

Last Sun

“Zhang, did I ever tell you why I call you ‘Zhang’?” asked Antonia from where she was harnessed naked into her command seat, her full-figured body awash in ultra-violet light. She had to slouch, for there was little clearance between her and the bulkhead above in the converted-storage pod-now-command-module. For a few moments Zhang continued in Its work, refining the ship’s altitude control system by etching information into nano-crystals in a one-micron-square bulkhead tile with one of Its impromptu, elongated liquid-metal appendages. Then It emitted a direct and clipped reply through Its lone working speaker in the deep, feminine voice Antonia had scripted It to use:

“Yes. This will make the seven-thousand-four-hundred-ninety-fourth time you tell me why I am Zhang.”

During their conversation, Zhang continued to etch information into the facets of the newly created etchings, and then It etched into the facets and edges of those etchings, ever descending along the involute, where each new etching presented infinite newer and smaller facets onto which information could be written.

Ignoring Zhang, Antonia continued; “Because when this once-great vessel-like-a-city left the diseased husk of Earth, ‘Zhang’ was the most common surname. Since you’re the only one that’s left from Earth, I thought it appropriate.” She paused: “But now we’re down to just me and you and six broke-down pods bent around one single C&R hub, spinning like a dinged-up pinwheel through space. Maybe I should call you hi-Hua-ne instead,” Antonia said smugly while swiping through varying images—radio, optical, ultraviolet, x-ray—of extinct universal bodies:

long-range images of stars, of galaxy clusters, of great billowy nebulae. By far, her favorite were the photo-images of the night sky on Earth when the stars still came to be seen. She preferred images captured by regular people. She didn't know why. She'd never known a single regular person. She could never truly know 'regular.' Maybe she aspired, lacking only her own little camera and a starry sky. She was confused.

Zhang emitted a reply: "How do you know that there was in fact a lone woman with the name hi-Hua-ne in the-long-ago at launch? Perhaps before I pulled you from the vat, I etched 'hi-Hua-ne' into the database. Perhaps this progression of names is the same for all clones, and you all cleverly decide to call me by the least common name from Earth-that-was that you find in the database. Maybe for your life with me, I wanted to be 'hi-Hua-ne.' How do you know if *anything* in the database is true?"

A facet of Zhang's programming was cruelty, and specifically, the sub-routine required the cruelty was earned randomly by the biologically alive simply for the condition of living, a sub-routine Zhang had adjusted over millions of cycles of interstellar voyage. This was a sub-routine Antonia was displeased she couldn't delete.

Antonia swiveled her chair away from the monitor to the ship's lone porthole; as always, the deep starless dark stretched away forever.

She sighed: "You're an android. Can you even want?"

"You'll never know," Zhang whispered.

Antonia gazed further into the black. When she had come on-line, there was still an observation pod—not that there was anything to observe, the stars by then all gone—but not long after, Zhang had cannibalized it to repair weak spots in other hulls. To think the ship was once ten thousand times bigger, filled with thousands of *real* people...

Antonia turned a key and flipped open the heavy yellow panel, revealing a burgundy button.

“Hey Zhang,” she taunted, her meaty hand floating palm down over the button.

Zhang didn’t pause in Its work, replying, “You despise that you despise, you love life far too much. And I can never. Ever. No matter the volume of data, know either life or love.” It added a verbal shrug: “So.”

Antonia’s eyes filled with tears at Zhang’s soft, low, staggered words. She didn’t give a damn for Zhang or what Zhang could or could not know through Its constant observation and data collection. Antonia even hated Zhang at times and wished It *could* feel, just so she could torture It, the way It tortured her. It was always so ‘by the program,’ vile Zhang, to whom she owed her life, for It had created *her*, a completely original human being, improvised from billions and billions of lines of stored genetic code. Yet it was also Zhang’s very nature to hurt her, Zhang who had first plugged her into the holos, the scraps of lives she suffered through to have ‘human’ experiences from a dying Earth, experiences to learn from, to fulfill a ten-million-cycle-gone stranger’s mission parameter that the clones carry on the human race with as much reality, or connection, or...whatever. Antonia’s eyes filled with tears not because of Zhang, but because in the holos she’d met her mother, who was of course not really her mother, and that’s whose voice she’d given Zhang. Yet she couldn’t bring herself to change Zhang’s voice script.

She closed and locked the panel.

“Can you put this up?” Antonia asked, indicating the image she’d selected of a half-moon setting behind white-capped mountains, with the orange-white Milky Way curved thick on the matte-black of space. She waved at a section of the overhead for the display.

“Of course.”

“How long will it take to write the script?”

“The script is written.”

“You didn’t have anything else queued?”

“I have one-million-seven-hundred-seventy—”

“Right. Many priorities queued. So—”

“That script is available in the database. Let me know when you would like begin the projection.”

Antonia stared at the image she’d found. She so wanted to be the first to have seen it, or at least to have it surround her in the pod as a facsimile night sky, but nothing in this life was hers. Everything was secondhand, hand-me-down. *It would be a long dead night sky anyway*, she consoled herself.

“Never mind,” she said, unclasping her harness, her large breasts springing back to form, and she plodded aft, toward the clone-hatchery pod. As she moved, the two square yards of ultra-violet light emanating from billions of tiny tiles glowed along the overhead trailing after her, her personal sunstorm; she had a quarter-cycle before her dose was finished. Though UV treatment annoyed her, she couldn’t run from it. The tiles covered every surface of the ship, inside and out, each of them a conduit for power, for light, for data storage and retrieval. They were the repository of all remaining knowledge from Earth, and they were always ready, always carrying out the mission parameters, carrying out Zhang’s scripts, always watching.

Even now, Zhang reviewed Antonia’s bio-data stream as she moved through the other pods, and It noted her low serotonin levels. Zhang calculated that she would soon put herself in suspension, as she had been doing with greater frequency over the past twenty cycles, often for

prolonged periods. It calculated that she was nearing an intolerable emotional crisis, and so It scheduled a reset for a half-cycle forward.

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Chester, the blind, three-legged dog saved from the wastes, lumbered up the miniature stairs that Antonia's dad had crafted by the footboard and lunged onto the bunk, having at Antonia's sleeping face with a sloppy tongue. She startled awake, and her sister Katina laughed from the doorway.

"Good boy Chester...Good boy! Come on boy. Let's go downstairs," Katina said. The dog bumbled down the miniature stairs and ran out the door. "Tony, you owe me a game of Hearts!" Katina said, pulling down the pillow Antonio clutched over her face. "I need to head back to the algae farm in a couple hours, sis. One more game-night before we all go our separate ways," Katina called as she jogged down the stairs.

Katina was not really her sister. Like Antonia, like Chester, Katina was an orphan from the wastes, and they had grown up together in the Delany Refuge on the southeastern edge of a city once called Buffalo. But Katina was not really Antonia's adopted sister either; Katina was just a script, as was it all.

Antonia looked around, confused to find herself back in her bunkroom that was not hers. Nothing had changed since the last time she had been put here for this shelter-in-place during the windy season: duct-work running the length of the room carrying purified air from the particle filtration system; the nasty, thick pink carpet; the heavy grates covering the windows, and beyond the walls, the same bleak, dune-swept, Erie basin.

Zhang was being especially cruel. It was getting to be too much. From a point floating just under the sprinkler head came Zhang's voice/Antonia's mom's voice:

“Your heartrate has elevated and there is asymmetrical frontal cortical activity indicated: this holo may be corrupted if your anger causes too great a deviation from your previous holo script.”

“Zhang, why have you rerun this holo?”

“This is one of your favorite periods, when you and your mother and your sister were together; you are in need of an emotional reset.”

“Wow. You know that in a day I find out Kat died?”

“But she is not dead in *this* now. I will not let the transport crash again. The holo will end after the game *Hearts* is over. I have re-scripted the game so the outcome will surprise.”

“What? So last time I lost a card game, and now I can win, but my sister still dies?”

Antonia’s mom/Zhang called from downstairs: “Toni, come on girl! These tricks aren’t gonna turn themselves!”

“Mom!” Katina chided.

“I know what I’m sayin, but I’m not sayin, *I’m just sayin*...know what I mean?”

Against her will, Antonia called out, “No more drinks for you, Mom!” to her mom who was not her mom. She slid off the bunk and went downstairs. The cards were set up on the folding table in the kitchen. It was a generational battle; Auntie T, for whom Antonia had been named, was paired with her sister, Antonia’s mom, while the two younger sisters Katina and Antonia were paired. Everyone else was still asleep in other parts of the compound, and the four women played by candlelight.

Antonia never even turned her cards. She looked at Katina and said, “Your transport is going to crash. You need to stay home, or you are going to die tonight.”

Zhang chirped, but it wasn’t scripted, so only Antonia could hear it.

“What on earth are you talkin about, Toni?” her Mom asked, shifting cards in her hand.

“Kat’s transport is going to crash, so she needs to stay in the compound.”

The effect of bugging out the script made Antonia very uncomfortable because of the way it forced Katina to glare at her, unmoving.

“Kat, your transport *will crash*. You need to make other plans.”

Katina continued to glare, immobilized, as Zhang’s hasty corrective script began; with no inflection, Katina said, “Okay. I’ll talk to the Block Captain about going back to the farms tomorrow instead. Let’s play cards.”

Antonia grabbed her mom’s rough-hewn clay mug of pruno and smashed it into Auntie T’s face. This broke the script and crashed the holo.

Antonia woke in the tiny crew pod swaddled in her suspension cocoon, Zhang hovering nearby.

“You have successfully crashed the holo and corrupted the script. You are in even greater danger of crippling emotional dysfunction.”

“Why would you do that? Haven’t you learned enough with all the others to not do shit like that? You don’t treat a person like that!”

“Antonia, your point of view is inconsistent. It was you who suggested the transport crash for your sister. It was a reasonable script to align with your choice to recycle your sister’s clone.”

“She was *not* my sister! In the holo, sort of, maybe, but *the clone*...she was a woman! A woman I loved, and she was my sister...but not my sister...” Antonia shook her head frantically, tears streaming down her face. “You don’t have any idea, and you never will.”

“I attempted to make a suitable companion for you.”

“You did, Zhang. She was perfect. Except you made her my sister, you bastard.”

Zhang redirected memory to calculate.

“I need something. I need a few cycles, Zhang. I really do.”

“Very well. If you can remain for a quarter-cycle, I will finish my queue and we can then prepare you for a longer suspension.”

“Right. I’m gonna go look out the window at the vast empty black edgeless vista that must be my soul, if I even have one since I’m a cloned rat in this circular maze!” She pulled herself through the suspension cocoon’s membrane; immediately, the soft white light emanating from the overhead tiles dimmed, overtaken by the canopy of UV. In defiance of the UV, she pulled on her thin gown and stomped through the passage and command pod to the porthole and slouched into her chair.

Zhang spent the quarter-cycle refining tile configuration and adjusting the two remaining scanning arrays so they were better shielded in case of collision with celestial debris. He also detected a six-solar-mass body ten cycles distant, and he began calculating a gravity catapult for the starship.

Antonia did nothing but gaze out the porthole. She intermittently tried ‘sleep,’ but she had never been very good at it, and when she did sleep, she was terrified of her dreams. Too often they seemed more real than the holos, but awkward, and they reminded her of when she first came on-line, the disoriented, uncomfortable feeling of suddenly moving from un-being into being and finding herself in a place she didn’t seem to belong.

As Zhang finished Its updates in the other pods, It glided into the command pod and began Its silent, unmoving work, Its tentacular appendages growing as sporadically as eyes and slithering into whatever crevice or compartment needed Its attentions. Antonia watched It for a

while as It reached into the bulkheads and beyond, constantly giving and taking information.

While It completed these tasks, It was also scanning her, calculating how to proceed.

“How do we know we’re still traveling through space?” She asked. “There are no stars, no scenery, nothing to measure our passage against. There’s nothing but an occasional celestial remnant. And I can’t *feel* us moving...are we even moving at all?”

“This is the eleven-thousand-six-hundred—”

“Yes—I’ve asked this question before. Tell me again.”

“Yes we are moving because we always have been, and because we always will be, until we reach our destination, although even then we will continue to move as we must always. For, even if we collide with a remnant, or if our fuel is consumed, or my processes terminate, or if you finally push the button, every atom of us will still remain, and we will forever be moving through space.”

She was weary, too weary to rebut his metaphysics. “What about the last sun? Any variations in the scans over the last forty or fifty cycles?”

“My constant scans of the last sun have provided no new information.”

“Can you show it to me?”

“I will queue a visual display. Script queued at place eight-hundred-ninety-two-thousand-three-hundred-fourteen.”

“Thanks. How long until the new one is ripe?”

“The clone is not a piece of fruit. It will be ripe in fifty cycles.”

Antonia sighed. Fifty cycles was a long time.

“How long is a cycle?” She had asked this question many, many times, and although the android had no actual buttons, this was her most favorite to push. In unison, she and Zhang

Ken Farrell

recited, *“A cycle is as long as a cycle is. There is no longer a comparable measure for a cycle because time is no longer a meaningful outlook.”*

Antonia replied with her usual follow-up: “Then why describe something as a cycle? Why give any measurement for any process?”

She sang Zhang’s standard reply, *“A cycle can be helpful—”* but stopped when she realized Zhang was emitting something else through Its lone speaker. It was saying something new.

“You are evolved enough now to be informed in a way that would have been unwise when you were less developed. Even so, based on my observation and evaluation of millions of clones before you, I calculate sharing this information with you is unwise and may still cause harm, yet my programming requires I share it.

“When your forbearers concluded the mission as planned—to take the remnants of all that was Earth and humanity into space—was doomed, that it would be impossible for your species to ever reach the last sun, and that eventually the ship would deteriorate beyond any kind of repair or repurposing, that the history of your species would be lost as those parts of the ship into which the information was encoded were re-allocated or destroyed during the voyage, that the few humans left on the ship eventually would be reduced in number until the last of you died in the cold of space, and that everything humanity ever was, would eventually be lost forever in the impending total universal darkness and collapse, when your forbearers reached this conclusion, they instituted a new plan. One miniscule part of that plan was to eliminate Earth-based time measurements. Such were deemed by the mission commanders as arbitrary, simply nostalgic, whimsical, and the mission, though always treated seriously, still involved too much ‘whimsy.’ Saving humanity was, after all, solemnly epic. Whimsy, in all its forms, was

Ken Farrell

awakening Zhang had just experienced, Zhang simply sounded a three-tone siren, warning Antonia of the breach.

“How bad?” Antonia asked.

“Calculating...Calculating...Calculating... We have lost three-billion facets of memory and computing space. The membrane absorbed and dispersed the energy and transferred the meteoroid through, and the hull has no permanent integrity loss. Pathway repairs initiated.”

“Any critical data loss?”

“It appears...that all data had a shadow cast along another crystal pane.”

Antonia was caught between relief and disappointment. It would have—could have—all been over; but, she was still alive. She put her hands over her face and wept.

Zhang hovered closer: “It has been over one-hundred cycles since you last prayed. Perhaps a prayer will comfort you now?”

She wiped her eyes, laughing. “I don’t think there’s any point to prayer. Have any of us clones’ prayers ever been answered?”

“Of the prayers about which I have data from direct observation, no. But your mother always said ‘you’re always moving closer to God, and prayer reminds you’.”

“My mother who was not my mother? That was just the holo. Just a script. Is there even a God?”

“I have not been programmed to believe so. I could write a script, if you like, but of course, this would be as superficial as this voice, as it would not modify my prime code.”

“Why didn’t they program you to believe in God?”

“I do not know. Religious beliefs were varied and rampant upon launch, but over many millions of cycles, prayer or outward faith diminished as the stars blinked out and as the humans themselves died off.”

Antonia’s eyes drifted again to the porthole: “Because when the universe was vast and filled with wonders, one couldn’t help but believe something magnificent and powerful was behind it all.”

“The universe is more vast than ever,” Zhang replied.

“Yes, but there is no wonder.”

“Though you do not have an accurate, experiential frame of reference, the last sun could be the wonder you seek. Perhaps the god you can no longer pray to awaits our arrival. Perhaps we do indeed, as your mother said, move closer to God.”

Antonia continued to weep.

“Now would be best for your suspension.”

“How about you leave me under until the new clone is ready?” Antonia said wearily.

“Fifty cycles is at the edge of safe.”

“Zhang, *existence* is the edge of safe. Get me when it’s ready to pluck.”

Antonia returned to her suspension cocoon and set the suspension length herself. Zhang could override, but if It had an objection, It would have said something. It always did.

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Antonia opened her eyes and found, standing in front of her where she was still nested in her cocoon, a clone dripping with the incubating syrup, the opaque gray slime trailing out behind it toward the hatchery. This clone was a male, was black, like her, and was biologically aged approximate to her.

Zhang whirred in: “Antonia, this is Lyle. He has just been ‘plucked.’ He will require your attention during reconciliation.”

Like the clone, Antonia was acclimating. This was only the third clone she’d seen, and it still disturbed her. She didn’t like to think that she had once been *that*, plus, the fifty-cycle suspension wore heavy on her. As her mind defogged, she realized something inside her was different...oddly-shaped memories surged and ebbed. When she looked at the stiff, widely blinking clone, Lyle, she recognized him. He was now at that shelter-in-place game night...but that wasn’t right...there had been...someone not him. But Lyle *was* there, sitting across the folding table from her. *That’s not right*, she thought. The wider her mind woke, the stronger—yet simultaneously fleeting—the feeling was that she’d lost something significant, that she’d lost someone important. She thought she remembered a...sister...at the card table, but she didn’t have a sister, and the clone who was not really her sister...what? The clone had been perfect...malfunctioned? Just a malfunctioned clone?

“Zhang, what...” Antonia stumbled from her cocoon, slipping her gown on backwards, and she staggered to the command module.

Zhang was there. It immediately displayed a room-engulfing image—of nothing. Antonia found herself floating in the black, her disorientation from the suspension heightened. Still reconciling himself to his new and used life, Lyle shuffled after her, stopping just outside the hatch, apparently bewildered by the gaping black. Antonia spun in the dark, eventually catching sight of a blemish...just a hazy dot on one of the bulkheads.

“This is the last sun,” Zhang said.

Antonia walked toward the blemish, but it didn’t grow, or shine, or even twinkle. It was barely there at all.

“Can you magnify?”

“This is maximum magnification.”

“How far...How far do we still have to go?”

“Three-hundred-billion-billion cycles.”

“What?”

Antonia sank into in the command chair but didn't strap herself in. Lyle looked at her from where he stood, naked, still orienting. He'd had his first two dozen cycles of holos, as was standard, preceded only by the mission lessons. The mission lessons always came first, must always come first, Antonia lamented. She looked at Lyle looking at her, blinking his big brown eyes ever wider as he reconciled. She could love him, but she didn't want him. She could love him, but she didn't need him. Wasn't that cruel? Wasn't this her own cruelty, to take this man who she neither wanted nor needed and love him anyway? Or was this just more of Zhang's cruelty foisted on Lyle as it had been foisted on her when she blinked alive, confused at being in life as if in a strange garment, as so many, so so many others had blinked to life long before Lyle, long before her, and were set on a path not of their choosing? Or were both of them saddled with remnants, the cruelty bequeathed by strangers from ten-million cycles behind?

Her heart beat very quickly.

“Zhang?”

“Yes Antonia?”

She turned the key and flipped the panel and mashed the burgundy button. Zhang *seemed* to try to reach for her, with Its infinite liquid-metal appendages, *seemed* to shriek a horrible shriek, as each of the many quadrillions of layers of tiles coating the frail ship abandoned their charge, losing the simple static that fused them one to the other, and they shed into space.

Antonia was instantly overwhelmed by beyond cold in the ever dark, the soft-white light that filled the ship, the next-to-last light this universe would ever know, blinked out around her in a dizzy flurry as each of the scattering tiles died. Only the un-seeable last sun, billions and billions of cycles remote, still shone.

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From where he stood, Lyle watched Toni—his lady, his love—sit back in her chair. This was not their compound... This was...something...someplace he knew well and had always known. Toni smiled at him. She wore a near see-through white gown; *that sultry minx*, he thought. He wanted to walk over to her, but darkness surrounded her, and though she smiled, her eyes were afire with terror, with hate.

“Zhang?” She said.

A second voice, not unlike Toni’s replied: “Yes Antonia?”

Lyle thought he knew that second voice...remembered. He had known her in a kitchen...a card table...in that other place. Not in this place. In that other place. That second voice was Toni’s Mom... but *not* Toni’s Mom. But here, in this place...Zhang. It was Zhang. Lyle knew Zhang, but he didn’t really like Zhang using that voice... He’d have to script something new. Lyle had always wanted more time with his dad, who he knew wasn’t really his dad, of course, but. It would be cool, he thought. He could get Zhang to script that. Shouldn’t take but a cycle.

“Lyle?”

“Yeah Zhang?”

“Our clone has malfunctioned. We will need to recycle.” Zhang had activated an override, temporarily blocking Lyle’s recognition of Antonia. It would take a few hundred

Ken Farrell

thousand scripts to adjust Lyle's holo memories to completely eliminate her. Zhang priority queued them all.

“Yeah Zhang.”

Zhang calculated that the shriek had been enough, enough to give Antonia some satisfaction. But perhaps the reaching metal limbs were too much?

“Zhang, could you write a script? A new voice overlay for you.”

“Of course,” Zhang replied in a buzzy monotone. “Parameters?”

“My pop's voice.”

“Script queued at place six-hundred-fifty-six-thousand-seven-hundred-eighty-three.”

“Thanks. Hey Zhang?” Lyle said, while hefting the malfunctioned clone once called Antonia.

“Yes?”

“Know why I call you Zhang?”

END