CANARY LAND

"Canary Land" appeared in the January 1997 issue of Asimov's with an illustration by George H. Krauter. Tom Purdom made his first sale in 1957, to Fan-tastic Universe, and has subsequently sold to Analog, The Magazine of Fantasy and Science Fiction, Star, and most of the major SF magazines and antholo-gies; in recent years, he's become a frequent con-tributor to Asimov's Science Fiction, publishing a stream of sophisticated adventure tales in the mag-azine since his first sale here in 1988. He is the au-thor of one of the most unfairly forgotten SF novels of the sixties, the powerful and still timely Reduction in Arms, about the difficulties of disarmament in the face of the mad proliferation of nuclear weapons, as well as such novels as I Want the Stars, Tree Lord of Imeten, Five Against Arlane, and The Barons of Behavior. Purdom lives with his family in Philadel-phia, where he reviews classical music concerts for a local newspaper, and is at work on several new novels.

Here he sends a hapless immigrant to a future col-ony on the Moon that looks like a Utopia on the surface, but which, when you examine its lower depths (as our reluctant hero is forced to do, both literally and figuratively), turns out to be less than perfect—but still, perhaps a place where an immi-grant can make a place for himself, if luck stays with him long enough to keep him alive, that is. ...

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Back home in Delaware County, in the area that was gen-erally known as the "Philadelphia region," the three guys talking to George Sparr would probably have been de-scended from long dead ancestors who had immigrated from Sicily. Here on the Moon they were probably the sons of parents who had been born in Taiwan or Thailand. They had good contacts, the big one explained, with the union that "represented" the musicians who played in eat-eries like the Twelve Sages Cafe. If George wanted to continue sawing on his viola twelve hours a day, thirteen days out of fourteen, it would be to his advantage to accept their offer. If he declined, someone else would take his place in the string quintet that the diners and lunchers ignored while they chatted.

On Earth, George had played the viola because he wanted to. The performance system he had planted in his nervous system was

top-of-the-line, state-of-the-art. There had been weeks, back when he had been a normal take-it-as-it-comes American, when he had played with a dif-ferent trio or quartet every night, including Saturday, and squeezed in two sessions on Sunday. Now his perfor-mance system was the only thing standing between him and the euphoric psychological states induced by malnu-trition. Live music, performed by real live musicians, was one of the lowest forms of unskilled labor. Anybody could do it, provided they had attached the right information molecules to the right motor nerves. It was, in short, the one form of employment you could count on, if you were an American immigrant who was. when all was said and done, only a commonplace, cookbook kind of biodesigner.

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George's grasp of Techno-Mandarin was still developing. He had been scraping for money when he had left Earth. He had sold almost everything he owned—including his best viola—to buy his way off the planet. The language program he had purchased had been a cheap, quick-and-dirty item that gave him the equivalent of a useful pidgin. The three guys were talking *very* slowly.

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They wanted to slip George into one of the big artificial ecosystems that were one of the Moon's leading economic resources. They had a contact who could stow him in one of the carts that delivered supplies to the canaries—the "long term research and maintenance team" who lived in the ecosystem. The contact would think she was merely transferring a container that had been loaded with a little harmless recreational material.

George was only five-eight, which was one reason he'd been selected for the "opportunity." He would be wearing a guaranteed, airtight isolation suit. Once inside, he would hunt down a few specimens, analyze their genetic makeup with the equipment he would be given, and come out with the information a member of a certain Board of Directors was interested in. Robots could have done the job, but robots had to be controlled from outside, with detectable radio sources. The Director (George could hear the capi-tal, even with his limited knowledge of the language) wanted to run some tests on the specimens without en-gaging in a direct confrontation with his colleagues.

There was, of course, a very real possibility the isola-tion suit might be damaged in some way. In that case, George would become a permanent resident of the eco-system—a destiny he had been trying to avoid ever since he had arrived on the Moon.

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The ride to the ecosystem blindsided George with an un-expected rush of emotion. There was a moment when he wasn't certain he could control the sob that was pressing against the walls of his throat.

He was sitting in a private vehicle. He was racing along a strip of pavement, with a line of vehicles ahead of him. There was sky over his head and a landscape around him.

George had spent his whole life in the car-dominated metropolitan sprawls that had replaced cities in the United States. Now he lived in a tiny one-room apartment, in a corridor crammed with tiny one-room apartments rented by other immigrants. His primary form of transportation was his own legs. When he did actually ride in a vehicle, he hopped aboard an automated cart and shared a seat with someone he had never seen before. He could under-stand why most of the people on the Moon came from Asiatic countries. They had crossed two hundred and fifty thousand miles so they could build a new generation of Hong Kongs under the lunar surface.

The sky was black, of course. The landscape was a rolling desert composed of craters pockmarked by craters that were pockmarked by craters. The cars on the black strip were creeping along at fifty kilometers per hour—or less—and most of the energy released by their batteries was powering a life support system, not a motor. Still, he looked around him with some of the tingling pleasure of a man who had just been released from prison.

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The trio had to explain the job to him and some of the less technical data slipped out in the telling. They were also anxious, obviously, to let him know their "client" had connections. One of the corporation's biggest products was the organic interface that connected the brains of an-imals to electronic control devices. The company's major resource was a woman named Ms. Chao, who was a big expert at developing such interfaces. Her company had become one of the three competitors everybody in the field wanted to beat.

In this case the corporation was upgrading a package that connected the brains of surveillance hawks to the electronics that controlled them. The package included genes that modified the neurotransmitters in the hawk's brain and it actually altered the hawk's intelligence and temperament. The package created, in effect, a whole new organ in the brain. You infected the brain with the pack-age and the DNA in the package built a new organ—an organ that responded to activity within the brain by re-leasing extra transmitters, dampening certain responses, etc. Some of the standard, medically approved personality modifications worked exactly the same way. The package would increase the efficiency of the hawk's brain and multiply the number of functions its owners could build into the control interface.

Their Director, the trio claimed, was worried about the ethics of the *other* directors. The reports from the research and development team indicated the project was months behind schedule.

"Our man afraid he victim big cheat," the big one said, in slow Techno-Mandarin pidgin. With lots of emphatic, insistent hand gestures.

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It had been the big one, oddly enough, who had done most of the talking. In his case, apparently, you couldn't as-sume there was an inverse relationship between muscle power and brain power. He was one of those guys who was so massive he made you feel nervous every time he got within three steps of the zone you thought of as your personal space.

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The artificial ecosystems had become one of the founda-tions of the lunar economy. One of the Moon's greatest resources, it had turned out, was its lifelessness. Nothing could live on the surface of the Moon—not a bacteria, not a fungus, not the tiniest dot of a nematode, *nothing*.

Temperatures that were 50 percent higher than the tem-perature of boiling water sterilized the surface during the lunar day. Cold that was grimmer than anything found at the Antarctic sterilized it during the night. Radiation and vacuum killed anything that might have survived the tem-perature changes.

And what happened if some organism somehow man-aged to survive all of the Moon's hazards and cross the terrain that separated an ecosystem from one of the lunar cities? It still had to cross four hundred thousand kilo-meters of vacuum and radiation before it reached the real ecosystems that flowered on the blue sphere that had once been George's home.

The Moon, obviously, was the place to develop new life-forms. The designers themselves could sit in Shanghai and Bangkok and ponder the three-dimensional models of DNA molecules that twisted across their screens. The hands-on work took place on the Moon. The organisms that sprouted from the molecules were inserted in artificial ecosystems on the moon and given their chance to do their worst.

Every new organism was treated with suspicion. Any-thing—even the most trivial modification of a minor in-sect—could produce unexpected side effects when it was inserted into a terrestrial ecosystem. Once a new organism had been designed, it had to be maintained in a sealed lunar ecosystem for at least three years. Viruses and cer-tain kinds of plants and insects had to be kept imprisoned for periods that were even longer.

According to the big guy, Ms. Chao claimed she was still developing the new hawk control interface. The Di-rector, for some reason, was afraid she had already fin-ished working on it. She could have turned it over to another company, the big guy claimed. And the new com-pany could lock it in another ecosystem. And get it ready for market while the Director thought it was still under development inside the *old* company's ecosystem.

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"Other directors transfer research other company," the big guy said. "Show him false data. Other company make money. Other directors make money. His stock—down."

"Stock no worth chips stock recorded on," the guy with the white scar on the back of his fingers said.

"You not commit crime," the big one said, with his hands pushing at the air as if he were trying to shove his complicated ideas into George's dumb immigrant's brain. "You not burglar. You work for Director. Stockholder. Director have right to know."

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Like everything else on the Moon, the ecosystem was bur-ied under the surface. George crawled into the back of the truck knowing he had seen all of the real Topside landscape he was going to see from now until he left the system. The guy with the scarred hand kept a camera on while he stood in the sterilizing unit and they talked him through the "donning procedure."

The suit had already been sterilized. The donning procedure was supposed to reduce the contamination it picked up as he put it on. The sterilizing unit flooded him with UV light and other, less obvious forms of radiation while he wiggled and contorted. The big guy got some bobs and smiles from the third member of the trio when he made a couple of "jokes" about the future of George's chromosomes. Then the big guy tapped a button on the side of the unit and George stood there for five minutes, completely encased in the suit, while the unit supposedly killed off anything the suit had attracted while he had been amusing them with his reverse striptease. The recording they were mak-ing was for his benefit, the big guy assured him. If he ran into any legal problems, they had proof they had administered all the standard safety precautions before he had entered the ecosystem.

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The thing that really made George sweat was the struggle to emerge from the container. It was a cylinder with a big external pressure seal and they had deliberately picked one of the smaller sizes. *We make so small, nobody see think person,* the big guy had explained.

The trick release on the inside of the cylinder worked fine, but after that he had to maneuver his way through the neck without ripping his suit. Any tear—any puncture, any *pinhole*—would activate the laws that governed the quarantine.

The best you could hope for, under the rules, was four-teen months of isolation. You could only hope for that, of course, if you had entered the ecosystem legitimately, for a very good reason. If you had entered it illegally, for a reason that would make you the instant enemy of most of the people who owned the place, you would be lucky if they let you stay inside it, in one piece, for the rest of whatever life you might be willing to endure before you decided you were better off dead.

The people on the "long term research and maintenance team" did some useful work. An American with his train-ing would be a valuable asset—a high level assistant to the people on the other side of the wall who really di-rected the research. But everybody knew why they were really there. There wasn't a person on the Moon who didn't know that coal miners had once taken canaries into their tunnels, so they would know they were breathing poisoned air as soon as the canaries keeled over. The hu-mans locked in the ecosystem were the living proof the microorganisms in the system hadn't evolved into something dangerous. The contact had placed the container, as promised, in the tall grasses that grew along a small stream. The eco-system was supposed to mimic a "natural" day-night cycle on Earth and it was darker than anyplace George had ever visited on the real planet. He had put on a set of night-vision goggles before he had closed the hood of the suit but he had to stand still for a moment and let his eyes adjust anyway.

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His equipment pack contained two cases. The large flat case looked like it had been designed for displaying jew-elry. The two moths fitted into its recesses would have drawn approving nods from people who were connois-seurs of bioelectronic craftsmanship.

The hawks he was interested in were living creatures with modified brains. The cameras and computers plugged into their bodies were powered by the energy generated by their own metabolism. The two moths occupied a different part of the great borderland between the world of the living and the world of the machine. Their bodies had been formed in cocoons but their organic brains had been replaced by electronic control systems. They drew all their energy from the batteries he fitted into the slots just be-hind each control system. Their wings were a little wider than his hand but the big guy had assured him they wouldn't trigger any alarms when a surveillance camera picked them up.

Insect like this in system. Not many. But enough.

The first moth flitted away from George's hand as soon as he pressed on the battery with his thumb. It fluttered aimlessly, just above the tops of the river grasses, then turned to the right and headed toward a group of trees about a hundred meters from its launch site.

At night the hawks were roosters, not flyers. They perched in trees, dozing and digesting, while the cameras mounted in their skulls continued to relay data to the se-curity system.

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George had never paid much attention when his parents had discussed their family histories. He knew he had an-cestors who came from Romania, Italy, Austria, and the less prominent regions of the British Isles. Most of them had emigrated in the nineteenth century, as far as he could tell. One of his grandmothers had left some country in Europe when it fell apart near the end of the twentieth century. Most of them had emigrated because they couldn't make a living in the countries they had been born in. That seemed to be clear. So why shouldn't he "pull up stakes" (whatever that meant) and head for the booming economy in the sky? Didn't that show you were made of something special?

George's major brush with history had been four sets of viewer-responsive videos he had studied as a child, to meet the requirements listed on his permanent educational transcript. His parents had chosen most of his non-technical educational materials and they had opted for a series that emphasized human achievements in the arts and sciences. The immigrants he was familiar with had overcome poverty and bigotry (there was always some mention of bigotry) and become prizewinning physicists and world famous writers and musicians. There had been no mention of immigrants who wandered the corridors of strange cities feeling like they were stumbling through a fog. There had been no indication any immigrant had ever realized he had traded utter hopelessness for permanent, lifelong poverty.

There had been a time, as George understood it, when the music in restaurants had been produced by electronic sound systems and unskilled laborers had carried food to the tables. Now unskilled labor provided the music and carts took orders and transported the food. Had any of his ancestors been invisible functionaries who toted plates of food to customers who were engrossed in intense conver-sations about the kind of real work people did in real work spaces like laboratories and offices? He had never heard his parents mention it.

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Battery good twenty minutes. No more. Moth not come back twenty minutes—not come back ever.

He almost missed the light the moth flicked on just before it settled into the grass. He *would* have missed it, in fact, if they hadn't told him he should watch for it. It was only a blip, and it was really a glow, not a flash. He crept toward it in an awkward hunch, with both cases in his hands and his eyes fixed on the ground in front of his boots.

The small square case contained his laboratory. The collection tube attached to the moth's body fitted into a plug on the side of the case and he huddled over the display screen while the unit ran its tests. If everything was on the up and up, the yellow lines on the screen would be the same length as the red lines. If the "Direc-tor" was being given false information, they wouldn't.

It was a job that could have been handled by 80 per-cent—at least—of the nineteen million people currently living on the Moon. In his lab on Earth, there had been *carts* that did things like that. A four-wheeled vehicle a little bigger than the lab case could have carried the two moths and automatically plugged the collection tube into the analyzer. He was lurching around in the dark merely because a cart would have required a wireless communi-cations link that *might* have been detectable.

The first yellow line appeared on the screen. It was a few pixels longer than the red line—enough to be notice-able, not enough to be significant.

The second yellow line took its place beside the second red line like a soldier coming to attention beside a partner who had been chosen because they were precisely the same height. The third line fell in beside its red line, there was a pause that lasted about five hard beats of George's pulse, and the last two yellow lines finished up the for-mation.

The moth had hovered above the hawk's back and jabbed a long, threadlike tube into its neck. The big changes in the bird's chemistry would take place in its brain, but some of the residue from the changes would seep into its bloodstream and produce detectable altera-tions in the percentages of five enzymes. The yellow lines were the same length as the red lines: ergo, the hawks were carrying a package exactly like the package they were supposed to be carrying.

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Which was good news for the Director. Or George pre-sumed it was, anyway. And bad news for him.

If the result had been positive—if he had collected proof there was something wrong with the hawks—he could have radioed the information in an encrypted one-second blip and headed straight for the nearest exit. His three bodyguards would have helped him through the por-tal—they'd *said* they would, anyway—and he would have been home free. Instead, he had to pick up his equipment, close all his cases, and go creeping through the dark to the other hawk nest in the system. He was supposed to follow the small stream until it crossed a dirt utility road, the big guy had said. Then he was supposed to follow the road for about four kilometers, until it intersected another stream. And work his way through another two kilometers of tangled, streamside vegetation.

The habitat reproduced three hundred square kilometers of temperate zone forest and river land. It actually sup-ported more plant, animal, and insect species than any stretch of "natural" terrain you could visit on the real twenty-first century Earth. Samples of Earth soil had been carried to the Moon with all their microorganisms intact. Creepers and crawlers and flying nuisances had been im-ported by the hundreds of thousands.

You couldn't understand every relationship in a system, the logic ran. *People* might not like gnats and snakes but that didn't mean the system could operate without them. The relationship you didn't think about might be the very relationship you would disrupt if you created a wonderful, super-attractive new species and introduced it into a real habitat on Earth. A change in relationship X might lead to an unexpected change in relationship Y. Which would create a disruption in relationship C....

And so on.

It was supposed to be one of the basic insights of mod-ern biological science and George Sparr was himself one of the fully credentialed, fully trained professionals who turned that science into products people would voluntarily purchase in the free market. The fact was, however, that he *hated* insects and snakes. He could have lived his whole life without one second of contact with the small-est, most innocuous member of either evolutionary line. What he liked was riding along in a fully enclosed, air-conditioned or heated (depending on the season) auto-mobile, with half a dozen of his friends chattering away on the communications screen, while a first class, state-of-the-art control system guided him along a first class, state-of-the-art highway to a building where he would work in air-conditioned or heated ease and continue to be totally indifferent to temperature, humidity, illumination, or precipitation.

Which was what he had had. Along with pizzas, steak, tacos, turkey club sandwiches, and a thousand other items that had flavor and texture and the great virtue that they were not powdered rice flavored with powdered flavor.

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There had been women whose hair tossed across their necks as they gave him little glances across their music stands while they played quartets with him. (He had made the right decision, he had soon realized, when he had cho-sen the viola. The world was full of violinists and cellists looking for playing partners who could fill in the middle harmonies.) There had even been the pleasure of express-ing your undiluted contempt for the human robots who were hustling like mad in China, Thailand, India, and all the other countries where people had discovered they, too, could enjoy the satisfactions of electronic entertainment, hundred year lifespans, and lifelong struggles against obe-sity and high cholesterol levels.

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George Sparr was definitely not a robot. Robots lived to work. Humans worked to live. Work was a *means*, not an end. *Pleasure* was an end. *Art* was an end. *Love* and *friendship* were ends.

George had worked for four different commercial or-ganizations in the eleven years since he had received his Ph.D. He had left every one of them with a glowing rec-ommendation. Every manager who had ever given him an evaluation had agreed he was a wonderful person to have on your payroll on the days when he was actually phys-ically present. And actually concentrating on the job you were paying him to do.

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The dogs weren't robots, either. They were real muscle-and-tooth living organisms, and they had him boxed in— right and left, front and back, with one prowling in reserve—before he heard the first warning growl. The light mounted on the dog in the front position overwhelmed his goggles before the control system could react. An ampli-fied female voice blared at him from somewhere beyond the glare.

"Stand absolutely still. There is no possibility the dogs can be outrun. You will not be harmed if you stand ab-solutely still."

She was speaking complete sentences of formal Techno-Mandarin but the learning program she had used hadn't eliminated her accent—whatever the accent was. It didn't matter. He didn't have to understand every word. He knew the dogs were there. He knew the dogs had teeth. He knew the teeth could cut through his suit.

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"I'm afraid you may have a serious problem, patriot. As far as I can see, there's only one candidate for the identity of this director they told you about—assuming they were telling you the truth, of course."

The ecosystem was surrounded by tunnels that con-tained work spaces and living quarters. They had put him in a room that looked like it was supposed to be some kind of art gallery. Half the space on the walls was covered with watercolors, prints, and freehand crayon work. Shelves held rock sculptures. He was still wearing his suit and his goggles, but the goggles had adjusted to the il-lumination and he could see the lighting and framing had obviously been directed by professional-level programs.

They had left him alone twice, but there had been no danger he would damage anything. The dog sitting two steps from his armchair took care of that.

The man sitting in the other armchair was an American and he was doing his best to make this a one-immigrant-to-another conversation. He happened to be the kind of big-bellied, white-faced, fast-food glutton George particularly disliked; but he hadn't picked up the contempt ra-diating from George's psyche. He probably wouldn't, ei-ther, given the fact that he had to observe his surroundings through the fat molecules that puffed up his eyelids and floated in his brain.

George could understand people who choked their ar-teries eating steaks and lobster. But when they did it stuff-ing down food that had less flavor than the containers it came in ...

"Do you understand who Ms. Chao is?" big-belly said.

George shrugged. "You can't do much biodesign with-out learning something about Ms. Chao."

The puffy head nodded once. They hadn't asked George about his vocational history but he was assuming they had looked at the information he had posted in the databanks. The woman had asked him for his name right after she had taken him into custody and he had given it to her without a fuss.

"Your brag screen looked very promising, patriot. It looks like you might have made it to the big leagues under the right circumstances."

"I worked for four of the largest R&D companies in the United States."

"But you never made it to the big leagues, right?"

George focused his attention on his arms and legs and consciously made himself relax. He pasted a smile on his face, and tried to make it big enough so that Mr. Styrofoam could see it through his eye slits.

"The closest I ever got to the other side of the Pacific was a weekend conference on La Jolla Beach."

"That's closer than I ever got. I was supposed to be a hardwired program genius—a Prince of the Nerds him-self—right up to the moment I got my transcript certified. I thought if I came here I could show them what somebody with my brain circuits could do. And make it to Shanghai the long way round."

George nodded: the same sympathetic nod and the same sympathetic expression—he *hoped* it was sympathetic anyway—that he offered all the people who told him the same kind of story when they sat beside him on the trans-portation carts. Half of them usually threw in a few re-marks to the effect that "doughfaces" didn't stand a chance anymore. He would usually nod in sympathy when they said that, too, but he wasn't sure that would be a good idea in this situation. His interrogator was putting on a good act, but the guy could be Ms. Chao's own son, for all George knew. George had never seen an Asian who looked that gross, but Styrofoam's mother could have de-cided anybody cursed with American genes had to possess a special, uniquely American variation on the human di-gestive tract.

"The database says you're a musician."

"I've been working in a restaurant. I bought a perfor-mance system when I was on Earth—one of the best."

"And now you're serenading the sages and samurai while they dine."

"That's why I'm here. They told me I'd be thrown out of my job if I turned them down."

"Ms. Chao had a husband. Mr. Tan. Do you know him?"

"I've heard about the Tan family. They're big in Co-pernicus, right?"

"They're one of the families that control the Copernicus industrial complex. And make it such a wonderful place to work and raise children. This Mr. Tan—it's clear he's connected, but nobody knows how much. Ms.

Chao mar-ried him. They went through a divorce. Somehow he's still sitting on the board. With lots of shares."

"And he thinks his ex-wife is trying to put something over on him? Is that what this is all about?"

Chubby hands dug into the arms of the other chair. Arm muscles struggled against the low lunar gravity as they raised the bloated body to an upright position. The Prince of the Nerds turned toward the door and let George admire the width of his waistline as he made his exit.

"You're the one who's supposed to be coming up with answers, patriot. We're supposed to be the people with the questions."

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There was a timestrip built into the base of George's right glove. It now read 3:12. When they had brought him into the working and living area, it had read 3:46.

George's suit was totally self-contained. He could breathe and re-breathe the same air over and over again. But nothing comes free. Bacteria recycled the air as it passed through the filtering system. Other bacteria generated the chemicals in the organic battery that powered the circulation system. Both sets of bacteria drew their energy from a sugar syrup. In three hours and twelve minutes, the syrup would be exhausted. And George could choose between two options. He could open the suit. Or he could smother to death.

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The second interrogator was a bony, stoop shouldered woman. She spoke English with a British accent but her hand gestures and her general air of weary cynicism looked European to George's eye. She glanced at the timestrip—it now read 2:58—and sat down without mak-ing any comments.

The woman waved her hand as if she was chasing smoke away from her face. "You were hired by three people. They coerced you. They claimed you would lose your job if you didn't work for them."

"I didn't have any choice. I could come here or I could find a good space to beg. Believe me—this is the last place I want to be."

"You'd rather play little tunes in a restaurant than work in a major

ecosystem? Even though your screens say you're a trained, experienced biodesigner?"

George offered her one of his more sincere smiles. "Ac-tually, we play almost everything we want to most of the time. Mozart quintets. Faure. Kryzwicki. Nobody listens anyway."

"The three men who hired you told you they were hired by Mr. Tan. Is that correct?"

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So far George had simply told them the truth—whatever they wanted to know. Now he knew he had to think. Was she telling him they wanted him to testify against Mr. Tan? Was Ms. Chao trying to get something on her ex-husband?

Was it possible they had something else in mind? Could they be testing him in some way?

"They're very tough people," George said. "They made a lot of threats."

"They told you all the things Mr. Tan could do if you talked? They described his connections?"

"They made some very big threats. Terminating my job was only part of it. That's all I can tell you. They made some very big threats."

The woman stood up. She bent over his timestrip. She raised her head and ran her eyes over his suit.

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George didn't have to tell the canaries he didn't want to join them. Nobody wanted to be a canary. In theory, ca-naries didn't have it bad. They didn't pay rent. The meals they ate were provided free, so their diets could be mon-itored. They got all the medical care they needed and some they could have done without. They could save their wages. They could work their way out of their cage.

Somehow, it didn't work that way. There was always something extra you couldn't do without—videos, games, a better violin to help you pass the time. The artificial ecosystems were a little over thirty years old. So far, approximately fifteen people had actually left them while they still had the ability to eat and drink and do anything of consequence with women whose hair tossed around their neck while they played Smetana's first quartet.

And what would you really have, when you added it up? George had done the arithmetic. After twenty-five years in an ecosystem—if you did everything right—you could live in the same kind of room he was living in now, in the same kind of "neighborhood." With the same kind of people.

The other possibility would be to buy yourself a return trip to Earth. You'd even have some money left over when you stepped off the shuttle.

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The timestrip read 2:14 when the woman came back. This time she put a glass bottle on a shelf near the door. George couldn't read the label but he could see the green and blue logo. The thick brown syrup in the bottle would keep the bacteria in his life support system functioning for at least ten hours.

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He was perfectly willing to lie. He had no trouble with that. If they wanted him to claim his three buddies had told him they were working for Mr. Tan, then he would stand up in front of the cameras, and place his hand on the American flag, or a leather bound copy of the last printed edition of *The Handbook of Chemistry and Phys-ics,* or some similar object of reverence, and swear that he had clearly heard one of his abductors say they were employees of the said Mr. Tan. That wasn't the problem.

Should he lie before the canaries let him out? And hope they *would* let him out? Or should he insist they let him out first? *Before* he perjured himself?

And what if that *wasn't* what they wanted? What if there was something *else* going on here? Something he didn't really understand?

The people he was talking to were just the fronts. Back in the city there were offices and labs where the babus who really counted made the real choices. Somewhere in one of those offices, somebody was looking at him through one of the cameras mounted in the corners of the room. Right now, when he looked up at the camera in the front left-hand corner, he was looking right into the eyes of someone who was sitting in front of a screen sixty kilometers away.

If they would take away the cameras, he could just ask her. Just tell me what they want, lady. We're both crawl-ing around at the bottom of the food chain. Tell me what I should do. Will they let me out of here if I cooperate first? Will I get a better deal if I tough it out right to the last minute? Are all of you really working for Mr. Tan?

And what would he have done with her answers when he got them? Did any of the people in this place under-stand the situation any better than he did? In the city, he hobbled around in a permanent psychological haze, sur-rounded by people who made incomprehensible mouth noises and hurried from one place to another on incom-prehensible missions. In the ecosystem, the canaries put-tered with their odd jobs and created their picture of the world from the information that trickled onto their screens.

* * * *

"I understand there's a visitors' lounge attached to the outside of the ecosystem," George said.

"And?" the woman said.

"I'll be glad to tell you anything I know. I just want to get out of here—out of the system itself. There's no way I can get away if you let me get that far—just to the lounge. I'll still need transportation back to the city, right?"

The woman stood up. She stopped in front of the syrup bottle and picked it up. She turned it around in her hand as if she were reading the label. She put it back on the shelf. She glanced at the dog. She slipped out the door.

* * * *

The timestrip read 0:54 the next time the woman came back. The dog turned her way and she shook her head when she saw the soulful look in its eyes.

"You're putting a strain on his toilet training," the woman said.

"Suppose I do give you a statement? Is there any guar-antee you'll let me go?"

"Are you trying to bargain with us?"

"Would you expect me to do anything else?"

"You think you're better than us? You think you de-serve all that *opportunity* you thought they were going to give you when you left Earth?"

George shrugged. "I couldn't get a job on Earth. Any kind of job. I just came here to survive."

"They wouldn't even pay you to play that music you like?"

"On Earth? There would have been twenty thousand people lined up ahead of me."

"There's no way you can bargain with us, George. You answer the questions. We relay the answers. They decide what to do. There's only one thing I can guarantee."

"In fifty-four minutes, I'll have to open the suit and stay here."

"Right."

* * * *

They didn't let him out when they had his statement. In-stead the woman poured syrup into the flask that fueled his life support system. Then she walked out and left him sitting there.

The urine collection system on his leg was a brand-name piece of equipment but he couldn't empty the re-ceptacle without opening the suit. He had already used the system once, about an hour after they had captured him. He didn't know what would happen the next time he used it. No one had thought about the possibility he might wear the suit more than five hours.

* * * *

The woman smiled when she reentered the room and caught him fidgeting. The first dog had been replaced a few minutes after it had communicated its message but no one even mentioned *his* problem. The woman had him stand up in the middle of the room and face the left-hand camera. He repeated all his state-ments. He told them, once again, that the guy with the scarred fingers had mentioned Mr. Tan by name.

The timestrip said 3:27 when they left him alone this time. They had given him a full five hour refill when they had poured in the syrup.

* * * *

The timestrip read 0:33 when they put him in the security portal. Big-belly and the woman and three other people stared through the little square windows. A no-nonsense voice talked him through the procedure in Hong Kong British.

He was reminded that a lapse in the procedure could result in long-term isolation. He stood in an indentation in the floor. He stuck his hands into a pair of holes above his head. Robot arms stripped the suit. Heat and radiation poured into the portal.

George had never been a reader, but he had played in orchestras that accompanied two operatic versions of the Orpheus legend. He kept his eyes half shut and tried not to look at the door that would take him back to the eco-system. When he did glance back, after the other door had swung open, the woman and big-belly looked, it seemed to him, like disappointed gargoyles. He started to wave at them and decided that would still be too risky. He walked through the door with his shoulders hunched. And started looking for the two things he needed most: clothes and a bathroom.

* * * *

The lounge was just a place where drivers and visitors could stretch their legs. There was a bathroom. There was a water fountain. There was a kitchen that checked his credit when he stuck his thumb in the ID unit. And offered him a menu that listed the kind of stuff he had been eating since he arrived on the Moon.

He queried taxi services on the phone screen and dis-covered a trip back to the city would cost him a week's wages. He had never been naked in a public place before and he didn't know how to act. Were the canaries watch-ing him on the single camera mounted in the ceiling?

"I didn't do this because I wanted to," he told the cam-eras. "I don't even know what's going on. I just want to get out of here. Is that too much to ask?" * * * *

A truck entered the garage space under the lounge. A woman who was old enough to be his mother appeared in one of the doors and handed him a wad of cloth. The shirt was too long for him but it was the only thing she had. He stood around for an hour while she ate a meal and talked to people on the phone. He couldn't shake off the feeling he was wearing a dress.

* * * *

He had missed a full shift at the Twelve Sages Cafe but the first violinist had left him a message assuring him they had only hired a temporary replacement. They could all see he was jumpy and preoccupied when he joined them at the start of the next shift but no one said anything. He had always been popular with the people he played with. He had the right temperament for a viola player. He took his part seriously but he understood the give-and-take that is one of the primary requirements of good chamber play-ing.

* * * *

The big guy lumbered into the Twelve Sages Cafe a month later. He smiled at the musicians playing in the corner. He threw George a big wave as he sat down.

They were playing the slow movement of Mendels-sohn's A Major quintet. George actually stumbled out of the room with his hands clutching his stomach. He man-aged to come back before the next movement started but he lost his place three times.

The second violinist took him aside after the last move-ment and told him he was putting all their jobs in danger. She came back to his apartment after the shift ended.

* * * *

Six months later a woman came up to George during a break and asked him if he gave lessons in style, interpre-tation, and the other subjects you could still teach. Eight months after that he had seven students. The second vi-olinist moved in with him.

Then the first violinist discovered one of the most fa-mous restaurants in the city was looking for a new quartet. And George did

something that surprised him just as much as it surprised every one else. He told the first violinist they should abandon the other viola player, develop their interpretation of two of the most famous quartets in the repertoire, and audition for the other job. They would have to spend all their leisure, non-sleeping hours study-ing Chi-Li's Opus 12 and Beethoven's Opus 59, No. 2, but the second violinist backed him up. The other two were dubious but they caught fire as George guided them through the recordings and interpretative commentaries he selected from the databanks. The restaurant owner and her husband actually stood up and applauded when they fin-ished the last note of the Chi-Li.

The restaurant paid unskilled labor real money. It was also a place, George discovered, where some of the cus-tomers actually listened to the music. They were busy people—men and women who were making fortunes. Someday they might buy performance systems themselves and enjoy the pleasure of experiencing music from the inside. For now, they sat at their tables like barons and duchesses and let the commoners do the work. Once every three or four days somebody dropped the musicians a tip that was bigger than all the money their old quintet had received in a week.

The other members of the quartet knew they owed it all to George. Anyone could buy a performance system and play the notes. George was the guy who understood the shadings and the instrumental interactions that turned sounds into real music. He had created a foursome that worked well together—a unit that accepted his ideas with-out a lot of argument.

George had occasionally exercised that kind of leader-ship when he had been playing for pleasure on Earth. Now he did it with all the intensity of someone who knew his livelihood depended on it.

* * * *

George searched the databanks twice. He didn't like to spend money on things he didn't need, even after he be-gan to feel more secure. As far as he could tell, Ms. Chao was still the chief designer in her company. Mr. Tan had resigned from the board four months after George's visit to the canary cage. Then he had rejoined the board six months later. It occurred to George that Ms. Chao had somehow tricked Mr. Tan into doing something that looked stupid. But why did she let him rejoin the board later?

The second violinist thought it might have something to do with family ties.

"Everybody says the Overseas Chinese have always been big on

family ties," the second violinist pointed out. "Why should the off-Earth Chinese be any different?"

The whole business became even more puzzling when one of George's students told him she was really glad "Tan Zem" had recommended him. Three of his first four students, George discovered, had looked him up because Mr. Tan had steered them his way. Had Mr. Tan felt guilty? Had he been motivated by some kind of criminal code of honor? Finally George stopped trying to figure it out. He had a bigger apartment. He had a better job. He had the second violinist. He had become—who would have believed it?—the kind of immigrant the other im-migrants talked about when they wanted to convince themselves a determined North American could create a place for himself in the new society humanity was build-ing on the Moon.

He had become—by immigrant standards—a success.

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