Shallot had never worn a protection suit. The suit felt thin, light, protecting against the cold and Martian air. Suits for underground use were far less bulky than those worn outside the dome—no solar radiation to deal with, no searing winds. Sealed into the suit, she breathed, cautiously at first, bottled air. It smelled and tasted almost as bad as regular air—the suit had filters. She was protected from the deep cold, from the rocky, dangerous ground.

Walking was easier than she had assumed, even with the uneven ground.

She wondered if the suited workers around her felt the same. They wore these suits every day. When she asked her guide, a worker named Wendy, she was told it was part of the deal. She also told her to take a shower after peeling the suit off.

The lighting in the huge underground lava tube came from high intensity lamps on the walls and ceiling. The lava tube was larger than she had imagined. She stood in a circular cavern, seventy feet wide and high. Walls of dark brown rock, towards the bottom melted rock from the red hot lava which created the tube billions of years ago, when Mars still had atmosphere and warmth, before it became a dry desert landscape. The floor was a large frozen lake—the ancient frozen ice of the lava tube, flat and clear, stretching beyond where she could see, into the unlit darkness.

The cavern felt primeval. Shallot felt she stood in something…prehistoric. Ancient beyond understanding. As beyond understanding as were the enormous eruptions which spewed lava, creating the tubes, draining Mars of most of the surface water it then had.

She looked at the ice, the source of the colony’s water, the source of whatever plagued her friends. The ice was clear, hiding nothing. Innocent. Large tubes pushed deep into the ice, heated so they would melt the ice, the water then sucked up the pipes to the water plant above. Madeline told her microbes in this ice was the source of the disease—if it was a disease, and not parasites. The colonists may not be sick—they may be infested. Madeline had been clear the Clinic still had no understanding of what the microbes were. That colonists were infected from the water remained only an assumption.

Wendy was telling her about the water reclamation operation, one of the first projects of the original colonists, as finding water was critical to survival. Shallot looked at the many large metal pipes buried in the ice. Everything about them

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reeked of age. She saw several workers replacing sections of one pipe. Every pipe was patched. Some had minor leaks. There was no sound, except talking through the suits' radios.

Shallot had never been outside the dome. So this was Mars, the closest she had ever been. The huge lava tube felt…alien. Beyond centuries, beyond history. Then water, probably from the oceans which once covered much of Mars drained into the tubes, forming hundreds of miles of frozen rivers. Billions of years ago. Until she stood on this ancient ice today.

Ancient ice they all drank, now alive in George. It powered the steam plant, producing electricity. It powered their lives. Water was a must have. Microbes? No one knew what else to call them. She shivered. She walked slowly onto the ice. The storms outside were obvious. What mysteries did the ice's apparent innocence hide? What mysteries were inside her?

Wendy spoke eloquently to Shallot about the lava tubes, the cavern, how it was rarely above -100. She talked about working underground. No pipe was completely new, most over fifty years old, well past its prime. She spoke clearly about the dangers of the pipes bursting. Bursting once was rare.

Shallot thanked Wendy as she was led back into the large underground building. In a pressurized room, she took off the suit. Sweaty, feeling dirty, she took a long hot shower. After putting her clothing back on, she rode an elevator up to the surface. Sally waited when the doors opened, led her outside and a few blocks away, to the dome workers' building. "How was the tour?"

"Scary," Shallot replied. "The piping has not been maintained properly for years. They're worried there will be a major break, pipes bursting. Also, it's kind of creepy."

"Maintenance became very expensive," Shally told her. "And Earth stopped sending iron half a century ago. We simply don't enough raw materials. The Smelter an only produce so much, eh?"

Sally left her in the Dome Workers' building, where Shallot was eased into another suit—this one thicker, to protect from possible leaks from cracks. She stood on a foot pad attached to iron chains reaching to the top of the dome and rode it up, the chains attached to a powerful motor at the dome's top. It was a little scary,

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watching the ground grow farther and farther away. She held tight onto the pulley with both hands.

Two suited workers applying sealants looked down at her as she approached them. When she reached the top, the pulley stopped. They swung over to her from ropes hung from a central metal plug in the dome. “I’m Dan, he’s Warren. Grab that rope and attach the hook in your suit to one of the rings. Don’t worry. We do this every day.”

Shallot smiled and introduced herself as they helped attach her to the rope. They were about a hundred feet up, suspended on the ropes. They told her they had worked on the dome together for ten years. Every day they rode to the top and applied sealant to small cracks before they became larger. Looked for developing cracks. They could do nothing to prevent cracks regularly developing, the dome pounded by heavy winds full of sand and rocks. There was neither enough sealant nor workers.

They told her the dome was not stable but would last their lifetimes—probably. The work was dangerous. The equipment was old, the ropes they hung from fraying. More than one of their colleagues had made mistakes—the last mistake was all it took.

“Just one wrong move,” Dan told her, “we drop like a rock.”

“How do you feel about that?”

“Sucks.”

Warren added, “But someone’s got to do the sucking.” He smiled.

She told them she appreciated the importance of their work. The three chatted a while longer, but Dan and Warren had to return to patching, so Shallot rode the pulley back down, looking at them growing smaller. They waved, then returned to sealing a developing crack.

On the ground, Sally waited, sitting in a cart. “How’d you like the heights?”

“Scary. They take a huge risk,” Shallot replied. “Only old ropes hold them up. It’s a long way down.”

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“Yes. Indeed. I’d be afraid to do that work myself,” Sally told her. “But it’s been years since one of them had an accident. We are running low of sealant. The dome was never built to last this long. Like the pipes below weren’t. We run on what repairs we can manage.”

She drove them to the Smelter. It was on the far side of the city, away from residential areas. Shallot’s father, head of human resources, met her as she stepped off the cart. Newman, one of the Councillors running against her grandmother, stood next to him. He was a tall, thickset older man with thick blonde hair he apparently spent an hour each morning styling.

Sally looked at him suspiciously but said nothing. “Councillor Newman. What are you doing here?” Shallot asked directly.

“Part of my work as a Councillor, Shallot,” he replied, smiling and shaking her hand. She knew he was an enemy of Nan, and felt he was something of a creep. He held onto her hand. “What are *you* doing here?”

“I wanted to find out about the colony. Nan arranged a better look. I want to get to the bottom of things. Try to change things.”

“Good, good. And why do you, or she, want to change things?”

She let go of his hand. “There’s no conspiracy or anything, if that’s what you’re getting at.”

He put his hand in his pocket. “Of course. But there is an election campaign starting tomorrow, yes?”

Her dad, Newman tagging along, gave her a far better look at the Smelter than she’d ever had. She’d seen the administrative offices, starting as a child when he took her to work. Now the offices looked older and more worn than she remembered.

Most of the Smelter was a manufacturing plant. Iron and other elements were extracted from Martian ore, refined, then turned into what Mars needed—iron for water pipes and dome pulleys, plastics for furniture and building materials. The main floor was hot and smelled bad, with pools of molten metal. Poor air was unavoidable and permeated the big building.

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As they stood back at the entrance, Newman said to her, “Yes, it does pump out a lot of pollution. But we need it operating full bore. We’re working on improving the exhaust filter but work here cannot stop. The Smelter is where we manufacture everything, eh Tony?”

Her dad nodded, standing slightly behind Newman.

“And the pollution? Won’t it cause cancer or something?”

Newman nodded. “We all have to breathe. Me too. The solution? An exhaust hole in the dome,” he told her. “Pump the waste outside.”

“But then aren’t we polluting Mars?”

His thin smile thinned. “Go back and report to your Nan, kid, then find something useful to do.”

Sally waited in the cart. As Shallot stepped into the cart, Sally said to her, “You should stay away from him.”

“He thinks I’m working for Nan.”

“Yeah, his mind works that way.”

She drove them across the city, to the Farm. Large, open fields, filled with stunted crops. Cary, the head farmer, greeted her warmly at the front gate. She knew him, he was Farha’s dad. He took her on a tour. She saw chickens, goats and cows, everything–except one locked barn. “Mars stuff,” he told her. “Secret.”

“That’s where the Martian plants are?” He nodded. “The crop doesn’t look so good. Farha says it’s bad. How’s our food this year?”

“Pollution from the Smelter,” Cary replied, “decaying quality of light through the dome, increasing lack of fertilizer. In four years, we figure, we’ll start running out of enough food to support the colonists. Then, we starve.” He sighed, looked at her. “What do you think?”

She had drifted away, thinking of the Martian plants behind the locked door. Then she thought of George, isolated at the Clinic. If only she could speak to him, apologize for this morning. She hadn’t even kissed him before he was taken away.

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She returned to Cary. “It sucks.”

Then he held her as she began to cry.

“Your friend, George?” he asked. “Farha told me. I’m so sorry.”

She did not cry long. She had to go to the Clinic. See George. Maybe using Nan’s name would work. No point in having privilege if she did not use it. Privilege got her this tour.

“I’m going to see him,” she said. “No matter what.”

“Is that a good idea?” he asked.

“It doesn’t matter. I…abandoned him.” Her hands fists. “He might be…gone by now. I have to know if he’s still alive.”

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