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2089 – Final Revision

“Day four of the Earth Colonization Expedition. Kozlov and I have explored the surface of the valley approximately 5 kilometers from our station’s resting point. We have collected various sediment samples from its surrounding terrain. Further testing with hydrocarbons will determine if the samples’ composition is conclusive for terraforming.” Alvarez clicks her audio recorder off and flips the panel on her wrist back into place.

She walks through her task force’s aluminum shelter and passes Thorne, who is scribbling various equations at his workspace, occasionally muttering numbers to himself. She sits down at her adjacent workspace and rests her elbows on the tabletop, leaning toward the window. She looks outside and sees Nakaya scanning the orange ground with his soil fertility monitor—periodically stopping to record data into his wrist device. An array of rocks of various sizes are scattered across the surface.

The terrain reminds her of the rock formations she had climbed with her husband in Hueco Tanks, Texas. *That must’ve been over twenty years ago.* She thought about how safe it had been to vacation in the United States back then. **Visiting there now, wouldn’t be worth the detriment to her health.** She shook her head at the thought, regaining focus of the landscape outside the window.

Further down the horizon, she sees Kozlov drilling and adding rock samples into a 150 gallon glass vat filled with a clear solution. Marçet is standing near him, beaming a bright-green hologram from her wrist device of a detailed diagram of the boulder. She enlarges the diagram

and briefly looks it over, before signaling a thumbs up. Kozlov nods and picks up the boulder with his mechanical appendage. When Alvarez had first met Kozlov in their lab on Earth, he had told her that he had the four clawed, robotic arm surgically implanted in his spine to further advance geological studies; he had also said that losing it would be like losing an arm.

His appendage creaked slightly under its weight, letting out a slightly shrill noise when the claw scraped rock as it fell. The boulder landed in the solution with a loud hiss—bubbling over the lip of the tank.

“These boulders have a significant chemical reaction to O^2 and release toxic gases within immediately upon contact,” Kozlov says on his intercom. “The areas that are abundant with this rock must be avoided. They are not suitable for human interaction.”

Marçet starts adjusting the diagram’s figures and sighs in frustration.

“*Men'dokusai*... the land here is more fertile than the areas we previously surveyed,” Nakaya says on the intercom.

“Then we will advance our base to an area with similar soil that has no boulders—we *must* keep searching,” Marçet joins on the intercom. “We only have enough rations for another week.”

“I vote that we start exploring north; my readings on levels of atmospheric composition suggest that there are more traces of potential organic compounds there,” Thorne says. “The land could be optimal for crop fields.”

“I agree,” Nakaya says.

“*Horošo*, let’s assemble in our station then, comrades, and set the coordinates for...”

Kozlov starts to trail off.

“Chikushou, hashire!” Nakaya says.

“What?” Alvarez pauses, not understanding. She turns to look at Thorne, seeking some clarity.

His brow furrows and he stands up, walking to the entrance of their shelter.

“Certovski der’mo,” Kozlov says.

Alvarez starts to arrange the distance enhancement settings for the built-in vision technology on her suit, following Thorne to the doorway as she does so. They begin to step out of the aluminum structure, ready to assess the situation. Immediately after exiting the structure, strong wind blasts against the two of them, hurtling them backward against the hard metal wall. Alvarez has the wind knocked out of her and knees buckle upon impact. She coughs and groans, trying to stand back up against the strength of the wind.

“What’s happening?” Alvarez shouts on the channel, over the roaring wind.

She can only hear static in reply.

Suddenly, Alvarez’s eyes grow wide and her stomach drops. She sees a giant cloud of dust traveling towards their campsite at an unprecedented rate. Lightning crackles through the storm and ignites the sky a brilliant blue. The dust swirls and whips around the rocky terrain, creating a deafening whistle.

“Hostia puta,” Alvarez says.

Alvarez jerks her head to the right, squinting her eyes. Thorne is frantically scanning the horizon. Then to the left. The storm is advancing at a menacing speed. She can no longer see Marçet, Kozlov, or Nakaya in the distance.

“Run west! Take shelter in the caves we surveyed yesterday!” Thorne shouts, breaking into a sprint. Alvarez can see the opening of the cave in the distance over Thorne’s shoulder.

A bone-chilling crunch fills the air, seizing her attention, followed by a strangled cry.

“Shit!... Nakaya!” Thorne shouts, his voice faltering.

Alvarez whips her head to the right. She sees large, rust colored projectiles being tossed around by the wind. Angular rocks are pelting the surface like a treacherous hailstorm. A jagged rock sticks out of the ground where Nakaya was scanning. Alvarez sees the glint of the reflective Nylon tricot from under the jagged rock. When she registers that the material is dangling from Nakaya’s mangled arm, she wondered if a similar demise would have been better for him on Earth.

Alvarez shudders and locks her eyes back on the cave. Her legs push even harder. Adrenaline is pumping through her veins, determined to get her to cover. The cave is nearly ten meters away.

Suddenly, Alvarez feels a terrifying boom behind her– the force knocks her onto her knees and shakes the ground underneath her.

She turns and sees Thorne knocked on his back, a large boulder pinning his right arm and leg to the ground. Alvarez rushes to Thorne–she sees thick blood starting to flow from under the rock and into the orange soil. Thorne’s face is white as a sheet. Thorne looks at his arm and his breathing hitches. He places a shakey hand on his leg, weakly tugging at the fabric. It is completely crushed.

“Shit, shit, shit.”

Alvarez looks up. The clouds above her are swirling angrily, growing darker in color.

“I’m coming,” Thorne manages, pulling on his leg harder.

Alvarez feels that she has no choice— *who is going to relay our findings if we’re all fucking die? Humankind, nuestro niños, our futures, are depending on us.* She takes off towards the cave, diving through the entrance. *I won’t let you down, hija.*

After what seems like hours, the howling winds begin to soften. The clouds slowly part and a dull, blue light starts to illuminate the surface once again. Alvarez uncovers her head and stands up. The tannish residue falls to the ground—clearing the sky enough for Alvarez to see Thorne from the edge of the cave.

She approaches him as he lies on the ground, motionless. He is covered in a sticky mixture of half-dried blood, sweat, and orange dust. Alvarez presses her ear to his chest. Thorne’s heart sounds sluggish. His breathing is shallow and erratic. Alvarez jerks the panel on her wrist open and brings it to her mouth.

“Marçet, Kozlov can you read me?”

Alvarez looks out at where their shelter *had* been. All she can see are rocks and dust. She needs to get her equipment from the wreckage if she is to have any chance of reviving Thorne. *He won’t survive the travel through the portal if his vitals aren’t stable.* She runs east, inspecting the surface for any evidence of aluminum remains. She digs through the sand with her hands, frantically surveying the area.

Suddenly, Alvarez hears a familiar metallic chinking growing nearer. She looks up to see Kozlov running to her, his metal arm bobbing above him.

“*Privet!*” says Kozlov.

“Where’s Marçet?” Alvarez says shoveling through the sand with her hands.

“Nice to see you too.”

“Sorry. She has medical supplies,” Alvarez looks up. “Why are you covered in adhesive repair tape?”

“The wind surged pieces of nitrobarite against our suits. The thin layer of Nylon tricot didn’t do shit against the wind’s velocity and the sharpness of the crystalized matter. But, I was able to repair the holes in my suit and filter out the Nitrogen leak before my air supply became contaminated,” Kozlov says, patting the patchwork on his suit. “But Marçet, *ubljudok*.” He punches the ground. “The nitrobarite cut deeper and her suit was shredded beyond repair...the poor fucker.”

Alvarez shook her head and stifled a sob, she thought about what might happen to Marisol if she had been the one who got crushed by a boulder or suffocated in this foreign dimension.

“Thorne is badly injured.” she exposes a big shard of their shelter’s exterior and starts to pull it from the debris. “We need to free his limbs from under the rock and get him treatment on Earth. And fast.”

“Bad news or terrible news first?” Kozlov shifts his weight from one foot to the next.

Alvarez stops pulling on the wreckage and looks at Thorne lying still in the distance.

“Pieces of the portal’s frame are scattered everywhere,” Kozlov says.

“And our engineer is stuck under a fucking rock.”

It has been nearly an hour since the storm swept through and Kozlov and Alvarez have unburied most of their campsite's wreckage, thanks to the efficiency of Kozlov's bionic arm. They were able to salvage a portion of their rations, and Marçet's medical supplies, but they still haven't found Thorne's toolbox. They continue to search with fervor, for they both know that without Thorne's equipment, they have no hope of repairing the portal.

Now that they've found the syringes, Alvarez goes to heal Thorne while Kozlov decides to start gathering the pieces of the portal. Alvarez carries the health elixir syringes, adhesive tape, sanitation equipment, and a medical tarp over to where Thorne lays. She kneels next to him to check his vitals; she determines that although he is unconscious, he is still alive—but in an awful state. Alvarez props Thorne's head on her knee and connects Thorne's feeding tubes to an IV bag filled with nutrients. The pinkish fluid slowly drains from the bag and Thorne's skin began to flush with color. They now have four ration bags left.

"I'm going to try to resuscitate him now," Alvarez says over the intercom.

Several hundred meters away from their shelter's remains, Kozlov lowers a large portal fragment with his robotic arm near the portal's former platform. The fragment lands with a thud and electricity sparks between the frayed wires.

"He will be in great pain," Kozlov says back over the intercom.

"We need to know how to repair the portal," Alvarez says.

"Amputate him before or after?"

Alvarez couldn't help but lightly chuckle at Kozlov's dark sense of humor, but she did see what he was getting at; Thorne's right arm has been completely demolished by the rock, the damage climbing up his shoulder—barely missed his head. His right leg has been crushed right

below his thigh—the kneecap is shattered and the top of a yellowish bone is peering from the edge of the rock.

“His body under the rock is pulverized,” Alvarez says. “The health serum might be able to rebuild the damaged tissues, but unless we remove the boulder, using it would be futile.”

“No problem,” Kozlov says in a thick accent, already walking over to them.

Alvarez starts preparing the medical tarp by laying it flat next to the right side of his body, and scanning it with an instant sanitation device. She then proceeds to scan the sanitation device over the syringes, her hands, and the parts of Thorne’s body she can get to. She then readies the syringes to inject Thorne, finding his suit’s medical tubing and readying the syringe. She looks up to see Kozlov trying to get a solid grip on the rock—boring a hole a quarter of the way into it.

Alvarez didn’t want to be the one to subject the pain that Thorne was about to endure, but she knew that this is what he would have wanted her to do. She thought of Thorne’s intense dedication to his aerospace engineering research and his genuine fascination with her work in transformative environmental sciences. “We need you on our exploration team. Hell, it will be incredibly dangerous, we will all be putting our lives at tremendous risk—hasitly subjecting ourselves to the severity of the unknown that lies within the portals gate,” Thorne pauses, stopping to rest his hand on Alvarez’s shoulder. “Do you want to die watching the Erath slowly take the people you love from you, one by one, or would you rather die knowing that you did everything in your damn power to save them?”

“Now!” Alvarez says puncturing the tubing, filling it with a twinkling solution.

A horrible peeling noise fills the air as Kozlov lifts the rock with ease—hurtling it far into the distance.

The liquid rapidly drains into the tubing and Thorne starts to convulse. The portion of his body that was under the rock is now visible to the two scientists. The remains of Thorne's arm is indistinguishable—just a bloody pulp. Alvarez's eyes water and she holds back the urge to gag. She steadies her hand on the syringe, pushing the rest of the liquid into the tube.

Thorne lets out a strained cry and his eyes fly open. His mumbles are unintelligible, but his pain is evident. His right arm starts to reconstruct. Alvarez sees the bone fragments start to assemble into the correct structure and the fine muscle spindles and veins wrap around it—rapidly intertwining. Thorne looks down at his leg to see it completely reformed as well, but the skin will take more time grow back. His limbs are healing, but the muscles are completely exposed to the air.

Noticing this, Kozlov immediately lifts Thorne in the air and wraps the medical tarp around his leg and arm, sealing it in place with the adhesive tape. Kozlov lies him back down and Alvarez then leaks the air from Thorne's suit. Thorne starts choking, gasping for air. Alvarez filters his oxygen supply back into his suit, waiting for him to breathe steadily again. His breathing evens out and his eyes flutter open.

"I feel like shit," Thorne says weakly.

"You look like shit," Kozlov says.

"We're going to be in deep shit if we don't fix the portal," Alvarez says.

"It's broken?" Thorne says.

"We've gathered most of the pieces by now," Kozlov says.

“We just needed you to figure out how to repair it,” Alvarez says.

“My tools?” Thorne says, craning his neck, attempting to look around.

“Buried by the storm,” Alvarez says.

“Damn. Keep searching,” Thorne mutters. “Kozlov, could you carry me to the portal. No way in hell I’m getting stranded in this shit hole.”

A few hours after Thorne’s revival, Kozlov is able to find the engineering equipment among the wreckage— thanks to the speed and strength of his mechanical arm. He gathers their remaining supplies, including the toolbox, and walks over to the portal’s platform, where Alvarez and Thorne are working.

Thorne is propped against the platform’s edge and is examining the fragments wiring. His right shoulder is slouched and his arm is dangling limply at his side. His eyes intently scan the pieces, using his left arm to compare them and fit them together. Alvarez stands off to the side, watching the horizon.

Kozlov hands Thorne the toolbox. He immediately flips it open, grabs a thin silver tool and starts fusing the pieces together—configuring the wires as he works. He starts handing the smaller pieces to Kozlov, instructing him to arrange them in a familiar pattern on the platform. Alvarez is now supporting Thorne by the shoulder, to provide him more mobility.

This process successfully continues for a few hours, until they’re interrupted by a crackling noise in the far distance. They all freeze in place.

“Do you hear that?” Alvarez says.

“Don’t stop building! We need to work faster!”

“And I thought Siberia was relentless.”

“Hand me the molecular fuser,” Thorne says.

The noise is growing more deafening now. Thick dust clouds are rapidly accumulating in the distance— painting the horizon a dark, burnt orange color. Lighting spreads across the atmosphere and momentarily brightens the twisting clouds.

“Like your life depends on it, goddamnit!”

“*horošo horošo*, you aren’t the only one with a daughter,” Kozlov says.

He places the repaired pieces together, following Thorne’s instructions. Alvarez hoists him towards the opening of the portal, allowing him better visibility of what is left to fix. The portal is nearly finished now, its circular shape is only missing a single piece.

The rushing wind is starting to fill their ears, the noise sharply growing in intensity. Thorne drops to his knees, intensely analyzing the last piece.

“Kozlov!” Thorne says, grabbing the last piece and his molecular fuser. “Can I get a lift?”

Without hesitation, Kozlov wraps his metal arm around Thorne and raises him into the air, placing him on the top of the portal’s frame. The wind is picking up, the scientists are struggling to maintain their balance. Thorne wraps his working leg around the frame—gripping for his life as he examines the hole in the frame.

Thorne’s vision is starting to cloud. Grains of sand fill his eyes, blocking his view of the portal’s tangled wires. He furiously wipes at his eyes, and Kozlov shouts something that he cannot hear. Thorne fumbles with the wires and clicks the last piece in the gap of the portal.

A wave of projectiles comes into view, sweeping the land at a furious speed. A bolt of lightning strikes the ground a few meters from the portal, causing the platform to tremble.

Just then, the portal crackles to life— a purple vortex emerges from the center, increasing in size.

The fury of the rocks is upon them now, shaking the ground beneath them. The force loosens Thorne's grip on the portal, and the wind casts him into the portal like a rag doll.

Thorne is whisked through a swirling purple tunnel. The energy surrounding him starts to gather in a single point in front of him. It twirls and sparks, forming a vibrant yellow circle before him. It gains speed, the circle rapidly expanding into a large hole. Thorne plunges through it, falling onto the hard concrete of his lab. He lands on his shoulder, cracking it horribly before bouncing and skidding into the corner wall with a thud. One of the portal technicians runs to his aide.

He pulls himself up with a groan and limps to the frame of the portal.

“Dr. Thorne, what happened?”

With a rolling crash, the frame starts to budge. The metal starts to bend inward, the power of the portal starting to engulf the frame. The power lines start to flicker and buzz.

“It's collapsing!” one of the operators shouted.

Thorne trains his eyes on the exit of the lab, running as fast as his hobble will let him.
