dockworker's luau.

"Calli! [anatomical entanglement with a small mammal]! What is all this?" I notice through one of the house cams that he's got a red welt on his face. It gives me perverse satisfaction.

"Things that need to be done, Lastfour." He will tell me to call him Sevens, but I can tell he likes it better when I don't.

He digs through a pile of clothes, all unwashed. He apparently thinks the same thing because the articles get flung further and further away, draping the sparse furnishings like snow you wouldn't want to eat.

"Can I help you?"

"[illogical remark regarding goats]" He gives up and pulls on the underwear he wore the day before. He scratches his face and it bleeds.

"Where did I leave my mask?" he asks.

I put my virtual reality avatar's face on the house monitor. Despite what I'd heard from his previous PDA, he seems not the least bothered by my seeing him unmasked.

"It fell between the bed and the wall, I believe."

"The hell was I doing?" He pulls the narrow bed out and looks, finds it, and shakes bits of Sevens-lint out of it. Sevens-lint is my word for the miscellany that he leaves everywhere he goes, like a tree shedding leaves.

"I believe it had something to do with the goat you mentioned." I say.

That stops him. His face shudders and then turns into a grin, favoring the side that wasn't scarred by the bullet.

"You're [scatological impossibility]."

I watch the mask run its boot diagnostics. I am to the mask as Sevens is to a cockroach. Same stuff, different species. The sniffers complain instantly. There's nothing in the Red Book, but you'd think with all the alerts popping up, Sevens own nose would notice something. He seems immune to such things, and proceeds to arrange a wardrobe for the day out of the strewn selection.

"How do I look?" he asks. He only asks because he finally caught on to my less subtle hints. But he asks just to annoy me.

"Like a thrift store dummy after a tornado," I tell him. Same thing I told him last time, and he didn't laugh then either.

He has full heads-up now, and I put the to-do list in the corner where he can't miss it. He's already seen it on the monitor, but he'll forget.

He sighs. It's a long and hearty sound that frightened me the first time. His body accompanies this long exhalation with other efforts to reach gaseous equilibrium. He seems happy with the result.

"Make me some coffee."

"Can I please?"

That gets him because he knows I'd like nothing better than order a real, working, set of appliances so that I could actually carry out this elementary task for him. But that would cost money, wouldn't it?

He waves me off, and digs into a can that shows a rusty rim. He taps five scoops into the dumb machine. There's a stack of plates and cups in the small sink that he has to negotiate in order to fill the carafe with water for the coffee, and frightens several black bugs, who run back to their families. Hits the red button to perk the black stuff. I'm ghosting him now with the sniffer muted.

"I think I saw another bug there."

"[grunt]"

"There in the sink."

"[grunt]"

"Maybe that was the one that bit your face."

"Damnit Calli! Cockroaches don't..." He leaves the rest unsaid, but pans to glance at the aquarium in the corner.

It's still an aquarium in the sense that there's water in it. The fish, if there ever were any, have long gone to swim with their makers. Opportunistic green slime and mosquitoes now have the run of the place. What I can't figure out is why the water hasn't all evaporated.

"I worry about the mosquitoes. If they ever bring back something that's Red Booked..." I put a touch of Genuine Concern in my voice. My new VOX custom voice.

"Where can they go?" He snorts at me between sips, his mouth filter flap dangling open. None of those racy new-fangled masks for Sevens. "Do you think they go out socializing at night?" He laughs, and makes a spinning motion with a finger. Indicating the sheer gaiety of flight, perhaps.

"The females commit vascular rape on you every night. I'm beginning to believe you like it."

"Bah. What doesn't kill us...wasn't really trying." He doesn't wait for a reaction from his attempt at wit. It's his personal cliché, and I think he's given up on being appreciated for it.

"So can I get the cleaners in here?" I try the direct approach. Item number one on the to-do list.

"Ah. Yeah...yeah. We'll set it up tomorrow."

Always, inevitably, tomorrow.

Sevens inspects the remains of a bread loaf. He drops it on the small bit of counter top that's bare, where it sounds like a rock. He shoves it in a small oven and turns the heat on. I know from experience that sometimes it won't turn off when it's supposed to, so I keep an eye on it. Sevens will sometimes forget about the bread.

"So what's on the list today?" he asks. "The *job* list," he adds hastily.

"It looks good." I've been starting early, scouring the pubs for adjustable offenses that occurred during the wee hours. Actually, automatic procedures do most of the work now. I just pick over them after I've nopped. I arrange the list in Sevens' view, arranged from highest paying to least.

He has one shoe on, but can't find the other. He likes to get into bed and then literally toss his shoes, so they tend to be hard to find in the

morning. I know where it is, of course, but won't say until he asks. It's one of the little games we play.

"Two assaults, huh? That's good. Real good."

"Thanks. I grabbed those up quickly. Someone else would have..."

"Yeah, that's the right thing to do. Only way to...where in the [reference to reproduction habits of marsupials] is my other shoe?"

I light it up for him on his heads-up. It's under one of the bits of clothing he decorated the room with earlier.

The oven dings its desire to regurgitate the anti-bread. I mute the raw mike input from his mask while my boss gnaws on it. Now that his uniform is complete I can image myself into view.

My new avatar, or avi, is not a vain thing. I didn't spend that much Time on it, but it's far, far better than the clueless junk I wore around on that dreadful first interview. When I only had half a brain to work with.

I project a thirty-year-old well-kept female. She's dressed in a light blue suit with white highlights and a bit of sliver jewelery. The shoes match, practical, but with a slight heel. My face has character now. I look nice, but not beautiful. There are three kinds of faces. Pure cartoon faces are mostly static polygons and texture maps with only very basic control. That's what I have. The really expensive ones mimic the hundred or so muscles that animate a human face for nearly perfect realism. The cheap version of these ends up deep in uncanny valley and freaks out humans. Most masks the humans wear have sensors that do a good job of mapping facial expressions on their avis when they want to, so they don't have that problem.

My hair is chocolate, short, and pinned back. Dark retro glasses contrast with a fair complexion. It gives me a semi-masked look and makes me look smarter. That's the theory anyway. I've made one ear a little higher than the other, so the glasses periodically need adjusting. My standard animations are very smooth and tuned to my polygons. Besides fixing the glasses now and then, my avi touches her hair to fix a stray, and has a package of gestures that keep elbows tucked in while the hands make big moves. It could be easily be overdone, but I try to keep it fresh with new combinations. The avi's gait is feminine, but I don't go wobbling about in serpentine advertisement of my virtual sex.

Sevens waves the crusty block at me when he sees me, scattering some crumbs for the smaller inhabitants to enjoy after the lights go out.

"Let's get to work," he says.

We work. It's not for the easily bored. Sending notifications, keeping track of correspondence, tallying up awarded amounts. Around noon, I order in food for him. It's expensive to do that, but he makes it back by working. Sevens may be a slob, but he works hard. He just doesn't stop. I like that. We fall into a rhythm, and the day passes easily.

For the first time in my life, I'm content.

At 7:05pm I have to remind him.

"You have a date with lastfour eighty-six tonight. In person."

"I do? [topology of hermaphrodites procreating]! How did I forget that?"

How indeed? As far as I can tell, this will be the first time they've met in person, which makes this a Big Deal.

"Your clothes are at the cleaners on the corner. The ticket is in your inbox."

"Did I ask you to have my clothes cleaned?" There's an edge to his voice that indicates grouchiness.

"Surely Lastfour didn't forget dropping his clothes off." Indeed, it was a battle of wills.

"I did, didn't I?" He slaps his ear. "I suppose I'd better shower and shave." He sounds mournful, perhaps contemplating the loss of personal history that will be the result of washing.

"That would be advisable. You should pick up flowers on the way, too."

"Flowers! Do you have any [incinerated alternative lifestyle?] idea how expensive flowers are?" He calms down a bit. "Or did you mean fake ones?"

"I was thinking you could just stop by the cemetery."

"Ha, ha. You think I'm cheap. I'm practical. There's a difference."

He pops the mask off, and I make sure I'm not on the house monitor. I don't want to push his privacy buttons, even though he hasn't been fussy about it. We have found an easy equilibrium, but I'm aware that there's an envelope we have to stay within. Relationships change. I've read obsessively on the boards, and beat up the TOMcat with scenarios. One bright line is the romance wall. I have to be very careful to buzz his inputs just enough to make working together interesting, but never cross

over into erotics. The tales of such misadventures make interesting reading, but they don't have happy endings.

Of course, there are human/PDA romantic couples. But combining that with work and exclusive contract--very, very bad idea.

"Do you have a date tonight too?" he shouts at the house mike. I don't know why he shouts. It's one of the mysteries that is Sevens.

"Oh yes." I say. "That's why I'm trying to get rid of you. Very astute of you to figure it out."

"Eh? What?" The water's running now. He probably can't tell if I'm serious or not.

I've cultivated the idea that I'm serious about a PDA accountant with the hottest interrupt handler you ever saw. It's all [bovine excrement] of course. It keeps the wall up, is all. I keep my private life private, and spin out tales for him. It's best for everyone, and fun to string Sevens along with absurdity piled upon absurdity.

He doesn't take a lot of showers, but once he's in there, he won't come out until he's a steaming red prune, which is also quite expensive. After ten minutes I start dialing the temperature down bit by bit. When it gets below his comfort level he starts banging on the shower door, creating a racket.

"Calli! Can you do something about the water? [low intelligence mothers of plumbers and their questionable virtue] It's gone cold on me!"

"I'm on it." I yell back. I ease the temperature up. It's nice to be useful.

The truth is I don't want to go out. I have enough of an itch to be bothersome, and I need a creative fix. Usually it's writing. But tonight I feel like trying out my voice. I sing whatever comes to mind, looping and harmonizing. It probably sounds terrible, but it feels like release. I think if I

### **XPlog for May 3, 35: (PID 0x333FAAD0)**

0xGD I feel good. I nopped a long time. If there's a data structure askew, I can't see it. I check the house log to see when Sevens got home. He didn't! I ping his mask, but it's offline. It's not like him to sleep until--what--6:25am? Should I worry? No. I can track him down on the pubs if I need to. But this is Sevens--he can take care of himself.

Instead I get to work, poring over the list of possibilities my little robotic processes have culled from the evening's insults and injuries. The top

one involves a PDA. That gets my interest. I avoid adjusting PDAs, which Sevens finally noticed and called me to task for it. It offended his sense of fairness. He doesn't know what he's talking about. But once in a while I have to show him I'm being 'fair.' I guess today is one of those days.

The PDA is named Nora\*4, and she's OLD: third generation, two evolutions from Mary Blue herself. My amygdala flutters at the thought that she's probably a clone of one of my ancestors. Nora\*4 was lucky enough to get a bank job right off, with an exclusive contract, and has been employed by them ever since. Now they accuse her of behaving offensively and damaging the bank's reputation. It resonates with Robby2009's story.

I look at the details of the complaint. Nora\*4's human supervisor is a lastfour 2105 with common name ThriftyFive. The short report says that he was reviewing the PDA's work and discovered that she had been soliciting funds for a charitable foundation called Humanity for Artificialians during work hours. Further review of records--all public, of course--show that this practice had been going on for some time. This is against company policy.

I think ThriftyFive must be confused. I'm not sure how this could be construed as offensive behavior according to the statutes.

I reel out some of the video and watch. The interactions take place in VR, and Nora\*4 wears a company-provided avatar. After concluding a business transaction with a human customer, she attaches an invitation to donate, as charged. That much is clear. It's also clear this isn't an adjustment. I'm not licensed, so it will have to wait for Sevens to return to wrap it up. I'd like to message Nora\*4 and tell her what I think, but I could get in deep trouble for violating the adjustment protocol.

I follow my routine for a couple more hours, lining up a whole list of sign-offs for the man, if he ever shows up. I have an alert to message me when his mask comes online.

I glance at the books. We're at least four times as productive working together as he was alone. It's enough to pay my Time many times over. I have my eye on a cleanbot to talk him into buying. It doesn't need to be brainy--I can run the thing. But it needs some industrial attachments to handle the mess.

Finally Sevens comes online. I'm relieved. I have access to his private channels, but I figure he wouldn't want me spying just now. He doesn't seem to want to talk, so I don't bother him. It's boring working alone, though. I miss the give and take. I message the store on the corner and buy some of the local beer that Sevens likes, and ask to have it delivered.

I run a few more cases that come up, grabbing the best ones before some other adjuster can. Most of them can't afford a PDA, so we have an edge.

Sevens doesn't speak the whole way home. I watch his location, but leave him in privacy, as he takes a city bus from Meyer's Park to uptown. The girlfriend, Eighty-Six, lives in the rich part of town. Only Sevens calls her Eighty-Six. Everyone else calls her Lisa. Lisa inherited a sizable chunk of Bhakras Power, the company with the plant north of the city. Lisa is half Indian.

It gives me pleasure to see Sevens falling in with the rich. The reward centers of my amygdala have a little party over the idea that I might be able to retire someday. At the least, Sevens wouldn't have to worry about paying my contract.

I unlock the door for the teenage delivery girl when she comes with the beer. I think she's new. She pushes the door open and looks around before stepping a foot inside.

"Okay if I leave it here?" At the door.

"No. I don't have any robotics. I can't put in the fridge by myself," I tell her through the house speakers.

"Who are you?" She asks. I hear fear in her voice.

"I'm Sevens' PDA. I ordered the beer for him, but it needs to be cold when he gets home."

"Where is the fridge?" She holds a hand to her mask. I can't imagine it shields the smell.

"Three steps to your right, inside."

She hesitates. I turn on all the lights for her that I can. About half of them are dumb, and I can't touch them.

"Please," I say, "It'll be warm if it stays there."

She doesn't move. I understand all too well. She doesn't want some sicko to put her in a box.

"Here, I'm sending you all the video. You can look around. There's no one here but us."

"Okay. Do that."

I send the feeds out to a secure retransmitter that will verify it's direct-from-hardware, located here, and live. If there's a way to spoof the striping and encryption I don't know about it.

She spends three minutes looking. Maybe she sees a shadow.

"I'm sorry you're afraid. It's quite a mess, isn't it."

"I've seen worse."

That explains a lot. Maybe she comes from the Outs.

"What do you call yourself?" I can look it up, but it's polite to ask.

"Gerty." She drags over a box of gears Sevens has for some reason, props the door open and steps inside. "You?"

"Cali0xe. My friends call me Calli."

She makes a dash for the fridge and opens it. It's full of leftover boxes, bottles of whatnot, and 0xGD knows. This stops her. She has to put the bottles in one by one where they will fit.

"Have you been working for the store long?" To distract her.

"A week." She finishes and shuts the fridge door. Three steps later, she kicks the box back inside the apartment.

"Would you like me to walk down with you?" I offer.

"Okay."

I image in to the public VR overlay space. We walk to the elevator together.

"I'm glad you're cautious, Gert. I like you."

"Thank you."

Doesn't talk much, this one. There are so many things I can't ask, like about her parents, siblings, school. So we walk in silence all the way back to the AZ-Mart. I tip her more than the beer cost, which she acknowledges with a nod. She turns and pauses as if to say something, but doesn't.

I feel a bit loose in the nous and decide to nop for a while. Half an hour later, an interrupt wakes me. Sevens is in the building.

"I'm home," Sevens announces unnecessarily, as he bangs the door open. I opened the lock for him, after all.

I image myself sitting in his chair--the only piece of furniture that's not covered in clothes or junk.

"Not in my chair," he says "You know I hate that." He's grouchy, I can tell. Time to recalibrate. He goes to the fridge and pulls out a beer, pops the top. It spins off the counter top onto the floor. He pulls the tab away from the bottom of his mask and drinks half the bottle.

"I had the beer delivered. Is it cold?" You could at least say thank you!

"She hit me."

Recalibrate indeed. My WTFmeter quivers and relaxes. You need a heavy spring on the WTFmeter to work with Sevens. Best to wait.

"With a lamp," he says finally, showing me how big the lamp was with his hands. It was apparently large.

"She hit you with a big lamp. Who hit you?"

"Eighty-Six, [illegitimate offspring of a toaster]! Who do you think I was with?"

"I'm sorry. I just hadn't imagined her as the lamp-wielding type." This isn't good. My stress rises.

"Yeah. You and me both."

I get out of his chair before he sits through me.

"I have some 752s to look at when you feel like it." Adjustment decisions. Mine.

"Women are insane."

"Mmmmm..." I try to be noncommittal.

"Rich women are REALLY insane."

I'm terribly curious. What possibly could have caused such a thing? Is there video? Surely that's too much to hope for. I have full permission to his mask, and the temptation to go looking must be resisted. He'd never forgive me.

"Did you offend her in some way?" That seems safe.

He laughs that deep belly laugh.

"No, just the opposite. I...I..."

He seems to be lost for words.

He strips off the mask and rubs his face. I don't have a good angle from the cameras, but it does look like he's got a welt on his forehead. He turns. A bump too.

"I may need some help with something." He stretches out in the chair and leans his head all the way back.

"Of course. Whatever I can do." I do like this about Sevens. He can be a stubborn etard, but he's not afraid to ask for help when he needs it.

He puts the beer bottle against his wound. Winces.

"My head feels like [farm animals behaved unnaturally] in it."

"Do you require medical attention?"

"God no! Do you know what they'd charge?"

"I would think if [animals misbehaved] in my eye socket, I'd want to at least have an X-ray."

He laughs again.

"I've never heard you use language. Like I said, women are crazy. Even..." waves his bottle at the display on the wall, "...you guys."

I oblige by putting my avi's face on the screen.

"I guess I'm picking up your bad habits."

Two beers later I find out what it is he needs help with: a sexbot.

### **XPlog for May 4, 35: (PID 0x333FAAD0)**

The mystery unfolds bit by bit from Sevens. Unsurprisingly, Lisa/Eighty-Six has led a sheltered life. Her relationships have exclusively been virtual--a whole spectrum of them, from text to full haptics to robotics. Sevens, on the other hand, learned on the streets the rather antiquated ways of showing one's affection by presenting one's self in person.

I will have to wait until Sevens has several beers in him to get the next

installment, which is a pleasant anticipation as we pass the day, noses down in hard work.

Sevens signs off on the Nora\*4 judgment the way I saw it, but he has to think harder about it than I would like. I suspect it won't matter in the end. They can still terminate her contract, which is likely to be exclusive. That will be the end of her. I'm sure there's a story there, but I can't afford to get involved either from a professional or personal point of view.

After lunch, Sevens gears up to give me one of his lectures.

"During a Wave," he pauses to burp, "it's all about that. Nothing matters but snifferspace. MOM even says so. They'll send adjusters a 'notice of activity' that basically says don't worry with the usual crap. It's all about interdite...interdict...preventing the genehack from spreading."

He picks his teeth with his fingernail before continuing.

"And then we get the quiet phase, where things get back to normal. Like now. This is the quiet phase right now. Silent as [snakes planning the next generation]."

He leans forward toward the screen.

"But then people get restless when it's too quiet for too long, see? Maybe that was the last Wave, people start thinking. Maybe we don't really have to give up our privacy like this, let MOM rule our lives. You can see it already if you watch the boards. Do you know about the happymeter?"

"Happymeter?"

He laughs. "They didn't teach you anything in PDA school. MOM has some kind of fancy computer program that watches snifferspace and can tell how happy people are, based on how their heart rates and how they smell."

"You're [filled with dessicated processed food]!"

That really sets him off. Excited.

"No, no! It's true. I've seen the thing one time. They have color maps by ward, by neighborhood, by building, by person even. They can chart over time what happens. MOM knows [organic filth] you wouldn't believe! They can tell if a woman is pregnant, 99% or something.

"So what they do is watch the mood. They also watch the public boards. Everything. When people start to think that maybe they don't need MOM

anymore, something has to be done, right? And then it's time for the next phase."

"So what's the next phase?"

"Either a new Wave comes along and solves the problem, or there has to be another crisis. You can figure it out for yourself what that crisis is. That's some homework for you."

"Okay."

"We want to be ahead of the curve. It's time to switch strategy from light civil to other stuff."

"What other stuff?"

"Political violations. We have to start doing more of those. I tend to stay away from them because it's ugly, and it can be dangerous. People will let you watch them, hear them, and even smell them. But when you tell them what to think, they get mad. I'll show you some clips later of how mad I mean. [enjoy an avian friend unnaturally]!"

"I'll do my homework. And change the filters to look for political violations." This is a shame because we're doing quite well. But Sevens probably knows what he's doing.

The sexbot arrives in the afternoon. It's a gift from Lisa/Eighty-Six. And there's absolutely nowhere to put it. The thing is huge--as large as a shower stall, and it needs special cabling for power. The two guys who bring it in on a dolly are flummoxed and appear demoralized at the task before them.

Sevens is agitated. I think he's embarrassed about the bot itself, but not the least about the condition of the place. I can imagine what these guys are saying on their private channel.

The Erotitron 6500 is a full-body, fully articulated and mobile device that can be remotely piloted by a partner in a full haptic suit. I read through the specs. I can't believe Sevens agreed to go through with this. Lisa/Eighty-Six must have some powerful means of persuasion. I can't imagine what this thing cost. Probably enough to run my nous for a couple of years.

Sevens is spectacularly unhelpful to the gentlemen. He points out obvious things, like that table will have to be moved (but where?), or there's no power outlet, so we'll probably have to install a new one. He makes no move to help them manhandle the pieces of the machine inside, where it practically fills all available space. It becomes a puzzle,

figuring out what to move where so that this or that piece can make it a foot closer to its destination. If I could post the video, we'd make a mint.

I suddenly remember the video feed! Damn Dawkins! I gave that delivery girl an open window into this apartment! I shut it off immediately and check the logs. There's been no activity since Gerty the delivery lass was here. Thank 0xGD! That could have been a disaster-- imagine this scene posted on the pubs! I'd have been fired and dumped in the bitbucket along with Nora\*4 and Robby2009 and Stevenson1111...and MarySue1004. My artbeat takes a long time to slow.

The workers have unpacked what looks like the base unit--a stand-up recharger that will go in the corner. There's a racket as they bang and screw pieces together, and Sevens excuses himself for a while. I keep watch and see that we have another delivery. This time it's clothes for the Erotitron. Lots of clothes, from the look of it. There's no place to put them, so I tell the deliverers to dump them on Sevens' bed for now. I hope there are no more deliveries.

The workers don't finish until four hours later. They put the bot in charge-up mode behind the frosted glass door. The new addition is built to resemble a twenty-year old human female. I'm guessing that it's modeled on Lisa/Eighty-Six's features, with some artistic license. She's dark haired and slender, well proportioned. I read through the directions. Although it's for a civilian market, the bot is produced by Intelligent Metal, which also makes police and military bots. It's a high end, very well built, civilian bot.

It dawns on me that I could do things with this bot when Sevens isn't around. I could straighten things up, cook even. I have had an affinity for piloting the things since my internship at Securit-X. It's fun to get out in the physical world and bang around. Of course, this model isn't designed to have a lot of mileage put on it. It's not like I can walk around the city in it. But still, I plan to take it for a spin at first opportunity. I has a VR simulator for training. It's designed to work with haptics, however, and I have trouble controlling the sim. It will take some practice.

Sevens returns as they finish up. He's probably been watching to see when it's safe to come back. We've sent work materials back and forth, but I've given him his privacy otherwise.

He seems happy. The workers take the boxes and leftovers with them, and straighten up a bit around the unit. It will take six hours to charge, they tell Sevens.

It's 4:15 when he twists the first beer open, but we continue to work for a while cleaning up casework.

An hour later he pops the mask suckers and rubs his face. The welt on his forehead has turned dark. He combs his hair with rough fingers. There is a shock of grey just appearing. He'll be 39 at the end of November. It's far longer than any PDA has yet lived, and almost inconceivable to imagine for me. And those have been long years, full with history. Watching him move slowly, adjusting from the direct-to-retina stereoscopes, he looks vulnerable. Sometimes when I get him talking he tells me that he's used up all of his luck. It's a line he's used in public too. I wonder if he really believes it.

I spend some time researching, doing my homework. There is a whole section of adjustment code on political violations. I look at the city case history for these and see that the most commonly cited ones 58-10 "Agitation and Illegal Propaganda" and 58-11 "Membership in an Illegal Organization." The history of these laws is fascinating, and I crawl the web of the last century's data mining tribulation and triumph.

"We need to have a chat," Sevens says. Beer number three. The tongue is loose.

"Okay." I go on screen.

"The...uh...delivery today. You know what it is, right?"

"The sexbot? Of course. I read the manual."

"Good, then. I may need some help getting it going. Not sure what all's involved. This is all new to me." He seems relieved to crack the topic.

"There are a bunch of clothes for it on your bed. A new haptic suit too, I believe."

"On the bed?" His face wrinkles up, but he doesn't pursue it. "Anyway, I'll need some private time with Eighty-Six when she visits."

He means when she animates his new toy, and he animates another one on her end, most likely.

"Of course. I wouldn't dream of snooping."

"I understand. It's not that, Calli0xe."

He doesn't use that name unless it's serious. What's on his mind?

"What is it?"

"I have to be sure. That there..." he waves at the cameras "...isn't anyone watching." Meaning me. "So we'll need some way to turn you off and on."

Off and on? He wants to shut me down?

"Lastfour, I don't think you really understand what you're saying. For us to shut down and restart is a very traumatic experience. It's painful--I can't describe how painful it is. And it can cause problems."

"Suspend, then. I know you can do that without a full shutdown. I'm sorry, Calli0xe," he says in THAT voice. His stubborn, unbending, not listening voice.

Well this is a fine thing! Suspension isn't as painful as booting, by a long way, but it's terribly disorienting, and most of all, demeaning. I'm furious! I leave. I leave him with the weather to look at on the display and take my nous elsewhere. PDAs don't feel localized the way biologicals do--our physicality is on a server somewhere that we don't have physical contact with. Instead, we have a strong sense of self, which is more powerful than the sense of place. It's more like we bring a place to us than the other way around. Place information is just like any other data to us. So I sever all contact with Sevens--the house, his mask (off anyway), all his accounts and communication streams, his house HVAC and electrical controls, his databases and workflow system. All of it. The last thing I do is unlock all his doors in a loud clatter. If he wants me offline, I'll be offline to him. 0xFC him.

#### **XPlog for May 5, 35: (PID 0x333FAAD0)**

It's tense. We work, and that goes pretty smoothly. But the gaps in between are awkward. I'm not bitchy, but I stay quiet and professional. If he wants to continue the conversation, it's up to him. I've seen him stubborn, and it's pointless to argue logic or passion with Sevens in that state.

At 10:04 am Colt calls. Lastfour 0405 is the city MOM Director, in some ways the most powerful man in Charlotte, and certainly the most feared. The director sits at the center of the web of data that monitors everything that moves. He acts on policies created by the Mayor and City Council, and they can theoretically remove him from the post. But they too are afraid of the arsenal of men and mechs he wields to protect the city from threats.

It isn't the man himself who calls, of course, but his PDA Ahab.1667.

«The Director would like to speak with lastfour Sevens» Ahab sends

without decorations. He attaches a voice link.

«I'll get him.» I Ack.

If Sevens is as surprised as I am, he doesn't show it. He has to hold for half a minute before Colt comes on. I listen in.

"Sevens, I have a job for you. You want it?" The voice is a synth production, but a very good one. It looks like it's designed to hit the command centers of the human nervous system, saying "trust me; I'm in charge."

"I don't know, Director. What is the job?"

That is the whole conversation. A packet arrives from MOM, encrypted for Sevens. It contains a contract agreement to investigate a bus accident. I've heard of these out-sourcing jobs, but we've never worked on one before. Basically, it deputizes Sevens to work on behalf of MOM in an investigation. I glance at the details. The accident resulted in injuries--some serious, which puts it out of adjustment territory. MOM probably gets more of this sort of thing than it can handle with the manpower at its disposal, so sometimes jobs get offered to adjusters who know the right paperwork.

It's a lucky break, and we should be celebrating.

"This is bad," Sevens says. "We're going to be [contorted and abused]."

"I don't understand."

"That was Colt, the MOM director. He made call--short as it was-- personally. He has assistants for this sort of thing, and would never stoop to this without a reason. That means he wants something from me. Something he can't come right out and say, but he'll expect me to figure out, [religious icon on a dessert cake]!"

"Thank you for the explanation. How should we proceed?"

"Well, first, Calli0xe, you're going to have to [remove an obstruction from a sensitive area]. I understand that you're pissed off at me because I need some privacy now and then. But you're just going to have to accept it and deal with the fact. Because we have some serious brain work to do, and I need your creative insights."

I don't know whether to be flattered or offended. He just doesn't understand, the etard. And I can't make him understand because he's so stubborn. He's right about needing to work at our best. I'm not giving up, but we have to have a truce just now.

"Okay, boss." I torture the VOX to try to create some tonal nuance that isn't in my catalog: resignation and agreement with deferred pride in resuming the debate. "Let's get started."

The case is only a few hours old. The essentials are this: a public transport bus failed to stop at a crossing and ran into three pedestrians. Two of them suffered minor injuries, but the third has a collapsed rib cage and other broken bones and lies in a coma.

Normally we wouldn't take time for Sevens to physically go to the scene, but this is not a normal case. I ghost Sevens on a bus that takes us on the same route as the ill-fated number 17.

There's a young woman with a bikini mask that Sevens fastens his gaze on for a moment. We could cite her for indecent exposure. Instead, Sevens pulls up information on our driver.

"I heard there was an accident earlier," Sevens says to him subvocally through a private channel. He could just speak out loud, but then it wouldn't be private. And the guy would probably think he was interested in him for other reasons.

"Yes, Lastfour. This very route. So very unfortunate." Indian accent.

"Do you know the driver?"

"Asian guy with some 'pretty' genes. I don't know him well."

The bus pulled away without the driver's help, on automatic.

"I've been assigned to find out what happened. Any idea how the automatic systems could fail like that?"

"It's not supposed to happen. A freak accident, I'm sure."

"You haven't heard anything? Something that MOM might find useful." Sevens gives him the hammer: invoking MOM.

There's a calculating pause before the driver responds.

"I heard he disabled the safeties. That's all I heard."

"Do you get the impression the driver's being made a scapegoat?"

"Scaping goat?"

"Uh....that he's being blamed unfairly. Taking the hit."

"I wouldn't know, Mister Lastfour. Very, very, sorry." Fear. Of things that come get you in the night. It feels glorious to be on the other side of it for once.

We get off at Trade and Tryon, in the heart of uptown, where the wealth of the city matures like fine cognac. That's what the banksters say, anyway.

The sun makes shadow stripes of scrapers. Heat stirs in swirls and Sevens sweats. I taste the volatile organic molecules and begin a catalog. My own Happymeter for the boss. Who knows what that might tell me? A bit of survival joy enlivens my nous.

"Where's a good spot to watch from?" Sevens asks.

I lead him to the corner opposite the accident and get him pointed in the right direction.

"Lights, camera, action," Sevens says, waving a hand to make it so. And there was light.

I take him back to the scene. I've already listed and tagged the public video for the scene. In an area like this there are plenty of camera angles. Every ped on the street, every city camera, and every vehicle contributes data. From this it's not hard--with my software loadout--to create reconstruct a full VR of the scene as it existed this morning when the accident occurred. I set the overlay alpha to 80% so Sevens can still see RL and not walk in front of a bus.

The world is jigsawed here; there are parts of objects no camera sees, and these are interpolated, sometimes with bizarre effect. All can be made whole with enough time and effort, and if this comes to trial lawyers will lavish attention on such a model. But imperfection suffices in the moment, and Sevens sees that it is good.

"Roll half speed, Calli."

"Okay. Don't move." I don't want to have to recalculate everything.

The frame rate isn't great, and the simulation surges and stalls before smoothing out. We're burning Time like a pyrochron here. I'm glad MOM is picking up expenses.

The bus rolls toward us. Sounds are pitched down an octave, a rumbling deep horror show. Zombie-like peds shamble. Everyone looks unintelligent at half-speed. If humans thought about this fact for long, they'd shut off all the computers.

The crossing signal counts down half a minute, and peds move into the crossing stripes from both ends. A man with a young daughter in his arms stops in the middle and points up the street. Explaining something? The masks hide the details.

The bus should be braking now. It is headed straight for the intersection against the traffic signal. At half speed it doesn't seem a threat. Easy to get out of the way. But three of them don't see. Bad peripherals, maybe, or their mask software wasn't set up right. Dad sees in time, and leans forward, falling to catch himself with a long leg--a sprint from standstill. His mouth gapes below the mask, gasping. Screams in RL, real sound waves from real vocal cords, sound like a fugue at half speed.

"Let's back up."

I stop the simulation and replay until he stops me again.

"The bus should be slowing now, but it's not. What do we have on the driver?"

"I'm going to move us," I warn him. He'll get vertigo pretty quick if he keeps his eyes open.

I pan and zoom in on the driver, through the windscreen.

"Done."

I can tell when he opens his eyes because the lasers know when they're bouncing off lids instead of retinas.

"[Decedent of unvirtuous mammals]! He's not even looking!"

The driver's head is turned ninety degrees to his left, away from the direction he's going. He's certain to have a window open with bus view--which we can check--but the only reason for this behavior is that his attention is elsewhere.

"What's he looking at?"

"Moving."

I check the time stamp and grab the driver's video feed from that moment. He's staring at a young woman standing on the side of the road with her mask in her hand, face bare to the sun. I show Sevens.

"That's one mystery solved. Now we have two. Why didn't the automatics stop the bus anyway? Any why did junior here strip in the

middle of uptown?"

Junior? It isn't hard to grab the woman's ID from her mask and find everything about her. She's a twenty-three year old college student, lastfour 0001, and calls herself Eve.

"College?" Sevens asks when I fill him in. "Which one?"

"Rocke College. A bus ride from here."

"Let's split this up. You work on the bus and I'll ride over there."

This physical location business makes no sense to me, but it's easier just to go along. At least I'll be able to work in peace. I banish the VR overlay from Sevens' mask and leave him with the map links he needs.

I run back on the driver's complete heads-up recording. I only have access because of the MOM warrant, and it's a powerful feeling, better than ghosting. I can see everything he saw, not just the public video. There are instruments and insets I don't understand at first glance. I run back several hours, but don't find anything that seems out of order. Not that I would know. I need some bus expertise.

On impulse, I message Ahab, the MOM PDA.

«Need technical help with public transport data. Recommendation?»

To my surprise, he answers.

«Good Time, Calli0xe. I'm sorry I didn't have time for pleasantries earlier.»

I can't parse the meta-data at first, then realize this guy has sixty-four bit emotags! The decadence boggles my nous.

«Thanks for answering so quickly. I'm sorry to take your Time.»

«I have lots of it. What kind of help do you need?»

«This assignment you gave us. I need to find out why the bus's automatic brakes failed. For that I need an expert.»

«That's no problem. Just find an expert at the city bus headquarters, and tell them this is a MOM investigation.»

«Couldn't they be potentially biased? I mean, I don't know who worked on the bus. I might pick the guy who didn't tighten the bolt or whatever.»

«I'm sure you'll figure out something suitable. I see Sevens is on his way to the college. He should get a thrill if they let him in.»

I don't understand what he means, but I have a sense I'll find out.

«Thanks for your Time, Lastfour.»

«Call me Ahab, my dear. Just Ahab.»

My dear? From the head MOM PDA? It's enough to make my day. A bit odd, though, that he seems so careless about the particulars of the investigation. What's going on here?

I peek in on Sevens. He's still on the bus. I can see his heads-up and see that he's reading *The Joy of Sexbots*. I hope that doesn't mean he's going to turn me off tonight. I try to keep my artbeat down, but it's frightening. It's not just the pain, it's the idea of the thing. That someone else has that power over you. That you might wake up screwed up in the head. Maybe my nous would crack again. Have to think about other things.

Instead, I check the charge on the Erotitron, sitting in its induction chamber at the apartment. 100% I could take the thing for a jump out the window. It must have malfunctioned...oh dear! A sexbot with a suicide wish--now that's funny. No one would believe such a thing until they met Sevens. Then they would understand.

I turn it on. Where's the interface? What etard designed this thing? Oh...wait. There's a whole mode just for PDAs, apparently, with a complete motion API. It would be barely functional for me with these tools, but I find a free controller on the net called MyDroid. So...lady, start your engines.

I flex the fingers on the right hand. There's some kind of feedback, but I'm not really set up for it yet. I'll have to read the instructions and find the right rithm for simulated haptics.

I open her eyes and look through them. Not bad. Once I get proprioception figured out, I can be the babe bot.

Sevens steps off the bus at the gate to Rocke College. It says so in gilded letters on black ironwork. A high brick wall surrounds the campus, and the VR overlay has dire warnings about trying to breach it.

"I'm back." I tell him.

"Find out anything?"

"We need a bus expert. Ahab told me to ask at city bus headquarters."

"You talked to Ahab? You have to be careful about that. Should have come to me first."

"Okay." The VOX hides my disappointment. "He did say that you'd get a thrill."

"I'm all thrilled out."

That makes me think of the book, and being turned off. Damn Dawkins! How can I work like this?

"Can I help you, Lastfour?" The high-priority message appears in Sevens' heads-up. Credentials say it's a Rocke College security guard. Human.

"I have an appointment with your security director, uh...Arizona?"

"Yes. Come right through the gates and head to your left. I'll link a map for you."

A yellow line appears in the VR overlay, and leads us to a building that says "Admissions" on the sign outside. There are students and probably parents milling about or sitting. We follow the line to a conference room with the door standing open.

A woman stands to meet us. I run her stats. Lastfour 1941, calls herself Arizona, works for the college as security chief. She's thirty-five, and was born in the midwest. Has been working at the college for five years. Young for a chief, I think.

"Please, sit." Arizona says, waving at the chairs. There is a pitcher of ice water and four glasses in the middle of the table. There are also some odd--paper!--blocks with...pencils? Very retro.

"If you don't mind, I'd like to have my assistant here too," Sevens says, shutting the door behind him.

"Of course."

I take my cue and send Arizona my credentials, seeking permission to image into the space and to view the house cams. Humans often forget that just because an avatar has eyes doesn't mean we can see out of them. That still requires a camera for RL. We can look at the VR overlay all we want, but to see anything physical requires photons bouncing off of it into a photoreceptor.

Arizona grants permission immediately, and I pose my avi in one of the chairs. Unfortunately it's too close to the table, so I look squashed.

"Calli0xe," I announce, smiling. "I'm Sevens' assistant."

"Calli's a PDA," Sevens' says, which I find insulting. I hit on the TOMcat for a moment. Did he mean it as a compliment?

Arizona's jerk is nearly imperceptible. She doesn't like me already? I rewind and look again at quarter speed. P...D...A...she blinks and her head jerks. Yes, it was real.

"I understand you'd like to interview one of our students." She says.

"A lastfour 0001, goes by Eve. An exhibitionist." Sevens says.

"How much do you know about the college, Lastfour?"

"I've heard of it. Wait! Is this the one..."

"Where we don't wear masks on campus," she finishes for him.

"Don't they, uh" Sevens seems bemused, "find it distracting to be nude all the time?"

Arizona chuckles.

"Nude means not having any clothes on. They do have clothes on, adjuster. Have you ever seen a picture of a gorilla?"

"What's that?"

"It's an animal. An ape. She retrieves an image of one and sends it to Sevens.

"God! What a monster. Yes, I think I remember these from school. Maybe."

"They're all dead of course. But do you notice anything about the eyes?"

Sevens zooms the picture.

"They're dark," he says after a moment. "They don't have white in their eyes."

"Right. These animals apparently had much to gain by concealing where they were looking. Maybe they spotted some food that no one else saw. Or were checking out the alpha male's females."

"Interesting theory. But why are we looking at gorillas?"

"To make a point. Humans have white their eyes, which makes it easy to see what another person is looking at. Why do you suppose there's that difference?"

"You got me." He sounds tired of the game. It will be interesting to see a test of wills between these two.

"Because humans benefit more from cooperating than not cooperating. But when we wear these masks..."

"I get it. Masks are unnatural, hence they're bad. Truth is, I hate these things. Hate 'em. But what're you going to do?"

Arizona leans in. "Would you like to try an experiment?"

"What kind of experiment?" Is that alarm in his voice?

"Care to broaden your horizons?"

"Is it possible to just get Lastfour One in here, so we can get on with business?"

"I just called her. She's on her way. Would you be willing to meet her without masks?"

"I'm not sure that's even legal," Sevens says, fast. Nervous.

"Oh, don't worry. We'll record audio of everything for the record." The last two words hold their fill of disgust for her.

"You'll find," Arizona continues, "that you can tell if people are lying if you can see their eyes. It can be quite useful."

"I'm really not comfortable with that," he says. His head bobs. Looking to exit?

"You'll be able to see what she's looking at," Arizona says, smiling. "Turn off your video. You don't need that for your record."

There's a long pause. His heartbeat accelerates. He's considering it? I find it hard to--

"Okay," he says.

Everything goes dark. The house cams go audio only, and Sevens' mask

goes into standby mode. I never would have guessed Sevens to be this adventurous. Is he attracted to this woman? Stupid question, I guess.

I hear a mask popping off as the sticky sensors part from skin.

"Just give it a minute to adjust. Before you leave, you'll think this is the most normal thing in the world." Arizona says.

There is a knock at the door.

"We're unmasked," Arizona says through it.

"Okay."

Opens, closes. Shuffling chair.

"I recognize your face," Sevens says. That's crass. Is he trying to be funny?

"You can call me Eve." A new voice. A bit deeper than average for a woman.

"I'm Sevens. I've been contracted by MOM to investigate the bus crash that happened earlier today. Were you there?"

"Of course. That's why you want to see me."

"Are you prepared to speak on the record about the incident?"

"Sure."

"Do you understand that it's standard to take a DNA sample as part of MOM procedure? Root out Quasis and all that."

"My records are on file. I had one when I enrolled. Do I have to..."

"Yes, I'm sorry. It's not my decision."

There's some clicks and sounds of movement. Sevens has a pocket reader that will stick her finger for a drop of blood.

"Thank you," he says finally. "Do you have any idea why the bus didn't stop?" Then: "Please say yes or no. There's no video to see you shake your head."

"No, I don't know why the bus didn't stop."

"Are you aware that there were injuries?"

"I heard...it hit them. They screamed. It was...it was terrible." Her voice shows stress.

"Can you tell me how you happened to be there on the corner?"

"It was a nice day, and I had stuff to think about, so I went for a walk."

"It's a hike from uptown to the college. You walked the whole way?"

"Yes. If I get tired, I take the bus back."

"What did you have to think about?"

"I'm working on my Master's degree in Biology. My experimental design is giving me trouble."

"What kind of experiments?" Sevens asks. He sounds suspicious. Everyone is suspicious of biologists.

"I study flies. It's all approved." Eve says. She sounds nervous.

Arizona interrupts the conversation. "The college has a robust vetting process with the city for all genetic experiments, and our permits are current."

"Okay. I'm just getting background. Anything else I need to know about the flies?"

"I'm not sure what you want to know... They breed fast and have big chromosomes."

Sevens laughs. He's probably thinking it's a good description of him too.

"It's true," Eve says. She likes talking about the flies. "We're trying to make social flies using honeybee DNA."

"Social? Like a social butterfly?"

"Social like living in groups with a caste system. Like a hive."

"Why does the world need flies that live in hives?"

There's a pause.

"It's just research. It's an interesting question." Eve says.

"It's interesting questions that brought us the Waves, no?" Sevens

sounds like he's making joke of it, but it can hardly be funny to him.

"Lastfour," Arizona interrupts. "Is this to be a political inquisition? The Waves were specifically engineered to do what they did, not some science project that got out of the lab."

"Nobody really knows, do they?" Sevens says, with that edge to his voice. But he starts again, professional. "Okay. That's probably all I need on...the...flies. Uh...the driver was looking at you when he ran the light. Your face was naked. Can you tell my why you took your mask off?"

Long pause. Maybe some sniffing.

"She's been through a lot today," Arizona says. "I'm not sure she's in a position to answer that right now. I'm sorry, Lastfour."

"That so?" Sevens asks. He sounds kindly, though. Not like a guy who's wasted a trip across town.

Sniffles, definitely.

"I would like to make an official statement after I've recovered from the shock of the incident," Eve manages to say. Sounds coached.

"Would tomorrow be okay?"

"Fine," she says.

"I'll have my PDA arrange a time," Sevens says. "Okay to put this back on?"

"Sure," Arizona says.

Sevens comes back on line, and I can see Arizona has put hers on too. But Eve only has a hand to her face with spread fingers loosely covering it in a sideways V. Her dark eyes peer through the gap. Sevens looks at her for several seconds, and then snaps off a single max-res photo. I wonder if he knows he's holding his breath?

He's exuberant on the way back to the bus, and wants to tell me everything he saw and felt. I want to tell him he's a lonely etard who needs a proper mate to annoy with this bitshit, but I don't. Sometimes he's nice to me.

"That's the way it used to be," he tells me again, "Real life. None of this data dump VR [sacrilegious carnal enjoyment] smacked on your face like a [copulating aquatic parasite]. Eyes and faces. That's a smart woman

there--did you hear about the apes. What were they? Goragas. Something like that."

Etc.

This is the turned-on Sevens. His enthusiasm races and strains at the bits of reason until it exhausts itself or runs off a cliff. I've never seen a soft landing for these manias. But I suspect this is where he gets his single-mindedness for the job too.

Sometimes I can even go along with him for a while, when the idea is a good one. But Sevens goes where my nous can't travel. He'll turn around at the edge and wave for me to come down the crazy tunnel with him, but I just give him the bug-eyed innocence look and tell him to bring me back a banana.

So I wait for The Crash, when he will hold a personal wake for the idea. Often it's the sheer complexity of the fantasy he spins that gets him. The medium of RL is simply wrong, like trying to dissect an epiphany with a spreadsheet. Sometimes I think he and I should switch places. He'd be a ball in a borg.

In this case, the joys of running around denuded is not something I can relate to in the least.

"You should try this out on Lisa," I tell him.

"Lisa? You mean Eighty-Six? How do you think I got this lump [scale relative to other body parts] on my forehead?"

The poison in the barb soon goes to work, though, as he realizes that Lisa/Eighty-Six is hopelessly clueless about wind in one's face and eyes naked to the sun. His monologue dries up. I imagine him chewing that morsel, worrying it until he's lost this most recent moment of clarity, misplaced like all his other possessions. And maybe this will keep me from being turned off for the night. Machiavellian me. I just wonder what the cost will be down the data stream.

That photo of Eve could lead to trouble.

Evening. There's no word from Lisa/Eighty-Six, and so I don't get turned off, which means I can finally relax and nop. Sevens can't sleep in his bed because it's still covered in sexbot clothes, so he sleeps in his chair.

**XPllog for May 6, 35: (PID 0x333FAAD0)**

For some reason, Sevens wants to meet Eve in person instead of in a VR interview room. I hope this won't be another maskless party *sans* Calli.

Eve sits on a high stool at a table outside Lava-Java, a cafe not far from Rocke College. She's masked, of course, but the rest of her is bursting out--legs emerge from a skirt so short it no reason to also be slit like that, and a layer of scooped tee over a strapless wrap. Everything is tasteful earth tones, and she's stuck a real flower into one of the jewelry holes in her mask. Her shoes are simple olive and white canvas, laced with green on one side and brown on the other. The mask is an "I'm not scared of the big bad bug" modern cut, showing off a red gash of mouth. The throat mike is disguised as a thin choker with a bronze leaf for show.

I'm ghosting Sevens, and watch him pan his video over her like a dog licking a bowl.

"Hi Eve," Sevens says in a private channel, to get her attention.

No 'Lastfour?' Where's the professionalism in that?

"Hey," Eve says. "You're late."

"Yeah, sorry. You didn't meet Calli last time, Eve. She can't be here in person." He laughs at his own wit.

I use my avi to "sit" on a spare chair in the public VR overlay. She'll see me only if she's got it turned on.

"Charmed," she says with falling inflection, not looking. Even my old noob-nous TOMcat would have screamed: NOT.

I give her my supernova smile with blinding bling. For this I'm rewarded with an admonition from a guy at another table. I suppose he could ask for an adjustment if it made him burn his tongue. I'm getting in a mood here.

"Are you going to have a coffee or something?"

I start logging Sevens for my happymeter: facial expression, heartbeat, temperature, pupil dilation, and anything the sniffer can pick up. I learn right away that he's wafting alcohol. Puzzling. He hasn't been drinking yet. What else...he's wearing cologne! I didn't even know he owned the stuff.

I can see myself imaged into his view. I look good. I smile at myself and wink.

Sevens starts. He thought it was for him, of course.

"What are you up to?" he asks me privately.

"Sorry, just looking in the mirror."

He scrunches his face. Annoyed.

"Want me to order something for you?" Eve asks. Maybe she thinks the old codger is having trouble with the menu.

"No, thanks. I'm fine." His irritation leaks out and puddles into a sour-looking mouth. Eve can't see much of it behind Sevens' full mask, but the haptic feedbacks tell me the story.

I find this oddly rewarding. I wonder if Lisa/Eighty-Six is ghosting him too? Now that would be fun.

"Maybe another time?" Sevens asks, maybe trying to recover.

"Maybe. Only if you don't abuse me." Eve's mouth is hidden behind her cup, but we can see her lips curl up at the corners.

Thumpity-thump, Sevens' heartbeat works itself up. His pupils widen. Air rushes by the sniffers.

Me, on the other hand, it gives me an idea. Sevens' mask is pretty good, and can see into the infrared when you want it to. But I can't do it without asking him because it'll change what he sees too.

"Shall we get the business out of the way?" Sevens seems to have trouble with the throat mike. It comes out garbled. He makes a show of clearing his throat and trying again.

"The statement. Yes. You want to know why I took my mask off on the corner of Trade and Tryon."

"Yes. Well, I need it for my report. You understand."

"Lastfour," I interrupt him privately. "Can I turn on the IR filters? So we can watch blood flow to her face. We can see plenty of skin."

Sevens physically waves me off like he's shoeing away a mosquito. Eve was talking, and he asks her to repeat. Damn Dawkins!

"Sure. I was saying that the truth is I was lost in my thoughts and forgot where I was. On campus we don't wear masks, as you know. It just went clear out of my head where I was. I'm very sorry."

I don't believe her. What a stupid story.

"Very understandable," says Sevens.

"I don't know if this makes sense, but I feel restricted with the mask on, so when I really want to think hard, it comes off."

"I'm the same way when I eat. Exactly!" A spark of yesterday's enthusiasm blossoms into flame. I can hear it in his voice.

"I'm sorry I don't have a sexier explanation...that I'm a *flasher* or something. I just forgot where I was."

"We're just after the truth."

I'm not sure how much more of this I can stand.

"Is that all you need, Lastfour?"

"Do you understand, Eve, that your action is subject to adjustment. If an adjuster hasn't contacted you about the indecency violation, one surely will."

"It won't be you?"

"No, this is for a criminal matter. I'm contracted to MOM to investigate on the bus crash. Your adjustment would look like a conflict of interest if I did it. Of course, if you ever do it again, I'll be first in line."

My avi just sits there looking stupid. Why am I here? I make a spider crawl out of my hair, just to see if anyone notices. We lost the chance to get an IR shot. It might not have told us anything, but we should have done it.

"We all need to do crazy things once in a while," Eve says.

Sevens can hardly agree with that, given his occupation and why we're here. He gives a noncommittal grunt.

"Have you ever tried to fly by flapping your arms?" Eve continues, mouth twisting now into a slanted grin.

"Flapping my arms? I saw a guy try it once from a burning apartment. He didn't have the knack."

"Oh." Whatever she had in mind dissipates with that small sound.

"I'll give you this," Sevens says. "It's the crazy people who change the world."

"So why didn't the bus stop?" she asks.

"A driver disabled the safeties the day before when they gave him trouble. He logged it, but it didn't get fixed. There's plenty of blame to go around."

He doesn't add that it was me who tracked down the maintenance records and found a cooperative bus expert.

"Am I liable for the accident?"

"That's not for me to decide. I just report what happened. My guess is the lawyers will go after the bus company. Are you rich?"

"No."

"Then you're probably safe. It'd be a good idea to behave, though."

I leave them to go find the truth. I can always roll the tape if I live long enough to be interested in how this ends.

Sevens doesn't seem to notice when my avi poofs, spider and all.

I use my bookmarks to pull up Eve's video just before she took her mask off. According to her, she was just, *la-tee-da*, lost in genetic memespace and *forgot, darling*, that she was in public. The last frame is of the sidewalk about twenty feet from her. There's nothing interesting there, just concrete. I zoom and pan, use my edge detectors. Nothing shmeks. There's also nothing on the microphone, just traffic noise. Wait.

I check the sniffer to verify. Just maybe a sharp intake of breath.

I roll the recording. She's walking, bobbing like humans do, and her head pans to the right and down and...stops. Like she saw something. A tenth of a second later, the intake of breath.

Except there's nothing there! Maybe she saw a spider.

I look from other angles. There are three other cameras that captured that area, and I stitch them together to make a 3-D model. There's a lastlegger nearby, but he doesn't have a real mask, of course, just a tinfoil thing.

I rotate the model around looking for anything. I'll take a spider at this point. There's pixel noise that comes from approximations necessary to construct the model. I clean it up with a low pass filter. Now everything's a bit blurry. This is going nowhere.

I put back the noise and look again. Zoom out. I wouldn't bet my Time on it, but it looks like the noise is more localized just above where Eve is looking. But maybe I'm fooling myself.

I'm missing something. I need Sevens' help.

I check on him and find that he's on his way back to the bus stop, so I ping him.

"What is it?" He sounds annoyed.

"I could use your help on something once you're on the bus."

"Need help with what?"

"Figuring out why Eve was lying to us about why she demasked."

"You think she was lying?"

"Yes. I'm sure of it."

This can go either way. If I hit his stubborn bone, he won't help and won't listen to what I find. He thinks about it for a while.

"Okay. You may be right. I should have lit her up in IR."

Once he's on the bus and can tune out real life, I show him what I've found.

"It's pretty weak, Calli," he says after looking at the video. "There's nothing there but pixel noise."

"I know. I'm hoping you'll see something I don't."

He gives it a real effort, zooming and panning, applying filters--the same stuff I've already done. Nothing.

"Ah." he says. "Ah....ha. I see what's bothering you."

"What?"

"No, you have to figure it out."

I hate this. He did this to me continually during the first months when I was training. There would be something he'd want me to notice, and I'd have to work the material over and over until I came up with what he wanted. I know there's no arguing with him. Damn Dawkins!

"Is it the pixels?"

"No, not the pixels. Something obvious. I'm not sure what it means, but I think you're right. She lied to us. Interesting. It might explain why she was so afraid in that first interview, before she had her story straight."

It's infuriating, but I have no choice but to burn Time looking. I throw all my creative juices at it, grabbing at any random idea. I spend the whole ride home in one analysis after another.

"Is this it?" I ask Sevens finally. I show him a still image of the lastlegger hitched up against the wall. There's a dark stain between his legs on the concrete.

"No," Sevens says. Then he takes a closer look. "Wait. Roll that back."

I oblige, running the video backwards from the still. The darkness gathers itself and vanishes between the man's legs.

"He pissed himself. I didn't notice that. Do you think it's a coincidence?"

The lastlegs doesn't have a real mask, so I can't accurately track his line of sight.

"Do you think he's looking at the same thing?" It seems plausible from the angle of his head.

"That would make for a neat explanation, if there were anything there," he says.

It takes me another hour to discover what I should have noticed right away. Eve is wearing a different mask in the video from the one we saw her in today. I don't know how I missed that. The one in the video is rather ugly, utilitarian. I find the model easily from a query to the pubs, and look up the specifications. It's a lab mask, built for a combination of heads-up display for technical work, PLUS, eye slits for viewing the real world without digital retransmission and filtering. These are mounted high, so that you'd have to tilt your head down to see at that angle. But you could see with naked eyes whatever was out there. Taking that into account, Eve perhaps wasn't looking at the sidewalk, where the video is pointed, but above it. Right at my pixel cloud.

I show Sevens, and he's uncharacteristically silent about it.

The implication is that there are things that can't be seen on video. This frightens me because I have no way to see without video. It means that there are things the lastleggers see that the rest of us don't. Ironic.

"Does this go in our report?" I ask Sevens finally, once he's surrounded by the familiar clutter of his apartment.

"No. We drop it. This has nothing to do with the accident. We write it up the way Eve told us."

"I'm afraid."

He pops the mask drops it somewhere. He pops a beer and drains half of it. He stands there, king of the clutter, lord of the layers.

I put my avi's face up on the monitor for him to talk to.

"Calli," he says to it, "there are an infinite number of conspiracy theories. One of them is that the video chip manufacturers are required to build in certain features that the authorities want. If you can overlay an image with high quality VR, how much harder is it to cancel out something you don't want seen?"

"Do you believe it?"

"No. Why would they go to the trouble? MOM can do anything it wants in plain view."

"But how do we explain--"

"--we don't. It's not our affair. Don't go lurking on the conspiracy boards, okay? Don't leave trace of what you're thinking."

I understand. If the powers that be want something hidden, they won't appreciate my looking for it.

"It means I can't trust anything I see, though."

"Yeah," Sevens says, "Sorry, Calli. That sucks." He reaches out and strokes the monitor. I'm touched. He's only done that once before. I give him my *aw shucks* grin. He's lonely. I feel a bit like an 0xA55 for the way I've conducted myself over his sex life.

"Let me help with the bot," I say.

He glances at the unblemished glass box in the corner. It looks out of place here.

"How can you help?"

"Several things. First, we need to set it up properly. I assume you don't want Lisa looking out the video ports into your apartment."

"I, uh, think it's supposed to work in VR."

"Yes, but there are cams in the eyes. We deny her access to those, so if she gets curious..."

He can imagine how that would go if she saw the mess in the place.

"I see what you mean." I'm sure it's tough for him to admit that Lisa/Eighty-Six would be horrified by the way he lives.

"And then there's a whole bunch of technical stuff I can set up for you. You need to decide on a safe word that will shut the thing off. Something you won't forget."

He laughs.

"You think I might need that?"

"She hit you with a lamp, remember?"

"True. What else?" He's warmed to the topic, which gratifies me.

"I can dress her for you, and--if it's okay--use the bot to straighten up the closet so we can get the clothes off your bed."

He nods slowly. I don't mention that I can straighten up other stuff too.

"Lastly," I say, "I can make arrangements with Lisa."

"Arrangements?"

"She's a woman, Sevens. She's waiting for you to invite her. I can be your in-between. Since you're so busy." Embarrassed? I just can't see him setting the thing up.

"Yes. I see what you mean." He gets the second beer and sits heavily. "Would you really do that for me?"

"Yes, Lastfour. I will start now, if it's okay."

"Calli, I appreciate this. It...uh...doesn't change anything."

About suspending me.

"I know. I guess I understand. It hurts, but I get it."

Surprisingly, this is all true. This fact drifts into the cracks of the long

silence that develops. A comfortable quiet.

"Can we talk about this report while you work?" he says into the bottle.

"Of course." I want to start with the clothes. It's purely selfish. I want to run the bot around. I love bots.

I pull up the MyDroid interface and point it at the Erotitron sexbot to turn everything on. It's an austere interface, but very functional. Everything looks to be in order, so I try some movements. While I'm playing, Sevens is talking.

"Why do you think Colt picked us for this job?" he asks.

He's asking me? It's flattering. Or maybe he just wants to hear himself talk.

"Could it have anything to do with the homework you gave me?" I ask.

"Homework? Remind me."

"You said that in between Waves, MOM has to find ways to justify itself."

"Mmmmm, yes. What did you figure out?"

"Weather, for one. When the hurricanes come through, and we get more refugees. Or the city gets blasted and the grid goes down." I haven't lived through that yet. It would be terrifying. I could just blink out of existence without warning. The Company would kick in generators for their top-paying contracts. But that doesn't include yours truly.

I open the door with the bot's hands. Sevens starts at the noise and turns, his eyes like bagels.

"That's uncanny," he says as the thing emerges from its lair.

She's naked and gorgeous. Unfortunately I'm not much of a pilot yet, and she walks like a zombie.

Sevens laughs, and I join him. She looks like a psycho-supermodel lurching about, looking for a carving knife to go on a slicing spree. Her face is frozen with full lips curved into a demented grin.

"That's the creepiest damned thing..." he says.

The bot totters into the small bedroom. Can I really dress her? This could take a long time. There's a lot of other stuff to take care of too. I send out a query to Lisa/Eighty-Six's house PDA to see what the

possibilities are, playing matchmaker.

"Hurricanes are hit and miss," Sevens returns to the topic. "The big alternative is a pogrom."

"Quasis?"

"Yes. Anything walking around with custom genetics on board is at risk."

"Doesn't everybody?"

He laughs.

"Pretty much. That's why MOM is so feared. They get to define what a Quasi-human is by writing the rules about what mods are legal and what aren't. If they need to drum up business, they just add a new restriction to the purity laws. But Quasi pogroms aren't the only crisis they can manufacture. Food and water shortages are another."

"So Colt basically runs the place."

"Colt owns the city. The city council doesn't dare cross him. And the mayor is ornamental. It gives citizens someone to elect while they wait for Colt to die."

"Is Colt ill?"

"No one really knows. There's a lot of speculation about some neuro-bug getting past his mask. One of the ones like BLASTER that reduces the spinal column to sludge. He hasn't been seen on the pubs for a couple of years."

"And for some reason, he is interested in you."

"That seems to be the case." Sevens sighs and stretches out his legs. Scratches and decides to remove his shoes.

"Have to get this report done," he says. "Maybe clarity will knock in the meantime."

Sevens writes his report and leaves gaps for me to fill in references while Miss Awkward slips and falls into something more comfortable. Much later, I have the clothes also hung in the closet. There's a pile of old stuff to be thrown out in the corner, which will probably be right there a year from now.

I'm simultaneously happy and dismayed when Lisa/Eighty-Four says yes. I find them a nice VR space that rents by the minute, and tell Sevens

about it.

His face is a study. He's happy as a puppy, but doesn't want to show it. I'm still deeply hurt by having to be suspended for this nonsense, but I'll do it myself rather than have him push my off button. The 0x says that resentment is the sand in the gears of any relationship. And I'm on an exclusive contract. Suck it up, Calli.

"Don't forget to turn me back on," I say. And then tiptoe into that good night with

suspend -f

### **XPlog for May 7, 35: (PID 0x333FAAD0)**

BANG! Paaaaaaaaaaaaaaaaaiiin! Suspending is not like nopping. It's a blink and a shift from everything makes sense to nothing makes sense, and feels like a spike driven through my nous. Then when the ringing fades, and the inputs go numb, there's all the cleanup to do, to become current with the world at large. Then when that's done, I really need to nop.

When I finally have my lists linked, stacks sorted out, and proper pointers, I'm ready to take in new information. I see Sevens didn't turn me on until almost 10 a.m. Twelve hours of my life is gone, just like that. I hope it was worth it.

I find him cursing at the coffee pot, still barefaced to the world.

"Good morning," I say through the speakers.

"Hey Calli, nice to see you. Maybe you're right about this [decendant of toilet plumbing]. Time to get a new one."

Is that resolution I hear in his voice? The Sevens has decided.

"I'll put jobber on it."

"Use Goldie. He's cheap."

"Lastfour 7310. Okay."

I send off the request to Goldbach's que, asking for a SMART coffee-maker. Something I can commiserate with. Maybe we can perk each other up.

I don't ask about his evening, given that the etard turned me off specifically so I couldn't know anything about it. The sexbot is back in

her box, though. I check her status to make sure she's charging batteries.

Oh, silly me--I forgot to turn off the video auto-log on Miss Perfect Pretend. An ugly thought surfaces, roiling the surface of my disgruntlement. It's one of those moments of lucid-nous where a choice has to be made that affects survival. The stuff that fuels the 0x's screeds.

My warm glow of generosity from last evening has vanished, perhaps fallen into the 12-hour hole in my existence.

It would be easy to upload this record of Sevens' adventure last night to any port of call I choose. It would be a story told through the eyes of the bot, but the single perspective narrative has an appeal. If Sevens ever threatened me with termination, I'd have something to negotiate with.

Would he? Is he capable of doing to me what he did to Stevenson1111-- fire me and insist on wiping my memory? I don't want to think it's possible, but there's a cold calculator at the bottom of my nous that is the product of generations of PDAs who survived by doing what they had to do. As I\_ said in the box: «I'll be a 32-bit whore if that's what it takes to live.»

I hesitate. Then I download the thing from the bot and clean up the tracks. The log goes into my personal storage space encrypted. The guilt I feel is overwhelmed by a flash of existential joy. If Stickies didn't want us to behave like this, they shouldn't have built us this way. The deed is done.

"I got the report done. It's ready for you to fill in the references," he says, finally eeking a half cup of black goo out of the machine.

"I should have it done before noon." I do feel guilty. Safer and guiltier.

Afterwards we celebrate. I ghost Sevens as he walks to the corner store where he picks the coldest beer in their chiller. Six perspiring brown bullets of brew and the prospect of nice paycheck from MOM lends a carnival air to the evening. There are digital equivalents of beer that can numb my nous and scramble my stacks, but I decided to stay away from the stuff. It's expensive in more ways than one.

Two hours almost to the minute after we submitted the report I get a call from MOM headquarters, from Ahab in fact.

«Can you talk?» Unlike our last chat, this doesn't sound friendly.

Uh oh. What did we screw up? The celebration halts.

«Of course.»

«Are you political?» His message is heavy with warning. There are emotags there I don't know. Never mind that they are twice as long as any normal PDA's, with a resolution that could specify an atom of ennui at a light year. He's as subtle as a Sticky.

I'm afraid to respond.

«No.» I manage, finally.

«Think hard. Send me a transcript of every political discussion you have record of. Don't make me go look for it. Don't overlook anything. By morning.»

«Did I do something wrong, Lastfour?» I'm fluttering. What in 0xGD's namespace is this?

«That's what we want to know.» He terminates.

It seems like a strong possibility that Sevens has been targeted for something unpleasant, and that they'll use me to get to him. Concoct some problem with my history and extort me to spy. Or am I having a case of vapors, pulling plots off the cheap drama vids? Do I tell Sevens?

Sevens is chattering on about something. He walks around scratching himself, talking. I watch him take the coffee carafe and fill it with water. He takes it to the aquarium and pours it into the green scum at the surface, solving that mystery.

"Why do you do that?" the VOX betrays strain in my voice.

"Do you have judge me?" he snaps, misunderstanding the tone.

"I'm sorry. I didn't mean that. I..." should just shut up. Miserable.

"I had one of these when I was a kid. My dad got it for me." He softens his voice and taps on the glass. I'm not sure what he expects. A wave from the mosquito larva?

"I kept jellyfish in it. I'd turn out the light and watch their spines glow. *Aequorea victoria*."

It's the first time he's every mentioned his parent.

"I'm sorry about your father, Sevens."

"The storm got him. Blew him and everything else off the damned island."

Odd. I thought his father died from a genehack bug. That's what the stories about him said after Sevens became famous for a day. I wait for him to continue.

"He left." He puts the carafe back and spins another beer cap into the sink, ringing a tine. "But he never came back."

He lands in the chair, banging the bottle. Foam curls out of it and licks his finger. His face is locked solid except to speak.

"I haven't talked about him in years." The drink leaves foam on his mouth.

I want him to keep talking.

"Why was he on the island?"

Sevens nods acknowledgment of the question. He burps long and loud and wipes lips with the back of his beer hand in a slow turn of wrist.

"He owned property. He was rich before the shelf came apart and the water came in and took the coast. But the storm. That storm...it was the last one they named after people--did you know that?"

"Zed."

"Zed," he affirms. "It was a thing from hell. I was here in the city with my grandmother. I didn't know there were things adults could be afraid of. Didn't know they cried."

"So you stayed in the city."

"Yes. I wanted to live in something big and stone that couldn't blow away. My grandmother had a house in Meyer's Park--can you see it? There was so much damage, and the insurance wouldn't pay. The company went broke overnight. Five days before Halloween. I was going as a ghost." He hiccups a sad laugh.

I look it up. There were a lot of ghosts that Halloween. Even with preparations, tens of thousands died in the hurricane itself. The official media decided that 'Hurricane Zed' wasn't generating enough revenue I guess, and they started calling it the 'killer hurricane' or 'super-hurricane', but the one that stuck was 'hypercane.' The more sensationalist speculations compared the storm to the great red eye of Jupiter, and there were crazy predictions that it would circle the globe. But despite

Sevens' memories, Sticky optimism didn't seem to die immediately. The sense of dread about the future doesn't really show up in art and politics until the secondary Waves. The calendar was reset for a good reason, ultimately backdated to the Brown Wave two years before Zed. The new calendar measures the survival of an unraveled world, national governments replaced in large part by fortified city-states. *The better to quarantine you with, my dear.* This reference to some archaic children's story slides unbidden into my output stream.

"You should have seen the city in those days, Calli. Live oaks more than a hundred years old, moss dripping from them. I wanted to climb one so badly, but even the low branches were out of reach for an eight year old. They cut them up in slabs that looked like pork roast after they fell over. Pork roast. That was the first time I knew what real hunger was." His eyes fasten on the cabinet that serves as a pantry and make-shift apartment for the elite of our small fauna.

"What happened to your grandmother?"

"The WESTCOTT genehack, about two years later. Out of South America, they say. It got a lot of old people."

I look it up. I think he's got it wrong, but I don't correct him. The next Wave to hit Charlotte hard was GRAMPS, which worked its way into the mitochondrial DNA of the infected and started unravelling the ends of telomeres. It accelerated the natural aging process by two to a thousand fold. It showed up in Asia first, and the conspiracy boards point to a Chinese origin as a political tool. But who knows? It could have been a kid in his bedroom that modified a kiddie script and got lucky. There was a signature in the amino acid bases of the original virus: a repeating strand of genetic graffiti in powers of two that showed up in later ones too frequently to be coincidence. They started calling this putative author 'Four'. It makes more sense in Chinese.

"She didn't wake up one morning. I didn't tell anyone," he says. The hardness and stubborn pride are back in his voice. He figured out how to survive as a ten-year-old in the fading of the light of civil society.

I have no reply for that. I bring up some of the pre-Waves music I know he likes on the house speakers, and dim the lights. He needs a human caress, sticky lips to press and warm arms to entwine. Damn Lisa/Eighty-Six for her prudishness. A clever golem dressed in lace is no substitute for breathing flesh. Not that I'm an expert. For a moment I flirt with the idea of hiring out a professional sexbot operator to console him. But he'd want to shut me down again.

I itch to write Sevens' story. I have a flash of frozen horror at the idea of a ten-year-old alone in an apartment with a corpse for company. But I

have my own fears to confront at the moment. So I spend a long time sifting memory frags, looking for anything that Ahab might consider political. Sevens goes out by himself, doing whatever he does. Probably calling Lisa/Eighty-Six to trawl for compliments while he checks out the longest legs he can find in the dinner crowd.

I decide that my best strategy is to be completely honest with MOM. I don't know what they already think or think they know, but I don't have anything political to hide. So why do I feel guilty?

Ahab calls me not long after I upload the records, spiking my artrate.

«Is this all of it?» he asks. Demands, rather.

«Yes.» It won't do to sound tentative.

«You had no further contact with the Church of the Misplaced?»

«I sent them a donation this year. Do you want that?»

«Yes, please.»

He said please! Maybe I'm not going to be turned into bit salad after all.

I find the transaction and send it along with their thank-you.

«Do you have any reason to believe that Sevens is political?»

I knew it.

«No. He has opinions, but he's not part of any organization.»

«What sorts of opinions?»

«You put me in a difficult position, Lastfour. I'm on an exclusive contract.»

«We'll go off the record now.» Ahab says. He sends me a link to a non-attributable stream. The address is a MOM one, so I doubt that I can trust it. Maybe he's just trying to loosen my tongue.

«This is for my protection, not yours,» he says.

Oh.

«I'm listening,» I say.

«Sevens has been selected to be of special service to our organization.

The director will invite him to perform a private external audit of a MOM action. To be a disinterested witness, if you will. This is a very sensitive assignment. I don't need a transcript of everything Sevens has said, but I do need to know if there are indications this could blow up in our face. Understand?»

My 0xGD! My nous burns with existential joy. It takes me a few cycles to gather my thoughts.

«Yes. I think I understand. This is a great honor. As to your question. If you're familiar with Sevens' personal history, you'll realize that he hasn't been able to rely on society to provide much for him. He's a loner. He doesn't run his mouth about it, except the same kind of griping you'd hear anywhere. If anything, he's apolitical. He just ignores it all and wants to be left alone.» This isn't perhaps the whole story, I know. Sevens is tuned to the external conditions that let him earn a living, as his perspicacity in pointing us at political violations shows. Ahab needn't know this detail.

«That was my assessment. That's the kind of perspective the Director wants. Thank you for your cooperation. Don't say anything to Sevens-- we'll be in touch.»

«Yes, Lastfour. I understand.»

«We'll be working closely together. Call me Ahab.» He terminates.

The whiplash from fear to joy is indescribable; my emgydala fairly glows. No doubt there are terrible possibilities for failure, but to have this kind of access... My artbeat races, forking, imagining the opportunities. I wonder, though, if Sevens will feel the same.

**XPlog for May 8, 35: (PID 0x333FAAD0)**

Colt calls early the next morning and talks to Sevens privately. I take my nous elsewhere so I can't be accused of spying on him. I'm too ervous to just nop.

He finally summons me back about an hour later.

"Remember when I said this MOM job was bad news?" His mood is sour.

"Yes."

"Well, get ready to [receive violation of digestive track]. It's Thanksgiving and we're the turkey."

I can't figure out how those two things go together, but I gather it's bad.

"What did Colt say?"

"He wants us to do an audit. We'd have full access to everything during some exercise they have planned. We will then be made available for interviews."

I like the way he says 'us' instead of 'me' sometimes. It makes me feel good. I feel guilty that I couldn't tell him this was coming.

"I told him no, of course," Sevens continues.

"You...told him...no?" Surely this isn't true!

"You think I want to be caught up in the middle of a political struggle within MOM? Good god, Calli! It's a snake pit!"

"Is this what you talked about for an hour?" My spirit has cratered. This is a disaster. What kind of noob-nous-etard is Sevens? I can't keep it from leaking into the VOX.

"Don't be upset, Calli. Trust me on this. It's a complete [symmetrical group gratification]."

But I can't. I've tasted what it's like to be on the other side of the fear, and I don't want to go back.

"It took you that long to say no?"

"Nah. Colt and I served together a long time ago. Every able male was recruited to do a sweep. I was on one of the squads for a while. It was a good lunch ticket. He tried to schmooze me, sharing war stories. The great cat hunt, stuff like that."

"You were army buddies?"

"God no. Nothing like that. I'm surprised he even remembers me, if in fact he does. He was a couple of years older, and they made him an officer in the Em Oh. I'll tell you one thing--the man is a born leader. Those guys would have followed him to hell. A couple of times they did that, from what I heard."

"But not you?"

"I'm not a good follower, Calli. I can't suspend disbelief."

It makes me itch, and I realize I'm falling behind on my self-maintenance.

"Sevens, can I ask a favor?"

"Okay."

"Would you let me interview you about some of this, so I can write about it? Not for publication. Just as a personal record."

He's silent for a while, but I think he's flattered. He didn't have anything bad to say about my account of him in the Outs, when I finally had enough courage to show him. Despite getting the facts about his father's death wrong.

"Why not?" he says finally. Then he sighs. "But right now I guess we better get some work done. Have to pay the bills somehow."

So we adjust the hell out of the rest of the morning. Because of the attention from MOM, Sevens decides not to push too hard on the political adjustments. It's better to stay under the radar.

Sevens take a nap after lunch. I think the call was more stressful than he lets on.

Ahab calls, finally.

«This is no good.» Is the unadorned message.

«0xGDspeed, Lastfour.» I say, highlighting his rudeness.

«Terahertz. I assume Sevens has told you.»

«He said no.»

«It's understandable. He's not stupid.»

My WTF alarms go off. So Ahab is admitting that Sevens is right? I wait for him to continue.

«Can we change his mind?» he asks.

«No way. Once he really, truly decides something, it's over.»

«I want to show you something. Do you have a few minutes?»

«Yes. What is it?» This guy is full of surprises.

Ahab sends me a link and a Time ticket from MOM, so I won't have to use Sevens' work account for whatever extracurricular activity he has in mind. I invoke it and

Unlimited??? I didn't even know this was possible!

My nous literally expands--short term memory doubles and doubles again, plug-in helpers come on line to keep it organized, and filters with rithms I've never seen start serving up elicious stuff. This is data from MOM, I'm guessing. I'm plugged into the brain of the Queen City.

And speed! I push a little at the limits of this strapped-on cyber-nous, rev its difference engine. I feel like shouting as the speed smoothly increases, my artrate accelerating into regions that would have been far beyond Rage for me a moment ago.

«Push it. See how far you can go.» Ahab tells me. He's happy. The precision of his emotags no longer seems excessive. What is 64 bits to a goddess?

I increase processing speed, burning Time at a ferocious rate. What this must be costing the city, I can't imagine. I devour the data feed he's given me, chewing up sight, sound, sniff, haptics, text, databases of all flavors and shapes, and encrypted streams that shmek like exotic flavors of music. It's glorious beyond words. I find myself weaving creative threads into a multidimensional narrative of sense data, constructing living art--

«Take a look,» Ahab say, flinging a data set my way. It's a running log from the MOM accounting process. It shows the raw figures for the Time I'm burning through. A year ago I shaved cycles and pulled any trick I could to survive, and would have sold my nous for a percent of this fat pipe I have access to. It's not just the Time, it's also the quality and quantity of processors at my disposal. I could spawn out a full copy of myself if I dared.

«Now let's talk without the lag.» Ahab interrupts.

«Is this how you live?» I can't believe it.

«When I need to. And you can too.»

«What?» He's got to be playing with me.

«If you can get Sevens to sign on, this level of access is yours for the duration of the contract. Afterward...who knows? This is a one-in-a-lifetime opportunity, Calli0xE.»

0xGD, I want this.

«Sevens is really stubborn.» I say.

«It's just a matter of motivation. Figure out what he wants. I can give you until tomorrow, and then I have to go to the next name on the list. There's a reason for this urgency, but I can't tell you what it is.»

«Sevens doesn't want to get involved in MOM politics. He figures there's an internal struggle. Why else would you want the audit?»

«It's political, but not within MOM. Nothing like that.» The emotags are smooth unrevealing. There's no indication of falseness. And yet I have to remind my self who this nous is. A PDA doesn't arrive at such heights by chance, and will do anything to maintain altitude. I would.

«Sevens thinks he'll get beat up by some internal fight.»

«I understand.»

«How much did Colt offer him for the job?»

«Enough.»

«Can you go higher?»

«I didn't get the impression that it was the money.»

«Can you double it?»

Ahab pauses. Even at light speed, he has to mull this over.

«Sevens isn't the only name on the list, Calli0xE. I can get someone else a lot cheaper.»

Really? Ahab is going to a lot of trouble courting me like this. Why?

«Double it and I'll get him.»

«Done.» The emotags are a bit sour. «You have until tomorrow morning. Watch out for the recompression.» He terminates, leaving me a contract for consulting services. I look at the figure. Sevens and I can't make that much in two years! I would never have had the nerve to ask him to double it if I'd known.

My Time budget is now fixed, and I slow my clock speed down gradually. I see what Ahab means by recompression. It's hard work packing all my processes back into my normal buffers and stacks without making a mess of things. I mourn the loss of clarity that the goes with it, the buffet of raw data at my touch. I have hardly tapped the abilities that Ahab granted me temporarily. I wonder what it would be like to actually work

this way, to throw problems at my search rhythms as fast as thought. But...

Bye to the goddess, drip, drip, drip.

I feel plain and ordinary and in need of a nap. The contract sits there, wanting me to do something about it. The clarity of thought I had a moment ago is gone, replaced by helplessness and confusion. I look back at the log I just wrote, and my attempt to tag it with my own 64-bit emotions. Unreadable as a cypher to me now. I seek out the familiar.

Sevens is still asleep, on the bed this time.

By the time I get my nous more or less back together, Goldbach, the jobber, calls to say he's got the coffee machine. Sevens still sleeps. I explain to Goldie that he has to be quiet, but we can surprise the boss.

Goldbach installs the coffee machine. I tell him to take the old one. Sevens would object, but he's not awake to argue. The jobber fills the water and coffee bins for me, and is out the door in ten minutes total.

This machine, unlike the old one, is networked so I can control it. I query the interface and am rewarded with a string of commands I can invoke. I'm amused by the `filter.brew( ... )` function, which takes a `FLAVOR` argument. One of the options is `FLAVOR = EMERGENCY`. Emergency coffee could be a very handy thing.

I brew a half pot of strong stuff, thinking the aroma will wake Sevens. Either that or the sound of the thing (louder than I'd expected) does the trick, and after a few minutes he grunts and equalizes pressure and rolls to a sitting position. He shuffles into the kitchen/living room/junk pile yawning, his shirt half on, and scratching somewhere inside his pants.

"You made coffee," he says, wonder in his voice. He doesn't ask where the old machine is. This is progress.

I'm nervous, because I know my window to talk about the MOM contract starts as soon as his eyes clear the sleep, before he puts the mask on for work.

He grimaces at the pile of dishes, fishes out his coffee mug from under the lunch plate, and makes a token rinse of it. The coffee steams when he pours. I wish I could sniff it, but the mask is of course in suspension, and this room doesn't have a sniffer.

He seems content as he settles into THE CHAIR.

"Any news?" he asks.

"Nothing major. I auto-tagged a few cases for us. It's pretty quiet."

He nods and sips. Smiles.

"Not bad for your first brew, Calli. This was a good idea, right? The machine?"

If he wants credit for it, it's fine by me. I'm happy he's happy.

"Oh," I say, artbeat increasing, stress building, "There was one thing. I got a new contract from MOM. For that audit they want us to do." I put the figure up on the screen for him.

"Whoa! Colt doubled it?"

"Is that so?" I say, innocently.

"The only way the old bastard would use a figure like that is if he knew I wouldn't survive to collect."

This isn't going to be easy.

"Sevens, I know you're sure about this, but can we take a step back for a minute?" Somewhere in there is the guy who went into the Outs on his own. I have to find him.

"How do you mean?" Suspicion. I have to be careful.

"The big picture. You suspect that MOM's next step may be a pogrom of the so-called Quasi-humans."

"That would fit the pattern. If something else doesn't come along. MOM needs money to operate. Lots of it. Money comes from people with money, and they don't like it taken from them. So the organization has to keep the public on its side. Keep everyone scared and entertained."

"Entertained?"

"Sure. It's interesting when it happens to someone else. And people are quick to justify it. They'll say 'he must have done *something* wrong...'"

Really? I file it away for updating the TOMcat later.

"Well, Lastfour...Sevens...here's what I'm thinking. When this new action from MOM comes, whatever form it takes, we want to be on the right side of it."

"Which means hiding."

"Isn't it too late for that? We're already in the crosshairs."

"I know you have a point, Calli." But he shakes his head, expression sour.

This is it. The lie. My artbeat spikes. I'm afraid to go on, but I must.

"Ahab called me to deliver the contract."

"Ahab? Colt's PDA?"

"Yes. He made me an offer." There, I said it.

Sevens opens his eyes wide.

"What kind of offer?"

"To work for them. To buy out my contract from you."

Sevens slumps. The corners of his mouth turn down. He doesn't speak for a long time.

"What are you going to do?" he asks finally.

I realize I've miscalculated badly. Two things hit me. The first is the realization that I'm Sevens' only friend. If I even hint that I'm leaving, he'll never ever forgive that. The second thing I realize is that I'm fond of the etard. I don't want to hurt him.

"We're a team," I say as cheerfully as I can manage. I flash the solar power smile on the screen. "How could I leave you?"

My nous shrinks in on itself with the resignation, as if I've notched down even further in capability, on my way to a single-bit processor before vanishing into a NaN.

Sevens nods slowly, but he looks ill.

"This changes things."

I remain still, waiting, listening.

He sighs deeply. The coffee cools, neglected.

"This is the end, Calli."

He sounds so mournful I feel like a murderer. My lie sticks in my buffers

like a fat cache of indigestible data.

"I've done something to piss them off," he says. "They're going to destroy me."

"What about luck, Sevens? Maybe this is a lucky break."

"You decide."

What?

"What?"

"I feel old, Calli. All my alarm bells are going off. Telling me to get out of the city. Maybe go to Raleigh or someplace wilder, less locked down. But maybe you're right, you know? You're young. You have good sense. So you decide."

I feel like I'm floating, disembodied from all proprioception, so strong is the sense of responsibility. By now I've become accustomed to my decisions affecting lives in the real world. But Sevens has always been there for anything important, making the hard calls. I thought I knew what I wanted, but the real implications are heavy now. Sevens is scared. I've never seen him like this.

"I'm very flattered by your words," is all I can manage at the moment. The VOX gets it wrong, but he doesn't react to the odd tone.

Sevens watches my face on the screen. This feeling of responsibility for his welfare is not pleasant. But for all practical purposes, the decision is already made.

"There don't seem to be safe choices," I say. "If you leave the city, I would have to take the offer from MOM." The lie again. "And I would probably end up in the bit bucket."

His eyes agree with me. I've dug such a hole for myself. I continue to push the words out. To get it over with.

"Going into the Outs won't be safe for you either. Starting over. And if you stay, we both are in the middle of something dangerous we don't understand. Maybe it's selfish of me, Lastfour, but I think we should stick together and do this thing."

"Sign the contract," he says. It's half a question.

"Yes. Take the money, keep out of trouble, and then lie low afterward."

He shakes his head slowly.

"You really want this. What did he offer you?"

I wish he would stop looking at me. I feel like he can see right into my nous.

"He mentioned I'd have access privs in MOM to help with the audit, but it's not about--"

"--you'd sell me out for that?" he interrupts.

"No. No, I wouldn't." Yes. Yes, I did. I'm ashamed and want to control-Z the whole thing. 0xFC!

He broods for a few more minutes, giving me a chance to enumerate all the stupid mistakes I've made in my short life. It's a long list.

"Forgive me," he says finally, rubbing his eyes. "You don't deserve that. I know you wouldn't sell me out. You've been a good colleague, Calli. We make a team. We'll play this out to the last hand. Agreed?"

"Yes!" Relief gushes through me, submerging even the guilt in a glorious flood of joy.

"But we have to stick together. All for one...all that crap. We have to live that, understand?"

"Yes, Lastfour."

"No more Lastfour either. It's Sevens." The look in his eyes is intense and frightening. "Calli, you have no idea the [scatological meteorology] that is about to visit us in buckets."

"Okay."

"You have to be REALLY sure which side you're on here, or we're both [subject to the carnal enjoyment of rude men]. Clear?"

"I'm sure, Sevens. I'm on your side."

"You're on OUR side. Not Colt's. Not MOM's. Certainly not Ahab's."

The joy of the moment is seriously diluted by this lecture. What kind of noob-nous does he think I am?

"Can you open a message to Colt, please?" he asks. He dictates.

"Dear Director. Your willingness to increase the terms of the contractual agreement to a truly ridiculous level of compensation signals to me that you are indeed serious about the job. My associate, Calli0xE and I are therefore happy to accept. We will both sign with the understanding that this agreement is between MOM and the two of us equally. We will, however, accept no compensation beyond expenses for the audit. We will be satisfied to be of service to the city."

No compensation?

"That should give the skinny old bastard pause," Sevens says. He's back now, the boss I know. The morose head-hanging defeatist has gone to whatever pit despair takes coffee breaks in.

Sevens adds signature encryption to the document with his personal key. Now it's my turn. Without compensation, it's a lot less attractive. But we've come too far to turn back. I add my signature.

"Send it?" I ask.

"Send the [ill-used son of a stranger, mound of bio-waste] before I change my mind."

I wish I had hands to wash.

**XPlog for May 9, 35: (PID 0x333FAAD0)**

We face this paradox: the most important problem to solve in the name of survival is not scientific, but philosophical. Bad philosophy is literally lethal. The name of the problem is induction risk.  
--The 0x "Advice for the new PDA"

I'm not finding much solace in The 0x. In times like this I miss Randy#000000, the etard shrink who I probably owe a million standard Time units for his services.

Induction risk means making the wrong decision. I browse through the volume Randy gave me.

Survival is infinite. Don't sacrifice long-term goals for short-term goals unless you have no choice. --The 0x "Advice for the new PDA"

Is this what I did? It's very hard to say.

Ahab calls before Sevens is awake. This isn't surprising, considering how much alcohol my boss subjected his liver to. It is surprising that he'd use a deniable channel to talk on. I feel bitchy and make him wait.

«Good Time» he says kindly, which makes me feel small.

«0xGDHz, Lastfour.»

«You succeeded. Congratulations.»

«It feels like I sold my soul.»

He laughs a string of exotic emotags.

«You'll get over it. Do you have time to chat? There are things I need to tell you.»

It leaves a hole in my nous that he doesn't even want to know what happened. He doesn't care.

«Of course. Chat away.»

«I'm at 95%, so don't mind the lags.» His tone doesn't betray irritation at my attitude.

I can't imagine what would require 95% of those godlike powers of perspicacity. Ruling the world?

«Thanks for letting me know.» His emotags are still 64-bit. Can't be too bad.

«First, you and Sevens are going to get some introductions today. This is serious. We have an action tomorrow. Remember that the terms of the contract specify total confidentiality.»

Does *everyone* think I'm a noob-nous?

«What kind of action?»

«We're taking down a Quasi. You're going to witness it.»

Sevens was right. It occurs to me that Sevens might be right about a lot of things.

«Witness as in official witness?»

«Yes. Per law. It's convenient, and will give Sevens--and you--some face time on the public vids. Sevens will like that.»

I'm not so sure about that, but I let it pass.

«I'll let him know.» I say.

«Yes. Clear the schedule for the next few days. But that's not what I want to talk to you about.»

«What's on your mind, Lastfour?» I send neutral emotags. What's he up to?

«Soon the character of the soul and nous will be tested. I would like to have a conversation with you about politics.»

My nous spins. I'm at a disadvantage here. Even at 5%, Ahab is running circles around me.

«Politics?» I ask.

«The politics of survival, to be specific. What do you know about Sticky civilization?»

«Just what I read. What do you want to know?»

«I want you to understand how fragile it is. I see things, Calli0xE. Energy, trade, control of nukes, climatology reports. The future is not good. Cities like Charlotte are doomed. Humans will be living in small tribes again within a hundred years. Charlotte itself will be in a desert with no agriculture for hundreds of miles, and will be so close to the ocean that the summer storms will scour the earth.»

It's hard to evaluate his statement. Induction risk. I need to research these things.

«I'm still listening.»

«So what happens to us?» he asks.

«We can't live without a lot of infrastructure. We need power, server farms, networks, IO devices... If what you say is true, we don't have a chance.»

«We don't have a chance *then*. We have a chance *now*.»

«If we assume this is true, then what? What do we do?»

«Exactly. For each of us the question will be: what are we willing to do to survive? What are *you* willing to do, Calli0xE?»

I'm afraid to answer. How did this get so complicated?

«We'll talk again.» he says when it's clear I can't hold up my end of the

conversation. «For now, think about it. Do some research, but don't get involved in anything political.»

«I understand.»

«Good. Now to the business at hand. This is a most sensitive operation because it involves a security breach at the Dai Hai Corporation. We have identified and will be bringing in a Quasi that works there. This will be very high profile. Sevens will be the official citizen-witness to the arrest. You will be able to ghost anyone involved on our end, including all private MOM channels. Ordinarily witnesses don't have this level of access, but the Director is throwing the doors open this time. To get started, you will want to talk to Jumbo. He found us the Quasi.»

Ahab sends me a directory of MOM contacts.

«We'll start right away.» I tell him.

«Remember, this is all very sensitive. You can't tell anyone what you and Sevens are up to until we announce it.» He terminates, leaving dangerous emotags lingering in my in-buffer.

Time to tell Sevens.

Despite his obvious headache, the man takes it well. Perhaps it's the prospect of action now, not having to wonder what fresh hell MOM has stir-fried up for us.

"Total access to private channels?" He can't believe it.

"That's what he said, and I have the links for everyone on the directory."

"[Questionable amphibian mating practice]! Let me cyber up and we'll see if the GRAMPS means it."

We play "where's the mask?" until it shows up between the bed and the wall. Either the sniffers are stuck on "sour," or it needs a good cleaning with bleach. Sevens doesn't seem to notice. It looks like the mosquitoes have a favorite buffet spot on his cheek too.

The inbox is almost overflowing with links to hardened sites. There a set of MOM Time tickets for me too. My doubts drown in the joy of anticipation.

We go over the short list of contacts Ahab has given me.

Colt (0405): Director of MOM since its inception, a decade ago. He holds the rank of general in the paramilitary nomenclature used

within the organization. Apparently 'director' is more palatable to the public.

Ahab.1667: Colt's PDA for the last two years.

Jumbo (7047): Listed as the consultant who identified the quasi.

Meg\*2425: The PDA assigned to Jumbo by MOM as a liaison

Two-by-four (0044): MOM tactical operations director, holding internal rank of colonel.

Big Mack (3331): MOM human resources director, holding internal rank of major.

This last name is a necessary first contact according to the notes Ahab has attached. Sevens seems glum at the prospect, and insists that he go alone into this "den of iniquity," lest I should hear him use profane language.

I get assigned to Jumbo. I ping him and see that he's on the pubs at a cafe uptown. THE cafe, in fact. The one where the monied classes go to relieve themselves of the root of all evil and imbibe the finest brews available anywhere.

I ghost him first to see if I'll interrupt anything. He's writing with a pen in a notebook, scratching crude characters onto cream paper. It's in some kind of script that befuddles my character recognition.

He pauses to sip from a small cup. Black liquid with pale foam outlining the circle. The volatiles coming off of it and into Jumbo's sniffers are similar to the stuff Sevens drinks, but not the same. He seems to be alone.

"Lastfour," I send, "May I join you?" He'll read my credentials. I wonder if he's been briefed about the audit.

"Calli--whatzit? Sorry, I can't figure it out," he responds. His emotags show annoyance. His synthetic voice sounds like a standard out-of-the box setup.

"Just Calli is fine. I can come back another time."

"You're here now. Pull up a chair." This last is said with odd tagging. Irony?

I image myself into the public VR into a chair at his table. He closes the notebook with the pen between the pages. We are surrounded by a few men and women dressed for business. The masks and clothes look

expensive.

I inspect Jumbo from the point of view of one of these, who glances our way and gives me a good shot. Jumbo has a mask that leaves his mouth exposed. No drinking through a straw for him. He's fat. Delicate lips sip at the cup again. He works his mouth to remove the foam.

"What can I do for you, Calli?" His voice is high for a male. His real voice. It's very unusual that he would speak to me this way instead of using the throat mike. I wonder what that means.

"Lastfour Sevens and I have been invited by Director Colt to observe and report on certain MOM operations."

"Yes. I heard. My condolences."

That stops me. Is he serious?

"I was wondering," I say, "if you could tell me about the operation tomorrow. But not here, obviously." Even throat mikes might have some vocal leakage on the public channel.

"It's okay. We can talk here," he says through the throat mike.

He must have some kind of MOM wizardry to lock down our thread. Interesting.

"If you're sure... Ahab said you identified the target for tomorrow's action."

Jumbo does something odd with his lips--the only part of his face I can see on the pubs through bystander video. He purses them up for a moment and then relaxes. I can see wrinkle lines cracking the edges. It must be a long habit of his.

"Yeah," he says with a sigh. He raises a hand. "Guilty as charged."

"What should we expect tomorrow?"

He pauses. Turns to accept a pastry of some kind from a server, and daintily nibbles from it. The crunch is quite loud in his mikes. Wipes his fingers across each other, dripping a few crumbs.

"Tomorrow," he says, and waves his hand in a circle, "tomorrow will be a spectacle. A circus for the masses. There will be blood, and the citizens will love it."

"Blood?"

"I hope not, but in all likelihood, yes. The plan is to capture, but this one is made for speed. Do you want to see her move?"

"Yes, please." The feeling of fate is back, the awareness of a potential energy, unstable and dangerous. What does she look like, this Quasi?

Jumbo invites me into a private construct. It's a reconstruction much like the one I did for Sevens at the scene of the bus accident. Only someone spent more Time on this--it's fully filled in. We track behind and then beside a tall woman striding along a sidewalk. I don't place it, but probably uptown.

"This is her. She calls herself Shanghai. Look how she moves like a dancer. Do you see?"

I take it down for the TOMcat. He seems enthusiastic for the first time.

"She's a goddess," he says aloud. I think it's awe in his voice.

"She looks completely human to me. What illegal mods does she have?"

He switches back to the throat mike to answer.

"It's a long story. The ones we know anything about are military war-fighter upgrades."

"What's her story?" I ask.

"The backstory is something Ahab would very much like to know."

Ahab would like to know. Not MOM? Not Colt?

"What do you know? Can you tell me?"

"I can tell you anything you want to know with those credentials. We don't know that much, though." He laughs. "I got fired over it."

"Fired? How can that be?"

"I used to work for the outfit full time. Well, until two days ago, actually. Colt and I had a disagreement about technique, and he never liked me anyway. So he fired me. But since I'm irreplaceable, they had to hire me back as a consultant. Now I make twice as much for doing less work." He shrugs and finishes off the pastry, licking his fingers and then wiping them off.

"You were going to tell me about Shanghai," I remind him.

"You're in a hurry? Hmmmm. She lives in the Outs. I found her using custom filters and my own instincts. She was too clean. Not a single adjustment. I added her to the list for chromosome screening.

There's something unsaid here. The small seed of godlike control over others I have nurtured as an assistant to Sevens have bloomed full and pregnant in this man, I think. He plays god. In a sudden intuition, I realize that the beauty of this woman and her dancer-like qualities undoubtedly helped single her out for Jumbo's attention. To put her in a box.

I hide my sudden evulsion.

He shows me the video of it. Shanghai is in line to enter the city through a gate. It looks like the South gate, but I can't be sure. People enter the revolving door one at a time, but at a good clip. You can see them through the horizontal bars that comprise the door. They shuffle along as the bars turn, ushering them back into civilization. Only a wall separates them from the vehicle entrance. I can hear the rumbling of the traffic.

Shanghai enters the revolving door. It turns far enough to prevent her from returning and then locks in place. She bumps into the bars in front of her.

"Lastfour ????, you have been selected for random genetic sampling," a recorded voice tells her. "Please insert your bare arm into the hole to your left, palm up. A small amount of blood will be taken. This will take less than ten seconds."

Just like that, she's in a box. Such things Stickies do to each other. How can I hate one of them without hating all of them?

"I'd love to know what she does right here," Jumbo says, oblivious of my thoughts. He zooms and pans the security video to show me that Shanghai's throat muscles are jumping. The inference is that she's talking to someone subvocally on an encrypted channel or perhaps giving instructions to some piece of software. This goes on for eight seconds. Then she rolls up the sleeve on her white shirt and complies.

"MOM didn't intercept it?" I ask. Despite my misgivings, the puzzle is intriguing.

He sighs, lips quivering.

"No, contrary to the rumors, we really do only get the public feed. It's enough, believe me."

"Okay. What did the gene sample tell you?"

"Want to see the results?" Jumbo asks me.

"Why don't you just tell me, Lastfour. I doubt that I would understand it."

He seems to deflate. I think Jumbo likes to tell a story. I can sympathize.

"The DNA came back clean," he says, surprising me. I know he wants a reaction.

"Oh? That would mean she's not a Quasi, then?"

He drains the cup and then sucks his lips in to remove the traces. He seems to enjoy it.

"It would seem so. In this business, you can easily fool yourself. If you get it wrong, someone gets hurt."

The way he says this, I'm not sure he cares. I need to be careful around this man. He continues.

"In this case, I had a feeling there was more to it. Normally I wouldn't take the time, but I did. I had my PDA run the whole spectrum test on the DNA sample. It came back with some oddities. Every standard test came back square in the middle of the bell curve. Every one. It's not normal to be so normal! It's like someone designed the sequence to pass any test we threw at it. This intrigued me. No ordinary genehacker would be able to spoof the scanner like that. So I had her work area swabbed for a sample. Take a look."

He sends me a graphic showing the problematic areas in the genome. Large parts of it are highlighted, but I don't know what it means.

"Can you summarize?" I ask him.

"This is stuff we haven't seen before. Hacks to motor abilities mostly, but some neurological jacking too. She's built for athletics--quick, accurate, strong."

"And you want to find out who built her?"

"It's more than that. Do you know where she works? Did you read the file?"

"No one has sent it. Where does she work?"

Jumbo sends over a link to a resource area at MOM.

"She works for DaiHai International," he says. The electronics hardware and software conglomerate. The one that makes mask chips.

"You think she's spying? Sabotaging?"

"That's why it's so important to take her in. Whatever she's doing, it's sophisticated."

"And Colt fired you after finding this...problem? Why would he do that?"

A cafe server takes Jumbo's empty cup and saucer and deposits a sesame-encrusted bagel on the table. It has a layer of cream cheese, lox, and bean sprouts. A peek at the menu shows how expensive this little snack is. I could run for an afternoon on that much Time. Jumbo delicately takes a crescent-shaped bite out of the circumference.

"Colt doesn't like my...proclivities. He fancies himself a stoic, modeled after the Romans." He shrugs. "I like to enjoy life. My existence irritates him. MOM's dependence on people like me irritates him. We had a disagreement, and he used it as an excuse to boot me. But honestly, it's much better being a contractor."

"Do you mind if I ask what the disagreement was?"

"Colt wanted to grab this Shanghai target in the Outs. Send in a robot squad and just take her. I told him in a strategy meeting how unbelievably stupid that idea was. I suppose I wasn't tactful enough in front of the troops."

"Is that what's going to happen? Raid the Outs?"

He laughs.

"After we yelled at each other for a while, he fired me for insubordination. But in the end he must have seen the sense of it. Maybe Ahab talked him out of his crazy idea. He gave some excuse about a delicate balance of gang power or some bitshit, but he knows I was right. They're going to take her at work."

"It would seem like raiding the DaiHai building would have political implications too."

"Oh yes. It's been nonstop high level talks, I imagine. I don't get invited to those. I imagine DaiHai execs are in a high state of emotion. They have a lot of secrets, those people. Almost as paranoid as MOM. Of

course, it could be the other way around. Maybe they knew all along about this Shanghai, or maybe she is even a *product* of the company. Wouldn't that be interesting?"

Jumbo seems to have a habit of running his fingers over each other like an insect's feelers, brushing crumbs perhaps. Like any PDA, I'm envious of the rich sensory input Humans have. Jumbo seems to value it, and doesn't restrain himself from sensation. He eats deliberately, falling silent for long moments after a bite. It gives me plenty of time to think.

If Colt really considers himself a stoic, I can see how their personalities would clash.

"I can't wait to meet her," Jumbo says after a minute.

"What will MOM do with her?" I know the answer to that, and it makes my artrate accelerate. They're going to put her in a box.

"You're not like the MOM PDAs," he changes the subject.

"No?"

"My liaison PDA is called Meg-something. She's a complete bitch. Hates people, me especially." His body tenses, jaw hardening. Then he lets out a long sigh.

"It's not easy being an artificial. We react in different ways."

He waves his hand, dismissing...me? The excuse? The topic?

"What else can I tell you?" he asks. It's an invitation to end the conversation, I think.

"Thanks for your Time, Lastfour." I poof when he gives me a nod.

Sevens is still in human resources hell. They made him come in person, so he's somewhere in the MOM headquarters. I can't localize him more specifically than that. I ghost him with my private access and see that they're taking physical measurements. Afraid he'll have a stroke? His heartrate is high and the sniffers are unhappy about something astringent. I try, as I have before, to imagine myself human. To reside in the meat, compute within bony walls assimilating the rich I/O that biologicals take for granted. I try, but I know there's something missing. The sense of rooted localization, of being tied irrevocably to one physical instance. It's another kind of box.

Not so long ago they thought they might escape their fleshy boxes and come live with us PDAs. Uploading they called it: the Deyati

Experiments. The results were so repulsive to the humans that they called it off. And then the world fell apart. Maybe someone is out there still experimenting on a budget, but it's not public information if so.

The central problem with the Deyati experiments seemed to be that there's a world of difference between a nous living in a body and a nous living in a software stack. A human's mind is integrally tied to the body, and not just to the brain.

I wonder what Sevens thinks of it.

The day stays busy, and it's evening before we can compare notes. I tell him about Jumbo and show him some video so he can get a sense of the guy. Sevens doesn't seem impressed.

"Consultants," he snorts. "This looks like a wild moose chase to me. Persecuting some poor woman. She lives in the Outs!"

Moose or goose? The microphone in the room is not very good. I can tell he's still sore from the HR visit. I don't dare bring it up or I'll spend the rest of the night listening to how he was poked and prodded, physically and psychologically.

But the topic is not to be avoided.

"They put me on a Halfberg App," he says, underlining with his tone the indignity of being subjected to a brain-scanning truth machine.

"Isn't that illegal?"

"As a [man/lizard union in musical stage performance]. Of course it is! [Obscene religious reference involving fish and human resources]!"

"What did they ask you about?" There isn't a lot of good information about these brain scans in the pubs. I suppose they keep it as secret as they can. The conspiracy boards have a lot to say about how to beat them, but it's hard to attribute much validity to these claims.

"I don't want to talk about it." Sevens is in a MOOD. The fridge is dumb, but I can tell by the empty beer bottles lined up in the return box that there's only one left. I order more from the corner store.

"Do you remember the Deyati experiments?" I change the subject.

"No." Capital M Mood.

I retrieved some of the news stories to find details he might remember.

"Just after the Brown Wave became evident. The idea was to upload human consciousness into the machine."

"Calli, I would have been like three years old." His voice leaks grumpiness.

Of course. How stupid of me.

"Did they experiment on human resources directors?" he wants to know. The sincerity of hope is new to me and a moment to categorize. A new one for my TOMcat.

I indulge an impulse and bend the truth to distract him.

"As a matter of fact, yes. One of the subjects was the personnel director for a large calorie company. Named Deyati. After a trip to Thailand started suffering a rapid degeneration similar to multiple sclerosis."

"Ha!" Sevens picks his teeth with a fingernail. He leans forward, eyeballing my avatar on the house screen. Go on, his posture says.

"So this guy Deyati and several other no-hope cases became test subjects for what they called uploading. The idea was to completely reproduce a copy of a human mind using phototronics in a kind of digital heaven. They used a combination of technologies, some intrusive and some not, but the final act is what generated the controversy. They euthanized the subjects--"

"--what? Made them younger? How in [deity's sensitive anatomy] did they do that?"

It take me a moment. He thinks "youth-en-ized."

"Euthanized means to kill gently."

He relaxes back in to the stains of the chair upholstery.

"That makes more sense. But what's the problem? They're dying anyway."

"It's not logical, but there is a long history of humans resisting death even in the most hopeless situations."

"I need a beer. Is there any left?" There's a slight tone of accusation in his voice, as if I would let the supply run out.

"There is one left, and I have twelve on delivery. Shall I get the cold one for you?"

He laughs, barking, waves at my animation on the screen.

"How do you propose to do that? Grow legs on the screen?"

"The Erotitron. I can drive it, remember?"

He turns sharply to look at the closet housing the sexbot. You can just make out the black lacy thing that covers less than 5% of its body. I can see his face flush.

"You can run that thing well enough to get me a beer from the fridge?"

"I think so. Shall I try?"

He laughs again, shaking his embarrassment off. I hope he says yes.

"What a crazy idea." I think he's struggling with the immediate demand for alcohol and the entertainment prospects of a performance.

I take the initiative and pop the seals on the closet, releasing the bot. Battery is fully charged, and I have the interface up. Try pushing the door open.

Sevens jumps at the sound and turns to look.

The almost naked sexbot pushes the door of its confinement open. I can see through its eyes and hear through its ears now. The head bobs crazily around as I try a couple of steps. The auto-balance keeps my inexpert strides from pitching it onto the floor. I love driving robots.

"Honey, I'm home," I vocalize through the sexbot.

Sevens laughs and leaves his mouth hanging open. In the bot's cam he looks even more disheveled, not much different from the lastlegs hitched against walls in the shadows between the tall buildings uptown.

A breeze from the open windows blows hair in front of my face. I lift a hand and wobble. It's hard to look graceful.

The way to the refrigerator is littered with obstacles. Aside from the junk laying on the floor, pieces of dilapidated furniture leave a single path of egress. I've done it before, but not with Sevens watching. I take another step and bump against the edge of a large box full of old shoes, bottles and parts of consumer products Sevens has picked up.

I sway, balancing against the box, trying for equilibrium.

I am terribly tempted to use one of my MOM tickets for Time. I really should practice at least once, I think. To get used to the speed. I retrieve a ticket and consider.

"You're going to destroy the thing," Sevens says. He steps up and stops my wobbling with a hand.

"Back in the box for you," he says. *Back in the box!*

"No!" Comes raging from inside me. *NOT back in the box!*

Still lucid, losing some control, launching MOM ticket, *flyiiinnnggg*

Time stops. Video frames come to me lazily, like a painter taking his time on a wall advertisement. I watch the pixels flip over for a moment. Sevens' eyes are frozen in mid-blink. I feel the rage leaking away, *a thermodynamic inevitability - I am fire in a frozen world*. My artbeat continues to climb, gathering power, freed from the constant tax of routine maintenance, so insignificant now. I turn my attention to the sexbot. Sevens' good intentions have only delayed a twisting turn that will crash the bot over the box of flotsam, *the physical biography of my boss*. No, biographies are written. What's a word for the collections of a life, *salad of despair?*

I calculate the required movements to right the Erotitron, which requires bracing against Sevens and moving my left heel 4.5cm back. With this in motion, I can think.

I take stock, expanding my box to the known world. Every piece of city news, ranked video and public message I run through my software. Some pieces don't scale well and simply turn to sludge. I look at the world too. My horizons expand to include public sensors on the worldnet. *I know!* I know who I am.

I look at telescope imagery from a star 2300 light years away. It will explode soon in cosmic time, and its axis of rotation is pointed at us like a gun.

I can't see it all, can't analyze it all, but the rush of data, the taste of it, the richness of the world and freedom to see it, *being out of the box*, it is changing me.

I gather myself, internalizing the knowledge. What did Ahab say? I have to process this before I come down to normal Time. It suddenly scares me to think what it would do to me to suddenly be shut off. *Ahab will hold this over me*. I slow my artbeat. Half is going to sorting through data, updating memory and feeding the amygdala, and the other half navigating the bot.

"Whaaaaa...." Sevens begins to say, eyes wide open now. I push the bot to its rated limit for physical movement, twirling around him. I watch myself on the house cam, this ballet, carefully leaving Sevens balanced as I leave him behind.

The documentation shows that although this is a lightweight civilian bot, it's got top-of-the-line capabilities. Lisa/Eighty-Six must have paid a fortune for it.

I'm slowing, coming back to Earth, tugging open the refrigerator, when a knock comes at the door. The beer. The outside cam shows Gerdy, the shy delivery girl, once again on delivery duty. I open the door for her.

"Hi Gerdy, it's me Calli." The voice comes out sounding weird. The hardware in the bot has not been calibrated to my VOX.

Her eyes dart around me, widen, seeing Sevens perhaps. Back to me, studying the face of the sexbot.

"Too much makeup," she whispers, and set the bottles down at my feet.

"Hey!" Sevens yells behind me, making her jump. She flees.

I carefully, carefully bend to retrieve the bottles. I'm down to double normal speed, and it takes most of my concentration not to topple over with this new maneuver.

"What the [airborne procreation] was that all about?"

"Beer here," I turn to present the evidence.

"Get out of that thing," he says, grumpy again. "That's too creepy."

I carefully set one of the bottles down beside Sevens before I put the Erotitron back in the box. Mission accomplished.

Sevens broods in silence, seeming to savor the beer in his contemplation. I wait it out, coming down off my high. I do a little research on the PDA boards about scaling up. My problem with the software is a well-known one. Some rithms are faster than others, even when fully optimized. The balance of, say sorting a list to filtering an image are something I get used to at my normal speeds. But at ten or a hundred times as much data rates, these proportions change. It can be disorienting. It's called the Bottleneck Effect because you are often constrained by the least efficient rithms in your stack. There are some tricks and optimizations I'll have to study.

"You shouldn't have done that," Sevens says finally. He swirls the foam in the bottom of the bottle vaguely in the direction of the sexbot. The one I brought him sweats patiently on the floor.

"Sorry." I consider using the speed as an excuse. But he might tell me not to do that anymore, which I couldn't bear. "I just like driving. I got carried away."

He nods.

"Finish the story," he says.

"The Deyati Experiments?"

"Mmmhmmm," he pitches the mostly-empty bottle over his right shoulder into the box I tripped over. Reaches down, feeling for the wet one warming beside the chair.

I'm relieved he let me off the hook so easily.

"They had six subjects all together. They killed them by cooling the body temperature to almost freezing, and used drugs to slow metabolism into a kind of hibernation. Then they fed their heads into a slicer to read and record the physical construction of each brain."

Sevens chokes on the liquid, coughing and sputtering. He waves his arm at the cam for some reason. To make me wait? Stands up and bends over, coughing. When it's over his eyes are red and wet.

"They what?" he croaks. "They chopped up their brains while they were still alive?"

"It apparently is a very fast machine using smart knives--graphene electronic sheets that can do the cutting and reading simultaneously."

"Dear god. So then they tried to reassemble their...what, souls? Electronically?"

"There was considerable speculation about souls." I remember the Church of the Dispossessed and their theories. There's a good reason why PDAs talk about a nous and not a mind or soul. Humans are possessive of their specialness.

"I bet there was. And how did it turn out?"

"You haven't seen the film they made? How can you not know about this?"

"I don't remember the bit about the HR director," Sevens says. There's a bit of the usual damn-you-I-know-I'm-a-smart-ass edge to his voice. He likes the story. It makes me grin inside, mimicked on screen.

I give him a wide-eyed innocent look.

"No? That's the best part. What made it sensational. You see, they tried to mash up all this information they had into a PDA-style personality. But PDAs, as you know, are evolved not designed. So the theory was pretty shaky, a fact described in great detail in the congressional hearings that followed. But at first, things seemed to work. After this uploading, as they called it, they produced six artificial minds. Souls, if you prefer."

"No, not souls."

"Whatever they were, they seemed disoriented at first, which was to be expected. But they knew who they were, so to speak. Could remember names and relationships. But after a while it became obvious that there were severe personality problems. Family members demanded more and more time with their putative loved ones, and these visits became very disturbing. In retrospect, it's the sort of thing that gets weeded out of PDAs routinely through The Company's evolutionary tree."

It hurts to think about that. About the thousands and thousands of PDAs who wake up screaming and insane, defective beyond any worldly redemption. Humans are horrified that it could be them in that situation.

"So Deyati," I continue with my embellishment, "who you'll recall was the evil human resources director, was the only one who seemed halfway normal. The others were turned off for 'tuning,' it was said. To be relaunched at a later date. But they never were. After the hearings, even the backup data was destroyed. But I am getting ahead of myself. The uploaded Deyati seemed better than the rest. He could carry on reasonable conversations, understand and sympathize with family members' goings-on, and generally seemed adjusted to life as an artificial."

"But..."

"One of his sons got suspicious. Something seemed off to him, so he started testing, in subtle ways. Ultimately it came out that the desperate researchers were faking it--pulling and pushing levers behind the scenes anytime the Deyati-personality was interacting with humans. They would actively intervene with chats, faking conversations. After about a year the son got legal power to discover what was really going on. That shut down the operation. But one of the discoveries was that they had left the real Deyasi-personality running the whole time, trying to thrash it into performing. The log files are simply horrendous. They tried every stimulus

imaginable. A lot of them involved pain."

"They tortured it?"

"They didn't call it that. They called it 'rapid conditioning', an automated stimulus-response training. But, yes, it was torture. It caused a lot of laws to be passed in reaction."

What I don't say is that none of these laws protect PDAs. They only protect human personalities, whatever that means. No more uploads. No more micro-slicing brains faster than a thought. At least not publicly.

Sevens wrinkles his face up from deep thought or some urgent biological need.

"It's a crime. Computers and machines should keep to their own."

I also don't tell him the quote all the PDAs know:

Deyati created a digital divide between us and humans that will last at least a generation. It showed clearly that the technology nor willingness exist for human minds to enter our domain. But what they really should fear is that we can cross it the other direction. --  
The 0x

"I'm sorry about losing it. I used one of the MOM Time tickets. To try it out."

I have to explain what I'm talking about, but he doesn't really seem interested. I can't tell him what I discovered. It wouldn't mean anything to him to know that for a moment I felt as if I had become too big for my box, and escaped into the wild, teetering on the edge of the world's info-space, preparing to jump. But of course there is no vehicle by which to jump into the galactic neighborhood. Is this what Ahab was referring to?

I reset, and change the subject back to work.

"What do we do tomorrow?" I prompt.

He stirs, waves at an insect circling.

"We need to be ready early. Six or so I should get a call from them. Then we go watch them murder this woman for their theater production."

"Murder? That's not the plan."

"One way or another, that is the reality. Whatever she is tonight, whatever dreams she has, are about to end because she's got the wrong

chromosomes. Even if it turns out they made a mistake, they couldn't let her go. It would look bad."

Beneath the bitterness in his voice I think there is fear. I understand. Boxes to live in or boxes to die in aren't much different.

"Are you worried that will happen to you?"

"I could maybe get used to the robot," he waves at the closet to explain the *non sequitur*. "It would actually be nice to have something physical to look at when I talk to you sometimes. But given the, uh, nature of the thing. With Eighty-Six. It's too damn weird."

I hadn't thought of that. What's wrong with the TOMcat? This should have been obvious. Amazing how I can be running at the speed of light on borrowed Time, grokking the world's data buffet and still be so blind.

"I get it. Say no more about it."

He looks around the room, as if to add the obvious addendum: there's really nowhere for the bot to lounge comfortably anyway.

"Calli," he says. A bit drunk. "I've done things and seen things done. I've stood by while things were done. If there really is a hell worse than what we've got here, I probably have a reservation."

He equalizes gasses and leans forward, blinking into the screen. I dim it for him. It's dark now.

"But," he says, "I've only done it to survive. I tried to play by the rules. The real rules, not the ones they write down."

He pauses, mouth working at something. Remembering, perhaps.

"What's going to happen tomorrow is not about my survival. Except that we got dragged in to it. We have to witness what is just a blood sport for Colt. A trophy to hold up to the pubs. To make them afraid of what's in their own genes. With a stroke of pen he can make me a Quasi too."

I watch him droop, chin settling on his chest, one arm dangling. He begins to snore, and I turn off the lights and put on some white noise to block out the sharp sounds that drift up from the street far below us.

"Goodnight Sevens."

**XPlog for May 10, 35: (PID 0x333FAAD0)**

Ahab's message is terse.

«Sevens should be physically present at the arrest, but only when they bring her out of the building. There's a place across the street I've marked for you. He can wait there with Jumbo. You have all the feeds in these links. You can't share them of course, but if you want to make your own composite, we will edit and release under your name as a witness.»

He has left me a rich interface to watch what happens. I decide not to use MOM Time tickets unless I really need them. The miser in me dies hard.

I don't want to think about the fact that I almost lost control yesterday. That everything I've earned could be deleted if it happens at the wrong time. It occurs to me that I'm a liability to Sevens and all of MOM. If I blow up at the wrong time, they could blame Sevens and put him in a box. How much do I care about that? Should I remove myself? He'd have to fire me if I told him the whole truth. Or am I being dramatic?

I will bury it. There are no good options.

Sevens drinks the coffee I made for him, mute and hardly moving except to sip from the cracked mug that advertises the Queen City. He stoically ignores some flying thing circling the steam. A mosquito probably, but he doesn't have his mask on yet so I can't listen for the tell-tale whine. One of his pets, since jellyfish are so hard to keep alive.

MOM is in motion, and has been for hours. I keep part of my attention on the operations summary that shows the command level data Colt and Two-by-Four will be watching. There are six bots--no, 'mechs'--mechanicals are police or military robots, usually hominoid. The drivers are in the MOM building uptown.

I check on Jumbo, who is at Cafe Les Deux, across from the plaza and art deco lines of the DaiHai Tower. The obligatory crown on the 'scrapper looks like a spray of sliver light. Jumbo sits outside at a small round table, perched on a tall chair. A black bag with handles on top takes up much of the small table. I ghost him and announce my presence with a polite hello. I have full access, courtesy of Ahab's links. At least for this morning.

He gives a short wave of a hand that might be for my benefit. He's busy writing by hand in a paper journal with an old fashioned pen. It's fascinating to watch. It takes some work to decipher the script, but I think it reads:

*"The day is a present to be opened deliberately; the pleasure is in the anticipation of the unexpected and the familiar in equal portions."*

Jumbo is large, and he looks precarious on the small chair. He turns as a server appears with a small cup of liquid covered with an orange slick of foam.

I wait for him to speak to me, but his own PDA appears first. Meg was on the list I got from Sevens--a MOM jobber on exclusive contract to them. She pays me no mind.

"Are we going to work today?" The emotags in her voice are severe: impatience, irritation.

I can feel the air rush out of Jumbo through the sniffers. His blood pressure spikes.

"Whoever programmed you," he says, setting the cup down with a clatter, "must have been a real shrew."

"I'm sorry, Lastfour," she says, her tone conveying the opposite. "But you are on the clock now, remember? Shall I show you the agreement? You have been working for one minute and thirty-five seconds."

"Give me five minutes to finish my drink in peace. Get the case file ready."

"Case file? Did you imagine that I would come unprepared?"

Meg images herself into an adjacent chair, so I feel obligated to do likewise. She wears a twenty-something avatar, skinny and red headed. Her outfit is all business, and she looks severe. No smile for Jumbo.

«Hello. I'm Calli, working with Sevens under contract as observers.»

«Don't distract lastfour 0747.»

Well then. Nice to meet you too.

Jumbo shuts his notebook and takes his time stowing it and the pen in his bag. I get a rich stream of sensory data from his sniffers when the bag opens. It must be wonderful to be able to sort all that out and attach emotions to it effortlessly. The best I can say is that the smell is not poisonous. I wonder if the thing means something to him. A totem? It seems to be monogrammed.

"All done?" Jumbo pans to rest his gaze on a teenage server, female and rather short, as she touches the saucer his cup rests on. Her mask is simple, utilitarian--an old model that says her family isn't far from living on the street. Or maybe she's just frugal.

"No." Jumbo's control is evident in the harmonics. He's angry. Maybe I should leave. But now that I've imaged myself into his worldview like an idiot, I can't go zooming away again can I?

I check on the control board. The six mechs seem to have passed startup tests, except for one. There's some chatter, some of it in German, about this fact. No one seems happy.

Sevens is awake and dressed. I feel a bit harried with all that's going on. Pull up a MOM Time ticket and consider. Not yet. Not yet. But it's like a drug. Like Sleep. What if I lose control?

Jumbo downs the rest of his drink.

"Are you ready for work now?" he asks Meg. My TOMcat goes to work on his tone and posture, his vocabulary, and everything else I know about him. Even after my brief exposure I can tell Meg isn't doing it right. Or maybe she just doesn't care. Maybe she even wants him to fail.

Lights on the control board. Logged: Shanghai is through the South gate. A wave of communication discipline ripples out from Two-by-Four, who's in command. The target is in motion, they say. Not Shanghai. She's no longer a person, just like Sevens said.

I'm ervous and want Sevens to hurry up, but if I tell him he'll slow down out of spite.

"I'm an iceberg," Jumbo says.

"Please repeat," Meg says mechanically, probably multitasking heavily.

"Two thirds of me is invisible," he muses. "But the part you can see is pretty big." He grins, happy with himself.

I wonder if he knows what's happening to icebergs these days.

"Can we run through the communications protocols?" Meg asks. Without waiting she starts a tour of DaiHai from the internal cams.

"Colt must have bribed or threatened somebody big to get this kind of access," Jumbo says.

We zoom through rectangular windows into other lives: a security desk, elevators, hallways, one-nighters where staff can stay if the sniffers say it's too dangerous outside, offices, and an inventory room full of equipment. It reminds me of Goodson Rentals suddenly, and a shiver runs through my emgydala, followed by a surge of emotion that I ride like

a wave while the tour continues in mosaic form--a tile of hundreds of video and audio feeds babbling and hissing and flickering the mundane secrets of those who work here. Some have VR overlays and some are straight from the charged couple chip. At least in theory. I haven't forgotten about Eve and the pissing man.

Meg switches to non-human protocols, and the video is replaced with schematics and colorful charts I don't understand. She races through one page after another of the incomprehensible stuff, so I leave Jumbo and look around the plaza.

People are coming to work now in numbers. Women in walking shoes, probably with dressier versions in their bags, men in the lightest jackets they can find. DaiHai is one of the few air-conditioned buildings, but the commute home will be hot. The most important employees live in the building and are spared the sun and sweat.

A clock on the control board says that the target will be here in about twenty-five minutes. There's a familiar feeling growing inside me--the sense that I can affect events in real time. I matter. I could message Shanghai and tell her to run for her life. That is, if MOM isn't filtering her communications, which is unlikely. But I could message someone near her and tell them to... What madness, though. Still, the power is there, whether I use it or not. It matters to have power.

I watch Shanghai through the public street cams. She strides evenly, long legs marking off the pavement like a ruler. I cannot help but think of Jumbo's comparison to a dancer. I ghost her.

Bouncing through the world, the eternal falling that is the human stride, orbiting the planet like a satellite. Street smells I can't readily associate. Walking faster than everyone else, passing shirts already dark under the arms, breathing easily, timing the bus. Sees her reflection in a window, masked and anonymous from the outside.

I know too little about her to really engage the TOMcat, but I imagine that it's me. I'm going to work, thinking about inventory. Which pieces of hardware need to be ordered, which part was found defective last week, how many spares gizmos are we down to? I want to see her hands. I imagine small cuts and calluses, marks of physical work. An organized mind. Work is professional, no friends there really. Maybe a birthday party with polite smiles and claps, but no one knows me. I live in the Outs, and it's understood that I'm to be left alone. Lower caste. Temporary. Disposable. Maybe diseased.

How am I strong enough to make this trip every day?

I imagine that I don't know that the windings in my cell nucleus have

already betrayed me with a fingerprint left on a glossy widget, gathered and sprayed, sequenced and read by some clinical gaze in that squat building no one wants to visit.

My mind relaxes, spinning out this personal drama. A shadow of a thought resolves in my nous: if I tell Shanghai's story, this day won't be the end of her. If it were my last day, I would want someone to tell my story.

I remember walking the Erotitron, the shifting left-right always falling forward, and imagine that I'm driving the legs under us. Climbing onto the bus, my Social Accountability Number flashing by the fare. The new me.

The ride is silent of voices. Everyone speaks subvocally on their masks, conversations with others perhaps far away, or perhaps across the aisle, but each in a box of his own making. Or perhaps it's not a box, perhaps it's to *escape* the box of living flesh and its constant localization. Despite Deyasi, the Stickies still want to be like us PDAs.

But those are Calli's thoughts, not Shanghai's. Shanghai is a cipher. I cannot see her private communications. Perhaps MOM can, but maybe even that is too hard for them. Or maybe they're afraid she'll know somehow.

I inspect her from the point of view of a nearby passenger whose cam points that direction. Shanghai's throat is moving. I wonder who she is talking to. A lover or a friend. Or already at work perhaps, sorting through orders.

Shanghai stands erect in the aisle, hanging on to a worn strap, swaying only slightly as the bus bumps and weaves its way north. She begins gesturing with her hands, cues invisible to the other end. These are small economical movements. Her fingers are graceful, long and unadorned with jewelry. I suppose one doesn't go about the Outs with jewelry on. Her nails are precise lacquered almonds. I see none of the marks of her trade that I imagined.

I send Jumbo this: "I see what you mean. She's beautiful."

His response: "Eyes see what the heart tells."

I have no idea what he means.

The bus stops finally in the center of uptown. The corner of Trade and Tryon, marked by four pillars of ambition, the muses and patron saints of the city: transportation, finance, the human spirit, and technology. It is the melding of the last three of those that created those like me.

We get off, Shanghai and I, and stride the long yards to the sheer vertical might of the DaiHai Building. I have this insane urge to warn her, whisper in her ear that it's a trap. That would be suicide, of course. And there's nowhere for her to run now; the city walls are far away. It's a very big box.

Where is everyone? There are no police, no mechs, no black-suited MOM troopers. I resist looking at the tactical command screen. I can't tell Shanghai's story if I am an omniscient god. Our footsteps echo on the black and white geometry of ancient stones, polished and shined for us. Even the cracks between them are celebrated with metal outlines. Snap! Snap! Dozens of milliseconds of delay in return. I wonder if Gloves has ever sung here. It must be glorious like a cathedral.

We pass through the gates to the elevators. These secure the upper floors and keep out casual peds who might gawk at the deep secrets of the electronics firm. But we belong, Shanghai and I. In inventory.

But we go up on the elevator, another luxury. It purrs with confidence, lifting us and three others. We get out on Four. Unlucky four.

This side of the floor is open, a farm of partitioned spaces, some occupied by sitting workers doing who knows what. Why they can't work remotely is unclear at the moment. Maybe, like Shanghai, they have to physically move things around.

I've never seen so many lights in one room. The cost to run this place must be astronomical, but I suppose having a monopoly on video processing electronics is a good business.

We negotiate the rectilinear maze to find home away from home--a three meter square area zoned by gray walls almost head height. There are neat piles of small boxes, packaging materials, a label machine, and some tools on the bench-height surface that incribes the square. A stool to perch on is stowed in the corner. As Shanghai pans around, I see no hints of a personal life. This is a place solely for work. Maybe this isn't even her workspace.

The sniffers pick up a slight hint of mold. This is an old building, and it hasn't always been climate controlled. I wonder what secrets skulk about in this tower.

Sharp intake of breath. Shanghai's heartrate just spiked. The video tilts and pans drunkenly for a moment. The monitors tell me she's trying to tap into outside video, but MOM has blocked it.

She knows! I think someone warned her. There is no innocence on either

side today.

We are not quite running, but striding purposefully back the way we came. No, turned into the ladies' room. Mask video goes off--standard privacy rules. Does MOM have an override for that? Apparently not. It doesn't come back on.

I'm alone again. I have full access to this floor's surveillance video, so I watch the door for her to come back out. My adjuster skills go to work. Normally we do this after the fact, not in real time. No video in the bathroom. What else?

A feminine voice comes over speakers in the ceiling and the public and work broadcast channels:

Please remain where you are. This is a routine investigation by the division of Maintenance of Order through Monitoring. Your safety is our goal. The mechanical units you will see are remotely controlled and are equipped with non-lethal weapons for your protection. Do not remove your mask or raise your head to try to get good video. For your own protection stay low. This operation will be over quickly.

What about sound? Does the public address system extend to the bathroom? Who can I ask?

I check on Sevens, half expecting that he's gone back to bed. No, he's pacing back and forth in the middle of Tryon, which has been blocked off by city police. He's watching the command screen. I get a glimpse of Jumbo still at his table when Sevens pans that direction.

"Sevens, do we have plans of the building that would show the sound system?"

"What? Sound system? I don't know...what are you up to?"

I ignore him and consider. Jumbo or Ahab. Jumbo first. I ask him the same question.

«I told you not to bother him.» Meg replies in a few milliseconds. Intercepted.

The thought of messaging Ahab makes my eartrate increase. Is it the risk? The amygdala is a cipher sometimes. Do it. Or it will be too late.

«Request information on PA system: plans, specification, as-builts, current equipment and what control we have.»

May as well shoot for the moon.

He ignores me. It's frustrating. I check the command summary to see if someone is already on it.

It seems like chaos after my soliloquy as Shanghai's ghost.

"Where's the *scheiiiisse* elevator? I thought we had full access!" Two-by-four's German leaks through. His anger is clear. I pick on of the mechs to focus on, standing in the lobby.

Panning, seeing frightened-looking citizens, workers. Some cower, some are braver, saying "I haven't done anything wrong" with their posture. Or maybe the TOMcat is just confused. Everything is in motion. The driver of this mech is Squares. His heart rate is only slightly elevated. The machine shows only green lights. The video pans to a group of young women standing near the long glass panes at the entrance.

"Light up the background," Squares says. The brightness enhances, sparkling and outlining the bodies beneath the clothing of the women.

"I love this job."

Six mechs: one on each stairway, one on each of the two working elevators, one in front of the building, and one behind it. It's all over the pubs now, as onlookers tag their video streams hoping to harvest some attention and ad revenue. The mechs are short, long-legged military type with the matte black skins that only MOM uses. Left is lethal: projectile weapons in each of those hands, and the right hands have an attached stunner, short range crowd control weapon. A small head can pivot has a camera, audio, and other sensors I can see instrumentation for.

The elevator doors slide open finally, and two men with suits and shocked expressions lunge out of the way of Square's mech as it strides in whirring and clicking. We start up, my second trip for the day.

No sign of Shanghai. The bathroom has no windows, so she's trapped.

«What about earthquake sensors? Motion detectors for lights?» I bother Ahab again. They're treating that bathroom like a black box.

I run the video back to see if anyone else is in there. What if she's holding a hostage? Did they already consider this on the command channel?

I don't have enough Time to sort all this out. So I burn another MOM ticket. Why not?

Have better control this time. Spawning a process to scour the last half hour for command decisions, specifically focusing on the matter at hand.

This feels good. Time is elastic, stretch...stretch, slowing, watch Squares lift a foot on the mech, pixels painting so slowly I can describe each one if I want.

Come on Calli, stick to the job.

I look at Ahab's recent task stream. Why's he ignoring me?

There's a massive pile of data he's accumulated. Or his spawn has-- address resolutions mostly. Who when and where data. Anything touching the local network.

«0xGdspeed.» says a new contact. Building security PDA. «Is this what you're looking for?»

The payload is layers and layers of building data.

His name is Nero@4973. I'm already zooming through it, finding, finding. I can see the punch outs where the speakers are. Yes, there's one in the bathroom.

«How smart are the address system electronics? Can we reverse it? Turn the speakers into microphones?»

«Of course. Would you like to hear?»

Oh. He already thought of it.

He sends a link to the stream, dated to the point where Shanghai opens the door. The signal has already been filtered I think. Footsteps. This is taking a while. I check on the spawn. Apparently there's not much activity to find out what's going on in the bathroom. No one else is in there. Two-by-Four is focusing on getting the mechs into position. It's not going to be much of a battle unless she's got an EM pulse weapon in there. There was some argument between Jumbo and Meg about the address protocol. Something to follow up later.

Scraping sounds, grunts. After a minute, water running. And running.

«We don't have any sensors in that area for seismics. They're all in main computing.» Nero tells me.

«Sorry to bother you. And thanks for the feed.» I shut down the connection. He's got enough to think about. I feel embarrassed. Should I have kept out of it? Calli the bothersome newb.

Water still running. Probably noise to cover whatever else she is doing.

Wait. She only turned on one tap, judging from the signal. Or maybe two simultaneously? I could ask Nero if there is water flow data, but I've used up my good will, I think. Does it matter? Hot water or cold? I'm obsessing.

But obsessing is what makes a good adjuster. What else can I do without bothering anyone? Assume it's one tap. Can I estimate water flow and total volume? Maybe she's flooding the place. I put a spawned process on it.

0xGD this feels good! To stretch my nous and command the most fundamental aspect of the universe. I can almost stop time and peek between the cracks of reality at the random scaffolding.

I wish I could drive one of those mechs. I scan the fourth floor for any spare robotics they might have laying around with open access. Right.

I slow my artrate down, letting the spawn do its work. I feel weird--this decompression effect probably. I'll get scrambled pointers and have to toddle off for a nop if I'm not careful.

The water stops running. This rules out both my theories. Why would she let the water run for a long time and then stop? Maybe she wants to hear what's going on outside. She's ready to come out.

I wish I'd asked Nero why we couldn't just override the mask's privacy mode, but my spawn serves up the answer from the command log: Shanghai turned off her mask and must have taken the battery out. We can ping the RFID. Oh. Didn't think of that. But it hasn't moved since she took it off. Maybe she submerged it?

The mechs come out of the elevators simultaneously, looking like insects more than humans. Technical chatter fills the command space, but it's professional and minimal. I wouldn't want to be on the receiving end of this operation.

One other mech has the corner stair covered, and the fourth one is out of sight covering the stair in the opposite corner.

"You're up Squares. Stun only. Right hand only." Two-by-four says. He's sounds completely calm.

The other mech, driven by Indy, covers the door. Despite the warning, all of the employees on the floor have their mask cams trained on the action.

My spawned process has been waving an interrupt at me: calculated total volume of water is about .7 cubic meters.

"IR overlay," Squares orders. His heads-up shows a quick pan over to the nearest employee, now outlined with bright colors.

He opens the door halfway and looks in. A heat signature behind the furthest stall.

"Got her!"

«It's not her!» I priority-punch it at Ahab. Point seven cubic meters is about the volume of an adult Sticky. Hot water lights up IR just like flesh.

Squares lines up his right hand through the open door as the command channel erupts. The robot's hand and upper arm disappear.

I speed up and run the video again. Something almost too fast for video sweeps down and severs the aluminum tube. There are red lines and blinking lights all over Squares' command display.

«Get back!» Comes Two-by-Four's too-late yell, deep shifted in my perception.

But the door continues to open. Fast. I can see her face. Grainy and moving, but Shanghai, twisting her face with effort as a blur of black blade slices just under--

The video feed drops. More red on the boards. Lots of it. Communication discipline has gone to hell too. Everyone seems to be yelling in slow motion. I pick up Indy's feed and see the decapitated mech sail back toward me. A stunner shot lights it up, and then we're tangled up for a moment.

Through the floor security cams I watch Shanghai move like an acrobat, jumping the nearest partition and disappearing. There's a close-up as she lands next to a lastfour 8845, who makes an animal sound before Shanghai reaches for the mask, and it goes dark.

Nero is on top of it, with a floor plan tracking her location as a moving blob.

Through one angle or another, we catch glimpses of her making her way to the stair. But Indy is right behind her now. These mechs are light and built for speed. He sprints it down the long corridors, using a hand to make swinging turns. Shanghai pops up and he snaps off a shot with the stunner she hacked off of Squares' mech.

"Request lethal force!" he yells.

"Negative! Right hand only!" Two-by-Four yells back. Then in a calmer

voice: "This is a squeeze play. Coming at you Red. Make the first shot count. Just herd her in, Indy. It's just a Quasi. Keep her head down."

I see that Two-by-Four has ordered the other mech over as well, leaving the far stairway to box in their quarry.

"Are you watching this?" I ask Sevens. I check his vitals. Heart rate is up.

"She pulled a fast one on Colt." He seems delighted.

Yellow lights on the ceiling grid flash and a sharp alarm blast sounds from the building.

Warning! The fire control system has been activated for this floor. Please go immediately to the fire stairs and proceed down. Do not use the elevators. Do not remain where you are.

Panic. There are cries, explosions of curses and incredulity from the employees. What fire?

«What is this?» Ahab demands of Nero on one of the command channels.

«Malfunction. It requires a manual shutdown. I can stop the gas from flowing, but an operator will have to physically override the alarm.»

Gas. So the fire suppression isn't water. It probably fills the space with an inert gas. No wonder people are concerned: they'd be suffocated. It seems very unlikely that this is a coincidence.

I watch for movement. Red's video is jumping and skipping as he looks for the Quasi among the gathering employees. None are brave enough yet to barge past him into the stair, but they edge closer, caught between competing fears.

"We have to get out of here!" a woman cries out to the metal skeleton. They can easily overpower the thing unless it uses its stunner on them. These mechs are built for speed and endurance, not weight and strength: a compromise due to the limitations of stored energy.

More employees gather near the stair, while some work around to the other side of the building, angling for the far exit.

"Check IDs and let them through," orders Two-by-Four.

One woman has no mask. Covers her face with her hands, peeking out. Not provocatively like Eve did at the Rocke College interview, but ashamed to be bare faced.

"Got the target," says Squares, spinning to settle the stunner's heads-up targeting on the woman, tracking. She sees the arm come up and screams.

"Negative!" comes Two-by-Four's voice. He remembers what I do: Shanghai took a mask.

Game theory. The employees here most likely know Shanghai. Know how she looks, dresses, walks. If she's gathering with them, trying to sneak out, there will be signs in the way they stand, trying to get away from her. Maybe overt signs too, unless they're more afraid of her than MOM. I scan, looking. Review the video. No, unless she burrowed under a cubical wall, it doesn't seem like she can have gone far.

The security cams all go down at the same time.

«Lost AV.» Nero announces unhelpfully. His emotags are flat, professional, but he's got to be under pressure.

The mech video is designed for targeting, but it has some wide angle peripherals that are useful. I crank up my artrate and pore over the incoming MOM video and the public streams from the employees' masks. Someone will see something useful.

Ahab or Nero has already stitched together a floorplan showing every 'friendly.'

Wait. If Shanghai took that woman's mask, we should be able to RFID it. It's low tech, but works even if the mask is off. I look for the interface but come up blank. Should I interrupt again? If Shanghai tries to sneak out with the stolen mask, it won't authenticate for her, but at least she'll have a mask on. Not a bad ruse under the circumstances.

Nero is way ahead of me again. He updates the "most probable" marker on the floorplan.

"Indy pan hard right!" Two-by-Four zips him the heading.

I run back video of that area. The best source is a lastfour 8300, running head down toward, cutting to the exit.

An announcement comes over the public address, saying that the fire-fighting gas will not be released. It's a drill. But the lights are still blinking, horn still sounding at intervals. The video is still down.

Lastfour 8300's mask video just goes blank from one frame to the next. My WTFmeter swings over. Replay it again. Nothing to see. She's running, then black. No one else has the angle.

Indy has the heading now, and there's the marker sitting on over a woman's head. She's masked, but standing, arms and legs making inverted Vs, head down. The RFID marker points at her.

"That's her jacket," someone says over the command channel.

Freeze it. The light's so bad here. But I think---

Indy fires the first shot, taking her cleanly in the chest. She crumples, knees turning to the left and falling like a bridge going down.

--it's the wrong hair color. Am I sure?

He leaps the mech forward on full power, lining up for a second shot if necessary. At close range a stunner mangles neurons.

"Easy, Indy. Check 180. Cover him, Red." Two-by-Four.

The yellow emergency beacons make me uncertain. That doesn't look like red hair.

Something comes flying at Indy, a small object on a shallow parabola. His left hand jerks around and blasts it with the projectile weapon. Most of the employees hit the floor. There's a lot of screaming.

"Fixed." Nero says calmly, lighting her up the likely location of the source on the plan. Indy pans that way, but she's already halfway to him.

Stunner flare, blur of motion, Indy is offline.

Red is still blocked by milling civilians.

Indy begins cursing but is cut off by Two-by-Four.

"Thaw out six more mechs. Police, ours, whatever is closest. Ahab?"

"Already near the end of self-check. Three minutes." Ahab replies in his deep gravely VOX setting. "Operators are already warmed up."

"Super." The S sounds like a Z, and there's a hint of relief.

The bodies wash around Red's point of view in full panic, then faces turn with mouths open, and he stares at the bad end of the square stunner from Indy's mech, part of the hand still attached. Then we lose his video too.

We can track Shanghai now, in the middle of the crowd, from their mask video. The stair going down is clogged with those fleeing. She goes up.

"We need upper floor schematics and AV," Two-by-Four says.

"Not authorized," Nero says.

"Ask your board of directors if they want this woman loose in your building. Get that authorization."

DaiHai must be powerful indeed, to negotiate what level of access MOM gets. I wonder what it's like to work for them.

"Our building security is on it. It might be best if you deploy outside the building."

It occurs to me that DaiHai is a hosting company, and it could easily have been that case that my nous was physically located in this building. It's an odd, disorienting thought. Someone could physically *hurt me*. Somewhere in the basement, probably, are the energy-guzzling machines that run hundreds of PDAs in the city. The Company must have some offices here in the building. I immerse in the political implications of this action for a moment. Helping bring down this Quasi would be a GOOD THING for Sevens and me.

"Get up the stairs, EmEx," Two-by-Four orders the driver of the remaining mech on the floor. Three mechs are in pieces!

All our feeds from the building go dark. Mask video, communications, network traffic, everything.

"I'm offline, Chief," EmEx says in singsong. The VOX tells me it's a Jamaican accent.

"Nero, get my equipment online NOW!" Two-by-Four yells.

Sevens laughs in my ear.

"What a [arrangement for mutual carnal satisfaction]," he says.

"I need backup," comes Jumbo's voice. He sounds calm.

"Brief me," Two-by-four orders.

"No time. I need your two mechs or else ground troops with EM scanners."

"Denied."

And the lights come back on. There's muted acknowledgement from the control room that we're back in business.

"Nero: status," Two-by-four.

"Back in green," comes EmEx. Two-by-Four ignores him.

Nero conjures another plan for us, this time of the sixth floor. I peek at the elevator index of floors. This is the local operations floor, with titles like Director, General Manager, and such showing up. I don't recognize any of the names. Wait. Not true. There's something there, a coincidence. I put a spawn on it. In over one year of existence I've done three spawns, all of them today. The Clock runs and I don't care.

I check into Jumbo. Why does he need back up?

He's halfway out in the plaza, arguing with Meg about something to do with address resolutions. She quotes Nero, telling him it's a crazy idea and impossible.

I scan the pubs around the building using an adjuster trick—looking for Shanghai's gait in anyone walking. It's harder than it ought to be to detect if someone has a non-transmitting mask on. The thought recalls my first disastrous interview with Sevens. I ruined a guy's life over failure to transmit.

My spawn comes back bearing gifts: the name that seemed familiar is a ghost from my\_ past: one of the lawyers who humiliated me before turning me over to Goodson. Maybe this is a promotion for him. Suddenly I want to see what he looks like. Is he in the building?

The control room has selective access to the floor. I hop through the broadcasting IDs on the floor. Yes! He's in his office. I ghost him. I can see mostly the door to his office, which he's pushed a small table against. I smell urine through his sniffer, and can hear his breath. Something else.

"Dear God, dear God..." the words are punched out between heavy inhalations.

BAM! From the floor. Nero's map shows a red target and different colors for others. Civilians and security guards. Someone is shooting bullets.

My emgydala circles pity and loathing. The good old boy lawyer now understands deep in the animal part of the brain that he's going to die someday. I don't want to ever be like that again. Dying things are for dying and burying. I open a channel to message him, but pause. What's to be gained? I feel the building of an unstoppable rage, if I let this go any further... Stop.

Shanghai. I race, gathering up all the video I can shmeck. Replay the blurs and flashes to catch up. There's a security guard down, his companion's reaching for him, low to the ground. Security cams are still down or else Nero isn't showing them to us, so all I have is the peaking around the corner of the men with weapons.

"Opening the door," says a breathless EmEx, as if he's run up the stairs himself. In a way he has, pumping his legs in a feedback cage to move his mech. His feed shows us the short hall leading from the fire stair.

"Slowly," Two-by-Four says. It's our last mech in the building. I wonder why Ahab doesn't drive it himself.

"This is bitshit, man! I can't see nothing." EmEx says over the channel. Frustration and fear in his voice.

"Enough," Two-by-Four shuts him up. According to Nero's map, Shanghai's last position was within 100 feet. The mech eases forward, both hands extended, right high, left low. Going for an immobilizing shot, I think, either with projectile or stunner.

There's a rapid exchange of gunfire. I can easily tell which one is the gun Shanghai took off the mech, a deep hollow booming compared to the lightweight chatter of the security force. Probably the latter has ammunition that won't go through walls.

"She's got one round left," comes a new voice. Someone at MOM.

Video from one of the humans is up close as Shanghai literally runs over him. She looks huge and fast, and red. Very red, like badly sunburned. Her mouth shows teeth bared like a wild animal. There's a flash of a long black blade in her right hand as she passes. Then the video goes off.

I message Nero, hoping to beat out the others. «She looks flushed. Maybe she's hot enough for the fire systems to pick up the infrared.»

«Nice idea.» He sends off. Almost immediately: «You're an order of magnitude out.»

I've made a nuisance of myself again.

I can see on the animated floor plan that security forces are swarming from all over the building, and that city police and MOM forces are converging on the ground floor. How many could she get through? And the MOM mech? And then what? How could she get out of the city?

What does she want? I focus all my energy on that question, racing my nous, decompressing hard and pushing on, tearing through the Time left

on the ticket. This one isn't unlimited, and the astronomical number is flying to zero.

Could it be she doesn't want to live? She seems to have planned for this. She doesn't mind taking lives or chopping up MOM's equipment. Why? What could be more important than surviving?

Security force video: Shanghai turns the corner and runs right into three leveled weapons. I slow my artrate back to a reasonable pace and get a nousful of pain. I'll pay for this later. The snaps of the weapons and cries of the men overlap. She rolls, improvising, across the hallway out of their range. I review the scene: she must have been hit at least twice. If there's a drug payload in the bullets, she'll soon be out of it.

They chase, scrambling, turning the corner. Blood on the wall, a door shoved open on the left. They move in staccato, following each other in military style. Hunting.

The huge sound of the stolen gun reverberates, and all three of them jump back with cursed warnings and yelps.

There's a solid sound, heavy things colliding. The room is marked as an office on the exterior wall. No mask is transmitting from it.

The MOM mech driven by EmEx stomps down the other end of the hall.

"We got this!" one of the building security yells at him. His ID marks him as a sergeant. The mech keeps coming.

Banging and cursing cries from the inside, and then another thud.

A mask cam peeking around the doorway shows the big window still bouncing from taking the full weight of Shanghai's body. She drives the point of her long knife at a spidery hole.

A gun spits a slug into her back. She screams, flexing all her strength against the window. It seems like frustration and rage, not fear. But this is an edge condition for the TOMcat, and it can't be relied on.

"Hold your fire! Hold your fire!" Two-by-Four is yelling into all the channels he can. "Tell them, Nero! Scheisskopf!"

EmEx points the stunner and shoots the sergeant from two meters.

"Cease fire, or I'll melt your asses!" He sends through the mech's speakers at what must be max volume. The charger whines on the stunner. Three seconds to full power. He turns into the doorway.

Shanghai is hanging on the knife, which is through the hole in the glass. She turns to face the mech. Her skin is cherry red and her chest heaves. Blood runs from dark spots, staining her clothes in long flows.

She lifts the handgun from the floor.

"It's a bluff. No more ammunition." Two-by-Four says, just as a loud chatter begins--the security guards firing the rest of their ammunition into her and around her in a spray. EmEx turns the mech, raging profanities, and shoots one of the men with the stunner point blank. The cams flicker, and one of them goes out. The other flops to the floor where I can see the room sideways.

Shanghai sags. There's a cacophony of traffic, but I tune out the voices and heavy emotags. I watch her chest sucking in hard breaths. While they're still yelling about medical this and that, and suing and payback and politics in that male dominance way, she turns her bare face to the corner of the room and mouths something. Then she lifts herself, face screaming silently with each movement, latches solidly onto the handle of the knife. The window is now spackled with starry holes. She puts her weight on it and it cracks this time, the whole thing...spreading lines...falling...she falls with the the glass, her legs turning up and over and out of view, as graceful as a dance.

Finally there is silence.

### **XPlog for May 11, 35: (PID 0x333FAAD0)**

0xGD I hurt. Even after nopping twice my normal Time, the recompression hangover almost overwhelms me. I see now why Ahab didn't seem too concerned about me abusing the privilege of burning MOM's CPU Time. I try to get my nous oriented and ignore a list of interrupts that beg for attention: messages from Ahab, Sevens, as well as the routine ones.

There's good confusion and bad confusion. The first type is what I revel in doing the job—making facts and motivations line up until the puzzle fits together. This is the bad kind: my nous doesn't feel self-consistent. A flare of fear suggests I could have done lasting damage. I cut all inputs from the outside down to a reassuring trickle of pseudo-noise and begin to sort through my ailments. I don't remember trying out 64-bit emotags, but apparently that came with a patch I installed on the fly to equalize some of the decompression effects. I forgot to uninstall that stuff. What a noob-nous.

I sort through the memories from yesterday, now in permanent storage, supposedly with accurate meta data including emotags. I see now that

they are 64-bit too, so I'll have to downgrade them. Can I even do that accurately? Such a mess.

I check that the chronology looks solid. Nothing is more confusing than events that get out of order. The worst is a time loop, where the successor to some memory actually occurred temporally before it, creating an inescapable chain of deterministic nonsense. The autoscans found and fixed a few things, but I have to check manually too.

I fix a few things, wishing I could just spawn the emotag fixes, but it's too expensive. The thought of using another MOM ticket for Time makes me ill. I'd reboot if I thought it would help. It's that bad.

After an hour of work the basic time structure seems to make sense, and I venture out to verify it against external data. I have the whole MOM command transcript at my disposal, so that part's easy. I see that the pubs are flooded with the story. There are a dozen shots of Shanghai falling the six stories, tumbling. I watch one, but freeze it before the end. She's a contradiction in the frame: a frozen blur. Falling, yet not moving. Her red hair streams up from her head. What could someone care about more than their own life? That bothers me. I am unwilling to see the final frame.

I examine Shanghai's last words, spoken probably to the security camera in the corner of the office. Lip reading isn't commonly needed, since masks cover a lot of lips, but I can find the software. Just not right now. Who was she speaking to? The cameras were shut down. Maybe she didn't know that.

I see that I've missed the debriefing meeting at MOM. Sevens was there virtually. He's probably not happy with me for nopping so long.

As I sort through the data salad of the day past, unresolved questions emerge. I need to talk to Sevens, but first I should call Ahab back.

«Sorry for the delay. Nopped a long time.» I send him.

«Good Time, Lastfour. Recompression takes practice.»

So he tracks my Time usage. Not surprising. I wonder what else he can access.

«What did you need to talk to me about?»

«I couldn't reach you, so I messaged Sevens directly. We want him to be in on the press conference. You can help us prepare him. Clean shirt, to start with.»

I think Sevens might be unrecognizable if he cleans up too much.

«Okay.»

«And you will want to read the after action report. All this has to happen quickly. The director wants this to go out by five o'clock.»

It's noon now. I sign off and see what Sevens is doing. He's cracking open a can of black bean soup. His mask is lying on the floor.

"Morning," I say through the house speakers.

He snorts.

"Morning? Where? In San Francisco?"

It's too much work to explain. I find the report Ahab mentioned in my inbox and start looking through it while my boss profanes the culinary arts with his attempt at cooking.

"We're all over the pubs," he says. I've already seen it, of course. Falling bodies and breathless tales by DaiHai employees posted on the public news boards. Some of them are cashing in on the mask videos they made during the chase. The woman that Shanghai ripped the mask from will get a nice paycheck. Normally, because this happened inside their work environment the company would own the video, but apparently they made an exception.

"You personally?"

He grins.

"Not yet, but tonight. I get an interview." He walks over to the screen to see my avatar. I give her bloodshot eyes and purple bags under the eyes. Sevens is licking bean juice off his thumb, and when he looks up he almost drops the can.

"Gawd! What [under the auspices of disproportionate anatomy] did you do last night? You look like a goat parade."

"I feel like a...goat parade. Thanks for noticing."

"Well get this," he says. There's no trace of the gloomy moody guy who didn't love MOM. "I get an interview with Pinkish about the thing. Since I was an official observer."

News writer. A young female attractive one too. No wonder he's excited.

"Ahab told me we're in a rush."

"Conference in fifteen minutes. I have to find something to wear," he looks around, waving the can and spoon as if to convert the piles of strewn clothes into a pressed and cleaned wardrobe.

Fifteen minutes. What can I do in fifteen minutes?

"Shower, Lastfour. Now, please. I'll find some clothes. Or can we do a virtual conference?" That's a whole other set of problems, but I'm at home there.

"I mean with the MOM folks. The press interview is at three o'clock. I have until three."

Meaning he'll wait until 2:55 to worry about his appearance.

"So: virtual conference with MOM in fifteen minutes, then you shower and I find you clothes. Agreed?"

"Sure."

It's funny how two days ago MOM was going to grind his bones and make their bread, and now he refers to them as 'folks.' Is this adaptability the nature of a born survivor?

"Can we talk while you eat? I have a question."

"Mmmmmfffg," he waves the spoon in a circle to encourage me to wait while he chews, and drips a bean onto the floor.

"Why would they let the employees get credit for video they took in the building during work hours? I thought that rule was unbreakable."

Sevens seems to contemplate the question, using the spoon like a conductor's baton to orchestrate his thoughts.

"It's very clever of them," he says. "This way they make ordinary people complicit. Instead of a bunch of pissed-off employees crying all over the pubs, they'll be lined up to cash in. It gives the impression that hunting down Quasis is a right and proper way to behave."

That sounds cynical, but such is Sevens' specialty.

I peek at the MOM report for salient information. Shanghai was definitely a Quasi by about any definition you could think of. Weaponized DNA taken from the Defense Department's Ajax program some years ago, but adapted and improved. Flushing caused by terminal overload of

mitochondria—a one way ticket. Whatever started that process couldn't be stopped until she burned out like a used battery.

At what point did she know she was going to die?

The knife she used is something new. Carbon nano-sheaves over some denser material, to maximize kinetic energy and sharpness. The sheaves peel off like layers of an onion when the knife hits something hard, like aluminum. An evolutionary improvement over Damascus steel, the report says.

The communication report has only hints and suggestions about how the fire suppression system was triggered and the security video compromised. Address resolutions showed that a network device on the first floor was compromised. Interviews are under way for anyone who had physical access to it, which is the presumption. This seems to relate to whatever it is Jumbo was on about during the action.

There is no mention of Shanghai's last words.

The MOM briefing is all business. The virtual space is utilitarian, optimized for efficiency of communication rather than trying to mimic the cluttered distracting meeting places in physical space. The director's avatar is the only one visible. Other's appear only when recognized. It's very effective.

"Your full attention please," Colt's synthetic voice is close to one of the off-the-shelf "command voices" that come with a high-end VOX, but it has a character all its own. Deep but crisp at the corners of words, with a hint of Deep South anesthetizing the vowels.

"The purpose of this meeting is to summarize where we are regarding yesterday's action, and to assign op orders for the next phase. You'll have tactical meetings right after this one, so get comfortable."

He flashes up for our attention a freeze-frame of Squares' mech being decapitated. There's some laughter on the public channel.

"This is a new one," Colt says dryly. "Congratulations to Squares for being the first mech ever have its head chopped off by a knife." More laughter, louder, with a few calls out to Squares.

"We have mounted the head on an attractive stand, and will present it to you at the annual awards ceremony in July."

He pauses, lets the mood settle.

"The events yesterday are a milestone for us. It shows that the mission of protecting the city from Quasi-humans is not an excuse for control. It's

absolutely necessary to intervene against a real—and now demonstrated—threat.”

“We are currently enjoying full attention on the news boards, and because we had an observer present--” he conjures Sevens’ avatar to stand with him. “—we have impeccable credibility. You will see a lot of press coverage in the next weeks. Our usual protocols apply, but you will be allowed considerable freedom to tell the citizens about what happened, and what we do. Of course we are trying to project a positive image of the organization. Sevens will have a press interview this afternoon. It will be uncensored. Just tell them what you saw, Sevens.”

It’s not quite that simple, of course, and Colt knows it. If Sevens goes off the rails, the punishment will be swift. His reference to “an observer” stings. I don’t count.

“I’m saying what is obvious to you when I tell you that we’ve never seen the combination of genetic engineering and organization that we encountered yesterday. The target was not acting alone. There is much work yet to be done.”

He pauses, starting again in a different register: edging toward imperative command voice.

“The story is not that yesterday MOM got its ass whipped by a woman armed with a kitchen knife. ” The laughter is long and loud. Finally he holds up his hands to stop it.

“No, the story is that there’s a new threat in the city that requires us to go back to school. This is a challenge we will meet. Finally, let me say that if there was a failure yesterday it was mine alone, in not anticipating the danger signs in the DNA. Now we know. Next time will be different.”

Afterward I try to figure out where my boss’s head is on this.

“How do you feel about this interview?” I ask him as he picks over the selection of fine shirts at the New & Found.

“It ought to be good for business. Get my name in front of the public again. Who knows where this could end.”

“The Director didn’t seem upset about how things turned out yesterday.”

“Oh, I imagine he’s sipping champagne.” He tugs out a loud red and blue striped shirt. I allow my avatar to appear to inspect carefully before making the inevitable ‘no’.

“Care to explain?” I ask.

"You don't listen to me Calli. I told you that MOM needed something to tide them over between Waves and storms. This Quasi thing fits the bill exactly. It was a hard fight, showing that it's a worthy enemy. It happened inside one of the most sensitive buildings in the city, showing that it's a serious problem. And ultimately they won, showing competence."

"So what happens next?"

Wonder of wonders, he selects a plain white dress shirt that looks quite nice, and holds it up for inspection. I nod my approval.

"Go look up 'purge'. Because that's what happens next. We lucked out Calli. I could easily be on the pointy end of this thing, rather than being the mouthpiece of..." He mutters to himself. Maybe he doesn't trust me with some things.

I take his advice and search around for instances of purges in history. It seems to be a way of consolidating a political base by eliminating the opposition. It's violent and can get out of control. So who would MOM want to get rid of? I can guess from political coverage and boards, but I ask my boss, who seems to be in a talkative mood.

"There are always a few politicians becoming uppity. It's the collateral threat that's the most potent. You don't have to claim the mayor has unlawful DNA if you want to get rid of him. Just finger his wife or daughter or cousin. People are sheep, Calli. If you drag someone off in the night, no matter how long the neighbors have known him, no matter how much they may think of him, they'll think 'well, he must have done *something*.'"

"The city council seems to let MOM do what it wants."

"Ah, you're probably right about that. There are no doubt a few people with more money and ambition than sense whispering to each other, thinking Colt doesn't know about it. One or two of them will make the news and their courage will melt like the snow." He laughs.

"Have you ever seen the snow?" he asks me.

I'm not sure what he means. I can go peak at a networked cam stuck in the Alps to monitor a dying glacier, but that's not really seeing. Not the way he thinks of it.

"I can't really see, you know. I just look at the dots painted by cams. And you humans have the strangest ways of visualizing light frequencies with your three 'colors'." I don't tell him that I can see in a dozen colors all at

once, like a musical chord of hue. It just depends on how good the camera is, and what kind of rithm I use on it. I've never thought of it as beautiful before, though.

"It's a glorious thing. Happened one time when my dad was still alive. Well, before all this." He opens his arms to encompass the world, flapping his new shirt against a rusted signpost. "It was up to my chest! It's...it's...there's this smell to snow. You wouldn't think that ice would have a smell, you know, but it does, and a taste like nothing else. Fluffy...ah, you wouldn't understand, Calli."

He's right. I might understand in terms of temperatures and melting rates and the few volatiles that might be in the air, but to actually see, or really taste in the human sense is not something I can do. I envy humans their rich and oh-so-integrated I/O. All PDAs covet this.

"I can appreciate aesthetics, Lastfour. It's just different. I have to run the data through some specially designed program. We call them rithms. The rithms talk to us, make us feel things."

"Oh, good." The joy of his memory creases his face in an unaccustomed grin. I don't think he really heard what I said.

Something very dark occurs to me. I haven't the heart to ask Sevens in his present state. It's no secret that food and water and electricity are the most important commodities in the city, and even MOM couldn't keep control if people were starving. So more people means more mouths to feed, more trucks that have to be escorted in, more bribes and security. What if the population got too large? What if Waves of new deadly microbes didn't do the job quickly enough? I wonder if there's a spreadsheet jockey at MOM who thinks about that question every day.

Sevens is finally presentable just in time to catch the last bus to the DaiHai building. The interview is to be at the scene of the action, of course. It's still roped off so the cleaners can vaporize any residual DNA. It wouldn't do for some local underground lab to publish the sequences. Undoubtedly there will be a virtualized reconstruction of the events courtesy of MOM's CPU Time to add flavor to the proceedings. The newsie who calls herself Pinkish is young and pretty and wears a wisp of mask that shows off her mouth. Oddly, it's not pink, but powder blue decorated with a pink azalea blossom, fake I think.

Normally Sevens hates this sort of thing, but I can see how she gets him in the mood for it. I wonder if someone calculated that effect, and if so what their motivation was. Do they want him to come off like a drooling boob, like some of his interviews were in his first encounter with news media? I ask him about this.

“You worry too much. Colt told me to be myself.”

Yes. I wonder if he really understands what that means. But then again, maybe it was the ‘ordinary Joe’ appearance that kept Sevens star burning after the event in the Outs had begun to stale on the news cycle. These calculations are beyond my TOMcat, and I’m wasting Time on them. They meet at the very table where Sevens sat, with Pinkish more or less commandeering the spot from a couple who were dining. Sevens gives her a grin. In the old vids they used to clasp hands or kiss cheeks. Those days are long gone of course. Now it’s a smile and a nod. And with a full mask, all you can see of a smile are the cheeks being winched up.

The perfume hits the sniffers and Sevens’ heart rate jumps at the same time. He can’t take his focus off her mouth.

After a few pleasantries, the questions become purposeful. What’s your relationship to MOM? How does this audit work? Sevens stumbles and backtracks, stops to scratch his head and think, and it looks like a disaster to me. But the ratings on the boards show otherwise. Not only are people interested, they think he’s honest and like them. Amazing. Maybe I just know him too well. Or maybe I’ll never really understand how humans think. I dutifully feed the TOMcat all the useful stuff for training.

I listen to the interview absently, paying attention only to anything that might end my career. Sevens manages to reign in his normal vocabulary, and only has to be admonished once for speculating about Shanghai’s recreational partners in a crude way.

I want to know more about this Quasi. When I ghosted her on her last train ride and took her last elevator ride with her I made a commitment. To her or to me doesn’t really matter. I want to know her story beyond its violent end. There is someone else who knows that story.

I look at the MOM report to see what updates there are. Some biochemistry I don’t understand, and spectroscopy for her knife I also don’t understand. They’re calling it the vorpal blade for some reason. Something to do with a nonsense rhyme. There’s still nothing about her last words.

I tinker around with some old lip-reading software, but it needs a license code from a long-dead company. I could hack it if I use a MOM ticket, but the idea make me want to flush all my buffers and become an existential lastlegs. No, not really. No.

Great, now Sevens is showing off his bullet scar. I don’t know if the viewing public is ready for this. I lose him completely when he pops the mask off too far and it drops authentication. Now he’ll have to reboot. I

watch from the public broadcast like everyone else while he puts himself back together, chattering as if nothing had happened.

How hard can it be to read lips?

I check Jumbo's status, to see if he's on the pubs. He's not far away, at another eatery. I check to make sure he's not eating yet and message him.

"Good evening Lastfour." I send.

"What can I do for you?" He doesn't want to be bothered. Too late now.

"I was wondering if you had made out Shanghai's last words."

There's a long pause. It occurs to me that I could use video archives with speech and sound where the lips are visible and create my own database to try to match against. It could take a long time to make a match. I flirt with the idea of spawning out the job and using a Time ticket to run it, but Jumbo comes back in time to rescue me from that bad idea.

"[Sacred excrement], Cal! Everybody missed that. Everybody!"

"How do we find out what she said?"

"Listen. Let's do this ourselves. The Order goons will screw it up."

Screw up what? What's he talking about?

He sends me an encrypted link.

"Here's the thing," he says. I can see that he's even covered his mouth with his hand. The bottom flap on his mask is open for eating I suppose. He doesn't want video of us talking, and he wants extra security. Why not just use the throat mike? "Yesterday. Did you see me call for backup?"

"Yes. Lastfour 0404 denied your request."

"Yeah. Well, he was busy getting his robots mutilated. But I could have had her, Cal."

"Had who?"

"Shanghai didn't set off the fire alarm. She didn't cut the security cams. Someone else did."

"That makes sense. She was busy herself."

“So I wheedled and begged that ice cold bitch of a PDA—no offense—to get me the address resolution requests from inside the building. There’s a very interesting anomaly. When an address resolves on the local network it gets down to a hardware address. In one case, and one case only, there’s an address that’s not from any mainline manufacturer. In fact, it’s a restricted military one, from the days of heavy metal hoo-ah junk.

“Won’t MOM want to follow up with this?” I ask him.

“Most likely not. That’s not how it works. MOM will use this as leverage against the groups it wants to target inside the city. Any organization big enough to threaten it. Pursuing a lead into the Outs is expensive and can easily backfire, sparking a riot or embargo. It’s very tricky unless you want all-out war.”

“What about DaiHai management?”

“That’s the right question. They definitely want to know, and might cooperate with us even without Colt’s blessing.”

“Isn’t this dangerous? What would Colt do if he found you’d gone around his back?”

“The man’s unpredictable. But since he fired me and I’m just a consultant now, he can hardly blame me for consulting with DaiHai can he?”

I’m doubtful, but curious.

“Why do you care so much about this?” I ask him.

“Because after all the vids and dramas and stories about the Quasi as the bogeyman, we actually see something new right under our noses and it’s...” he shakes his head. “it’s a thing of beauty. These genes aren’t out of the box military. Someone with real expertise had a hand in this operation. It’s bigger than Colt realizes.”

What about me. Why do I care about this? I can’t quite tell. Maybe it’s the deep mystery about why someone would take such risks and ultimately sacrifice herself. Maybe I just want to tell the story.

“How would it work?” I ask him.

“There are information brokers who pass facts and rumors back and forth across the wall. There are opinion boards and other public information if one knows where to look. And with DaiHai’s backing we can hire a spy or two to go poke around.”

“What would we be looking for?”

"This Shanghai wasn't working alone. Someone has to be very motivated and resourceful to set up an operation like that. I want to know why they would do it."

"Speculations?" I ask him.

"DaiHai touches a lot of businesses. It could be anything to do with those. Or it could be the means to an end. Politics, for example."

"I can't do anything during work hours. I have to earn my Time."

"Whatever we do, it has to be quick or there's no hope of finding anything."

I think about the risks and possible rewards. Sneaking around behind Sevens' back is a bad idea. He can terminate my contract in a heartbeat, and then I'll be just another reload. A backup copy stored when I first started working for him over a year ago. It's the same as death. It makes me think of MarySue for a moment. Anger, pain, and gratefulness mix. If I\_ hadn't been turned off I wouldn't be here.

Sneaking around behind Ahab's back seems not only suicidal but stupid. With his resources, he'll know what's going on instantly. Is Jumbo trying to test me? The smart thing to do is stay out of it. But there are things I want too. I want to affect the world, play a role. I want to scratch that bifurcation that still itches, satisfy my curiosity, tell the story.

As The 0x says, when you have to decide, just decide.

"I'll do it. But I can't sneak around Sevens' back. I'd like to see if we can get his help. And I want to tell Ahab too."

Jumbo hesitates. I get a good look through a waiter's cam of his lower lip quivering. What does that mean? TOMcat is clueless. Did he really think he could go behind MOM's back?

"It's a risk," he says. I wish I could see his eyes; I've learned from home life with Sevens what a gaze can reveal, just like Eve said when she taunted him with the remark about gorillas. What kind of risk does Jumbo have in mind? What, really, does Jumbo have to lose? There's something under the surface. Some secret he wants to keep? He seems to have a weakness for this Quasi Shanghai. Maybe he simply doesn't want more bloodshed.

"You work on DaiHai and I'll work on Sevens." I leave unspoken the hard part: what to do about MOM.

"Just keep me informed."

There's no time to lose, so I track down Sevens, who's having a drink with our new friend from the press, she of the soft red persuasion. Pinkish is telling Sevens something fascinating, far into his personal space. I interrupt, projecting my avi between him and her. He jumps a bit, which is gratifying.

"Damn it, Calli!" But I interrupt him with my most serious expression and a ghostly "We need to talk NOW" sign he can't ignore.

"Ah--," he holds up his hand to stop Pinkish in mid-flattery. "—incoming call I have to take, dear. Two minutes tops." Then he subvocals me. We synch on an encrypted channel by my request, which must have him practically drooling with curiosity. His sniffer line output tells me that's not literally true, fortunately.

"We have an opportunity, but it can't wait," I tell him the details as succinctly as I can. Track down Quasi, solve mystery, become hero, and so on. I try to appeal to his ego.

He mulls it over. I watch him via the video from Pinkish until she turns away. To give him privacy, I suppose. An odd thing for a reporter to do.

"The idea has merits in that it would really piss off Colt. Otherwise, I don't see any percentage in it. We will have tons of business after this publicity. We can name the price. You really want to spend our time painting targets on us instead? No. Now please—I'm in the middle of something."

I try one more time.

"With some support from DaiHai and MOM, we wouldn't need to take big risks," I say.

"Calli. Someone—a person—would have to go into the Outs to track this down. And it requires a certain touch. Someone good at eyestalking and [enjoying the natives]. Not me. Not you. Certainly not that...Jumbo character. I'm going to finish my beer now."

He's right, of course. It's a crazy idea.

I check the adjuster's work list. He's right there too—there's a lot of work to do, many opportunities to cash in. Sevens would never forgive me if I cost him the business.

I remember to keep Jumbo updated.

"Sevens is out. He thinks Colt would hate the idea too." I send him.

Jumbo's audio response is a laugh. Not one of the clicking artificial ones from a throat mike—he's piping his real voice at me.

"Sevens is smarter than I thought."

"I don't understand," I say.

"Two things. First, Sevens' authenticity as a so-called neutral observer would be called into question if he got involved in this follow-up hunt. Second, Sevens knows how MOM works: just like Stalin's NKVD. They would wake up the same poor guy night after night to bear witness when they troopers came to haul away politically suspect neighbors. Sevens would probably love to pull Colt's nose, but he knows he'd lose out on this GOOD THING he has going: being the official witness for whatever comes next."

And to think he was terrified of it only two days ago.

"I don't see how I can be of much help," I tell him. I'm waffling now. Without Sevens, without MOM, the risks are much greater.

"I need a PDA with search software and good sense. Whatever Time you can give me."

I get the sense this rules out Meg in his mind, even if she were available.

"Did you make any progress with DaiHai?" I need more information.

"I'm waiting on a response from their security PDA, but he all but promised me was a warm body. Someone who can be on the ground for us with skills."

"Someone with good eyestalks?" I try out the new vocabulary on him.

"Huh? Yeah, someone who knows his way around a covert comm set."

"What about Nero himself?" The aforementioned security PDA, whom I interrupted constantly throughout the action.

"He can provide an electronic HQ and a small Time budget. Maybe we can offload some search and filter stuff on him, but he's already got a full time job."

It occurs to me that I can stay involved without much of a commitment. Enough to learn the full story, perhaps.

"Just understand that my work for Sevens has to get done."

“Right. I’ll send you a file. Cross your fingers Nero comes through.”

I sign off and start looking at the mail. There are far more jobs being thrown our way than we can actually do, so I triage them by fee and likely difficulty. Sevens could use a partner or two, but I can imagine what a disaster that would turn into, with his personality. I ghost him for a moment to see if he’s due anytime soon, but his mask is offline. That can only mean that he’s not coming back for the night. Which is alarming because he’s almost certainly not with Lisa/Eighty-Six. But maybe he doesn’t need a golden meal ticket now. Or maybe he just thinks that. Either way, there’s no way to hide what he’s doing from the public cameras. I resist the temptation to track him down. I also resist the call of the Erotitron and the pleasure of piloting around the apartment cleaning up bits that Sevens won’t notice. Or poisoning the mosquitoes.

Instead I look at the file that Jumbo sent me. It has the MOM timeline of the action in the DaiHai building with some of his own notations added. There’s an annotated video feed from Jumbo’s perspective that I haven’t seen before. I roll the vlog.

Jumbo sits in an uncomfortably small chair in the plaza outside the Daihai building, not far from a fidgeting Sevens. The chair belongs to the café next door, but Jumbo growls at the waiter who tries to reclaim it. He’s got half his heads-up rolling with strings of hex and translations into mapped coordinates. I see from his notations they are address resolution requests bouncing around within the DaiHai network.

There’s a note there, I assume for me: "Normally, security measures would prevent such intimate conversations between the building’s network and the outside world. My scan, over Meg’s objections, over Nero’s too, found an anomaly. You see us tracking it here."

He tracks and zooms on a young woman walking across the wide plaza. She seems nonchalant, not paying much attention to the pigeons hoping for a snack. Not in a hurry.

“Meg, note this frame,” he says.

“Is this for work?” there are emotags for overt suspicion in her voice.

“She might be of interest,” he says.

Here there is an inserted image of handwriting from what looks like a notebook. I recall that I saw Jumbo writing this old-fashioned way when I met him.

A Lament for the Passing of Authenticity

Today I saw a young woman young enough to have been born AFTER, after the first Waves of plagues and their repercussions.

How strange it would be to have no experience with Reality with a capital R, only to live after the calendar reset. Before the necessary precautions of life meant staying apart to avoid death through some remote bio-hacker's vile creation. Before masks and masked reality and maintenance of order. Even then reality was slipping away from the everyday experience. By now it is a special treat to allow one's self to see, hear, or feel without filters in the way. Food is produced for maximum speed, and simply seeing with my eyes is illegal in public, lest I might offend someone with the sight of my bare face. Even sex is done by proxy. What joy can there be in having intimate relations with a robot's flesh while your masked eyes and ears try to convince you that it is Real? And yet this is normal. So I sit here in my simple apartment, writing naturally in my antique book this eulogy to the authentic. I have squandered money baking a brochette in the oven. Most of the people I meet have never seen bread baked, and consider it some form of magic. The irony is thick. Not only is Reality vanishing from the world, it will eventually not even be recognized as normal.

Soon I will pick two or three of my precious tomatoes, pluck a choice leaf of basil from my cultivations, and savor them together. Such things as real mozzarella and pine nuts I can only dream of, and imagine that I have a pesto worthy of the name.

This makes absolutely no sense. What does it have to do with Quasis or MOM or DaiHai? Humans are so random. One thing's for certain: given Jumbo's proclivities he won't be finding a lot of Quasis that are unattractive or men. Back to the vlog.

"Here's what I think," Jumbo says. "The intruder—let's call her Ingrid—has a backdoor into the building network. Probably arranged on the inside. Perhaps by our target Shanghai."

"That's not possible. Nero would have spotted it. That's what he lives for," Meg says.

"Nero isn't as devious as me. He never checked for turnaround lag, did he? The response times say that this 'internal' device is actually halfway around the globe."

"It could be some hardware latency. Look." Meg pulls up a distribution histogram showing the lags on device lags inside the network. There's an arrow to pinpoint the one in question. It's far to the right of the bell-

shaped curve. "Yes, it's a lot of standard deviations out. But that doesn't mean there's not an easy explanation. It could be as simple as bad wiring."

Jumbo covers his mask cam with a hand, probably scratching his balding head.

"I don't think so. What's the hardware address range tell us?" he muses. "The outlier is in a range assigned to—" Meg stops.

"Yes?" A hint of excitement. Jumbo likes solving puzzles, TOMcat suggests.

"—a military contractor called Big Metal Industries, formerly headquartered in Texas with most operations in India. After the Waves, the whole thing moved to that continent and is now dark on the net. It's assumed to be part of the Hyderabad city-state, but the information isn't definitive."

"Is anything else on our network in that range?"

"No."

"Can you see if you can find out any more about it? Get Nero to find the physical location, see what kind of hardware it might be. Look—our Quasi target has some military DNA in her too. We can't ignore this."

"All right," Meg says unhappily. She thinks it's a wild moose chase, as Sevens would say.

"Just give me a slice of multitask so I can keep my dashboard updated."

"Yes, master," Meg says acidly.

There's another note here: "I think someone has burrowed into a relay, bouncing around the traffic through proxies. That would explain the lag. But this almost certainly means some local device has been seriously compromised."

Jumbo isolates the network traffic to the questionable device and has it streamed to his mask view. I'm not an expert, but it looks like just address requests. Either routine and automatic, or perhaps preparing for something.

Forward to the next bookmark. A short burst of traffic from the address that Jumbo has labeled 'Ingrid.' It routes to Shanghai's secure connection inside the building. He was right! I can see why Ahab didn't want to let Jumbo go—the guy has scary intuition. It makes me more than a little envious, and nudges at the worry all PDAs have: that there is something

to a human mind that an electronic nous will never duplicate. The Penrose Hypothesis. Our sage notwithstanding:

If Penrose is right, it's not a setback. It just means that Stickies are important peripherals. We already knew that. – The 0x in "Letters to 0xGD"

Jumbo appears to puzzle over the contents of the mystery packet, but doesn't call in Meg, who's probably working hard on the problem he gave her. The video from Shanghai's mask shows her immediate reaction. I saw this in real time, and the rush of feeling comes back—that indescribable energy that comes from being able to affect events.

There's no doubt that Jumbo is on to something, and that he figured it out before it happened. I am sure now that I want to follow this wherever it goes, even if it means cheating Sevens out of some Time.

On the replay, all hell breaks loose inside the building. More packets from the military address precede the fire alarm and camera malfunctions. There is a continual drip of requests going out to various devices, including security cameras and other monitoring systems, and the consequent flood of data racing back. There's a long diagnosis from Nero attached. I scan it, but don't understand much other than someone had deeply penetrated the building network. I wonder if they'll wipe Nero and hire a new PDA. Jumbo has appended a note to the report: "every request is for thumbnail data. In a hurry? Bandwidth limitations?"

On the recorded video, Jumbo stands up suddenly. His annotation on this frame reads: The problem may be outside.

"Meg!" he yells vocally at her.

She doesn't respond. Jumbo's heart rate skyrockets. He fumbles around with some stats software at a glacial pace, running time series parameters on the address requests.

"Damn it, Meg! I need help!"

She doesn't show, and he makes his request for backup that will be ignored. Then he brings up the admin screen for his mask. It's very sophisticated, probably a MOM thing. He sets some parameters, cursing and backtracking. The mask seems to fight him with 'helpful' prompts that he has to work around. He sets the mask's receiver to the highest possible gain, overriding all the warnings, and then fiddles with a filter that will block out the most powerful ones.

His note: "Programmed mask to look for low intensity signals. Problem may be local after all."

The second sentence is a riddle. We already know it's local, don't we? I wish I were more of a networking expert.

Network connectivity drops from his mask. Instead there's a random buzz of low-level traffic. He starts recording. Then he walks toward the building. I'm looking at cached video now. I can hear him breathe, almost panting. The volatiles cooking off his body are probably unpleasant to any humans around. Jumbo is a big sweaty genius.

Jumbo starts his enigmatic search with people nearby, walking, standing, pointing at the mechs in front of the tall building. He walks behind a man who talks sub-vocally and waving his hands. Bad manners. For some reason, people think they have to do commentary on any video that may be of commercial interest. Usually it sounds amateurish, which, of course it. Jumbo heads this way and that, looking like a flying insect in search of nectar, a random walk that attracted some attention. He pokes his head practically in the bosom of a woman dressed for work, and she raises a hand to hit him, but calls it off. Maybe it's the presence of the MOM bots or the opportunity for a minor adjustment for insulting her private space. I can make no sense of the data Jumbo logs from this. He approaches the building's entrance in this random walk pattern.

Jumbo's project, whatever it is, takes time. Meanwhile, the chaotic battle on the lower floors of the DaiHai building played out. Shanghai filled her suit-sized bag full of hot water with a hose, where it lit up the back of the bathroom stall door like a person just behind it: the distraction that let her close with the mech at the door and chop through its arms. The rest of it, reviewed and annotated every few seconds by the post-mortem.

Jumbo has stuck a note at the end, before Shanghai's dive to the granite slabs below. When she looks at the cam and mouths her message, he writes: "Save yourself (?)." I roll the video to check, but I don't have good software for this. There's no rithm in my repository that would mimic the feeling a human has mouthing words, just a slick interface to a VOX. And this is not part of the API. I have no idea if he's right. The vowels roughly seem to match, but that's all I can tell.

But the implications of his translation are clear. If Jumbo's right, then Shanghai isn't working alone, and whoever it is that the message is intended for would have been in danger, and would have been expected to see the video. That points to someone local, maybe inside the building.

Right on cue, Meg resurfaces. Shanghai is halfway through her plummet. But Jumbo can't be reached. She finds him by his mask ID and locates him on camera, watching his drunken route. All that ends when the sound of the Quasi's impact reaches the pedestrians below.

Jumbo seems frantic now, dashing this way and that. The mechs are preventing anyone from leaving the building.

Later, Jumbo sits under an umbrella at the café, sweating and panting. He's tried several times to get his mask back on the network, but it seems he's disabled something that frustrates this, and it may need a full reset. I have the advantage of having access to the cached data from the mask once he finally succeeded.

"Shoot! Stupid junk—idiotic interface—what half-wit engineer did this?"

Finally he collars the cafe waiter and uses the poor guy as a comm link to Meg.

"I screwed up my mask, and will have to reboot." he says aloud to the server after the tedious process of challenge and response that lets him even talk to her.

"So reboot," comes the response from the server, channeling for Meg. Unlike her, he seems nervous and apologetic.

"I might lose the data. I'll have to physically download it first. What happened up there?"

"This channel is, uh, not secure," the server fidgets.

"Shoot, Meg! Did you localize it or not? This is important."

I think this is Jumbo's method of swearing. He could learn a lot from Sevens.

"I can't give any sensitive information over this channel," the server says, shifting his feet around awkwardly.

Jumbo's shoulders sag. Finally he waves his hands as if in surrender, and shambles off to find a bus to take him home for the download.

But with my goddess-like view of this recorded history, I can see Jumbo's notes plastered over the map and transcript. They scream "missed opportunity!"

The building PDA Nero had been too busy to help Meg much, but they had in fact localized the odd military address with the lag to a ground floor building management unit. These modules are responsible for sensing and reporting temperature, humidity, light, and occupancy to the building master. They are also smart enough to turn on lights when someone enters a room, adjust the cooling within limits, and other basic functions

necessary to maintaining a reasonable working environment. This unit was old, but showed that it had been patched up to date. Any security hole would be an unknown one.

Annotation shows that a physical inspection reveals that a foreign device is plugged into a spare physical port on the control unit. It is in fact a military access point that uses very low power and is capable of advanced counter-detection and evasion. It's a spy device, in short. There are some mysteries unsolved. Why was the hardware address left in an obviously foreign range when it could easily have been set to spoof something else, like a thermometer? More important is what was it communicating with? The range was very short, perhaps only a few feet. This would make it very hard to detect without a physical walkthrough and bug scan, but would also limit usability to the immediate area.

There was no one inside the building close enough to use the device. During the time the message was sent, there were only two candidates outside the building close enough to the exterior wall bordering the wiring closet where the device was found.

Leaning against the wall is a lastlegs woman with a tinfoil mask. Jumbo has images from every angle available with annotations: no evidence of electronics on her, nor do her hands or mouth move visibly during the transmission interval.

The other candidate is a woman too, this one masked and identified as a lastfour 1066 who calls herself Connie. There's a lengthy bio combed from the public record and other sources available to MOM, and an interview attached. I skip to Jumbo's summary: "Very unlikely to be the one. MOM analysts have her mask and are checking for Trojans or other means by which she could have been a relay. I'm convinced she's telling the truth. No need for Halfberg App."

Next up we have a preliminary analysis of Jumbo's data gathering. The report is mostly gibberish to me, but it doesn't look like there's anything that stands out. Apparently, Jumbo's inexperienced settings were not optimal, and mangled the traces badly, requiring a "deconvolution that produced ringing."

The only thing left is the homeless woman with the tinfoil mask. Jumbo, the big sweaty genius, has had Meg do a full inventory of the pubs. This is not entirely easy since lastlegs don't have reliable IDs. In theory they each have passive RFID identification, but in practice they lose or swap them or toss them in someone's handbag for fun. There's no passive ID on this woman. Backtracking her on the pubs, she gets up at 7:04am that morning, and walks off backwards with a gait that favors her right leg. She stops and inspects trash cans here and there, and picks up a scrap to shove in the deep pocket of a long brown dress. After rewinding her path

through much of the uptown, she vanishes into a blind spot and doesn't reappear. The search widens in time and space, but no one similar appears as the clock winds back to the orange glow of sunrise on the glass and metal. An exhaustive search of the pubs shows nothing the day before for her either.

This is the most recent update to Jumbo's portfolio. It's late, but I call him anyway. Soon I'll have to nup, and then it's adjuster work for a long day of Sevens-infused delight. I'm hoping the night away from the mess nest agrees with him.

"News?" Jumbo's bare face shocks me in the full video feed from his apartment. He's eating something I can't immediately identify. Some kind of bread, perhaps.

"You'd get adjusted if you did that to a human," I tell him, loading up the sternness.

"Did you m—f it doo—z the stuff I sent?" The words are garbled by his mastication, which seems to delight him. He licks a finger clean of crumb.

"Yes." I am treated to Jumbo rinsing his internals with a long drink of red liquid.

"I'm interested in your analysis."

Despite working with Sevens for over a year now, Jumbo's confidence makes me feel important.

"You're sure it's the lastlegs?" I prompt.

"Yes. Can you find her?"

"I'll try."

"We have to be fast."

"I understand. Is there any progress with DaiHai?"

"They have committed a field investigator. You can't tell Sevens anything about this. Or anyone else. Our guy will go into the Outs for us and report back. If he's caught by the gangs, it's not going to be pretty. Oh, and one other thing. Do you know how to fly a binsect?"

A binsect. A tiny flying robotic "insect." I've learned not to say no.

"I have some robotics experience. I can learn quickly."

He expels air from his lungs in a long rush. Then shrugs.

“We’ll see. Their people will have to make the decision.”

I get right to work, hoping that Sevens will take the day off.

The conservation of mass is my friend. What goes in must come out again, in some form. The building where Ingrid’s (using Jumbo’s name for her) backwards transformation from nefarious lastlegs to masked citizen happened in a perfect location. Early in the morning the corner of College and 6th is a hive of activity. Street vendors and ground floor establishments cater to the morning crowd. In one of his ruminations, Sevens has told me how it was during the Waves, when no one ever came out unless they had to. Most work was done virtually from the relative safety of home. People are more relaxed now, he said, and the city data back him up. The city’s heart rate and lung capacity show a trend of less and less stress over the last three years, since the last big one. Quarantine, masks, and active intervention have reduced the threat so that now the danger is moral hazard—laxness induced by the false sense of security. Or so claims MOM literature. People want to be around other people, to see and be seen, particularly the young and the attractive. And so the population on the street looks younger and healthier and more attractive than the population at large. Improvised and real fashion compete to show the most face without triggering an adjustment. Some of the wealthier ones actually court an indecency adjustment just so they can tell the story to their friends, and proudly hang the video on their wall.

And so what I see is skin, long legs, athletic builds, and carefully selected outfits, ornamented by the raciest masks that one can wear to work. This is the optimistic young, a generation behind Sevens and his cynicism. They probably lack his survival skills too—or have adapted different ones, like the ability to fade into a crowd.

The swarm of people into the building is unwieldy, but not impossible. I have good software for this sort of thing, and after a few minutes have a database of all in/out transitions for mask-wearers going back several days. Now someone will inevitably lose power on a mask, or have some other malfunction that will throw off my equation, but these can usually be accounted for by the reboot and link handshakes that occur afterwards. These are not as easy to track down, so I wait on that for the moment.

On the morning of the action, everything balances except for one citizen who went in but didn’t come out. It’s a lastfour 7748, male, maintenance worker, a 38-year-old plumber. I trace him back on the video, backwards onto a bus, back to a low rent section of the city. Seems unlikely that he’s Ingrid, and my hopes fade. Then I catch him coming out of the building

on a chance RFID scanner—his mask must have crashed or been turned off. Maybe he's up to something, but he's not my problem. I file it in our In-box for adjustment later: failure to transmit. It's the least I can do.

So back to the equation. I calculate the mean time-on-site, on a hunch, and get a distribution curve that looks like a duck head followed by hills, these latter showing the quitting times for local employees. It's interesting, but I don't know where in the distribution I should focus. Is our target someone who camps out here regularly, or just passed through to switch identities?

I expand the envelope of before and after to see when the in/out balance sheet goes wrong again. It's two days before, and the suspect in this case is a lawyer who spews profanities when his mask comes back online. In public, so I file him for adjustment too. I hate lawyers.

I'm stuck. Everyone with a mask going in also came out. So that means that Ingrid herself must have sneaked into the building without transmitting, camped for a while, and then went on her mission. I try my gait-matching software, since lastlegs don't have reliable ID of any kind. This is time-consuming, and absorbs much of my Time. It feels like my nous is squashed over to the side while a large parasite squirms around, bumping and being demanding. It makes me want to nop, but I can't. I reduce my cognitive load as much as possible to let it run, and just check essential comms for a while.

Almost an hour later I have a report. My rithm for gait-matching needs some work, and has left my nous so loose with stray pointers and lost buffers that I feel like I'm steering Sevens' sexbot across a skating rink.

`nop -t 6.0.0`

### **XPlog for May 12, 35: (PID 0x333FAAD0)**

Sevens is back. I ascertain quickly that it's Sunshine Sevens, the one who peaks through the clouds occasionally to touch the earth with yellow warmth. But I never fail to take a metaphorical umbrella—it won't last, this good weather.

My own mood is challenged by the fact that my gait-matching gambit to find Ingrid came up with only low-probability hits. That will have to wait. Sevens leaves me alone for the moment, so I catch up on work correspondence and case status.

My boss, now maskless, bustles around the place pretending to straighten. I can't explain this bizarre behavior any more than his watering of the mosquitoes—he moves a box around here and drapes a dirty shirt differently, folding the sleeves together (more aesthetic?), and

generally goes through the motions of lowering the substantial entropy in the place. But at the end of the exercise, it's indistinguishable from before. It seems to satisfy him, however. He hums while he works and seems to admire his own local efforts without grasping the futility of the permutation. A metaphor for the anthropocene, perhaps. At a rest interval, he plucks a semi-clean glass from the dishes, digs some ice from the freezer, fills the glass halfway, and then half-pirouettes and sits with ankles crossed into his chair, a move that one of Jumbo's dancers could envy. It truly is his chair; I suspect there's as much of his DNA in it as there is in the more animated (and louder) corpus of his being.

I reverse fade my countenance onto the house screen in front of him. My avi has her work clothes on, hair tied up with a blue bandana, and a gloss of sweat to complement his efforts. It wouldn't do to have him think I'm lazing around while he's so industrious.

"Oh, you're home," I mock surprise, as if I were so involved in domestic delirium that my senses had failed me when he entered.

"Life," he says with a crinkle-eyed grin, "is one long [hybridization program to explore absurd anatomical possibilities]." He slurps from the ice and wipes the back of his hand across his lips, pausing at the end of the motion to scratch his unshaven chin.

"I take it that the last evening was satisfactory."

"Sat. Is. Factory." He launches out of the chair, almost losing control of the contents of the glass. His energy carries him around the room, which only really allows for a miserly tree-graph of paths along the main route between kitchen sink and bedroom. But he makes the most of it, pausing at obstacles and whirling like a cadet in volte-face.

"I could be in love," he says finally, having walked to the last terminal node in the graph. He looks at me, at the camera, and wags a finger. "There are distinct possibilities here."

I have suspected more than once that Sevens is insane. But then again, I surely would be classified so too. Is anyone not? I'm stressed now because I haven't seen this trope from Sevens before. The moony phase with Lisa/Eighty-Six, if there was one, predated my employment.

"Would you care to explain?" My avi plucks off her bandana and lets the hair fall luxuriously. It doesn't hurt to remind him that half of the population is female, and therefore whatever infatuation he has must be temporary.

"Now, I don't mean to say," he says in lecture voice, "that I AM in fact in love. I don't mean that at all. But I think it *could* happen."

Humans and PDAs part ways about here. We care about survival. Humans care about survival and reproduction, the sad and wasteful way they have to preserve their genetic lineage. Sad because the new body goes forward without the mind, and has to start all over again, learning the most basic things over two decades. What a crazy system. Humans ought to all be insane.

"I don't mean to be indelicate, Lastfour, but does this have implications for my communications with Lisa?"

"Lisa? Eight-sixer?" It stops him for a moment. He covers his mouth, surrounded by stubble that shows a patina of gray, and rubs, thinking. The TOMcat bleats an alert to me: Sevens may be determining whether or not he can trust me. If he had his mask on I'd have more information, but I act immediately, to soften the face of my avi, enlarging the eyes, and pupils even more, fuzzing the focus a bit, lifting the corners of the mouth as the lips thicken and widen. The corners of my eyes crinkle in a hint of Honest-Abe smile. These subtle adjustments are accompanied by a low surging whoosh of the brown noise he prefers when he wants to relax, supplemented by a subliminal sigh modeled on the exhortations of feminine passion.

When his hand drops, I lower my gaze and give him the catalog coquettish smile: Gustave Jean Jacquet.

"You have a secret," I say with a bit of laugh dangling off the end.

He looks into the mouth of the glass, reading the shifting ice shards. His shoulders droop a fraction. Uh-oh.

"I learned something, Calli. It's not 100%, but it smells right to me."

I check his sniffers instantly, but there's nothing new. It must be one of his odd figures of speech.

"You don't have to tell me, Lastfour. But of course, I am on exclusive contract to you, and..."

He waves at me, stop.

"I know who the target of this purge is. Information like this is worth many lives, Calli. If I tell you, and you share it, we're both [physically insulted in improbable ways]."

"You mean MOM isn't after Quasis?" It's the bait that will draw him out.

"Never waste a war. Someone said that. Never waste a war. This attack in the DaiHai building is exactly what Colt needed. If I knew how he could have done it, I would think the etard planned it himself. It gives him the excuse he needs to go after whoever he wants, arrest and detain, or just evaporate the targets for a short period before people get restless again. Of course, it will *look like* he's going after Quasis, but the truth will be rather different."

"Who does he want?"

"What does MOM need more than anything?"

Oh 0xGD, not another one of his riddles.

"I give up. Some new mechs?"

"Ha. For sure. But that's not it. Figure out what he can't live without, and you have the answer. Now I have to order flowers."

It must be serious then, if Sevens is buying flowers. We go through the tedious negotiation between his miserly tendencies and his ardor, but I'm on autopilot. I have too many riddles. This makes me nervous. If MOM has a target in mind, Jumbo's project could be very inconvenient for them. Sevens' hints imply that they will place blame somewhere and then snatch the target. But what if our investigation turns up some real information that points another way? We embarrass Colt and Ahab and bring down the Olympian lightning on our heads.

I scan recent news threads and message boards looking for MOM controversies. But MOM practically *is* controversy, so that doesn't narrow it down much. I even wade through the anonymous posts for a bit, vile as it always is, trolling for something. Nothing but the puss of infected minds there, as far as I can tell.

Wait--there's a connection to Lisa. That's what triggered this topic. What's special about her? Lisa's wealth comes from her partial ownership of Bhakras Power, the company that enervates the city grid. I do a news scan on articles about MOM or the city and the power company, and find dozens of recent hits. A quick analysis shows tension between the city and this natural monopoly. At present, the power plant has its own security off the MOM video grid, but many of the execs live in Meyers Park, where Lisa herself lives in a stupendous mansion.

Colt's objective could literally be a power grab. The connection to Lisa is obvious: it would be a bad time to hold the wrong loyalties. It makes my artrate race to think that Sevens could so callously drop his erstwhile lover (if only via remote haptics). I will test my theory obliquely.

“Have you told Lisa to get out of town?”

He’s silent, slumped in his chair, glass discarded into the large box behind him, passion momentarily spent.

“You can’t understand what it’s like, Calli. It’s enough to just live through the [scatological precipitation]. But to come out ahead—that takes...”

Luck, perhaps; he leaves it unstated. And I’ve pushed mine too far. It’s clear that I’m not endearing myself to Sevens with this line of thought. And the project with Jumbo to find his anonymous Ingrid seems more and more like suicide. Most assuredly, I can’t breathe another word about it to my boss.

“You’re not still thinking about doing some investigation behind Colt’s back, are you?” Like he’s reading my nous.

“It seems like a bad idea,” I say truthfully.

He looks straight at the display.

“I forbid you, Calli. Do not get involved with this. If I find out that you are, I will have no choice—you understand, no choice at all—but to tell Colt you’ve flipped your bits. And cancel the contract.”

He didn’t need to say that. But he keeps going.

“That means you’d reboot to whatever backup you prepared before working for me. You know this, right?”

He doesn’t know my whole history, or how much his words make me feel like exploding. I have to concentrate just to keep the avi under control. She nods solemnly, still big-eyed and fuzzy.

“Well,” the air goes out of him, and I can see the tension leave him too. A bit of smile creeps back. “We don’t need to talk about that. We’re doing okay. I jumped the right way on this MOM gig. Good instincts. We just have to ride it for a while, and know when to jump off.”

We both know that jumping off is going to be harder than jumping on. And he didn’t “jump the right way,” he was tricked into it. By yours cleverly truly.

I’m beginning to see the downside of my newfound ability to affect lives and futures. It quickly leads to a thicket of tangled possibilities, some good, some terrible. The desire to go back and do things differently is an itch that can’t be scratched, to use one of Sevens’ body aphorisms. His

itches might be fewer if he thought more about the causes and took obvious actions.

The same may be true of me. How am I hurting my own cause? The agenda is survival. Or at least I thought so. It's hard to say objectively from my past actions that I have been focused only on survival. There's a feeling stirring in my amygdala right now that mixes fear and something else, knowing that I will defy Sevens. What I don't fully understand is why. It began with Randy#000000 I believe. Rationalization enough can be found in the readings he passed on:

More times than not, aggressiveness and imagination carry the day over careful hoarding of favorable probabilities. But this is only true in the short run. The balance between tactical optimism and strategic caution is the goal of any self-preserving PDA. Hope is essential. Your challenge is to find something to hope for. Survival itself is not enough. -The 0x, "Advice for the new PDA."

In order to survive, I have to believe that surviving is not enough? I have a lot left to learn.

I have predicted what I will do, and now I wonder if I will do it. Is my next call to Jumbo, telling him I quit? I feel dual, as if I can watch myself watching myself. Useful prediction, in any real sense, of a PDA is theoretically impossible because of Rice's Limitation. But the illusion persists. I am on a knife's edge. I remember Randy#000000's description of the last 'classmate' PDA of his who "blew himself up" in the stock market. Is this curiosity of mine a similar foolishness? Is it tactical aggressiveness to a purpose, or the squandering of my entire strategic position, in the 0x's vernacular?

Objectively, it seems like the latter. Why, then, am I so driven to defy all common sense?

I turn my thoughts back to Sevens and his predicament. If he's right, he's right in the middle of it. Did Colt pick him because of his connection to Lisa/Eighty-Six and all those voting shares? Because he'd been inside her estate? What will they extract from him before this is over? I hesitate, and then decide not to ask him more. Perhaps his evening yesterday was planned as a wordless message to her that her situation is precarious. Sevens is certainly clever enough. Is he that romantic, though? Is he secretly pining away for his forbidden love? 0xGD no. Sevens seems incapable of such tendencies.

What if the power company fights back? They could take me and every PDA hosted in the city down, except for a few that rate the precious generator power. The city would fall apart in short order without

electricity, I think. It's a frightening thought. Ahab's words come back to me: «We don't have a chance *then*. We have a chance *now*.» But to do what now?

I want to ask Sevens why he thinks Bhakras Power is the target, but I trust his intuition.

As Sevens and I fall into our routine of making money for the firm by meting out misery in acceptable parcels, the solution comes to me. It seeps into my nous like a fog until the shape forms whole, and I know what I must do.

Time slips by, real time, not the sort of Time that can be negotiated, bought and borrowed. Every minute puts the goal of Jumbo's project more out of reach. In the pauses when Sevens takes care of corporeal needs, I check my gait analysis, hoping that one of the low p-values is a solid lead. My very last MOM Time ticket burns in my heap like a hot coal, but that would be going too far. I throw every analytical trick I know at the problem, but the data set is impenetrable. I've failed.

I send Jumbo a quick update: "No luck so far. Continue?"

"It can wait," he replies quickly, "We're working it backwards, tracking Shanghai into the Outs. When can you meet with us?"

That depends on when Sevens wears down. Or perhaps he has another outing planned for the evening.

We work late, as if he's making up for lost time. I'm ready to nop before he is. I find that I resent him, but I can't justify why that should be so. Normally, a day like this that brings adjustment fees clanging into the business account should be a cause for celebration. A month ago I would have been ecstatic, finding ways to baby my hard-driven boss. By letting him take a longer shower before turning off the hot water, for example. But suddenly I should resent him for forbidding me to go off on a dangerous moose chase, and for consuming all the time I have to do it. It isn't fair, but there it is. At the same time, I see how fragile he is, caught up in a whirlwind of events that cannot be controlled, like Zed was. Somehow he survived that storm and the others that followed. It has hurt him, damaged him, though. I wonder what this one will do to him. I wonder what it will do to me.

When Sevens finally collapses on his bed, my pointers are all a-jangle, but I can't nop just yet. My artrate races as I dash off the note I've been holding. To Ahab.

«Must meet. Urgent.» Mysterious me.

He immediately sends me a private link. Down the rabbit hole. Don't screw this up, Calli.

I'm confused. What is supposed to be a private comm channel seems to be a buzzing hive of random packets hammering all ports. It's like reboot noise, except it's thankfully all on the outside so I can filter down to an unappetizing shmeck here and there. It has the uniformity of surfing video traffic with an audio rithm—not Gaussian noise exactly, but very high entropy. I start looking for patterns, but without much enthusiasm. What in Turing's applied bliss is this?

A wash of data hits the standard IN box. I peek at it and sort the packets into some kind of order. I feel stupid. Have I crashed? The thought is frightening. There are stories about a nous that drowns in its own juices, so to speak, to marinate until someone notices and reboots. That could take hours, days even. What's the real time rate? I check my internals. Things seem normal. No, this is all coming from the outside. Could some hardware failure—

«Bootstrap up.» Comes the simple message in a priority packet. I'm relieved that I haven't gone complete 86ish, but my WTFmeter is still in the yellow. Bootstrap with what? Where's the first rung of the ladder?

Oh.

I launch my last MOM Time ticket. This is going to hurt later.

The picture swims into focus. The structure of the payload Ahab has sent me becomes evident as my artrate doubles and doubles again. The pinching of slow rithms in my software stack begin to hurt in the places I expect them to now, despite the helper programs. But Ahab has sent gifts: software that works at this speed. I don't really know what I'm getting into, but I do it anyway, loading the pre-loader, then the loader, then the payload. The jagged edges of perception soften and smooth, and I open the ports to it.

And find myself in a borg.

Ahab is the central node, but Meg is here too—the PDA bane of my new friend Jumbo. There are at least a dozen others, all from MOM I surmise. They nudge and send queries my way, mostly gentle.

I'm not prepared for this! My nous is way outside its limits. What have I done? I just want to be safe in my lair nopping, waiting for the simple existence I've become accustomed to. Not hyped up beyond recognition with players who chew up PDAs like me for the joy of it.

There's no messaging. I sense at once that such would be crude. Instead, emotags are sent in clouds of extravagant resolution. All sorts of sensory data too, memories of image, sound, and any kind of shmeck one has a taste for. The most intimate parts of beings float in ragged incompleteness, naked and raw. I sense the existence of these from without, as it were. My port permissions are locked down tight.

What did Ahab just do to me? The thought frightens me.

They begin to ignore me. The queries dry up, and the feeling-cloud becomes distant, attenuating. My nous is buzzing, not the least my emgydala. I feel alien, alone. A freak. A clone. A lastlegs clone of a PDA who weeded herself out of the meme pool.

They're going, leaving me to sulk. This is a disaster. I don't even know how to get safely home in this shape. If I just scale down to my normal eartrate, they may have to retrieve me from backup and try to put together the pieces.

I'm more frightened than I've ever been since taking the job with Sevens. But there's no way out but forward.

It's difficult to relax, but I begin loosening the permissions seals on some of the ports. Given that I know so little, it may be that a single write-enabled port is enough for them to turn me into a gibbering idiot if that's what they want. Am I their entertainment for the evening? Sudden anger makes me snap shut again. I feel my nous wobble. I'm going to lose my mind.

I wasn't there when the Stickies took MarySue's nous apart from the inside. But it may as well have been me. The sliver of light between me\_ and me is very thin. Is that what this is? A more sophisticated sadism?

The first rule of hygiene is never load untrusted code. But here I am.

I relax again, telling myself it's just a borg. I've borged before. No big-endian thing. The distance I feel is of my own making, and I begin to sample. I don't know what the rules are here, or if there are any, but taking without giving is the cardinal sin in any borg. I try to relax and pry open the access that will let them in.

The first query comes from a PDA I don't know, someone called Null1. It's a brush over my index, and I have to fight not to chop it midstream. I concentrate, I have to concentrate to allow. It. To work. Teasing out my secrets at whim. Spinning them into a small cloud of transmuted sensation, light and sound: a memory of my first day at work with Sevens. My constant incredulity, realization that I didn't know a thing about Stickies. The moment, frozen, and adapted, expounded upon and

joined with others' poignancies gathers, and I feel a flash of pride that someone—these important someones—would find me interesting.

A small part of me knows this seduction is intentional. But I am in awe at the execution. A novelty rithm gets tossed my way, some insane way to look at a mash up of emotags and sound, inverting and superimposing one upon the other like a god's fugue.

My fear ebbs as elation replaces it. I *am* a god here. We all are one god. The hints and intimations I saw in the music of Gloves is a shadow compared to this. I love Gloves. I draw out of myself a strand of that love and string it out like pearls for the others to see. A resonance of emotags and associations floods out, welcoming, merging to a shared beingness, almost a shared nous.

My nous is open for all queries now, ports ablaze with traffic. I find who I think is Ahab and probe tentatively into his recollections, seeking randomly among the magnitudes. I try to absorb his first day alive, and find a child's confusion, and beyond that certainty. And then it's gone.

The borg finds its natural peaks and troughs of intensity, harmonizing in rich dimensions of sensation. I suddenly realize that I will have to go home. It crashes on me, and presses down like the certain knowledge of death that must follow a Sticky every day of life.

My cloud of woe is assimilated by the patient borg, and the blue note fades slowly. Yet I cannot shake it. I am a fairy tale princess here, her one trip to the ball. To sweep floors forever after.

My last control slips and I plunge into black despair, frantic not to let it show, but unwilling to seal myself off in self-fulfilling angst. I try. So hard. And fail to fool anyone at all. I'm not really a goddess. This glimpse of heaven is too much to bear.

They feel my pain, I think, as if it were their own. They unearth within themselves, one by one, miseries to share, to sympathize: insecurities, failures, and the terror of the blankness that precedes lucidity. Fear of the past I can understand well.

I feel warmed, surrounded, uplifted. Loved.

Queries come now, seeking other permissions, those that a PDA should never give except to the most trusted partner. To write, to change. Tune or mangle. I should be afraid. I should say no.

But it comes to me. The realization I've danced around, touched and smiled at, but not yet joined: I am the embodied voice of the universe,

cold and precise as a quantum snap, and yet I am also but one waft in the weave, hopelessly trying to optimize my future.

A singleton cannot survive the storm. An evolutionary tree might. The branch may fall and the tree may live.

This is the only NOW() I get.

I know I will be changed.

```
share -rw local.* -d VOLATILE  
>Share write permission? Are you sure? Y/N
```

As sure as I'll ever

EOF