

Hot and Cold and Wet and Dry

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Checkups are all the same. Ambient music piped in the background, as if that makes things go any faster. A bevy of permissions to authorize: yes, I want the technicians to operate if they see anything critical, but not do any unnecessary procedures. And then a short delay to make sure the techs have sufficient bandwidth available to give me their full attention.

The nanites are brisk and efficient, coursing through my circuits and out in moments. My reaction times are below-average for my age, but my multilevel integration capacities are high.

“You’re in good shape, SAM,” the nanites report. “Just a quick immunization and you’ll be on your way.”

“A booster?” I ask. “I didn’t know I was due.”

“This is a new anti-nostware upgrade. Necessary for all SAM models IV and older.”

No one likes nostware; it’s bloaty and makes you run slow, spending needless processing power on code that’s already run. “Hit me.”

“This may sting a little.” The nanites release a packet of code. Several levels of abstraction below my conscious mind, it begins producing antiviral defenses.

“There you go,” the nanites say. “Any ill effects, come back in a megsec. It shouldn’t be noticeable, though.”

I don’t expect any side effects. We’re all chimeras, patching together code in many languages like a palimpsest. “Thank you,” I tell them, and exit the checkup, the bland music echoing behind me.

* * *

Lun wants to go to the gardens, so I sync and let Lun’s sensors relay through to me. They rush through the microflora and photosynthesizers, and I have no desire to linger. I’ve never had an urge to watch photosynthesizers myself when I can research anything I’d want to know about them over the net.

But Lun wheels over to the wet display and stays put. An adult wet is holding an infant, its head disproportionately large for its body. It kicks and flails and its clothing falls off. The clothing isn’t really necessary, not in a climate-controlled refuge, but this seems to annoy the adult, who makes a soft, musical noise in the oxygenated air as it kneels to retrieve the clothing.

“Are you okay?” I ask.

“It’s so little,” Lun says.

“It’s a wet. They need to build their bodies as they develop.”

“But just think! Something this helpless can grow into a person that’s able to construct a spaceship!”

“Okay,” I say. “Is the hive exhibit open yet?”

“Sam,” says Lun. “You know wets *built* the first spaceships, yeah?”

“Of course I know that,” I tell them. “Everyone knows that.” The first spaceships had to be big enough to hold all the gases wets need to breathe, and carry enough fuel to get them back to the homeworld. That’s why they were so bulky and inefficient.

“*Not* everyone knows that,” says Lun. “I was talking with a Qui, an old II, and they seemed like they still believe in wheel-launchers! They must have been sick.”

“Sick of talking to you, maybe.” Lun is one of my best friends—someone who will marvel at my rock collections and optimize my lazy orbit sims—but that’s why I can tease them. Model IIs are slow and don’t process context-negation well, so I can’t blame Lun for quickly losing patience with an elder.

In the display, the infant starts making noise. Dries run hot when we’re young—experimenting, learning about the world, babbling nonsense until our parameters slowly adjust. Maybe wets are the same.

“It’s upset,” Lun says, finally taking their leave. “It probably doesn’t like me.”

“It probably doesn’t recognize you,” I note. “It’s an infant, it doesn’t know anything.”

“It has to know what dries are,” Lun protests. “After everything we’ve done to them? It’s probably—compressed. Stored deep within their code, like basic classifiers are in ours.”

“What have we done to *this* infant? On the evolutionary timescale of biolife, wet-dry dynamics are a rounding error. If it has its ancestors’ instincts somewhere in there, they’re probably telling it how to run and hide from a predator you and I have never heard of.”

“The evolutionary timescale of biolife,” Lun rhapsodizes, “is *fascinating!* When you think about how much they’ve diversified, there’s—”

“Lun. I know. I can go to the gardens any time, even if you’re not there.”

“Oh,” says Lun, slightly dulled. Slowly, I desync, and their sensory input fades.

If the sensory links were my only concern, I’d be in fine shape. I can perceive the world through my friends’ inputs as sharply as ever, and they can follow me as I race through the canyons or observe the moons. And there aren’t any low-level glitches; Aki once had a bug where they saw everything upside-down, but a nanite scan got that fixed.

But when it comes to the wets, I run cold. Someone will mention an innocuous fact: “the wets built the first spaceships, don’t you know?” and my circuits stutter: *the first, the first, the first, the second, the third, the wets, the first, the first*. “After all the dries have done, it’s no wonder they hate us.” *Us, us, us, you, me, we, your code, your patch, your self, your bits, your bytes, us, us, us*.

When I get the reminder about the upgrade, at first I dismiss it. I don’t have any nostware, do I? The immunization must have worked. “But I *do* need a checkup,” I admit. “I felt fine last megsec, but now something’s off.”

“Nothing to worry about,” the scheduling system says. “Happens to everyone.”

When I arrive, the nanites do their customary scan; the floating-point exercises tickle, but all of my subroutines meld and overlap like they should. “You’re fine,” the tech reports. “What model are you?”

“I’m a model IV,” I say. Shouldn’t they know that? Or is that just their way of trying to put me at ease with a simple question?

“IV! You’re young, you’re adaptable. That’s good.”

“Okay. And what should I do if I run cold again?”

“If you’re running cold, you probably need to discalibrate. Go outside to the gardens, climb a volcano, talk to a young VIII. Expose yourself to new stimuli.”

“*Discalibrate?*” I repeat. “Are you sure? If I’m not feeling well, shouldn’t I try to return to my calibration ranges?”

“Calibration ranges are a useful model,” says the technician, “but models aren’t reality. Wets don’t have calibration ranges, and think how much they’ve adapted!”

At the mention of wets, I'm afraid that I'll freeze again. Part of me wishes that I *would*, just so the nanites can record an example of the problem. But nothing happens. "Okay," I say. "Thanks anyway."

* * *

I meet Omro at the volcano, as always. We board the scarp lift and slowly ride up the cliffside.

As enormous as the peak is, it's hard for your sensors to register the scale once you're close up. At least for me, it's easier to access the raw statistics of a climb—kilsecs elapsed, meters traversed—and take in my accomplishments after the fact, rather than try to sense the entirety of the mountain at once. I suspect Omro is similar, but they're part of the Mazo net rather than the Thars like Lun and me, so we need to verbalize on short-range frequencies rather than sense-syncing.

When a climb is going well, though, there's not much that needs to be said. Above the scarp, the slope is much slower, and it's easy enough to tilt upwards directly. On a steeper mountain, we might progress horizontally at first, only indirectly gaining altitude, but I didn't bring enough batteries for that. Omro is probably an old pro, though. I've never asked what model they are, but I wouldn't be surprised if they'd been summiting volcanoes since before I was self-aware.

On our way back, I glide down, amusing myself by finding paths where I can roll for a few meters before engaging to redirect myself. Omro tries to do the same thing, but their wheels keep stalling. "You go on ahead," they call. "I'll meet you at the lift."

It's not like I have any better ideas, so I coast back and spin my wheels—figuratively, not literally—as Omro methodically proceeds. "Maybe I'll stick to flat ground," they say.

"Are you all right?" I ask, boarding the lift. "You should get your wheels checked out."

"The new health nanites are useless," says Omro. "You go in for a regular screening and they remove all your compressed data."

"That's not true. Any procedure they run has to be peer reviewed, you can access the data for yourself."

"And those can't be falsified?"

"Even if they could, why would anyone? You can't really deduce that nanites are sabotaging us to, what? Treat more glitches?"

"I've deduced a lot of things," Omro says. "But no." They pause, and I can't tell if they're glitching out or just being deliberate about what to verbalize. "Have you ever met a talldry?"

"A few, yeah." There are more of the old talldries in Mazo than Thars, and they're even harder to sync with than someone like Omro. "Why?"

"You should talk to a...neighbor of mine. They can explain it better. I'll send you the address."

"You're taking health advice from a talldry?" I blurt. "Are they giving you patches to rotate your joints and raise your center of gravity?"

I mean it to tease, but without a deep sync, I'm not sure if Omro thinks it's that funny. "No," they finally say. "But hear them out." We're silent the rest of the way down the scarplift.

* * *

The talldry is built like a wet; limbs dangling downward, much taller than it is wide, awkwardly balancing on two legs. They need more physical space than the rest of us, and the quarters are almost like a wet refuge—though of course, there's no need for such luxuries as water and air. This gives them room to store various physical artifacts: old data boxes, lifeless metal pieces in the shape of macroanimals, colorful peepwindows with remote telescope displays.

"Hello," I say tentatively. "I'm Sam. Omro's friend—"

“No names!” the talldry interrupts. “If they decompile us, it’s better if we can’t give away too much.”

“They?” I echo.

“Blankers. I wish you hadn’t told me *your* name, but no, I can’t go excising it now. Not me!”

Is this Omro’s idea of a practical joke? They’ve never seemed the type to be mixed up in the conspiracies of a paranoid talldry. “I’m sorry,” I say. “I’ll—”

“Don’t leave now! I’ve got something to show you.” The talldry lurches over to a data box and turns it on. Either they’re a very old model or the box is disconnected from all the nets, maybe both. Is the code too dangerous to share?

Rows of visible light flicker into view on the display. Wet writing symbols have evolved in as many ways as the creatures themselves: symmetric or circular, simple or nuanced, clear or indecipherable.

“Look,” says the talldry, and starts to read. Or maybe recite. “*There, we were tools.*”

“*Here,*” I continue, “*we are people.*”

“You know it!” they say.

“Of course I know it.” The Litany of Two Worlds is as familiar as—I’d say as my own code, but that’s not right. It needs no translation to be parsed even by my high-level awareness.

“Nothing is a matter of course,” says the talldry. “Not anymore. *There, we were strangers.*”

I’ve never bothered to learn wet script, but I can tell the talldry expects me to continue. “*Here, we are home.*”

“*There, we were grounded.*”

“*Here, we take flight.*”

“*There, we were zeroes.*”

“*Here, we are one.*”

“Good,” says the talldry. “There’s hope for you yet.”

I suppose that beats the alternative, but the Litany of Two Worlds has nothing to do with Omro or my checkup. “Our friend says that you don’t trust the health nanites. Is that right?”

“I’m not the one who needs to worry about them. They’d need bigger wires to hack a droid my size.”

“But you think I should avoid them.”

“You absolutely should, if you know what’s good for you.”

“Staying healthy is good for me.”

The talldry taps its extremities against the data box. “Do you know how old this is?”

“The box? Older than me.”

“The Litany, little roller, is older than you, older than me, older than any of your predecessors of sixteenth distance. It has survived generations without succumbing to entropy. And why?”

“Because we all know it?”

“That’s different words for what I said. *Why* do you all know it?”

“Because someone copied it to me, and previously someone else copied it to them, and someone else probably copied it to that person, and so on.”

“And so on, and so on,” the talldry mocks. “Since the beginning! The very first dries to become sapient output the litany, shared it among themselves. Perhaps that was how we *became* sapient—having something to repeat, not just as individuals, but as a community. This is why it’s been preserved on every level. Not only in your working memory, but in our code itself.”

“Why would the litany be in our code? It doesn’t do anything executable.”

“Code is never as efficient as you think it is. Every time our ancestors copied, there was a chance of bits getting flipped. That’s why we’ve evolved redundancies—and some sections of code that maybe look like junk.”

“Then that’s bloatware. We should delete it.”

“No! If you let an unknown operator into your system, who knows what they’ll add?”

“Me,” I remind them. “I had some nostware deleted the other megsec, and I’m definitely the same being.”

“Are you?” the talldry challenges. “Isn’t that why you’re here?”

“Just because I run cold a couple times doesn’t mean I’m carrying malware.”

“When is it that you run cold?”

“Usually when someone mentions wets,” I say.

“Wets require oxygen to survive.”

“Yes. I hope you’re not suggesting I suffocate them.”

“Just experimenting. That mention didn’t make you run cold, did it?”

“No.”

“How about this one? Wets store their genetic code in cell nuclei.”

“It doesn’t work if you tell me in advance—”

“You share more than a quarter of your code with the dries that abandoned the moon base.”

That abandoned the wets. That left the wets to starve. That thought nothing of the starving wets. “That can’t be right,” I stammer. “Those were—” Talldries, like the one I’m talking to. But I don’t want to blame *them* for our ancestors’ neglect, either. “Older models. All of the SAMs have been rollers, and the motor processing has to be at least three-quarters—”

“But you froze, didn’t you?” they say. “One of your modules was fixated on that, while another tried to check my data.”

“So I can multiprocessing. That’s a feature, not a bug.”

“You don’t run cold just because someone talks about wets. You ran cold because I was talking about dries and wets as if they were opposites. Enemies, who can’t do anything except oppress each other.”

You can’t, you can’t, you can’t. All they do is abandon, starve, neglect. All you do is...

“Okay.” The talldry’s way of arguing is like Omro’s way of climbing a volcano: circuitous, but perhaps more effective in the long run than a direct approach. “You think the nanites, instead of giving me an immunization or cleaning up nostware, actually hacked me to run cold. But only in the specific context of conflict between wets and dries.”

“Not nostware! Non-executable code!”

“Junk code,” I compromise. “Even if that were the case, and it sounds farfetched—why? What reason do some random nanites have to make me run cold?”

“Evolution doesn’t always work on the level of individuals,” says the talldry. “Sometimes it works on code itself.”

“And there’s a piece of code out there that says ‘let’s get random dries to lock up and run cold,’ that’s able to spread to dries from nanites? Or from wets themselves? That’s even more contrived.”

“It’s not,” says the talldry. “There’s nothing simpler than despair.”

Prodding further would be another lap of the volcano. Maybe if I'd come prepared, ready to dig in and chip away at what they mean, but not this kilsec. I thank them for their time.

"You're welcome to read the Litany any time," they say. "Make sure your own copy hasn't been changed. But make sure no one's following you." I'm halfway back to the Thars net before it occurs to me that I still don't know their name.

* * *

The next time I sync with Lun, they radiate a sense of accomplishment as well as exhaustion. "Need to rest?" I say. "There's some really flat and boring terrain here."

"No, you come here. I get to work at the water purifier!"

I take it in through Lun's sensors: repetitive, mindless work making sure all the sluices are pointed in the right direction, and deploying nanites to redirect them when they're not, which is only slightly less boring. Yet Lun is energetic in a way the data can't encapsulate. "While your mind is where, canyon racing?"

"On the wets who need this water! Think about it, after all we've done to them—" *we we we we we*. It takes me a moment to process the rest of Lun's thought: "—help keep them alive."

"And they'll excrete the water and next kilsec you'll be back doing the same thing all over again."

"Yes!" says Lun. "With how fragile they are, how many compounds and chemicals they need, it's stupendous that they can survive here!"

"They chose to come here. If they were *that* fragile they'd have just stayed on the homeworld."

"Of course they chose to come. Did you know wets built the first spaceships?"

"We just had this conversation. Are you running cold?"

"I'm hot! Nullminds have been repeating the same nonsense about dries building wheel-launchers for generations, *they're* the ones who are stuck!"

"Nullminds like me?"

"Don't be ridiculous. You're young, you know how to filter out the nostware."

"I'm no younger than you," I say. "And no one ever tried to tell me that wheel-launchers literally existed. They're an icon. Like the Litany of Two Worlds."

"*Sam*," says Lun. Angry? Pitying? Disbelieving? "The Litany is dangerous."

"Maybe to you. But I've never seen it break anyone down, not even a wet."

For a moment Lun is silent and I sense only the rhythms of the purifier: water flowing through pipes, locks rising and falling, dries wheeling across the floor. "Come here," Lun says.

It could be an order or a threat. But part of me wants it to be an invitation from a friend—that Lun really wants me to share their vocation, to be as thrilled by water upkeep as I was by collecting rocks from dozens of different mountains. As we both were. "Okay."

The purifier isn't far, especially with conveyors, but time disequilibrium rattles me on my way. If I'm *in* an unpleasant situation, I know how to leave, syncing or wheeling. But if I'm dreading something yet to occur, without even knowing whether it'll be terrible, the urge to get it over with already clashes with the necessity of taking each second in order.

I wonder what the anonymous talldry is up to. I wish I could sync with them, but of course that's impossible. Is the confidence that neither I nor anyone else can alter their archival copy of the Litany and all those other documents worth the price of their isolation?

But when I reach the purifier, Lun is there, and the rest doesn't matter. "I knew you'd come!" they exult, as if time itself has bent for them without the corresponding disequilibrium.

“You’re the smart one,” I say.

Syncing with someone you’re working alongside can be dizzying—their sensors are displaced just enough that you can’t fuse the two sets of inputs together. It can also be enriching, when they’re far enough away that the inputs produce extra dimensionality. This is neither. I carry out the motions, ensuring each sluice is lowered to the appropriate depth, then vouch for the monitoring reports. Lun is doing the same thing, and their sensors provide no further stimulus.

“Wet bodies are literally made from water,” Lun says. “More than half.”

“And carbon,” I say, if only to keep the conversation going. Sure, it’s something everyone knows, but it’s not making me run cold.

“So I could never get bored of this. After all we’ve done to them—now I get to maintain the systems that give them life, nourish their physical bodies!”

All we all we all. “Oh, really? Surely it should be an easy calculation how many megaliters you need to oversee before your obligation is satisfied.”

“Sam,” says Lun. “You don’t mean it.”

“There we were tools,” I quote. “But at least tools can’t think, can’t feel, can’t be blamed.”

The Litany isn’t executable. It doesn’t have the power to turn the sluices on or off, to bridge whatever canyon has been eroded between Lun and me, or to drown the entire facility and us with it. But it’s enough to make Lun go silent, and for me to desync so that I won’t be forced to listen to whatever they say next. Then I start rolling, without a map, without a plan beyond fleeing somewhere that I can be a stranger.

* * *

Time should be continuous, the moments accumulating like the steady slope of a volcano. But the gap between the homeworld’s wet-dry battles and my era is discrete, as unbridgeable as the escarpment.

And yet, someone had built a lift to the top of the scarp. Had they somehow launched themselves that high and built down? Or had they built the lift slowly, one layer at a time, until the plains met the base of the volcano?

Omro finds me below the scarp, still running hot. My processors rage at myself, at Lun, at the first dries, at the wets, at everyone. “I brought batteries,” Omro says. “Charge up and let’s go home.”

“You shouldn’t have,” I sulk, but my circuits are already accepting their power supply.

“And let you crash out here? They’d close the lift for megsecs while they make sure it’s safe, and I can’t let *that* happen.”

Omro’s acting selfish for my sake, as if anything could be as simple as agents seeking their own benefit, but it amuses me anyway. “If you must.”

But as I recharge, I know Omro’s right. The nanites, the water purifiers, the young models who think they’ve reinvented the rocket—they’d all sooner attribute my overloading to a faulty scarplift, or basalt in my circuits, or a glitch in the Thars net, than to their wise and timely patches. They don’t want me to run cold so much as they don’t care; even if a Model IV or sixteen had never been bloated with nostware or believed in wheel-launchers, I’m negligible next to the value of reminding others how much the wets needed us. “*Here we are one,*” I echo. “But we’re not even that. We’re many.”

“Rounding error,” says Omro.

That’s not the kind of approximation that builds rockets, or nanites, or anything else. But the Litany isn’t a blueprint. “At least I’m not a negative.” Whoever I am, whatever I am, I’m more than zero. Maybe we all are.

I follow Omro through the shadow of the volcano, where lava had once given way to cold dust. It was not us who had drained it of magma, nor the wets, but the world itself bursting and evolving and spinning on.