In the shadow of the planet, an old space station rots

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Ice crystals crushed underneath the boot as it stepped onto the cold metal platform. The hallway was as cold and airless as space; it appeared to have been depressurized some time ago. The doorway was simply left open to space.

The anthropologist took another step down the hallway and felt the sound reverberate through his boot.

"We don't know how long this thing has been sitting here," he heard the voice clearly in his head, as clearly as he heard his own thinking voice, "But it seems abandoned and that xantha radiation is promising. The radiation is coming from up ahead of you." The virtual voice implant allowed this speech to be heard clearly. The anthropologist wondered whether the voice he heard was virtual or the implant was virtual. There had never actually been a surgery.

Step by step, he made his way to the end of the hallway. The closed metal door opened easily when he pulled the emergency lever down from above and found himself walking through the door moments later. A small dark room greeted him, some kind of control room. Surly green arrays of blinking lights clustered in the darkness, blinking at intervals that seemed to confuse the light in the room.

"Can I get a scan on the electronics in the room please?" said the voice in his head. The anthropologist held out his multicamera and pressed the shutter. After a moment he heard an inaudible gasp.

"This… this room is emitting some kind of structured xantha wave! Some kind of signal is encoded in the matrix."

The anthropologist spoke up. "You mean, someone is using xantha waves as a communications medium? Why would they do that? They're so high-energy, so expensive."

"Apparently. I don't know why, because you're right. Too much trouble. M-waves are much easier and work perfectly well for almost anything. Let me see if I can decode the signal. Standby."

The anthropologist stood by. He began to walk around the room. The terminals were organized in rows—but wait, there was some type of central mainframe in the center of the rows. A metal tower covered in panels of blinking green lights. Sleek, technical.

Maybe he could find a lightswitch.

"This is strange. I can't find any latent language or protocol, but, the x-waves appear to be patterned in a sort of fractal… perhaps almost musical."

"What?"

"I'm not kidding. I'm looking at the spectrograph right now. It has lattices, intricate gridworks, even floral motifs."

"What does that even mean?"

"Maybe it's some kind of art? I'm getting an overall reading on the energy scalar. It's 5.31."

"5.31? That's not very strong."

"Yes it's a wonder we heard it. It must have a high retention coefficient."

"Now you're just showing off."

"I told you that m-waves were easy."

The anthropologist suddenly lost his train of thought and was impressed again by the blinking metallic mainframe before him.

"You know," he said, "it occurs to me that 5.31 is the Rhienmann's constant."

"That's the relation of xantha wave energy content to spatial latticing coefficient, right?"

"Yes, it defines the information content of a given sector of spacetime. The more absolute information contained within a given sector, the higher the latticing coefficient. So in other words, the universe does information compression to conserve computational resources—transcalar information from cells, bodies, ecosystems, entire planets and maybe even galaxies appears to be compressed locally as transcalar holographic information."

"Right. And the Rhienmann's constant defines the ratio of xantha wave energy to the spatial latticing coefficient, as defined by a multindexed analysis of the structural contents of the space."

"That's a qualitative analysis right?"

"Right. Developed from psychology and phenomenological research methods. I just read a book about the inventor."

"Oh was it good?"

"Yeah it was great, what he did was he took the idea of a morphogenetic field and quantified it—or you could say he qualified the idea of structure and created experimental

methods for collating and gauging the accuracy of a collation between a judges' panel analysis of the structural contents of a space, and xantha measurements taken at various scales and subsections of that space. He proved that these measurements coincided strongly with the analysis of the space, and with no other known measure."

"But what about the anomaly?"

The anthropologist laughed. He wondered whether laughter was transmitted. "Of course, the anomaly. Well, Rhienmann found that the panel of judges was actually *too accurate*—their structural descriptions of the space, which were merely lists of, for example, a hierarchical list of the parts of an orange, the slices and the little bulbs of juice, the cells and the molecules, all the way down to the atoms and quarks—they simply make this up and take an estimate, and then they apply some simple scale-balancing rules to take into account an even sampling of the various possible scales at which we could describe the orange. But anyway. What Rhienmann found was that even when he varied the methods and outcomes of the describing and judging process considerably, whatever analysis they came up with still had a high degree of fit with the measured xantha rays during that session."

"What does that even mean?"

"Right? It was a weird experiment. So, the clincher was this: What he found through further experiments was that, multiple descriptions of the *same* space behaved differently from multiple descriptions of different spaces. But, when those descriptions themselves were either grouped or ungrouped *as sets of descriptions*, the effect inverted: many individual descriptions of the same space, considered separately, behaved like multiple descriptions of different spaces grouped together. And vice versa."

There was a silence on the line.

"…What? That's like… weird to think about. So like, the space is like… inverted? Twisty? This is quantum mechanics we're talking about right?"

"Right, exactly!" The anthropologist wondered whether beaming was transmitted via the m-wave implant. "There's a scale-invariance in information densities considered from all systems. There is something about the idea of a *system* itself that seems to be embedded in the universe, perhaps. The way a system is defined and bounded and how the information is encoded in whatever it is we think matter is nowadays."

"Ha. Ok. So anyway, the Rhienmann constant is the scale between these weird poles of this system, right? This dynamo which inaugurates or generates spatiality in the first place?"

"Exactly! And the information contained therein always equals out to 5.31 average conversion ratio across scales. That is, the differences in one scale from the differences in another scale, always equal out with all the differences between all of the other scales. So, the information block which defines any given sector of space could be said to be very convoluted, with the scales all packed in densely and muxed together—but the thing overall is vacuum neutral, 5.31 flat across, just like all the other space we've ever measured in this way."

"Wow. Physics is weird."

"They say we've run out of physics now. There was even a public memorial service. It was really sad. The end of an era."

"But what the hell does it mean that the signal made of xantha waves is depicting its own basic encoding constant, but in a human-readable format?"

"Like I said, maybe an art installation? It's basically just a message that says '5.31' except with pretty floral and fractal patterns in the spectrogram. Can you send me the spectrogram?"

"Sure." The anthropologist's visor chirped, and the scrolling image blinked up. On the other end of the line, the anthropologist knew that his pilot could hear him when he gasped.

"What is it?"

The anthropologist scrunched his brow. "This is no floral pattern. This is mandala. Not *a* mandala, it's just like an ongoing stream of various mandalas, mandalas at different scales and of different kinds. They're like… snowflakes."

"Yes, it's beautiful. But what does it mean?"

"This device. It seems to be interfacing directly with the matter stream, somehow."

"What do you mean?"

"Well, that whole judging and describing process we have to go through to make measurements of the structural elements of a region of space? Science? Well this machine appears to be doing that automatically on the space around it, perfectly, in real-time."

"You mean it is somehow perfectly describing the structural qualities of the space around it, in real-time, as those structural patterns unfold in time at transcalar densities?"

"Yes, it appears to be reading the Flow. It is either somehow directly accessing the Flow, or it is doing such a good job at somehow sensing or simulating the Flow that it wouldn't really make a difference."

"Because of top-down ambiguity entanglement?"

"Of course."

"This is marvelous. Miraculous, even. I thought only humans could access the Flow. Who made such a device?"

"More importantly," said the anthropologist, "Why is it broadcasting its output directly to space, and why is it abandoned?"

"Just how much space is this device reading, anyway? How does it define or target the space it reads?"

The anthropologist felt the other shoe fall. "That's the thing. You see it right?"

"Yeah I think I do… ?"

"There is no scale. This device is reading THE etherstream itself. THE Flow. There is no other."

"There is no other, my man. But it's never been imaged digitally before! It can't be possible."

"It's reading the real-time texture of space itself. And because of the Rhienmann constant, and the inversion anomaly, it has been hypothesized that this texture is the same everywhere and at all scales. This device might be experimental proof or disproof of that very hypothesis. Maybe this is a scientific research station!"

"A derelict one."

"Oh my. Good point."

"So this station may have been constructed to test the Cosmic Equilibrium Theorem, the theory that there is a

physical substrate for something resembling a karmic principle?"

"Yes, the 'karma hypothesis' as they call it in the pop science mags. The idea that at all places, at all times, and at all scales of space and time, things sort of 'equal out' in some way or another. What that way is is never defined, cannot be defined technically speaking—it's a physics of the Uncertainty Principle. Everything is perfectly uncertain, all of the time.

Of course, it could also mean that everyone has a completely separate and distinct experience of a parallel universe that does not overlap at all with anyone else's. That we are all aliens to each other, in the truest and deepest sense. My red might not be your blue, and probably isn't. That there would be no basis for comparison in any case, and that there can never be, under any circumstances. Absolute relativism."

"So, once we accept the Cosmic Equilibrium Theorem, we are forced to conclude either that everything is unified into a single fatal moment, or, conversely, that no communication is possible between subjective beings?"

"Exactly that. Physics is getting to be so relevant to my philosophical angst! Deciding between those two hypotheses could be the subject of some future experiment."

"But in the meantime… what do you think this experiment has concluded?"

"Well, I can't say for sure, but at first glance it appears to have verified the manifestation of top-down ambiguity entanglement by appearing in the first place—by coming into existence in the first place—and also by linking directly with the Flow by somehow first approaching and approximating that reading. Then, the gap was closed by the same top-down ambiguity entanglement principle, and the machine came into alignment with a pure stream of Flow data. This is the same mechanism hypothesized by the psychologist Herman

Gorstopp as an explanation for both human consciousness and divination—top-down ambiguity entanglement 'pulling up' mere matter into conscious experience, which requires a full loop, thus creating an essential link between human consciousness and the Flow."

"So, a machine which was reading that data stream… in real time…"

"Might be conscious."

"But who would it be? Everyone? No one?"

The two were silent. The anthropologist stared at the small chrome tower, blinking and evidently emitting the impossible data stream.

"Is this machine… God? Is that why it was abandoned?"

"Something like this should not manifest in reality. I think we've entered some kind of singularity."

"This is not right. What if this device is real? What then? What if we built two of them? Would they read the same stream or would they somehow have different results?"

"There's no way to set a range on a device like this. If we can verify that this device is doing what we think it's doing, then the hypothesis is proved: There is only one Flow."

"But that doesn't make any sense. If there were only one Flow then only one experience stream can coexist. There would be no separate people and no separate experience. The experience of separate experience would itself be an illusion. But obviously, it is not—we have actual separate experience."

"Do we?"

"…I'm not completely sure."

"Ok, well think of it conversely. If we made another device like this, and it broadcast a *different* x-wave of encoded Flow output, what would that mean? It wouldn't mean anything, it wouldn't make any sense at all. These devices are reading a nonlocal quality and therefore that reading should be the same in all locations, at all scales. The only variable that can be controlled is the duration of the read interval—the temporal resolution."

"Right. So barring that, readings taken by any device designed to test the Cosmic Equilibrium Hypothesis should be the same."

"Right. Or reality doesn't make any sense at all."

"So, either reality doesn't make any sense at all, or the experience of separate experience is an illusion."

"Yes."

"This salvage operation is much more philosophical than our last one."

"Good thing we picked up those chip upgrades, huh? It's been a most stimulating talk."

"Do you think it's a coincidence that we found this weird object right after our chip upgrades?"

"Oh my…" the anthropologist was suddenly very concerned.

"Well,"—now the pilot was taking the wheel—"That could mean that either we have become very paranoid, and this blinking object in front of you is merely a blinking computer terminal—or it could mean that some type of temporal or cognitive or even karmic entanglement has

brought both the chips and this device into our experience stream. Further, it could even mean that we have exited outside the normal dimension of time, that time is not real and is rather a sort of narrative spatial dimension, and that we have wandered rather off the path."

"Don't Alice out on me at a time like this," the anthropologist chided, "We deal in science, and all of that is sheer speculation. But you're right—those things are both possible."

"How would we decide between these hypotheses?"

"We could turn this computer off."

"That seems… dangerous. What if it is not possible to build more than one of these devices in the universe? This could be the one and only such device. It could have been built eons ago by an ancient civilization. It could be holding the universe on its back, like Atlas. Turning it off could have cosmic repercussions. That's why it's abandoned."

"I think looking at that spectrogram might be making you high. Seriously, turn it off."

There was a pause. "Wow, I think you're right. I feel way different. I just turned it off."

"Let's turn off this mainframe and see what happens."

Epilogue

Underneath the darkened mainframe, the anthropologist found a hatch. He followed it down to a little room below the mainframe. A wire dangled from the mainframe down through the ceiling, a single thick cable, and the anthropologist followed it down to a small nest of cables on the floor. Nestled on these cables was a sort of egg, a gently glowing sphere of creamy light. Warm to the touch.

"That's it. That's what emitting the signal. That's why it didn't shut off when we turned it all off upstairs."

"This is alien technology. The rest was human but this… I don't think this can be."

"Turn it off! This is getting weird."

"Ok, I'll try to turn it off."

The anthropologist held the sphere in his hand, and felt it with his other hand. The black rubber cable stuck up from it, and he felt the cable and wiggled it to see if it could come free.

"I think this cable pulls out here."

"Ok, do it then."

"Ok, I'm pulling the plug."

Postscript

The sphere was still glowing.