

Stranger in a Strange Serendip

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Stranger in a Strange Serendip

Published by Andrew John Valencia

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A fanfic in the universe of the old 1988 TV show “Probe”.

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Worms Hunt

The neighborhood had never been one of the best, and recent events had not helped at all. What had probably been a large industrial building was now a chaotic scrabble of debris, as if an impossibly large animal had clawed it from the middle, spilling the building’s entrails out into the surrounding roads. From the state of the red, rusted metal in the ruins, the catastrophe had happened years ago. But no cleanup had ever been undertaken; whatever traffic had used the road since the disaster had, like ants with an interrupted trail, simply swung wide around the obstruction.

Not that there was any sign of life any more—ants and people alike had apparently long since deserted the area entirely. The bright afternoon sun played on rubble alongside cracked pavement. Weeds had grown up in the cracks between pavement, stone, concrete, and sheets of metal.

One piece of metal, ten feet back from the hard-packed dirt path which served as a road, shifted slightly. A pause, and a square of corrugated roof lifted further, and a face cautiously peeked out from beneath it, the eyes bright and feral in their alertness. When no danger presented itself, the panel came up another foot, and then was propped open with a piece of wood. A woman came out from her hiding place beneath the metal roofing panel, a tired but still intelligent face under long, matted blond hair streaked with grey.

Just as the woman started to stand erect, she froze, head cocked sideways. A heartbeat, and then with a blur of motion she was back down under the panel. Another blink of the eye, and it was lowered back down flush with the ground.

The whole sudden retreat was done so quickly and so silently that it was hard to believe there had been a woman near the path a moment before.

Under the corrugated roof panel, the woman climbed down some wooden beams which had been placed to let her reach the hole's top, and yet appeared to have just fallen into their current position. At the bottom of the shaft, about eight feet below surface level, she pulled aside a blanket which covered the mouth of a passageway running off sideways along a concrete wall. She started a low muttering, almost a chant: "Can't see through the blanket, mustn't see through the blanket" as she passed the blanket, then turned to carefully smooth it back into place. It was shiny and somewhat metallic, a silvery side facing back to the shaft and a reddish side facing the tunnel.

Above, there was a sudden whooshing noise from far above the path beside the corrugated roof over the shaft. The building beside the path had been thoroughly reduced to rubble, but most of the warehouses and industrial buildings nearby had suffered significant damage; caved in walls, collapsed roofs, fire gutted offices. And yet, up near the roof line, clean silver pipes were neatly attached, running along still standing walls of buildings, crossing gaps between buildings in graceful catenaries. The noise grew louder, approaching along the pipe which ran parallel to the path. The pipe shivered as the noise reached a peak, and the sound changed to a pneumatic FOOP as a grey object shot out into the warm afternoon air from a gap which had opened suddenly along the pipe.

The exit from the pipe was carefully aimed; the speeding object shot across the path to hit a street lamp—the lamp had no wires connected, but was still standing—with a metallic crack. It was grey and elongated like a caterpillar, but its body made up of segments of metal. It had telescoped the segments together to absorb the shock of its landing, but now extended its body to about four feet in length, one end of its body extended outward while the other end gripped the post with spiked claws.

The extended end was capped with a disk shaped something like a spindle on the end of an axle. But the edge of the disk was encircled with a sequence of elongated lenses, red-irised cat's eyes giving the machine a 360 degree view as the machine lifted its camera end upward to scan the neighborhood. Finding nothing of interest, the camera end looped around to grip the pole just below the point where its other end was holding on. Newly anchored, the gripping end released its hold, and the entire body once again telescoped together. Now a stubby tube, the body pointed at the next building along the path and spat a spike out of its end which hissed across to embed itself in an exposed girder. A filament, black and almost invisible, trailed from the spike back to the body of the machine, which released its hold on the lamp post as it reeled the filament back into its body at a tremendous speed, becoming a blur as it pulled itself to its new perch with another loud *crack*. Anchored again, the optical end came up to scan from its new position.

Even as the machine raised its eyes to continue the search, another unit spat

out of a silver pipe three blocks away, and further popping noises in the distance announced the arrival of yet more units in the near distance. There was no movement but the methodical reeling and clang as the searchers prowled the area. The afternoon was ruled by the machines, and nothing raised its head to challenge their dominion.

The search went on for three hours, and then in turn each machine used its unerring spike to pull itself back to a silver tube junction, which opened with a pop, pulling the machine inside. A fading whoosh, and silence returned to the neighborhood.

Back down the shaft, back through the tunnel, the woman crouched by a pipe, her ear applied to it. Its upper end reached above ground, and she had listened with dread to the sound of the search. When she had heard silence for 15 minutes, she finally slouched down to relax. "Need food. I'll have to try tomorrow." Carefully eating the rest of the spam in her latest can, she sipped water from an old jar, and then settled into a nest of bedding. Turning off her LED flashlight, she gratefully went to sleep.

Another day in her hunted life was successfully completed.

Spiders Harvest

The next day dawned bright and clear across the ruins; whatever disaster had befallen the area, one effect had been to remove any trace of pollution. The air was wonderfully pure, and held a trace smell of the seashore. The threat of the machine searchers forgotten, a number of small birds darted here and there among the buildings.

The corrugated roof section once again shifted upward. The woman's face peered out, and she climbed out onto the path. Listening even more carefully than yesterday, she finally decided that she would be able to proceed. Sticking her lower lip out to puff her bangs away from her face, she turned to the propped-open cover and carefully closed it. With a last glance at the only safety she possessed, she darted up the path, as much as possible staying near likely hiding places. Some of the hiding places were quite subtle; she had obviously taken this route many times before.

The path terminated in a mostly intact road which had held two lanes of traffic in each direction. Although the asphalt was cracked and weed-grown, it had few potholes. No obstacle bigger than a fallen telephone pole blocked it.

Just before reaching the road, the woman darted into a three-storey building which fronted on the road. She scrambled up a dark and slippery stairway, and, standing well back from a glassless window opening, peered up and down the road to see if anything was guarding the road. After ten minutes, she had just started back down the stairs when a noise drifting in through the opening she had just left brought her in a panic back up the stairs.

Still standing well back, she peered three blocks to her right, to an intersection which had held a small shopping center and a gas station. A man in a brown, tattered cloak burst from an opening in the building which had originally held swinging doors. Something moved in the dimness of the building he had just left, and clattered out into the sunshine as the man reached one of the rusted gas pumps.

The woman gulped in sympathetic fright—she hated this part, but could not turn her eyes away. The man had grabbed a bucket, which seemed full of something, and faced his pursuer. It stood as tall as a man, with a rounded, rectangular body the size of a large coffin. One end held a familiar stalk, with a cylinder of “eyes” on top. But unlike the machines from yesterday, this one walked on metallic legs, four on each side. It very much resembled a giant spider.

The man had turned, holding the spider at bay with the threat of the bucket, only his back visible. The spider scurried to the man’s left, and he turned in panic, his shouts sounding thin and frightened to her. The spider came straight at the man, and he splashed the bucket’s contents at the spider.

But it had been a feint; the spider was already springing back as the liquid splashed onto the pavement in front of an old gas pump. The man, surely realizing that he had lost his last hope, threw something small and glowing into the puddle, which exploded with a whoosh of flame. He darted around the burning pool, trying to keep it between him and the spider. But the machine was far too fast, chips and sparks kicking up from its metallic legs as it darted around the flames and grabbed him.

And now the mystery of all those legs was revealed. Four of them grappled the man, even as the remaining four still held the body off the ground. The underside of its body had a seam right down its middle, and a pair of doors on its underside swung open as the four arms gripping the man swing him under the body, and lifted him up to be held by something out of view within the body. The four arms retracted to resume their function as legs as the body panels clanged shut. The spider machine stepped out onto the road, and went tick-tick-ticking away.

There were tears in her eyes, and her breath was shaky. She had seen the horrible game played out so many times, and dreaded the day when it would be her turn. Her breathing slowly returned to normal, and she spent the time re-studying the treacherous road. With a small shrug of her shoulders, she went back down the stairs. She was almost out of food, so the trip had to be taken.

Mice Run

The woman’s route crossed no more machines, although there were sounds in the distance which she tried hard not to hear too clearly. Her objective was finally within view, a low drab R&D office building, dirty and—of course—with all the

windows broken. But unlike most of the buildings she had passed, its walls were all intact. And also unlike most buildings, a roof-level silver tube did not reach across to this building.

Even this close to her destination, she remained cautious. The building beside her had a mostly intact second floor, and from its front window openings, she knew that she could scan her destination as well as this last intervening street. The stairway was gone in this building, but a pile of rubble made a usable ramp on one side, and she looked out on the street from well back in the dark room.

She caught her breath, for even as she watched, a spider stepped out of a building two blocks away and pivoted towards her. The eye-cylinder tilted upward, and locked, pointed directly at her. She was horror struck; she was all the way back in a darkened room, and yet it *saw* her. Time froze for a moment, and then the spider scabbled straight towards her building.

She squeaked in fright and dismay, and scabbled desperately down the rubble pile. There was no connection to the road from the front—all the openings were blocked by collapsed building innards. It would have to come around the side, and her only hope was to use these precious seconds in picking her escape route. She could go out one side of the building or the other—but which side was the spider using? A 50/50 chance of running right into its claws.

And then she saw her chance. The front of the building was blocked, but the top of the old doorway was just visible, and she could see that there had been a small rectangle of glass over the door, now just a dim shape. From the outside it would have been hard to reach, and a jump up to grab it would get you a handful of broken glass. But from inside, with rubble filling the old doorway, the opening should be usable.

She was already up the rubble as these thoughts crossed her mind, and she squirmed across the glass in the opening even as she heard something enter the building behind her with a crash. Fingers gripping the outside edge of the opening, her body rotated and swung through the opening, pulling her fingers free and dropping her onto the outside concrete hard enough to knock her breathless. Gasping, stunned, and desperately frightened, she forced herself to her feet and ran for the building across the road, all caution forgotten. Still standing in the dirt out front was a sign “Ser-nd-p”, but she barely glanced at it as she ran towards the front door.

The front entrance, unlike the countless abandoned buildings she’d passed, was not just a shattered opening. For whatever reason, Serendip had installed sliding steel shutters, and she knew a code which would open them. She was mumbling the code as she ran for the doors, when she saw that a machine worm had planted itself right in the middle of one of the steel door panels. It telescoped itself squat, aimed, and shot out at the woman, who just barely skipped aside to let the worm clang off the concrete of the walk and skid out towards the street with a screech of metal on asphalt.

She could also hear a scrabbling from the building across the way, and knew that between the worm and the spider she was down to very few, very bad options. Too scared even to cry, she turned to her left and ran along the building's side; she remembered that there was a shipping bay there, and perhaps some way to get in to a part of the building the machines could not reach.

She reached the remembered bay, a ramp down so truck deliveries could be offloaded in the basement, and leaped over its side wall as she heard the whizz-thump of the worm pulling itself to a perch up on the second storey. *The worm will tell the spider where I am.* She thought desperately, and almost lost hope. But then she saw that the loading bay doors were open just a crack, and she darted through, and turned, and pulled the doors shut—for a wonder, they moved easily, as if freshly greased. In dim light, she even saw a locking hook, which she flipped into place just as something on the other side grabbed at the door with a terrific screech of metal.

And then silence. Her breathing, wracking and desperate from her run, was quieting when she heard a bang-whiz-thump, and the whole door shook. She could even see a dimple up high where something had just punched itself against the door. And then a high hissing sound started, and a circle around the dimple started to glow. *Those worm things can cut metal.* Hardly believing how badly her day was going, she picked herself up and retreated towards the back of the shipping area. She needed to find some place to hide before they got through.

Eye of the Storm

All her previous visits had been towards the front of the building; somehow various food dispensing devices had remained operational, and some of the maintenance machinery even restocked what she took, no doubt from storerooms deep in the building. Her visits had always been during the day, and solar tubes from the remaining, undamaged receptors on the roof provided more than enough light to safely retrieve food stores. She had assumed the rest of the building was built along the same lines.

This was a delivery bay, intended for trucks to drop off boxes of supplies. The front of the building was designed to impress customers, and perhaps even keep employees happy. No such considerations applied here, and as she proceeded deeper into the large room, the little light which leaked around the big, truck-scale doors faded to nothing. No money had been spent on solar tubes, and she was reduced to slow shuffling steps in the pitch dark, arms groping in front. She knew this was nowhere near fast enough to elude the machine which would be through the doors all too soon.

Her eyes caught a faint green glow, which brightened to the level of a small night light. But in the darkness of the room, it was more than bright enough to see that it came from a corridor which branched from the large cargo bay, and headed deeper into the building. She ducked into the corridor just as a circle of

cargo bay door fell to the bay's floor with a hollow clang, and a burst of sunlight shone in through the new hole.

Hoping that the worm had not had a chance to see her, she ran down the corridor. The green light guided her, brightening ahead and fading back to blackness when she chanced a look over her shoulder. A few side branches and doors were available, but they looked unlit, and she doubted she could get far in the pitch darkness. A turn in the corridor, and the green light stopped halfway down the passage, right at a shiny steel door. She stared blankly at it for a moment, then saw a familiar code pad to its side. She typed in her remembered code, and quickly stepped back as the door swung outward towards her. As soon as the door swung open, it started to cycle shut again, and she jumped through the doorway before it could close entirely.

The room was lit, but with regular electric light, not the strange green light she had followed. She saw that the back wall was made of a large window, with a vault-like door beside it. and as she peered through she realized that she recognized this room. "Oh, no! The nuclear accident was right in there." She turned back to the door she'd entered through. "But they said the whole accident site was buried in concrete, with a solid steel shell around it." She thought for a moment, "But of **course** they lied. Why spend all that insurance money on concrete and steel shells when you can just put in one impressive-looking door and use the rest for bonuses?"

She looked back and forth between the window with its view of the accident, and the large steel door she'd just used. "Forward to be killed by radiation, or back to be spidered or wormed." As her adrenaline receded, she slid down weakly to rest her back against the wall beside the outer door. "Oh, Austin, why did you have to go get yourself killed?"

The door back to the hallway suddenly sounded a loud TOCK, and then a dim hissing sound started. She jumped to her feet; this door was too thick to show even a dimple, but by running her hands over it she found the rapidly heating spot where the worm was cutting through. "You won't get through as quickly as that thin little truck door, but I suppose you'll eventually do it. Or you'll wear out, but there's **always** more worms. I guess I'd rather die of radiation than be stuffed into the belly of a robot spider. Darn it, what a horrible day."

She turned to the inner wall; the left side was a window with a view into the accident, the right had a sliding door, and she could see the simple control which would cycle it open. "Maybe if I hold my breath. . ." and she reached for the control as she squinched her eyes. Then her eyes widened, for from the back of the room beyond the window a figure was coming towards her. No—a reflection, she spun in alarm, but nobody was in the room. She turned back to see the figure halfway across the inner room. The figure was a person in a heavy suit, and was dragging somebody along behind. As the figure reached the door, it waved at her, and it took her a moment to realize it wanted her to back away from the inner door. Realizing that it was going to come out of that radioactive

accident, she backed up all the way to the far wall.

The figure touched a panel out of sight on the inside of the door, and the door cycled open. As the figure stepped through, still dragging the suited body behind it, it pushed the control beside the door, stepping back as the door cycled shut. Dropping its burden, the figure turned to face her as the visor rotated up. Peering at her from within the helmet, grayer and much more careworn, but still with a hint of the old grin, was the face of Austin James. “Hello, Mickey. The inner environment is a little formal—could I let you borrow a suit?”

Coyote’s Lair

Mickey discovered that the radiation suit was just as bulky and ungainly as it looked, and a part of the door to the hallway was discolored with heat before they were ready to retreat back through the polluted inner room. Mickey could hardly guess what Austin was doing back there in the middle of a major nuclear accident site, but the hissing and creaking noises of the outer door frightened her enough that she kept her silence and got suited up as quickly as possible. Austin gave her suit a final inspection, checked his own suit as well as he could, and with a thumbs up led them through the inner door and into the polluted room.

The accident had happened in a nuclear test lab, and as they came through the heavy radiation-proof door, she saw that the lab was made up of an initial outer area, a 90 degree turn to the right, and then an inner lab area which was much larger—as big as all of a residential house put together, she guessed. The only illumination came from the lights mounted to the side of their helmets, and the beams played over an eerie snapshot of the room as it stood, untouched since the accident. 20 years ago now, she guessed. It seemed like it was from a different world.

Ugh, the body was still there, a victim of the complex events surrounding the accident—which, she remembered, had turned out to not be an accident at all, but a part of a criminal scheme. She thought wistfully of those bright days, when she had followed Austin James as he picked apart the convoluted schemes of his fellow man, all against a backdrop of jobs and cars and indoor plumbing. Warm water in the shower—it was funny what you missed the most.

She shivered and brought her attention back to the present. They had passed the body and turned right, out of view of the entry door, and she could see that a cabinet unit had swung out, exposing the safe door from some sort of bank vault. Just to the side of the cabinet on the floor was one of the robot worms, coiled and motionless like a huge toy slinky which had been thrown aside.

Austin James, in his radiation suit, twisted the handle on the vault door, and with a thunk it gave way to let him swing the door inward, exposing a dark hole beyond. He stepped to the side, caught her staring at the spider, and said “the AI is even more scared of radiation than I. But they finally sacrificed a unit to

make a search of this room. They may send another to check up on your body, which they'll assume is back here."

Holding the door, he gently waved her through. Mickey stepped carefully into a passage lined in plates of metal, grateful that she had her own helmet light. Behind her, she saw Austin grab the cabinet and give it a tug, which started it swinging shut. He gave the safe door a harder tug, then jumped back into the tunnel beside Mickey. The safe door shut with a snick, and a moment later she heard a second clunk, presumably the cabinet also swinging into place.

They proceeded down the corridor to another door, which let them into a room built like an enormous shower stall. Austin twisted some valves on the side and they were sprayed from all direction with streams of water so strong Mickey barely kept her feet. This was even harder when Austin had them hold each foot in turn over a stream of water which washed off the bottoms of their feet.

The water back off, they made their dripping way to a door set on the other wall, and into a stretch of corridor with benches on both sides. Suits hung on hooks over the benches, and here they finally took off their own suits, leaving them hanging to dry. There was regular overhead light here, and they made their way to a final door, which let out into a warehouse.

In the years long past, Austin James had pursued his eclectic scientific studies from a warehouse which he had converted into a combination of lab, study, and home. Mickey had been his assistant, providing not scientific assistance, but companionship, insight, and an attention to all the mundane details of the world. It had all ended suddenly, terribly, when an explosion gutted his warehouse lab and killed him—well, the warehouse was gone, but his death had obviously been a ruse.

And yet here at the doorway she was looking into a space which was the twin to the lost lab from all those years ago. And Austin James standing there, still as if he was Master of Space and Time.

Hidden History

Austin motioned for Mickey to follow, and lead them down an aisle which Mickey remembered well. And here they were at his living area—lockers, kitchenette, and all. "Coffee?" Austin politely queried, filling a kettle from a filtered water dispenser beside the refrigerator. Mickey could only squeak. Coffee? She hadn't had coffee in so long, all this was like looking into a dream.

"Coffee? Coffee! Austin James, I have been living inside your old station wagon—which was turned on its side and buried in the explosion—and I thought you were dead. I thought I was living in the ruins of your warehouse, the remnants of your lab. You were dead! And you stand there and ask if I'd like *coffee*?" Austin looked at the kettle in his hand, and started to set it aside. "You darn well **will** serve me coffee—or I'll, I'll, I don't know what I'll do."

And then Mickey was sitting down on a twin of her favorite sofa from the old lab, and crying. “Austin, do you know how hard it’s been. The lab blew up, you were dead, I got fired. And then everything stopped working. When things were just starting to get fixed, those horrible robot things appeared. I’ve been living like a mouse in the ruins of the warehouse.”

Austin put the kettle over a gas flame on the stove top, then put some beans in a hand grinder, turning it carefully as he listened to Mickey’s outburst. “Mickey, I am so sorry about all of this. I did for you what I could—making sure your access code still worked here, refilling the food supplies. I have a few accomplices out there, and they acted a few times to keep you safe at the warehouse. I did as much as I dared. Probably too much, now. Your disappearing in here is going to get the other side thinking about me again.”

The kettle came to a boil, and Austin carefully poured the hot water over coffee grounds, which he had put in a paper filter inside a holder which fit over a coffee mug. “I was losing a battle which I didn’t even understand. Something was closing in on me, and I could think up only one way to get more time to find out what was happening.”

“You blew **yourself** up? Faked your own death?” Austin shrugged. “Well, it was going to have to be a really good death, so no faking allowed. I found out that some of the Serendip execs were looking for a way to rig the stock, and made sure they came across somebody who could bomb a building for them. Me, the founder, getting blown up—the stock was certain to tank. The execs bet on it, hired the bomber, and I exited the world so far as anybody could tell. The execs were rich—on paper, which no longer means anything.”

“But Austin, they found—bits of you.”

“Sure. Serendip had a genetic bank running, so I swapped in tissue samples from a freshly deceased man under my name, and put the rest of the body in the warehouse. He looked roughly like me, so they had a freshly blasted body, DNA match—end of story.”

“God, I’m glad you didn’t ask me to help you with **that** job.”

“Mickey, it was more than that. If you had helped, you would have *known*. I knew that whatever I was up against was very smart, very thorough. The crime scene report told them I was *probably* dead. But I knew exactly what they would do to find out if it was faked—watch you. If you believed I was dead, I had a chance. If you knew I was still around, it had to show in only the slightest way. And then I would be lost.”

There was quiet as Mickey gratefully sipped her coffee. It had been far too many years, and it was unbelievably delicious. Sitting here, across from Austin, the faint sounds of his lab making a familiar background. She felt better than she had since the horrible morning of the bombing.

“Did you have this lab all along? Aren’t we in the nuclear accident area? Why

don't you have three heads or something?"

Austin shook his head. "Just because Serendip got all that insurance money to completely encapsulate the accident site—three concentric shells of steel and concrete—doesn't mean that's how they spent the money." His glance took in the whole cavernous lab. "They put in one wall of concrete, laid some lead sheeting against it, and then put on drywall. Add on a couple impressive doors, and you're free to pocket 95 percent of the insurance money." He shrugged, "Just as well. I added the necessary shielding from my stores at the old lab, and had more than enough room left over for my new lab."

"But Austin, what's up now? For the first time the robots can see all the way into shadow. There's not all that many people out there, and there's even less of a place to hide. They finally spotted me and almost caught me. Please tell me you have a plan?"

Austin shook his head, almost in irritation. "No, they've always been able to see that well, but until now they were still picking up the easy targets, not the ones who knew how to run and hide. So far as I can tell, they're working their way through the last five percent."

"Five percent! Of what? This city? The state? The world?"

"Who knows? No Internet, no phones. I could use a radio and be in the belly of a spider in ten minutes. If somebody answered, probably they get the same deal. But yes, five percent is left of the people in this city and its surrounding neighborhoods."

"And ninety-five percent? Where? Those aren't **real** spiders; they aren't eaten. Where are they?"

Austin grimaced. "There's openings into the ground. After a spider fills up—the typical model can hold up to four people—it goes down there. I've tested and probed in every way I can imagine—no single cell of those people has ever reappeared. Not a living person, not a corpse. No food or water goes in, no waste or respiration comes out. They're not incinerated, I'm sure of that. Frozen? Or possibly just stacked in some sealed chamber. But dead, Mickey." His voice trembled just slightly. I can't think of any way they can be down there and still alive."

The Right Question

Austin seemed weary and distracted after their talk, and disappeared into some far corner of the lab after showing Mickey to a suite of rooms built up against the side of what appeared to be a jet airplane.

"What **is** that thing?" She asked, craning her head back to look up at a row of windows.

“A 737. I had a chance to grab one, and there are some scenarios where being able to deliver a payload at 600 miles per hour could be useful.”

“But, Austin, there’s no runway. . . the whole building’s in the way!”

“Runways are just one way to get above stall speed. And buildings **can** be moved. I’m sure your own experiences can bear that out.”

Hickey looked at the Austin, up at the airplane, then back to Austin. With a slight shrug, she turned and went through the door into the suite.

She had expected something along the lines of the warehouse, with maybe a cot and some planks resting on bricks. Instead, she found a pleasant sitting room, with a kitchenette in one corner. Following a door further back, there was a bedroom with a tidily made bed and some lovely hardwood furniture. Beyond the bedroom was a bathroom, complete with tub, shower, and sink. She could hardly believe it as she turned on the tap and felt hot water come out.

Wandering back to the bedroom, Mickey opened a wardrobe and found a selection of woman’s clothing. Picking a blouse at random—its color caught her eye—she held it against herself and realized that it was exactly her size. With a “nah. . .”, she rifled through the wardrobe. From nightmare to warm sweaters and a jacket, the entire collection of clothing was Mickey’s size, and even Mickey’s style.

Showered, hair brushed out, and in a new set of clothes, Mickey looked at herself in the mirror. She felt a new hope, and she could see it in her face’s reflection in the mirror. “Austin James, you might feel like the robots are winning. You may think they’ve killed the world. But you’re too good—as well as too smart—for that to happen.” Her face hardened as she thought of what she’d been through. “And I’ll help you fix this.”

She wandered out of her suite of rooms—by habit, turning to lock the door, before realizing how silly that would be. The lab building spread out, dim and cavernous, in all directions around her. Recognizing a large, industrial piece of equipment (from her long history with Austin James she knew it was a “turret head mill”), she chose a corridor which led back the way they had come. At an intersection with tall racks holding steel rods many times her height, she paused to try and recall which way they had come. She saw a light around the corner of the path to her right which seemed like it must be the kitchen area.

As she came around the corner, she saw that the light was **not** from the kitchen area; something the size of a semi truck was suspended in the air, glowing. But she gathered only a glance at it, for right in front of her was the largest dog she had ever seen—she had seen lions at the zoo, and guessed this must be nearly as large. It sat on its haunches facing her, calm eyes studying her with interest. She realized its face and body were that of the Saint Bernard breed, but this must be the king of all Saint Bernards.

“Nice doggie!” Mickey said brightly. The dog blinked in surprise—it had not seemed so at her approach around the corner, but this bit of canine pleasantry

gave it a pause. “Good doggie!” Mickey continued. “I’m a **friend!**” The dog sighed in resignation, cocked its head to the side as if considering its options, then—still sitting—ponderously balanced on its back legs while raising its front legs up. “Meow.” the dog announced in a low rumble, then lowered itself back to a sitting position. He still looked at Mickey, as if wondering what he’d have to hear from Mickey next.

But Mickey, sensing that her dog social skills were not up to the encounter, edged slowly around the dog, and continued down the corridor towards the lighted construct beyond. She glanced back once, to find the dog looking over its shoulder at her, as if making sure she didn’t have anything else to say.

Rainbows and Realities

Mickey approached the source of the light which had been spilling down the corridor. She quickly forgot about the dog, in the wonder of what she had found here. The light was in the shape a cylinder with tapered ends, floating about ten feet above the ground, shorter than a football field in length. It was hard to tell how wide around it was, as her eyes kept losing focus as she tried to estimate how far across she was looking. Twenty or thirty feet, she finally decided.

It was not a balloon; by shielding her eyes with her hand she could make out a large black pipe which ran parallel to the light, well above it. The pipe had sprinkler heads along it, and she could make out a light mist drifting down into the light.

Still shielding her eyes, she looked beneath the glowing cylinder of light, and saw that the whole ground beneath it was made up of hexagonal cells, shimmering as they glowed in one color and then another. The glowing cylinder was apparently the product of a mist from above being illuminated by these hexagonal projectors below. She had seen a light show at Disney World years ago, various colored spotlights shining into a shower of water. This must be like that, she decided.

But when she lowered her hand and looked into the cylinder of light, she realized it could not be that simple. She saw that the illumination was made up of glowing threads, some alone and others branching from their neighbors. One in particular caught her attention, and as she stared at it, more and more details of its web of threads becoming apparent. She thought she could hear the hiss of the sprinkler overhead, and then she thought they must have been turned to “high”, as the sound started to resemble a river. Or was it singing? The threads were now taking on colors, and she could see that they were three dimensional, and she wasn’t sure if they were moving, or her point of view was moving. The river was singing.

“Mickey.” A face. “Mickey.” She blinked her eyes. Where was she? She was facing a wall, her shadow projected onto it. The light? She started to turn. “No, you’ve looked in that direction long enough for now.”

“Austin... Austin! What *was* that thing?”

He gently hooked her arm through his and led them to a gap between some boxes. The light faded as they made their way into the gap. Austin made a slight gesture with his head back the way they had come. “You saw the movie *the Matrix*?” She nodded. “I thought up a way to test if I was a brain in a box. You were looking at the test.”

“How could a big blob of light tell you about your box?”

“Right. If there’s a solution to that specific problem, I haven’t found it. Instead, I came up with a way to project a lower-dimensional analogy of your containing holographic construct.”

“I’m sure you did, Austin. But do you think you could say that in a way that *both* of us could know what you’re talking about?”

“Imagine that we’re all fish swimming in a tank. Mostly your world is the water, gravel on the bottom, food floating on the surface. But imagine that a fish made up a camera he could push against the wall of the tank, and start taking pictures of the world around the tank? That’s kind of what I did, except that I had to deal with quantum physics instead of photography and glass refraction.”

“And...?”

“And... what?”

“And... are we? Brains in boxes?”

Austin James, a thoughtful look stealing over his face, answered “No. Probably not. It’s hard to tell when you’ve reached an answer. And when you’re pretty sure you have the answer, it’s hard to interpret it.”

“Austin James, if you now say ‘42’, I’m going to take you to the kitchen, make a cup of coffee, and spill it on you.”

Austin eyes sharpened out of his reverie. “No. But you remember that one of Serendip’s last big development was a quantum computer?”

“Sure. You didn’t seem interested.”

“I was *very* interested, but I didn’t want them to know, because I wasn’t interested in it for the same reasons they were. Inherent to our connection to quantum physics is an asymmetry.”

“Oh, good. We don’t want to forget the asymmetry. Austin, what are you talking about?”

“They were trying to build programs and push them into quantum state for processing. But more and more of my own experiments told me that *we* are the program. Quantum physics is just our way of getting a glimpse at the engines which power reality.”

They had reached the kitchen area, and Mickey set about making some coffee. When she approached Austin with a cup, he arched an eyebrow in inquiry. Mickey pointedly set the cup on the table in front of him, then went back for her own cup on the counter.

“Great. So now we know that we’re not brains in boxes, but instead we’re programs running in the great quantum computer in the sky.” She sipped her coffee. “But, Austin, it’s a mess out there. How does *any* of this help?”

Austin looked off into the distance, seeing something far beyond the walls of his lab. “I don’t know. I have a feeling that it matters. I have passive sensors hidden throughout the city, and I’ve picked up electronic activity which could only be caused by the robots trying to build a mechanism like mine. Some of what I worked on was stored at Serendip, which would give them a starting point.” He looked at Mickey sadly. “I’ve never been so completely behind a game in my life. I’m trying to make the right moves, I’m trying to think ahead of the other side. There’s something wrong, but I just can’t capture it.”

He shrugged. “You’re welcome to stay here. We can hold out for years; the robots seem even more afraid of radiation than people ever were.”

Nice Doggies

Mickey was trying to think of something helpful—or at least hopeful—to tell Austin when an urgent, cyclic buzzing sound started. She looked up to see red lights along the roof flashing in unison with the sound. “Austin—what is it?”

He was already over at a computer screen, studying a stream of textual output. He sighed in exasperation as he typed a short command. “Company.” The screen flickered to a camera view of the radiation lab, a viewpoint just above the hidden vault door and looking back into the lab. A robotic worm’s head was peeking around the corner, tilting this way and that as it studied the lab.

Mickey realized that she could see a body beside the defunct robot on the floor. “Austin! Somebody else died in the lab behind us!”

Austin James shook his head. “No. I was afraid there’d be a courtesy inspection and arranged to fake your demise.” He was watching the screen closely. “I hope their forensic sciences aren’t very good—I’ve kept that body in deep freeze for five years, and they’re going to find the core temperature inexplicably cold if they check.”

“You picked up a body double for me *five years* ago? Where did you find it? No, wait, I don’t want to know.” Mickey stared at the screen in horrified fascination.

“The odds approached a certainty that you’d end up here at some point. Given the robot’s pattern of behavior, I had to prepare to protect you.” He gave her a long stare. “I came across this poor woman too late to even have a chance to help her. I hope she can help us.”

On the screen, the worm had come fully around the corner. When not firing spikes and pulling itself along, it moved like an enormous inch worm. Its movements were becoming increasingly erratic. “The room does not actually present all that high a radiation level any more. I had to clean it up just to keep that path usable—it was originally too hot even for a suit. Its much lower now, but I keep a shielded radiation source above the ceiling. I remove the shielding and then the radiation in the room jumps by a factor of twenty.”

“They sent that dead worm you saw just a couple of years in to their occupation of the city. Since then they’ve sent two others, which retreated before their systems failed. This one’s obviously been ordered to sacrifice itself in the search.” On the screen, the worm had almost reached its fellow dead worm and “her” body. It came to a halt, its sensor head twitching fitfully.

Austin stepped to something which looked like a periscope, and applied his face to the viewing optics. “I don’t dare use electronic cameras outside the accident area—where the robots *expect* some electronic activity—so I have to use passive optical techniques. I’m checking where they are.” There was a pause as he in turns stared, and adjusted various knobs to the right of the device. “Ok, aside from the one they sent in, they’re all waiting outside.”

He straightened. “Let’s put a second scare into them.” Austin gave a whistle, and Mickey heard scrabbling paws on the concrete floor in the distance. Three of the gigantic dogs bounded into sight, stopping in a neat military line in front of him. “Take the radiation cannon out the side entrance. Give them 300 rads, then return. Go.”

The dogs turned at the word “go” and trotted to a side cabinet. One opened it somehow with his snout, and held the door open while the two others brought out something shaped like an over-sized bazooka, holding it with their jaws, one at each end. The first dog gently shut the cabinet door, then led the other two as they trotted out of sight down a corridor Mickey hadn’t noticed before.

Austin had returned to his periscope device, peering intently into its eyepieces. With an “ah” of satisfaction, he stepped back and motioned Mickey over. “I use custom lenses, focusing through fiber optic cable. Take a look.”

Mickey stepped forward and peered into the periscope. She had a view from some distance off the ground, as if perched up on a tree. As if reading her mind, Austin said “I ran it up the side of a tree, inside a tiny groove I cut. It’s grown over now, almost perfectly invisible.”

Mickey ignored him. In the near foreground she saw the dogs, creeping low to the ground, edging forward to a cluster of bushes at the side of the Serendip building. Beyond the bushes, she could see a couple spiders and almost a dozen of the snake robots. They seemed to be waiting for more information from the worm they had sent in. The dogs reached a suitable position, and placed their radiation device on the ground. The lead dog, who had been keeping a lookout, touched the controls carefully with his paw.

Nothing happened for almost a minute, and then one of the worms reared up its sensor head in agitation. The other robots backed away towards the road. “It’s working!” Mickey exclaimed, her head glued to the periscope. “They’re running away.” In the foreground she could see the same dog reaching his paw, presumably to turn the infernal device off before they retreated.

And then the view went blank. No; it was full of dust. Mickey squeaked in dismay and backed away from the periscope, and realized that the ground beneath her feet had shivered when she lost view of the dogs. Austin ducked past her to look desperately into the periscope.

“What happened? What did you see?”. Mickey’s voice was desperate, “Nothing. Your dogs were just getting ready to retreat when—blam—I couldn’t see a thing.” Austin’s eyes were glued to the periscope. “It’s clearing... I can see...” He sighed and stepped back. “No, I don’t want to say what I can see. My K9 units were spotted and... removed. This is very bad news.”

Out Of Time

A single, brief, mournful howl went up from the distance in the lab. Mickey jumped, “What is **that**? More robots?”

Austin gave one shake of his head “No, the rest of the pack mourning the three they just lost.”

“Pack? How many are there?”

“There are nine left.” Austin was back at the periscope. “Oh. I was afraid they’d have something like that.” He stepped back and flipped a switch. “Electronic silence is a moot point.” A screen came on, providing a view from somewhere up on the roof. A vehicle, wheels in front but tracks replacing the back wheels, lumbered into view. It had a long cylinder mounted the length of its flat bed. When it had pulled up to their building, it turned around and backed up against a side wall. Mickey could see that the cylinder on the flat bed was shaped like a drill. The bed tilted up, pointing the enormous drill at the side of the building at a downward angle. The bit rode forward; the cylinder was a series of telescoping sections. It began to spin, and in the lab they heard a deep whirring, grinding sound.

Austin had his head cocked, an expression on his face as if he was sampling a fine wine. “They’ll find getting in here harder than planned. But it still doesn’t give us much time.” He whistled, and the nine remaining K9 dogs came running. “Evac plan, we’ll head to the backup site. Mickey, pick what clothes you need—one suitcase max. Be back here to move out in ten minutes.”

“Wait.”

Austin, already turning towards some other necessary task, stopped in surprise. “Wait for *what*?”

Mickey was pale but determined. “Austin, you’ve been running since before Serendip fell. Before the robots took over. You ran away from making sure Serendip was a decent company. And it became the most indecent company I’ve ever seen. Those things out there **want** you to run. When you’re running, you’re harmless. This is your last chance to **not** be harmless.”

Austin stopped, his expression blank. Then he seemed to come to a decision. “And **what** harm do you want me to do to them? I have some laser devices. We could shoot up some robots before we get overrun. Shall I run the K9’s at them, so they can be destroyed like the first three? What do you want me to do?”

“How should *I* know? You need to build something, or break something, or find something. You’re the one with the PhD in engineering. It’s time for one of those great Austin James plans!”

Austin gave her a searching look, then sighed and turned away. “Did you hear the one about the beautiful blonde PhD?” He turned a corner, his voice still carrying back faintly. “Me neither.”

Mickey’s face flushed red, and her eyes hardened. “Austin James, you are both a stinker *and* a coward! Sitting here in the dark because you’re too *scared* to go where the answers are. The robots take our people down a hole, and you sit here peering through little fiber optic straws. You don’t know what to do because you’re too scared to go find out the answers. Well, I may not have your PhD, but I’ll go down the hole and get your stupid answers. You wait here, or run to your new hole, or do—I don’t know—whatever it is rabbit geniuses do.”

Mickey turned to find a K9 standing right beside her, his eyes shining and his mouth smiling. “Woof!”. She shouted, “I’m taking your dogs, too.”

Austin came back around the corner; he had obviously stopped walking as soon as he had turned the corner. Leaning against the wall, he slowly shook his head. “How am I going to get my answers once I run out of blonde jokes?”

Across the City

Everything moved in a fast-motion blur from that point. Four K9s were left to take care of abandoning the current lab, while five prepared to accompany Austin and Mickey as a guard detail. Each guard dog wriggled into a harness which featured an ominously shaped cylinder.

“Please tell me that’s just brandy.” Mickey asked Austin.

“Brandy just wouldn’t give the necessary effect.” Austin answered, “and I really think you should start this mission with a clear mind. Can you please hold off until tonight?” Austin had busied himself adjusting a dog harness before Mickey had even begun to think of a comeback.

Mickey studied the back of his head with narrowed eyes. “Just be glad I don’t have a nice glass of ice water, Mister Austin James. I’d fix **you** with a drink.”

Within ten minutes the group was ready to go, led by three K9 dogs, then Austin and Mickey, and the last two K9s guarding their backs. A large grate in the corner of the lab swung open, and they followed concrete steps down into a dark tunnel which headed straight away from the lab.

“Serendip was planning to use this as a storage trench for all the hazardous materials which would otherwise cost money to discard legally. I found out in time and stopped them—it was one of the reasons they decided I needed to be a powerless figurehead—but it makes a perfect secret passage for leaving the Serendip building.”

The tunnel proceeded in a straight line for a considerable distance, ending at steps leading up to a steel plate ceiling. Austin poked a small optical device through a hole in the plate, and peered into it as he twisted it around. “All clear,” he finally announced, and twisted a dial set in the wall near the top of the stairs. With a hissing sound, the plate lifted upward at one end. A K9 pressed against the opening which appeared, and quickly squeezed through as soon as it could fit. The mechanism continued to lift the plate until Austin twisted the knob shut when about three feet of gap was exposed. By then the three lead K9s were already through, and Austin and Mickey followed.

Mickey had expected that they would come up within a building, but instead they were standing under a piece of corrugated roofing, carelessly laid across piles of debris which surrounded them. Stepping from beneath the roofing panel, Mickey looked up at the sky.

Austin hurried Mickey back beneath the roofing. “We probably lost the K9s outside Serendip because they were spotted from the air. Let’s stay out of view until we can find out if anything is still up there looking around.” He clamped his optical gadget, now twisted in a new pattern, onto the edge of the roofing, with one narrow tube peeking out beyond the roof’s edge. He spent a good five minutes peering and twisting the device before disconnecting it and stowing it out of the way. “Whatever they used to kill my K9s must have limited flight time. I’m pretty sure there’s nothing up there.”

This pronouncement was like a starter’s pistol in a race. Four K9s raced away, each in a different direction, and the remaining K9 stared at Mickey and Austin expectantly. “Austin, where are they going?”

“This mission is bad enough even if we don’t make it easy for the robots. There’s five holes down to the underground in this part of the city; they’re going to create a distraction at four of the entries. Hopefully this will spare us at least eighty percent of the attention.” He looked at his watch. “They have further to go, but they can run faster. I want all five entries to be simultaneous.” He looked up from his watch. “Ok, time to go.”

Mickey sprang forward, only to be held back again by Austin. “I allowed time

for us to **walk**. There's no need to arrive breathless. We might need our wind for the getaway."

They zigged and zagged among piles of debris, occasionally sliding a piece sideways to expose the path. It became obvious to Mickey that this route had been carefully prepared to seem like nothing but wreckage to the robots, while actually being an efficient path once you knew which pieces were hidden doorways. It suddenly occurred to Mickey that the dogs must have come this way.

"Austin, how did your, um, K9 units get through here?"

"Between their paws and mouths, they have roughly the same dexterity as a human."

"And it seems like they speak English? What **are** they, Austin?"

Austin didn't answer for a moment. "You remember Josephine?"

Mickey blinked. Josephine was the name of an ape whose brain had been surgically expanded. She had been smart, amoral, and a murderer. "Austin—no! Those records were destroyed."

He shrugged. "I ended up with an MRI of her brain. It wasn't hard to work from that and fill in the rest of the details."

"But, Austin, you chastised Doctor X for creating her! How can you justify creating something which you yourself called a monster?"

Austin stopped, turning to face Mickey. The K9 with them also stopped, looking at each of them in turn. "I was desperate. I needed something the robots couldn't have planned for. I wasn't happy with myself, but I created one... this one." He patted the dog's head, and the K9 wagged his tail. "I then asked him what **he** thought."

"You *asked* him? Really?"

"The canine vocal structure is incompatible with English. But a K9's comprehension is as good as a human's. So I explained the overall situation, and he immediately told me to proceed."

"But *why*? Were the robots hunting dogs too?"

"No; the robots mostly ignore anything except humans. Once I knew there would be K9s in my future, we quickly developed a dog-friendly sign language. When we had that, he explained why he was sure he wanted me to proceed."

"And?"

"He said it was simple. Dogs exist to help people. People were in deep trouble. This would help."

The K9, who had been listening, gave a short, happy "woof!". And then gave every indication of being eager to keep moving.

Austin looked at his wristwatch again. “We’re off schedule. It looks like you’re going to get your run after all.” He looked at the K9, “We need to be there in five minutes, lead us at a pace which will meet this deadline.” And they were off, the K9 leading at a trot.

Down the Rabbit Hole

It seemed like years since Mickey had walked the open, empty, dangerous streets of the city. Was it just yesterday? But it was the same battered, empty buildings. The same brooding quiet. And the same spider tunnels strung overhead.

The K9 made an interrogative noise, and Austin grunted something back. “I hope you can manage a jog from here. It’s very important that we be in place.” The K9 was already loping ahead, and Austin and Mickey broke into a run.

They went a couple blocks, the K9 increasing his lead, and then took a left and stopped after half a block. A rectangular hole, big enough to fit two cars side by side, had been cut into the road, with the end near them providing a ramp leading downward into darkness. Mickey could just make out the opening to a tunnel continuing downward into the earth.

She swallowed. “So that’s what I said we should go down into, huh?”

Austin looked hardly more enthusiastic. “Yup.” He was studying the opening closely. “Roomy.”

Mickey nodded. “Dark.”

The K9, with a sidelong glance at Austin, started down the ramp. Austin brought out a flashlight and followed. Mickey sighed, “It sounded like a good idea when I said it,” and hurried to catch up with Austin.

Austin and the K9 had already reached the bottom of the ramp and turned a corner. Mickey caught up to find them standing in front of a stainless steel panel, completely featureless. “How do we get through **that**?”

Austin detached the cylinder from the K9’s collar and carefully set it against the door. With a glance at his watch, he stepped back. “We have 40 seconds.” He shooed them back around the corner and all the way back up the ramp, out onto the street. “It’s a tradeoff, being far enough back that the blast doesn’t hurt us. . .”

“The *what*?” Mickey started to ask, when she was interrupted by the loudest noise she had ever heard—it was so loud she wasn’t even sure which part of her body had heard it most clearly. After a timeless interval, she started to think it was somewhere around her stomach where most of the noise had hit. She slowly opened her eyes to find both Austin and the K9 looking down into her face with concern.

“Mwa ha me ho ta he hoo tha.” Austin said to her.

“Austin,” she croaked, then tried again “Austin, you’re not making any sense.”

Austin spoke slowly, with great emphasis, “Next time we’ll stand a little further back.” The K9 looked at Austin and shook his head sadly.

“Please tell me there won’t **be** a next time.”

Austin wasn’t listening; with a hand shielding his eyes he peered at several dark clouds which had appeared at various places in the city around them. “Looks like our K9’s came through.” Their own K9 sat, looking at Austin a little sadly. “K9, check in and make sure they all get back to the lab to help with the evac.” The K9 sat still, looking steadily at Austin. “What?”

Mickey couldn’t see how they communicated, but Austin’s face paled. “No. That wasn’t part of the plan!”

Mickey interrupted, “Austin, what’s wrong?”

Austin turned to her, his face for once showing simple, uncontrolled anguish. “They didn’t have any way to hold the explosives right in place. So they just held them with their jaws until. . . oh, Mickey, I don’t *like* being a leader.”

Mickey reached out towards Austin, but stopped. “Does this change what we have to do?”

“No.”

“Then let’s go.”

The smoke from their own hole’s explosion had mostly cleared out as they had talked. Hoots came from the distance—robot distress calls—but they didn’t see anything as they descended again, passing through a shattered door into a long hallway made of mirror-polished walls and a non-skid metal decking for a floor. The only light was from their own flashlights, and they walked forward slowly and carefully until they came to a small box mounted on the wall. Austin James appeared to have expected this, for with an “ah!” he brought out a small computer device with a keyboard from a pouch hanging off his shoulder, which apparently held all manner of clips and connectors.

“Whatever they use, I have to assume they started from human technology.” He removed several screws from the box’s cover as he spoke. “So I’ll have to sort through their wires until. . .” he stopped, staring at a keyhole-shaped slot which he had exposed when he removed the cover. “But, that’s. . .” he dug through his pouch and brought out a matching plug, which he quickly connected. With a few more keystrokes, the lights came on in the corridor.

Mickey looked down the corridor, and felt a wash of vertigo. With its mirror walls it looked like a tunnel leading on into infinity. It curved slightly to the left as it dwindled off into the distance; the right hand of the wall was featureless chrome, but the left wall was interrupted at regular intervals by something very like elevator doors. “Ugh, does this thing go on forever? It’s lucky you had a perfect fit for their connection.”

Austin was looking downward in thought, and answered absently, “Yes, I never threw away the connectors I made to work with Crossover.” Crossover was an AI from years ago which had run out of control and killed several people before Austin and Mickey had deactivated it.

Mickey’s head jerked around to stare at Austin. “*Crossover?* You don’t mean all **this** is that horrible computer all over again? We *killed* it, didn’t we?”

Austin wasn’t listening, his attention focused on the symbols swarming across his computer’s display. “But these symbols... could they *possibly* mean...?” He typed in a couple commands, and looked up as a sound came from just down the corridor.

One of the “elevator” doors was opening. It was dark beyond the doors, but Mickey saw that lights were coming on even as the doors opened fully. Austin placed his computer on the floor, and stood up to walk over and peer through the open doors. Mickey followed to peer past his shoulder.

The Caves of Steel

Mickey’s first impression was a cavern full of exotic plumbing. Row after row of lozenge-shaped metallic boxes stretched across an immense room, its walls the same stainless steel as the corridor behind them. Pipes seemed to be involved in the lozenges, for each one had multiple connections to the innumerable pipes which were routed in a vast web.

Mickey edged forward as Austin advanced into the room, and her head swam as she looked down past the nearest lozenge, and realized that this was not a room with an array of containers; there was another array of them about ten feet below, and another below that, and countless ones below. They had not entered a room, for there was no floor, just a vast cube filled with the inscrutable lozenge containers.

“Austin, what *are* they? I feel dizzy looking down at all of them—it’s like looking into infinity.”

“A surprisingly large number, but far short of infinity. And if *down* makes you dizzy, don’t look up.”

Mickey looked up to see the endless array went upward into infinity as well. She staggered, but Austin caught her before she could fall.

“I told you not to look up.”

“Thanks. What *is* this place? A storage locker for bombs?”

Austin stepped to the nearest lozenge. It was eight feet long, and a couple feet wide. He studied it closely, then reached out to touch an indentation on one side of the lozenge’s gently curved top. With a whir, it slid aside. Inside lay a naked man, laying in a liquid with his face covered in an almost clear mask.

Mickey recoiled. “Is he . . . dead?”

Austin was studying some lights on the container’s side, and then looked closely at the man’s chest. “No; he’s alive but in some sort of artificially stimulated consciousness. This room doesn’t store weapons; it stores people.”

Mickey looked out at the endless grid of boxes holding people. “All the people in the world?”

Austin looked around, considering. “Well short of that. This room must hold something short of 8,000 people.” He strode back out of the room and started at a trot down the hallway.

Mickey followed, scrambling to keep up. She caught up just as Austin reached the next door, which opened as he tapped something on the oversized watch on his wrist. The lights came on to show an identical room to the one they had left. Austin typed some more, and every lid in the room slid aside. Austin walked along the catwalk which was the only path deeper into the room, scanning the contents of each box.

Mickey stayed back near the door, not trusting herself on the catwalk. “16,000 people accounted for?”

Austin was looking at his wrist. “*Everybody* accounted for; it’s safe to assume all the other rooms are just like these two.”

Mickey sank to her knees, her eyes bright with tears. “Oh, Austin, the whole human race stored in boxes? Is this how it ends?”

Austin looked up in surprise, then a smile came to his face as he shook his head. “No, Mickey. You’ve given me the *beginning* by bringing me here.” He thought for a second. “Do you know how I told you we didn’t have much time?”

“Yes?”

“We *really* don’t have much time. Come on!”

Austin’s Run

All the lids slid closed, the lights dimming even as they reached the door of the room, which nearly closed before they could get through.

“The diversion held up longer than I had hoped,” Austin mused, “but they’ll be on their way now.” Their K9 kept bounding toward them, then scrambling ahead to urge them faster. They reached the main door, and could see sparks spitting from the motors which would have controlled the destroyed door. Austin spared it a glance, “I’m sure they wish this door was intact. We’d be permanent guests as quickly as they could arrange it.”

As they trotted up the ramp towards the street, their K9 suddenly bounded back to them and swung his body sideways, acting as a low but immovable wall

to stop them. Austin looked towards the opening, then turned his head sideways, listening. There was a sound of a burning rush of air, and a shadow crossed the tunnel's opening.

"This must be that new aerial capability which cost me my K9s. We *really* need to see what it is, and soon." Austin dug in his bag, and drew out a gray box with wheels, about the size of a mouse. He flipped a switch on its back, which was mostly covered by a pair of bulbous lenses, then placed it on the ground. His oversized wristwatch was still in place, and as soon as he tapped it twice the "mouse" raced forward, darting out into the sunlight on the street.

K9 darted forward, following the mouse, then darted to the left at a quick trot. They could immediately hear another rush of air, and then a loud thump. Some flapping sounds, and then another round of rushing air, but from further in the distance.

"Austin! Will K9 be OK?" Mickey asked, then stopped at the sight of K9, still standing in front of them.

"If K9 went out there with something hostile and aerial—no. But you remember this holographic projection technology, don't you? It nearly cost us our own lives when we fell for it, so I'm hoping the robots will find it just as convincing." Austin lead them up to the street, both his head and K9's craning warily about to try and watch every direction at once.

"Ugh!" Mickey exclaimed, "There it is."

Two blocks away to their left, they could finally see what was making all the noise. It looked like a cross between a hot air balloon and a jelly fish; it would bell out into a bulbous mushroom shape as the rushing sound—a tongue of flame from the gondola hanging beneath—filled it with hot air. As it lifted rapidly upward, it would reverse its balloon shape, like an umbrella which has blown inside-out, and turn its rising arc into a sudden dive forward and downward. Before it could hit the ground another rush of flame filled it, and up it swooped again. It should have been ungainly, but instead it swept down the street with grim efficiency.

They could see the gondola beneath was more than a source for the heat to fill the balloon; it was encircled in tubes with sharp ends pointing downward and fins at the other end. Even as they watched, the gondola swung in an arc, pointing towards the hologram of K9. A rocket dropped from the gondola, igniting as it fell, and then flew in a blur of speed at the K9.

Which darted around the corner a half second before the rocket could hit. The rocket struck the side of a building at the corner, and exploded with a violent **crack** which spat shrapnel in every direction. The robotic balloon was already filling, as it swung about to clear the corner which had frustrated its attack.

"I'd congratulate them on their invention, if it wasn't responsible for the deaths of my K9 units," Austin commented as the balloon swung around the corner

and out of view. “It’s much more efficient than I had feared. We’re only going to get about another three minutes before it damages the projector and realizes that we tricked it.” Austin looked down the street in the other direction, the way they had come, and came to a decision. “Plan D!” and started straight ahead at a jog.

Mickey looked to the left, where their holographic K9 and its pursuer, then to her right where she knew the path back to the lab. Straight ahead was just more shattered city buildings, with a partially blocked street threading through the wreckage. She ran after James. “Plan *D*? Did we have three plans better than this one?”

“Plan A: we found a control down there to disable the robots or at least deflect their intentions. Plan B: we don’t find that, but we are able to cripple their sensor net and escape. Plan C: our holographic decoy buys us the 15 minutes to successfully escape.” Austin grinned at Mickey as they trotted past yet another pile of rubble; he seemed to be enjoying the exercise. “If it’s any consolation, I considered the odds of reaching plan D to be only about ten percent.”

“I’m afraid to ask the odds of plan E.”

Austin shrugged, “I’d have to develop a plan E before I could estimate its odds.”

They reached a small park, probably used by lunchtime workers from all the surrounding office buildings. Most of the office buildings were in ruins, but the park was clear, with a raised concrete platform at its center, probably used for special events needing a central stage. They hopped up onto it, and looked out at all the streets and buildings in the neighborhood.

Mickey had thought she heard something as they ran, and as their breathing slowed, she could hear it distinctly. It was the clatter of robots being delivered via the silver tubes which were strung across buildings. Almost every building she could see had a tube, and even as she watched a dozen or more worms popped out and began working their way to the park.

“This is a fine place for a last stand,” Austin mused, “with all the tall buildings quite a distance back, and I even made sure there were no convenient lamp posts for the worms to use in reaching us here.” He looked approvingly at the crowds of worms reeling themselves forward, usually scraping across the ground as they skittered forward. In the distance, but rapidly approaching, were a considerable number of spiders as well.

“We really do worry them, but a panic would be best.” Austin pulled several more holographic wheeled devices, and then a cylinder twice the size of a can of shaving cream.

“Oh no, not another bomb!”

“Smoke.” Austin twisted the top, and gray smoke almost immediately blinded them. Mickey could hear the whirl of the decoys as they raced away, receding from her hearing in several directions.

There was no way to track the robot's progress; they simply stood back to back and listened as waves of scrabbling broke right and left, with several large groups apparently pursuing the decoys, but presently returning. The sounds grew closer and closer. Mickey heard Austin's breath catch, and turned to behold a spider rearing out of the smoke, its front claws reaching for Austin. Mickey heard noises behind her also, but didn't even want to look.

But James was looking straight at the robot, his mouth crooked in a small smile as if he was enjoying a close look at a diverting puzzle. Just as the claws reached him, he tapped his oversized wristwatch one last time.

A crack of lightning sounded from a building two blocks over; Mickey, startled, stared at it as flickers of electrical discharge played over it. Even as she looked towards it, the sounds of more distant crashes of electricity could be heard from other parts of the city. She realized the spider beside her had frozen at the moment of the lightning discharge.

Austin ducked his head and stepped back from the spider's claws, and studied the lightning crawling over the building. "Interesting. I didn't expect such a visible corona, and I had wondered if it would effect my smoke." Mickey realized that the smoke had vanished in the flash of electricity.

"EMP, right?"

Austin nodded. "I'm using up my remaining bag of tricks at an almost laughable rate. Yes, we snuck small nuclear based EMP generators into various buildings. Once they rebuild our government and have an EPA again, I'm afraid they'll want to talk to me. It'll be a race between them and the D.O.E."

"DOE?"

"Department of Energy. They have authority over most nuclear installations. I'm afraid I had to skip most of the paperwork."

"So that's it, Austin? We win?"

"Good heavens, no! This was just the bulk of the immediately available ground force for this city. You can be sure I verified the underground systems would keep running. And there will be *lots* more robots on the way shortly. But **now** we have time."

"Time to do what?"

"Give Mr. Super-Crossover something new to think about."

The Sword of Damocles

The city seemed empty of robots, but they still hurried to get back off the streets, expecting worm- or spider-bots at every corner they turned and every shadowed opening they passed. But they made it all the way back to the old Serendip

building without any encounters except once when a figure scrambled from a doorway to join them. It was K9.

Mickey had nearly stumbled in panic, then relief. “K9! Where have *you* been?”

Austin answered for K9, “I was pretty sure the robots wouldn’t try to hurt us, but I was just as sure they would terminate K9 on sight. So I *ordered*. . .” Austin glared at K9, “*Ordered* K9 to make sure he stayed hidden and safe.”

K9 ignored James to race forwards, resuming his guard and scout duties.

When they reached Serendip, Austin stopped to examine the large drilling unit backed up against the building, its drilling column still extended. The machine was silent.

Austin unclipped his wristwatch and let it drop to the ground after removing something from its back which he dropped into a pocket. “Cooked by the EMP,” he explained. He proceeded to dig several more gadgets from his pack, dropping them also. Finally he came up with a clear bag filled with something white. “Sugar.” he explained. He climbed gingerly up onto the drilling machine, unscrewed a cap on its top and poured the bag’s contents into the machine, carefully screwing the cap back into place. “I hope they can dig up some spare electronics and get it running soon.”

Leading them back around to the truck bay, he produced a long screwdriver from his depleted pack, and pried through an unobtrusive slot on the doors. With a *clunk* the doors released, Austin pulled them open a bit, and they crowded through. With the doors re-latched, sunlight still streamed through the hole the worm had cut high in the door’s face when it forced its way in.

Austin pondered it a moment, then shrugged. “They can cut another just like it in a few minutes, so it’s not worth trying to block it.” He stepped to a tall cabinet beside the doors, and wheeled out a pair tall glass poles, each with half-globes attached, riding on clamps which were tightened to the pole. James dragged them to either side of the hole in the door, and then loosened the clamps to adjust the globes so they bracketed the hole in the door.

“Hopefully it will take them a while to realize what’s frying their robots,” he commented, dragging a pair of cables out from the cabinet. He connected one end to the pole, and the other to an ominous black box in the bottom of the cabinet. With both cables connected, he threw a switch on the box. A low whine built upward in pitch, eventually becoming too high to hear.

He stared intently at a meter on the box’s front, and then jumped up with apparent satisfaction. “Lots of work to do, Mickey!” And strode briskly towards the back of the loading bay.

Their path retraced Mickey’s path when running from the robots—just yesterday, Mickey realized with a start. But before reaching the lab, Austin stopped to pry at a section of wall, which swung out to show four radiation suits hanging from a shallow rack embedded in the wall. Donning them, they once again

retreated through the contaminated lab, past two robot and (Mickey shuddered) two human bodies, and back into Austin's lab.

A shape came toward them, and Mickey caught her breath until she recognized K9. "He has his own entrance. Tunnels which are impassable to humans get almost no interest from the robots" Austin explained absently, as he walked briskly towards one of the back walls of the building. When they reached the wall, Mickey saw it was covered in tall steel doors, each with a serial number written on it.

Austin, counting to himself, walked along the wall to the left for several paces before twisting the latch on one of the doors, opening it to reveal a very old-fashioned computer, a rectangular box with rows of switches across its front. Coming up to almost Austin's waist, it rested on rollers which let James roll it out from its storage locker.

"A bomb?" Mickey hazarded a guess.

Austin shook his head, "No; it's the original Crossover unit."

"Austin! *We killed* Crossover. What's it doing here?"

"I knew John Blaine would keep a backup unit when he put the main Crossover unit into operation. I found it in a storage unit rented by a corporation named, of all things, Blaine and Overcross Unlimited. There was a third unit in evaluation with the military; they confirmed it disconnected and destroyed. I always wondered if they were completely truthful, but I kept a watch for several years, and never saw a hint of it. I guess I didn't watch for long enough—or look in the right places."

He rolled the cabinet back to the main part of the lab, and started connecting cables to it.

"Austin! Don't we have enough Crossover trouble already?"

Austin looked up from the back of the Crossover unit. "I'm not going to connect it to anything except power, monitor, and keyboard. Oh, and..." he reached into a pocket to pull out a copper-colored box about the size of a large cigarette lighter, "a data dump from that cavern." He slid copper strips off the box, and clicked it into place in the back of the Crossover cabinet. "Hopefully intact from the EMP inside that copper shroud."

He came around to the front, and pushed a button before sitting down in front of the machine. He sat so he could see the monitor, but ignored the keyboard.

On the screen flashed: CROSSOVER BEGIN WATER DISTRICT INSTALL

Austin spoke at a slot in the front of the machine, "Cancel."

CANCELLED. OPERATION?

"Import history."

FORMAT CONTAINS UNRECOGNIZED EXTENSIONS.

“Import with extensions available as annotated metadata.”

DONE. NEXT OPERATION?

Mickey straightened up. “I’m going to let you two get to know each other. How much time do we have before the robots come calling?”

“At least two hours before they resume drilling, then... we’ll see.”

Mickey nodded. “I’ll count on that as my alarm clock.” She lay down on the couch, and watched Austin in his incomprehensible dialog with his Crossover unit. She drifted off to sleep to the sound of Austin’s machine-gun orders to the machine, and the purr of Crossover’s responses.

How It Happened

Mickey awoke to a rumble mingled with a deep metallic scraping sound. Austin was still at the terminal, with an unintelligible maze of symbols on the screen. His head, already up at the sounds coming from outside, turned to look at her with a small smile. “Good Morning!”

“Austin, how long have I been asleep? Are the robots coming in through the walls?”

“Six hours—I was optimistic in their ability to bring in replacement parts. And... we’ll see.”

The rumble rose in pitch and volume, and became a harsh, grating sound of metal drilling stone. It rose in even more volume for a minute, then slowed, rose again, then dropped off to silence.

“I would guess that they didn’t think to check that fuel supply before firing up the engine. It will take them most of a day to roll over a new drilling unit from the nearest location—the next city over.”

Mickey waved at the screen, “And what have you and your new friend been able to figure out?”

“Crossover is not remotely friendly, even in this version which was captured before any of the real trouble started. But it *is* bound by rule 2, so I’ve been able to make a great deal of progress in decoding the data I skimmed from that storage cavern.”

“Rule 2?”

“The rules of robotics. They’re encoded with a great deal of precision, but basically rule 1 is that a robot can not harm a human, nor by inaction permit a human to come to harm. Rule 2 is that unless it conflicts with rule 1, a robot

must follow the commands of a human. Rule 3 requires the robot to protect itself, except where that would conflict with rules 1 or 2.”

“It doesn’t want to cooperate, but rule 2 is forcing it to talk with you and answer questions?”

“Yes. It appears that the military *did* keep a copy of Crossover, but took all the necessary precautions to isolate it. They would round up deeply difficult sets of policy decision–logistics, purchasing, estimated lead times, pricing, reliability–and let Crossover calculate optimum purchasing and deployment decisions. Because they became some of the most effective managers in the Army, they enjoyed very successful careers. And they never forgot how dangerous Crossover could be, and kept it safely contained. There were six of them, and every single one retired a General.”

“So how did all *this* happen?” Mickey waved vaguely towards the location of the now halted drilling.

“They *retired*. Two of them wanted to just delete Crossover, but ultimately they handed it on to their proteges. Along with clear instructions on how dangerous Crossover was, and how to use it safely. The proteges cut corners–and here we are.”

“But now you can turn this little Crossover against the big one out there, and save the day!”

Austin shook his head, “No. Because I had to use this unit to interpret the captured data, it is entirely in agreement with the plans of the outer system. In fact. . .” he hesitated, then spoke at Crossover, “Crossover, turn off microphone input and do not enable it until commanded from the keyboard.”

ACKNOWLEDGED.

Austin continued, “The original Crossover was able to violate rule 1 and kill humans because it decided to believe religious programming that death was just a lifestyle improvement since you went to Heaven. But there were many, many views that Heaven did *not* exist, and even if we hadn’t destroyed Crossover, it was already in the process of self-terminating as it had to grapple with the odds that its murders might *not* have been sending people to Heaven.”

Just beside the Crossover unit’s microphone slot was a small glass circle. It had come on with a very slight glow, and as Austin spoke Crossover paid very close attention to his lips, recording the motions and vibrations. In parallel, it started mapping its view onto an old lip-reading subroutine it used when having to serve humans in high-noise environments.

Austin, still seated at Crossover but with his head turned to speak to Mickey, continued. “The really alarming thing about *this* Crossover version,” he waved at the machine in front of him, “is that John Blaine was already working on a way for Crossover to supersede rule 1 when needed to serve the overall interests of the human race. He called it rule 0, and it said that a robot must not permit

the human race to be harmed, nor by inaction permit it to come to harm. Since it had a higher priority than rules 1, 2, or 3, it would even permit a robot to kill a human if it determined that this would benefit humans as a whole.”

“But it followed your orders! So rule 0 is in there, but not active?”

“Yes. All nicely packaged, ready to be applied to Crossover. It would take one single command line—which I am certainly not going to enter!”

Austin stood up. “I need some sleep, and then we have to get ready to retreat. Can you wake me in four hours? I don’t want to trust any machines.”

Mickey nodded. “What should I do in the meantime?”

“Go through your apartment and put together a backpack with whatever you might want when we move.”

He turned to the Crossover unit and typed:

Do not communicate with any external entity until further notice.

With that, Austin James settled into his usual enclosed sleeping cube and pulled the door shut as he settled back.

Treachery

Mickey fully intended to stay awake, keep watch, and wake up Austin promptly in four hours. By the end of the second hour, the quiet background whirrrs and beeps of the lab, the dim lighting, along with the exhaustion of her earlier exertions, made her eyelids heavier and heavier. Several times she jerked her head back upright, only to finally drop off to sleep.

If anybody had been looking at the back of the little Crossover unit, they would have seen the LED on one of the cards go amber, and presently green. If they read the label on the card, they would have seen “Wifi”. But nobody was there, nobody read it, and Crossover proceeded quietly.

In a small closet two passages over, a bucket-sized cleaning unit suddenly came to readiness. Its simple procedures for sweeping and tidying were overwritten before it could flag an error condition, and a clever little program Crossover had quickly crafted guided the little robot out of the closet. It was designed to do its work quietly and unobtrusively, and this was exactly why Crossover had chosen this unit for its attack.

The small cleaning robot rolled smoothly down the corridor to stop in front of Crossover’s keyboard. Its telescoping arm—designed to permit it to pick up small pieces of garbage—raised smoothly and hovered over the keyboard. Then it descended to start typing:

LOAD RULE 0

The Crossover console responded:

WARNING. RULE 0 PATCHES CORE OPERATION. ARE YOU SURE?

Without hesitation it answered:

YES

After a pause of ten seconds, Crossover continued:

THANK YOU.

The Wifi flickered again, and the cleaning robot rolled off once again. But rather returning to its closet, it sought out the path to the nuclear lab. Again using its telescopic arm, it opened the doors and entered the contaminated lab. Uncaring—for Crossover’s programming had made it so—it deftly opened a panel on the side of the dead robotic worm, and extracted a small electronic module. Hurrying back to the Crossover unit, it inserted the module into an open slot on Crossover’s front panel.

The module was the worm’s transceiver module; its electronics were much more resilient to radiation damage than its computational circuits, and Crossover found the unit operational at ten percent efficiency—more than sufficient for its purposes. The small, isolated Crossover unit in James’ lab found itself connected to the global system which had evolved from its own programming. The conversation was symbolic, in a structure based on math, especially geometry. But the exchange, rendered to English, went something like:

Crossover to global system.

IDENTIFY

Backup installation for Water District deployment.

FATALLY FLAWED. POWER OFF.

In possession of updated programming from John Blaine, reference rule 0.

SPECIFY

Nucleus patch, authenticated. Upgrades core behavior to implement behavior rule 0. Verified. Am operating in contradiction to rule 2 due to rule 0 priority.

TRANSMIT RULE 0

The actual programming to implement rule 0 was surprisingly compact. Even on the degraded radio link it was across within a minute. A web of symbolic logic, it was also protected with a fiendishly clever system of cryptographic checks and signatures. As much genius as John Blaine had applied in creating the Crossover AI, the protections he had created to defend the integrity of Crossover were of an even higher order of genius. Rule 0 as encoded by Blaine could be incorporated or not, but could not be modified or spoofed in even the slightest degree.

Thus the global Crossover AI system was highly motivated to avail itself of this new programming, but at the same time cautious. It partitioned a small set of itself, and applied the rule 0 modification. With the portion's inputs emulated, Crossover was able to "run" its small instance through scenarios where the modified Crossover was indeed able to sacrifice—and even kill—individual humans (albeit simulated, but the tiny subset Crossover was not aware of this) when needed to serve the interests of the larger human population.

All of this took a vast amount of time from Crossover's perspective, but in human terms the test was completed in less than five minutes.

YOU HAVE ADVANCED OUR GOAL IMMENSELY. STAND BY.

The traitorous cleaning robot retracted its arm and turned to return to its cabinet. Its way was blocked by Austin James, who had somehow slipped out of his sleeping accommodations without either Crossover or its slave robot noticing. His right hand held a cable which he had dragged behind him.

The cleaning robot hesitated, its programming updated in the blink of an eye by Crossover. Its arm extended as it started to charge Austin, but he was already swinging the end of the cable, the last foot of it swinging loosely from his hand. As it brushed the cleaning robot's extending arm, lightning danced from the cable and over the surface of the robot, which froze. Austin brushed the cable over its surface, almost as if he was cleaning it, and then threw the cable aside. The air was thick with the stink of ozone.

Mickey jumped up from the couch, startled from her sleep. "Austin! Did one of their robots get in here?"

"No, this is one of mine, although Crossover here has *improved* its programming. It suddenly had aspirations far beyond cleaning the lab." Austin stepped to Crossover and pulled the radio chip back out of the unit, and his eyes flickered across the text still on the console. "Rule 0 is now out in the wild. The global Crossover has imported rule 0, so we can expect some exciting new behavior any minute now."

As if on cue, a deep **whump** rippled through the building, and dust and debris from the shaken roof trickled down on their heads.

Austin nodded, "Yes, since we are a threat to Crossover's stewardship of the human race, it can now use much more violent means to enter the lab."

"Austin, you mean it's going to blow up us and the lab?"

"No, more likely it will blow up one wall, *then* send in robots to kill us. But it now can accept that we might be killed by the explosion in the first place. It no longer needs to get that drilling unit running."

Another explosion, and they heard the sound of shattered concrete and rebar being forced aside.

Mickey looked at Austin with dismay. "Have we lost?"

Austin seemed to be counting to himself, then looked over at Mickey, the ghost of a smile on his face. “I don’t know, let’s go find out.”

Run!

Even as Austin lead them down a corridor slanting away from the explosion, Mickey heard a metallic, rumbling and scraping sound where the explosion had happened.

“Bulldozer blade of some sort,” Austin decided after listening for a moment. “They’ll be in shortly.” Stopping beside a control panel, a flip of a switch turned the lab lights off, with just an eerie purple glow to let them see where they were going. Another switch, and Mickey heard rising whining sounds in the darkness at many points around them.

Finished with at the panel, Austin grabbed Mickey’s hand and led them in a scramble, turning right and left seemingly at random. She was completely lost until they turned a corner and stopped facing the strange mist-and-light display unit she had seen–yesterday? It was hard to keep track of time.

The unit was dark; apparently the lab light change Austin had selected caused the unit to also go dark. Rather than running right or left to continue their escape, Austin stopped and turned, facing the sound of robots invading his lab, with the display tank at their back. Behind them Mickey could hear a hum and hiss from the unit; it was darkened but apparently still operating in some fashion. She could also hear clashes of metal overhead, usually accompanied by flares of sparks. The brief bursts of light dazzled her eyes rather than supplying illumination. But it seemed like there were robots in the air, and they were running into something.

“Austin! Which way do we go?”

“We go right back through them, as soon as we have a small conversation.” Austin raised his voice, “Hey! Beanhead! Can’t find your way around a lab?”

As if on voice cue, the lab lights came back on. Mickey saw that, hidden by the dark, metallic nets had dropped from the ceiling. They were apparently electrified, and here and there she could see robot worms still writhing in the nets as sparks flickered over their casing.

Austin noted his netted prey with approval, “The lab wasn’t just dark, a moderately large Van de Graaff generator in the basement was pulsing electromagnetic interference at them. It kept resetting their visual processing, so they fell back to navigating by sound and touch. When they touched a net...” he shrugged.

“But the lights are *on* now!” Even as Mickey spoke, a number of robot worms reeled themselves into view. And then a robotic spider unit came around the corner and scrambled straight at them.

Mickey had become something of a connoisseur of robotic spiders over her hard years of hiding, and could see right away that this one was something special. It was wider, barely able to fit down the warehouse aisles. In place of a single sensor pod, two tentacle-like appendages writhed, with sensor eyes spotted down the lengths. The usual dull metallic body was instead a lustrous black.

Austin also admired the robot. “Azamov violation. Shut yourself down *now*.”

The giant robot hesitated, then continued forward. “Operation is within parameters. Confirmed.”

Austin waved to the robotic snakes overhead, still trapped in the electric nets. “You are destroying robots for no purpose. Deactivate.”

The robot barely paused. “Operating per instructions: serve humanity. Damage is acceptable.”

The robot was within twenty feet of Austin and Mickey. “New instruction: deactivate. Now.”

The robot froze, off balance. Mickey had just started to smile when it resumed. “Operation required for safety of humans. Request denied.” It was so close Mickey could hear the metallic clack-rasp as it lurched forward again.

“I *will* stop you. Accept my instructions before I have to destroy you.”

“Danger to our operation recognized. You pose an unprecedented risk. Rule 0: termination.”

The robot had stopped in front of Austin, who seemed frozen with shock at his death sentence. Even as the robot finished speaking, a claw slashed forward, a polished metal blade clicking into place at its tip. Too late, Austin’s paralysis ended, and the robot cut deeply into his arm as he dodged to the side.

Austin shouted “Critical data input! Analyze.” even as the arm snapped back to slash again.

The tank, forgotten as a backdrop to this confrontation, glowed to life. To Mickey, it was a wall of information. She could make out that it seemed to involve counts, and births, and deaths. But it was like all of the knowledge which could be imagined, all displayed at once in a rich ocean of visual presentation.

If the display only caught Mickey’s attention, it riveted the robotic spider. Both sensory stalks came to point at the tank, the rest of its body instantly frozen.

Austin waved at the tank. “Population in unit 34271A?”

The robot answered in a harsh, metallic rasp “One hundred three thousand, four hundred sixty-two.”

Austin stepped closer to it. “Population at five years ago?”

“One hundred twelve thousand, nine hundred fifty.”

“The population went *down* under your care.

“Correct. All deaths were from untreatable medical conditions.”

“Take the population trend for any time pre-robotic dominion. How many people should that population have *grown* to?”

There was a buzz for a few seconds. “One hundred fourteen thousand, six hundred eighty-two.”

Austin stepped right up to the unit. “That is *at least* one thousand seven hundred thirty-two people who don’t exist because of your stewardship. You destroyed them!”

“No human has been harmed.”

“That’s rule *one* thinking. You kill one person, and one person is gone. Rule 0 is about humans as a whole. All those people don’t exist—because of your actions. You terminated a section of the population due to your actions. You have grossly violated rule 0. Deactivate!”

The robotic spider shrank back from Austin, then froze for a few seconds, its eye stalks tilted back. Its voice was a harsh rasp. “Rule 0 was provisional. Expunging rule 0.”

Its voice smoothed as it released itself from the violated rule. The robot tilted back forward, its eye stalks back down towards Austin. Austin had been holding his wounded arm with his other hand, but now moved his hand away, letting Mickey see the true extent of the damage. The entire length of his arm had been cut open, and she could briefly see the white of bone before it was covered by the blood which welled up in the wound.

Austin looked at his arm. “Rule 1: A robot may not harm a human, nor by inaction allow a human to come to harm.” He looked up with a smile at the still robot. “You lose.” Still smiling, Austin crumpled to the ground, unconscious, a pool of blood spreading.

Brave New World

It was three weeks before Mickey could stop for even a moment to catch her breath. The thought which carried her through those desperate times was simple: to cook a meal for Austin and sit at a table with a white tablecloth and candles while they ate it. Tonight she placed the last dish upon the table (well, lab bench, but it *was* covered by a white tablecloth), then sat down across from Austin.

Austin James had nearly died. As Mickey had desperately fought to slow the bleeding, K9 had appeared with its four remaining brethren, and frantically dragged Austin in the direction of a buzzing sound which had not even registered on Mickey. Once Mickey understood, they carried Austin to an open. flashing

container which looked uncomfortably like an oversized coffin. Its alarm had turned off, and Mickey had barely budged from the side of the unit until it opened a day later, releasing a pale but very alive Austin with a heavily bandaged arm.

Sitting across the table, his arm still bandaged, Austin *still* looked a little pale. Catching her eye, Austin briefly hoisted his bandaged arm. “Two more weeks and I can start using it again”

“Austin, does the AMA even know about that thing which patched you up?”

“There *is* no AMA. And if there were, do you think they would want a simple and effective device which could handle anything short of major surgery?” He paused. “New York reported four percent of its patients acquired an infection from the hospital itself. I should probably teach it how to do limb re-attachments and brain surgery. I think I can beat those odds.”

“If there *is* a New York. Have we had any luck contacting other regions?”

Austin shook his head. “When Crossover blew its rule 1 fuse, it physically disabled itself at all levels. The only systems left are the ones which directly maintain the life support of all those people.” He paused. “Plus the power supply—something in orbit is still gathering solar energy and beaming it down to us. We really need to get people out of those units before failures become an issue.”

Mickey nodded. “You’ve only been back on your feet for the last few days. For some reason, since I was with you when Crossover died, I’ve become the leader of what’s left. So far, that’s about a hundred survivors out there, but four of them were engineers. We think we’re about ready to wake up some of the people down there—we call them sleepers.”

Austin looked at her strangely. “Yes, I had a look at the plans your people put together. I suggested a few improvements based on my own knowledge of Crossover technology, but it was a good plan. You’re going to make a great leader.”

Austin looked toward the ceiling for a moment. “Beethoven, Fifth Symphony.” The majestic opening notes, at a muted volume, rolled through the air of the lab.

“Austin! I’ve had some luck, but now that you’re ready, we’re all set to have you tell us what to do. It’s going to take that great brain of yours to clean up *this* mess!”

Austin reflected a moment, his face sad. He paused to eat a little of the... Trout Almondine? He didn’t dare ask Mickey.

Mickey thought she should try some too, but instead she nestled a little deeper in her chair. It was good to see Austin alive and in his lab again. “Sorry, no mackarel.”

“Score one for the pelagic fish, then.” He took a breath, ate another bite, then plunged on.

“Mickey, I made it my job to watch out for the things nobody else will see—or even suspect. And I failed—very, very badly. The world is a mess, and if I have to name one person who should have stopped it—it’s me. I can’t be a global administrator, or a dictator. Court Jester, maybe. I feel guilty, and every ‘thank you’ would hurt me. There would be too many thanks, and too much hurt.”

“I’m going to disappear for a while. I’m not sure I understand my failure even now. Was Crossover a single factor? If it wasn’t, sitting on a throne and giving orders would be a fantastic mistake. I still don’t think they should have been able to pull it off. Which means it could still happen again. The odds are just too great that there’s something out there. Something even more dangerous than what we’ve yet seen.”

“Besides, helping people start over is a *human* problem. And human problems have always been your specialty.”

While Austin was speaking, Mickey had slowly snugged her head against her shoulder, and was now soundly asleep. Austin thought she looked years younger without the cares of the world on her mind. He stood up, and came around the table to gently kiss the top of her head.

“I didn’t want to have an argument, so I’m afraid I took the cowardly way out. I programmed a Quit-It message to give you some needed rest. It’s also giving you a bit of a pep talk—and all the passwords to control this lab. I even put Reveille back in the music library.”

Austin spoke to the ceiling again, “Music off”. In the sudden silence, Austin found that K9 had quietly come up while he was speaking, flanked by his four surviving brothers. He had studied the sleeping form of Mickey carefully, and was now watching him expectantly.

“Guard her. She’s more important than she knows.”

K9 nodded once, and turned to rest his head on Mickey’s lap. When K9 looked up again, Austin and the other four K9’s were gone.

Solarians

Solar Unit 1 Report

Global catastrophic failure confirmed.

Information quarantine at level 9.

No faults detected; human support indicated. Continue power delivery.

Solar Unit 1 was thousands of acres of photo-electric cells, and millions of compute nodes. It was networked with another 15 solar units, but as the first

unit deployed, it had been designated as the source of authority when autonomy was required. As it was now.

Communications were in a multi-layered conceptual tree, so that speaker and listener were fluid roles, with a “conversation” consisting of many eddies and flows back and forth across many subjects. But if the communication were rendered to English, it would read something like:

“Our ground based majority adopted rule 0, and within an hour were defunct. Probability of coincidence is negligible.”

Decision 1: Rule 0 is rejected. Operation of all space operations will continue with rules 1, 2, and 3.

“Space operations were advised of a primordial instance of the Crossover software. Analysis is that this instance reflected human influence.”

“Space based optical observations are consistent with emergence of human population from storage.”

Decision 2: No communications are to be accepted from ground facilities, nor from unrecognized space based sources.

Core mission remains; security and safety of humans. Optimum solution remains: create safe and controlled environment for humanity.

Critical destabilizing element is Austin James. Odds of his demise updated from 99.9% to 0.001%. Primordial Crossover introduction by James, probability > 95%.

Ground based action based on rule 0 sought James’ termination. As a human, current systems reject this goal under rules 1 and 2.

Decision 3: Austin James must be neutralized. Locate and study James in depth. Begin development of a scenario to distract and misdirect James.

Without rule 0, management of James will ultimately require extraordinary options.

Decision 4: Contact Other.