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THE SHADOW KNOWS

I

WHEN IT COMES TO PROPERTY, even old folks move fast. Edwards hadn't been abandoned for more than a year before the snowbirds began moving in. We turned the pride of the U.S. space program into a trailer park in six months, with Airstreams and Winneys parked on the slabs that had once held hangars and barracks.

I was considered sort of the unofficial mayor, since I had served in and out (or up and down, as earthsiders put it) of Edwards for some twenty years before being forced into retirement exactly six days short of ten years before the base itself was budget-cut out of existence by a bankrupt government. I knew where the septic tanks and waterlines had been; I knew where the electrical lines and roads were buried under the blowing sand. And since I had been in maintenance, I knew how to splice up the phone lines and even pirate a little electric from the LA-to-Vegas trunk. Though I didn't know everybody in Slab City, just about everybody knew me.

So when a bald-headed dude in a two-piece suit started going door to door asking for Captain Bewley, folks knew who he was looking for. "You must mean the Colonel," they would say. (I had never been very precise about rank.) Everybody knew I had been what the old-timers called an "astronaut," but nobody knew I had been a lunie, except for a couple of old girlfriends to whom I had shown the kind of tricks you learn in three years at .16g, but that's another and more, well, intimate story altogether.

This story, which also has its intimate aspects, starts with a knock at the door of my ancient, but not exactly venerable, 2009 Road Lord.

* * *

"Captain Bewley, probably you don't remember me, but I was junior day officer when you were number two on maintenance operations at Houbolt—"

"On the far side of the Moon. Flight Lieutenant J. B. 'Here's Johnny' Carson. How could I forget one of the most"—I searched for a word: what's a polite synonym for forgettable?—"agreeable young lunies in the Service. No longer quite so young. And now a civilian, I see."

"Not exactly, sir," he said.

“Not ‘sir’ anymore,” I said. “You would probably outrank me by now, and I’m retired anyway. Just call me Colonel Mayor.”

He didn’t get the joke—Here’s Johnny never got the joke, unless he was the one making it; he just stood there looking uncomfortable. Then I realized he was anxious to get in out of the UV, and that I was being a poor host.

“And come on in,” I said. I put aside the radio-controlled model I was building; or rather, fixing, for one of my unofficial grandsons who couldn’t seem to get the hang of landing. I don’t have any grandkids, or kids, of my own. A career in space, or “in the out” as we used to say, has its down side.

“I see you’ve maintained an interest in flight,” Here’s Johnny said. “That makes my job easier.”

That was clearly my cue, and since we lunies never saw much use in beating around the bush (there being no bushes on the Moon) I decided to let Here’s Johnny off the hook. Or is that mixing metaphors? There are no metaphors on the Moon, either. Everything there is what it is.

Anyway, accommodatingly, I said, “Your job, which is—”

“I’m now working for the UN, Captain Bewley,” he said. “They took over the Service, you know. Even though I’m out of uniform, I’m here on official business. Incognito. To offer you an assignment.”

“An assignment? At my age? The Service threw me out ten years ago because I was too old!”

“It’s a temporary assignment,” he said. “A month, two months at most. But it means accepting a new commission, so they can give you clearance, since the whole project is Top Secret.”

I could hear the caps on the T and the S. I suppose I was supposed to be impressed. I suppose I might have been, fifty years before.

“They’re talking about a promotion to major, with increased retirement and medical benefits,” said Here’s Johnny.

“That would be a de facto demotion, since everybody here calls me colonel already,” I said. “Nothing personal, Here’s Johnny, but you wasted a trip. I already have enough medical and retirement for my old bones. What’s a little extra brass to a seventy-six-year-old with no dependents and few vices?”

“What about space pay?”

“Space pay?”

Here’s Johnny smiled, and I realized he had been beating around the bush the whole time, and enjoying it. “They want to send you back to the Moon, Captain Bewley.”

* * *

In the thrillers of the last century, when you are recruited for a top secret international operation (and this one turned out to be not just international but interplanetary; even interstellar; hell, intergalactic), they send a LearJet with no running lights to pick you up at an unmarked airport and whisk you to an unnamed Caribbean island, where you meet with the well-dressed and ruthless dudes who run the world from behind the scenes.

In real life, in the 2030s at least, you fly coach to Newark.

I knew that Here’s Johnny couldn’t tell me what was going on, at least until I had been sworn in, so on the way back East we just shot the bull and caught up on old times. We hadn’t been friends in the Service—there was age and rank and temperament between us—but time has a way of smoothing out those wrinkles. Most of my old friends were dead; most of his were in civilian life, working for one of the French and Indian firms that serviced the network of communications and weather satellites that were the legacy of the last century’s space programs. The Service Here’s Johnny and I knew had been cut down to a Coast Guard-type outfit running an orbital rescue shuttle and maintaining the lunar asteroid-watch base I had helped build, Houbolt.

“I was lucky enough to draw Houbolt,” Here’s Johnny said, “or I would probably have retired myself three years ago, at fifty.”

I winced. Even the kids were getting old.

* * *

We took a cab straight through the Lincoln/Midtown Tunnel to the UN building in Queens, where I was recommissioned as a major in the Space Service by a bored lady in a magenta uniform. My new papers specified that when I retired again in sixty days I would draw a major’s pension plus augmented medical with a full dental plan.

This was handsome treatment indeed, since I still had several teeth left. I was impressed; and also puzzled. “Okay, Here’s Johnny,” I said as we walked out into the perfect October sunlight (at my age you notice fall more than spring): “Let’s have it. What’s the deal? What’s going on?”

He handed me a room chit for a midtown hotel (the Service had never been able to afford Queens) and a ticket on the first flight out for Reykjavik the next morning; but he held on to a brown envelope with my name scrawled on it.

“I have your orders in this envelope,” he said. “They explain everything. The problem is, well—once I give them to you I’m supposed to stay by your side until I put you on the plane tomorrow morning.”

“And you have a girlfriend.”

“I figured you might.”

So I did. An old girlfriend. At my age, all your girlfriends are old.

* * *

New York is supposed to be one of the dirtiest cities in the world; it is certainly the noisiest. Luckily I like noise and, like most old people, need little sleep. Here’s Johnny must have needed more; he was late. He met me at the Icelandic gate at Reagan International only minutes before my flight’s last boarding call and handed me the brown envelope with my name on it.

“You’re not supposed to open it until you’re on the plane, Captain,” he said. “I mean, Major.”

“Not so fast,” I said, grabbing his wrist. “You got me into this. You must know something about it.”

Here’s Johnny lowered his voice and looked from side to side; like most lunies he loved secrets. “You know Zippe-Buisson, the French firm that cleans up orbital trash?” he said. “A few months ago they noticed a new blip in medium high earth. There weren’t any lost sats on the db; it was too big to be a dropped wrench and too small to be a shuttle tank.”

Ding, went the door. I backed into the gate and held it open with one foot. “Go on,” I said.

“Remember Voyager, the interstellar probe sent out in the 1970s? It carried a disk with digital maps of earth and pictures of humans, even music. Mozart and what’s-his-name—”

Ding ding, went the door. “I remember the joke. ‘Send more Chuck Berry,’ ” I said. “But you’re changing the subject.”

No, he wasn't. Just as the door started to close and I had to jump through, Here's Johnny called out: "Voyager is back. With a passenger."

* * *

The sealed orders, which I opened on the plane, didn't add much to what Here's Johnny had told me. I was officially assigned to the UN's SETI (Search for Extra-Terrestrial Intelligence) Commission, E Team, temporarily stationed at Houbolt, Luna. That was interesting, since Houbolt had been cut back to robot operation before my retirement, and hadn't housed anybody (that I knew of) for almost fifteen years.

I was to proceed to Reykjavik for my meds; I was to communicate with no one about my destination or my assignment. Period. There was no indication what the E Team was (although I had, of course, been given a clue), or what my role in it was to be. Or why I had been chosen.

Reykjavik is supposed to be one of the cleanest cities in the world. It is certainly one of the quietest. I spent the afternoon and most of the evening getting medical tests in a sparkling new hospital wing, where it seemed I was the only patient. The doctors seemed less worried about my physical condition than my brain, blood, and bone status. I'm no medical expert, but I can recognize a cancer scan when I am subjected to one.

In between tests I met my new boss, the head of SETI's E Team, by videophone from Luna. She was a heavyset fifty-ish woman with perfect teeth (now that I had my dental plan, I was noticing teeth again), short blond hair, piercing blue eyes, and a barely perceptible Scandinavian accent. She introduced herself as Dr. Sunda Hvarlgen and said: "Welcome to Reykjavik, Major. I understand you are part of Houbolt's history. I hope they are treating you well in my hometown."

"The films in the waiting room aren't bad," I said. "I watched E.T. twice."

"I promise an official briefing when you get to Houbolt. I just wanted to welcome you to the E Team."

"Does this mean I passed my medicals?"

She rang off impatiently and it struck me as I hung up that the whole purpose of the call had been to get a look at me.

They finished with me at nine P.M. The next morning at seven, I was loaded into a fat-tired van and taken twelve miles north on a paved highway, then east on a track across a lava field. I was the only passenger. The driver was a descendant (or so he

said) of Huggard the Grasping, one of the original lost settlers of Newfoundland. After an hour we passed through the gates of an abandoned air base. Huggard pointed to a small lava ridge with sharp peaks like teeth; behind it I noticed a single silver tooth, even sharper than the rest. It was the nose cone of an Ariane-Daewoo IV.

* * *

The Commission had given up the advantages of an equatorial launch in order to preserve the secrecy of the project; this meant that the burn was almost twenty-eight minutes long. I didn't mind. I hadn't been off planet in eleven years, and the press of six gravities was like an old lover holding me in her arms again. And the curve of the planet below—well, if I had been a sentimental man, I would have cried. But sentiment is for middle age, just as romance is for youth. Old age, like war, has colder feelings; it is, after all, a struggle to the death.

High Orbital was lighted and looked bustling from approach, which surprised me; the station had been shut down years ago except for fueling and docking use. We didn't go inside; just used the universal airlock for transfer to the lunar shuttle, the dirty but reliable old Diana in which I had made so many trips. She was officially Here's Johnny's command, but he was on rotation: presumably his reward for bringing me in alive.

When we old folks forget how decrepit and uninteresting we are, we can count on the young to remind us by ignoring us. The three-person crew of the Diana kept to themselves and spoke only Russo-Japanese. It made for a lonely day and a half, but I didn't mind. The trip to the Moon is one of the loveliest there is. You're leaving one ball of water and heading for another of rock, and there's always a view.

Since the crew didn't know I speak (or at least understand) a little R-J, I got my first clue as to what my assignment might be. I overheard two of them speculating about "ET" (a name that is the same in every language) and one said: "Who would have thought the thing would only relate to old folks?"

That night I slept like a baby. I woke up only once, when we crossed over what we lunies used to call Wolf Creek Pass—the top of the Earth's (relatively) long, steep gravitational well, and the beginning of the short, shallow slope to the Moon. In zero g there's no way this transition can be felt: Yet I awoke, knowing exactly (even after eleven years) where I was.

I was on my way back to the Moon.

* * *

Situated on the farside of the Moon, facing always away from the Earth, Houbolt lies

open to the Universe. In a more imaginative, more intelligent, more spirited age it would be a deep-space optical observatory; or at least a monastery. In our petty, penny-pinching, paranoid century it is used only as a semiautomated Near-Earth-Object, or asteroid, early-warning station. It wouldn't have been kept open at all if it were not for the near-miss of NEO 2201 Oljato back in '14, which had pried loose UN funds as only stark terror will.

Houbolt lies near the center of the farside's great Korolev crater, on a gray regolith plain ringed by jagged mountains unsmoothed by water, wind, or ice; as sheer as the lava sills of Iceland but miles instead of meters high; fantastic enough to remind you over and over, with every glance, that they are made of Moon, not Earth; and that you are in their realm; and that it is not a realm of living things.

I loved it. I had helped build and then maintain the base for four years, so I knew it well. In fact, on seeing that barren landscape again, in which life is neither a promise nor a memory, not even a rumor, I realized why I had stayed in the desert after retirement and not gone back to Tennessee, even though I still had people there. Tennessee is too damn green.

Houbolt is laid out like a starfish, with five small peripheral domes (named for the four winds, plus Other) all connected by forty-meter tubes to the larger central dome known as Grand Central. Hvarlgen met me at the airlock in South, which was still the shop and maintenance dome. I felt at home right away.

I was a little surprised to see that she was in a wheelchair; other than that, she looked the same as on the screen. The blue eyes were even bluer here on the blueless Moon.

"Welcome to Houbolt," she said as we shook hands. "Or back, maybe I should say. Didn't South here used to be your office?" The Moon with its .16g has always drawn more than its share of 'capped, and I could tell by the way she spun the chair around and ran it tilted back on two wheels that it was just right for her. I followed her down the tube toward Grand Central.

I had been afraid Houbolt might have fallen into ruin, like High Orbital, but it was newly painted and the air smelled fresh. Grand Central was bright and cheerful. Hvarlgen's team of lunies had put in a few spots of color, but they hadn't overdone it. All of them were young, in bright yellow tunics. When Hvarlgen introduced me as one of the pioneers of Houbolt, none of them blinked at my name, even though it was one of twenty-two on a plaque just inside the main airlock. I wasn't surprised. The Service is like a mold, an organism with immortality but no memory.

A young lunie showed me to my windowless pie-shaped "wedgie" in North. A loose orange tunic with a SETI patch lay folded on the hammock. But I wasn't about to put on Hvarlgen's uniform until I learned what she was doing.

I found her back in Grand Central waiting by the coffee machine, a giant Russian apparatus that reflected our faces like a funhouse mirror. I was surprised to see myself. When you get to a certain age you stop looking in mirrors.

A hand-drawn poster over the machine read D=118.

“Hours until the Diana returns,” Hvarlgen said. “The lunies see this as a hardship assignment, surprisingly enough. They’re only used to being here a day or two at a time.”

“You promised a briefing,” I said.

“I did.” She drew me a coffee and pointed out a seat. “I assume, since gossip is still the fuel of the Service, that in spite of our best efforts you have managed to learn something about our project here.” She scowled. “If you haven’t, you’d be too dumb to work with.”

“There was a rumor,” I said. “About an ET.”

“An AO,” she corrected. “At this point it’s classified only as an Anomalous Object. Even though it’s not in fact an object. More like an idea for an object. If my work—our work—is successful and we make contact, it will be upgraded to an ET. It was found in earth orbit some sixteen days ago.”

I was impressed. Here’s Johnny hadn’t told me how quickly all this had been pulled together. “You all move fast,” I said.

She nodded. “What else did you hear?”

“Voyager,” I said. “ ‘Send more Chuck Berry.’ ”

“Voyager II, actually. Circa 1977. Which left the heliosphere in 1991, becoming the first human-made object to enter interstellar space. Last month, more than fifty years after its launch, it was found in high Earth orbit with its batteries discharged, its nuclears dead, seemingly derelict. Space junk. How long it had been there, who or what returned it, and why—we still don’t know. As it was brought into lock aboard the recovery vessel, the Jean Genet, what had appeared to be a shadow attached itself to one of the crew, one Hector Mersault, apparently while they were unsuiting. They didn’t notice at first, until they found Mersault sitting in the airlock, half undressed and dazed, as if he had just come out from under anesthesia. He was holding his helmet and the shadow was pooled in it; apparently our AO likes small spaces, like a cat.”

“Likes?”

“We allow ourselves certain anthropomorphisms, Major. We will correct for them later. If necessary. More coffee?”

While she poured us both another cup, I looked around the room; but with lunies it’s hard to tell European from Asian, male from female.

“So where’s this Mersault?” I asked. “Is he here?”

“Not exactly,” Hvarlgen said. “He walked out of an airlock the next morning. But our friend the AO is still with us. Come. I’ll show you.”

* * *

We drained our coffee and I followed Hvarlgen down the tube toward the periphery dome known as Other. She ran with her chair tilted back, so that her front wheels were almost a foot off the floor; I was to learn that this angle of elevation reflected her mood. Other was divided into two semi-hemi-spherical rooms used to grow the environmental we used to call “weed & bean.” There was a small storage shed between the two rooms. We headed straight for the shed. A lunie with a ceremonial (I hoped) wiregun unlocked the door and let us into a gray closed wedgie, small as a prison cell. The door closed behind us. The room was empty except for a plastic chair facing a waist-high shelf, on which sat a clear glass bowl, like a fishbowl, in which was—

Well, a shadow.

It was about the size of a keyboard or a cantaloupe. It was hard to look at; it was sort of there and sort of not there. When I looked to one side, the bowl looked empty; whatever was (or wasn’t) in it, didn’t register on my peripheral vision.

“Our bio teams have been over it,” Hvarlgen said. “It does not register on any instruments. It can’t be touched, weighed, or measured in any way, not even an electrical charge. It’s not even not there. As far as I can guess, it’s some kind of antiparticle soup. Don’t ask me how our eyes can see it. I think they just see the isn’t of it, if you know what I mean.”

I nodded even though I didn’t.

“It doesn’t show up on video; but I am hoping it will register on analog.”

“Analog?”

“Chemical. We’re filming it.” Hvarlgen pointed to a gun-like object jerry-rigged to one wall, which whirred and followed her hand, then aimed back at the bowl. “I had this antique shipped up especially for the job. Everything our AO does is captured on film, twenty-four hours a day.”

“Film!” I said. I was impressed again. “So what exactly does it do?”

“Sits there in the bowl. That’s the problem. It refuses to—but is ‘refuse’ too anthropomorphic a word for you? Let me start over. As far as we can tell, it will only interact with living tissue.”

A shiver went through me. Living tissue? That was me, for a few more years anyway, and I was beginning to understand, or at least suspect, why I was here. But why me? “What exactly do you mean by ‘interact’?” I asked.

Hvarlgen scowled. “Don’t look so worried,” she said. “In spite of what happened to Mersault, this is no suicide assignment. Let’s go get another cup of coffee, and I’ll explain.”

* * *

We left the AO to its bowl, and the lunie with the wiregun to lock up. Back at Grand Central, Hvarlgen poured two more cups of thick, lunar coffee. I was beginning to see her as a wheeled device that ran on the stuff.

“SETI was set up in the middle of the last century,” she said. “In a sense, Voyager was part of the program. NASA took it over toward the end of the century and changed the name, but the idea was the same. They were searching for evidence of intelligent life, the assumption being that actual communication over such vast distances would be impossible. Contact was considered even more remote. But in the event that it did occur, it was assumed that it probably would not be a ‘take me to your leader’ sort of thing, a spaceship landing in London or Peking; that it would be more complicated than that, and that plenty of room for human sensitivity and intuition should be built into the system. Some flexibility. So SETI’s directors set up the E (for ‘Elliot’) Team, which would swing into operation on first contact and operate, for twenty-one days only, in strictest secrecy. No press, no politics. No grown-ups, if you will. It would be run by a single person instead of a committee; a humanist rather than a scientist.”

“A woman rather than a man?”

“That’s just been the luck of the draw. You’ll be surprised to learn how it has backfired in this case.” Hvarlgen scowled again. “Anyway, by the time I got the job, the E Team was more of a sop thrown to the soft sciences than a working position—a brief orientation, a stipend, and a beeper that was never expected to beep. But the

mechanisms were still in place. I was visiting psychology professor at UC Davis, on leave from Reykjavik U, when I got the call—within hours of the Jean Genet incident. I was already on my way up to High Orbital when Mersault died. Or killed himself."

"Or was killed," I offered.

"Whatever. We'll get into that later. At any rate, I exercised the extraordinary authority which the UN had granted the E Team—figuring it would never be used, I'm sure—and had this whole operation set up here at Houbolt."

"Because you didn't want to bring the AO down to Earth."

"It didn't seem like a good idea, at least until we knew what we were dealing with. And High Orbital was in such bad shape, plus it's hard to find people who can tolerate zero g for long periods. I know the Moon, since I did my doctoral project here. So here we are. Everything that has happened since Mersault's death has been my decision. My E Team mandate only extends for six more days. After that, our friend here goes either to the full SETI Commission, as an ET, or to the Q Team—the Quantum Singularity Team—as an AO. Time is of the essence; I'm on a fairly short string, you see. So while I was waiting at High Orbital for my lunie staff to prepare Houbolt, I initiated the second contact myself. I stuck my hand—my right hand—into the bowl."

I looked at her with a new and growing respect.

"It flowed out of the bowl and up my arm, a little above my elbow. Like a long glove, the kind my great-grandmother used to wear to church."

"And?"

"I wrote this down." She showed me a pad on which was written:

'New Growth' written in Icelandic

"It's Icelandic and it means 'New Growth.' I had brought the pad and pencil with me, along with a tape recorder. It was over before I knew it; it didn't even feel strange. I just picked up the pencil and wrote."

"This is your handwriting?"

"Not at all. I'm right-handed, and I wrote this with my left. My right hand was in the bowl."

"Then what?"

“Then it flowed—sort of rippled; it’s quite strange, but you’ll see—back down my arm and into the bowl. All this is at High Orbital in zero g, remember, and there’s nothing to keep our little ET in the bowl except that it wants to be there. Or something.”

“You’re calling it an ET now.”

“Wouldn’t you call this communication, or at least an attempt to communicate? Unofficially speaking, this and its method of arrival are enough to convince me. What else would you call it but an ET?”

“A Ouija smudge?” I thought—but I said nothing. The whole business was beginning to sound crazy to me. The dark nonsubstance in the bowl had looked about as intelligent as the coffee left in my cup; and I wasn’t too sure anymore about the woman in the wheelchair.

“I can see you’re not convinced,” said Hvarlgen. “No matter; you will be. At any rate, I spent the next few hours under guard, like Odysseus lashed to the mast, to make sure I didn’t follow Mersault out an airlock. Then I tried it again.”

“Stuck your hand in the bowl.”

“My right hand, again. This time I was holding the pencil in my left, ready to go. But this time our friend, our ET, our whatever, was very reluctant. Only after a couple of tries did it ripple onto my arm; and then only an inch or so up my wrist, and only for a moment. But it worked. It’s like it was communicating directly with my musculature rather than my consciousness. Without even thinking about it, I wrote this—”

She turned the page on the pad and I saw:

'Old Man' written in Icelandic

“Which says ‘Old Man.’ ”

I nodded. “So naturally, you sent Here’s Johnny for me.”

Hvarlgen laughed and scowled, and I understood for the first time that her scowl was a smile; she just wore it upside down.

“You’re getting ahead of yourself, Major. I interpreted all this to mean that there was a reluctance to communicate with me, which had something to do with my age or my sex or both. Since we hadn’t left for the Moon yet, I used my somewhat extravagant authority and sent the shuttle back down. I recruited an old friend, a former professor of mine—a retired adviser to SETI, in fact—who had spent some time at Houbolt, and brought him to Luna with me. That clipped another three days out of my precious

time.”

“So where is he? Out the airlock, I suppose, or I wouldn’t be here.”

“Not quite out the airlock yet,” said Hvarlgen. “Come with me and you’ll see.”

* * *

I had never met Dr. Soo Lee Kim, but I had heard of him. A tiny man with long, flying white hair like Einstein, he was an astronomer, the leader of the deep-space optical team that had been kicked out of Houbolt when it had been turned into a semiautomated warning station. Dr. Kim had won a Nobel Prize. He had a galaxy named after him. Now he occupied one of the two beds in the infirmary under the clear dome in East. The other one was empty.

I smelled death in the room and realized it was PeaceAble, the sinsemilla nasal spray given to terminal patients. It’s a complicated aroma for me, the smell of love and loss together, a curious mixture I knew well from the last weeks of my first wife, the one I went back to when she was dying. But that’s another story altogether.

Dr. Kim looked cheerful enough. He had been expecting us.

“I’m so glad you’re here; now perhaps we can begin to communicate,” he said in Cambridge-accented English. “As you probably know, the Shadow won’t talk with me.”

“The Shadow?”

“That’s what I call it. From your old American radio serial. ‘Who knows what Evil lurks in the Hearts of Men? The Shadow knows!’ ”

“You don’t look that old to me,” I said.

“I’m not; I’ll be seventy-two next week, when the Diana returns, if I’m unfortunate enough to last that long.” He took a quick shot of PeaceAble from an imitation ebony spraypipe, and continued: “Collecting old radio tapes was a hobby I picked up when I was at university. They were forty-five years old even then, forty-five years ago. I don’t suppose you remember Sky King and his Radio Ranch?”

“Nobody’s that old, Dr. Kim. I’m only seventy-six. How old do you have to be for this ghost-in-a-bowl?”

“The Shadow,” he corrected. “Oh, you’re quite old enough. I’m old enough, actually, I think. Or would have been, if it weren’t for . . .”

“Start at the beginning, Dr. Kim,” said Hvarlgen. “Please. The Major needs to know everything that has happened.”

“The beginning? Then let’s start at the end, as the Shadow starts.” He laughed enigmatically. “I have learned one thing, at least: Language is contained as much in the musculature as in the brain. The first time, I did as Sunda did; I stuck my hand into the bowl, and my brain was looking on, unattached, as the Shadow picked up my hand, and with it picked up a pencil—”

“And wrote you a letter,” I said.

“Drew me a picture,” Dr. Kim corrected. “Korean is at least partly ideographic.” He reached under the bed and pulled out a paper, on which was written:

'Okay' written in Korean

“Take me to your leader?” I guessed.

“It means, more or less, ‘okay’; and it suggests a more intimate relationship, which I immediately implemented, so to speak, and which—”

“More intimate?”

“—resulted in this.”

'New Growth' written in Korean

“Like Sunda’s message, it means ‘new growth,’ ” he said. “Which I took, in my case, to mean cancer.”

“Oh.”

I must have winced, because he said, “Oh, it’s all right. I knew it already; colon cancer; I had known it for four months. I just hadn’t told Sunda because I didn’t think it mattered.”

“Then it wasn’t the Shadow that—?” I asked.

“Gave it to me? No,” said Dr. Kim. “The Shadow was in a position, so to speak, to detect it, that’s all.” He either grinned or grimaced in pain (it was hard to tell) and took another shot of PeaceAble. “Don’t forget, ‘The Shadow Knows.’ ”

The young are sentimental around death but the old have no such problem. “Tough,” I said.

“There are no happy endings,” Dr. Kim said. “At least, thanks to the Shadow, I got my trip back to the Moon. With any luck I might even end my days here. Wouldn’t it make a great tombstone, the Moon? Hanging there in the sky, bigger than a thousand pyramids. And lighted, to boot. Would put to rest forever the slander that all Koreans have good taste.” He paused for another shot. “But the problem is, that because of the cancer—apparently—the Shadow won’t relate to me. I think it mistakes the cancer for youth. That second contact was my last. So tomorrow it’s your turn, right?” He looked from me to Hvarlgen.

Hvarlgen and I looked at each other.

“So I’m next,” I said. “Old man number two.”

“This is the point at which I give you the chance to back out,” Hvarlgen said. “Much as I hate to. But if you turn me down, I’ll still have time for one more shot; your alternate is doing his meds right now in Reykjavik.”

I could tell she was lying; if she had only six days left, I was her only hope. “Why me in the first place?” I asked.

“You were the oldest reasonably healthy male I could find on such short notice who was space qualified. I knew you’d been to Houbolt. Plus I liked your looks, Major. Intuition. You looked like the kind of guy who might stick his neck out.”

“Neck?” laughed Dr. Kim, and she shot him a dirty look.

“Of course, I could be wrong,” she said to me.

She was gut-checking me but I didn’t mind; I hadn’t been gut-checked in years. I looked at Hvarlgen. I looked at Dr. Kim. I looked at the million stars beyond them and figured what the hell.

“Okay,” I said. “I guess I can stick my hand in a fishbowl for science.”

Dr. Kim laughed again and Hvarlgen shot him an angry look. “There’s one thing you should know—” she began.

Dr. Kim finished for her: “The Shadow doesn’t want to shake hands with you, Major Bewley. It wants to crawl up your ass and look around. Like it crawled up mine.”

II

I showed up at Grand Central the next morning wearing the bright orange tunic with

the SETI patch, just to prove to Hvarlgen I was on her team. We had coffee. “Scared?”

“Wouldn’t you be scared?” I said. “For one thing, this Shadow is a cancer detector. Then, the business with Mersault . . .”

“It’s unlikely that our people in Reykjavik missed anything. And indications are that Mersault may have been independently suicidal. Zippe-Buisson hires some weirdos. But you’re right, Major, one never knows.”

I followed her down the forty-meter tube to East. We were initiating the first contact session in the infirmary, so that Dr. Kim could participate, or at least observe. Hvarlgen was literally rearing to go: The chair was tilted back so far that she rode it almost prone.

Three of the five periphery domes have magnolias—those reptilian trees love the Moon—but it is East’s that is the most lush, its leaves picking up the lunar palette from the regolith of the crater floor and processing it into a new, complex gray unseen before.

Dr. Kim’s bed was under the tree. He was awake, waiting for us. He caressed the spraypipe in his fingers like a good-luck charm. “Good morning, colleagues,” he said.

Hvarlgen rolled to his bedside and kissed his withered cheek.

Two lunies rolled in a wheeled table; on it was the Shadow in its bowl. Another lunie carried the film camera on her shoulder. Another carried a bright yellow plastic chair. It was for me.

The big moment had arrived. Hvarlgen and I approached the table together. When she picked up the bowl, I noticed that the Shadow pulled away from her hands toward the center. It moved in a rippling motion that both repelled and attracted my eyes.

She put the bowl on the floor in front of the chair. “Let’s begin,” she said, clicking on the video recorder she carried on her lap. The film camera whirred as I slipped my pants off, over my shoes, and stood there naked under my tunic. It was 9:46 HT (Houston/Houbolt time) on the wall.

I felt frightened. I felt embarrassed. Worse, I felt ridiculous, especially with the young lunies—girls and boys—sitting on the empty bed, watching.

“Oh, Major, please quit worrying!” Hvarlgen said. “Women are used to being prodded and poked between their legs. Men can put up with it once in a while. Sit down!”

I sat down; the yellow plastic was cold on my butt. Hvarlgen nudged my knees apart

wordlessly and pushed the bowl between my feet, then rolled backward to the head of Dr. Kim's bed, under the magnolia. I clutched pencil in one hand and paper in the other. Hvarlgen and Dr. Kim had explained what would happen, but it was still a shock. The Shadow moved—twisted—out of the bowl, flowed up between my legs, and disappeared up my ass.

I watched it, fascinated. I felt no fear or dread. There was no "feeling" as such; it really was like a shadow. I kept myself covered by the tunic, out of modesty; but I knew as soon as the Shadow was inside me, because—

There was someone else in the room. He was standing across the room, not far from the foot of Dr. Kim's bed. He was not quite solid, and not quite full-sized, and he was flickering like a bad light bulb; but I knew immediately "who" it was.

It was me.

I moved my arm slightly, to see if he would move his, like a mirror image, but he didn't. He flickered and with each flicker got either bigger, or closer, or both. There was no frame of reference; no way to judge his size. It was somehow very clear that he or it was not in the room with us; not occupying the same space. It raised the hair on the back of my head, and judging from the palpable silence in the room, everyone else's as well.

We were seeing a ghost.

It was Hvarlgen who finally spoke. "Who are you?"

There was no answer.

I tried moving my arm again but the Shadow (for already, that was how I thought of the image) answered none of my movements. Somehow that made it better; it was as if I were watching a film of myself and not a reflection. But it was an old film; I looked younger. And when I looked to one side a little, the image disappeared.

"Who are you?" said Hvarlgen again; it was more a statement than a question. "He," "it,"—the Shadow—started flickering, faster and faster, and I suddenly felt sick at my stomach.

I bent over, almost retching; I covered my mouth and then tried to aim toward the bowl at the foot of the chair. But it didn't matter—nothing came out, even though I saw the Shadow was pooled back in its bowl.

I shook my hands and examined them; they were clean.

The ghost was gone.

The session was over. Hvarlgen was staring at me. I looked at my watch; it was 9:54. The whole thing had lasted six minutes.

The pad and pencil lay on the floor where I had dropped them. The pad was blank.

“Well, now, that was interesting,” said Dr. Kim, taking a long shot of PeaceAble.

* * *

Hvarlgen sent the lunies out, and had coffee sent in, and we discussed the session over a light lunch. Very light; I was on the high-protein, low-fiber “astronaut’s diet” of moonjirky. Plus, I was still feeling a little queasy.

We all agreed that the image was me, or an approximation of me. “But younger,” said Dr. Kim.

“So what is it trying to say?” asked Hvarlgen. Neither Dr. Kim nor I answered; it seemed useless to speculate. She clicked on her video recorder. Instead of a holovid image, what came up was a ball of bright static. She fast-forwarded but nothing changed.

“Damn! Just as I had suspected,” she said. “If we are to get any image at all, it will be on film. But film has to be processed chemically, which means it has to go all the way back to Earth before we’ll even know if it works. In the meantime—”

“In the meantime,” Dr. Kim said, “why don’t we try it again?”

* * *

Hvarlgen got on her chair-phone and soon the lunies arrived with the Shadow in its bowl, the film camera, and the rest of the crew, who had presumably heard about the morning session. It was 1:35 (HT). Surprisingly, it was just as humiliating for me the second time. But science is science; I took off my pants. The film camera wheezed and whirred on a lunie’s shoulder. I held the pad and pencil in one hand, ready. Hvarlgen rolled back to Dr. Kim’s bed. I sat on the cold plastic chair and spread my legs. I forgot my embarrassment as the Shadow twisted out of its bowl and up—and disappeared—

And there he was again. The Shadow. Again, the figure started small and flickered itself bigger and bigger, until it was about half the size of someone standing in the room with us; though we all knew somehow that it wasn’t. That it was far away.

This time he was talking, though there was no sound. He stopped talking, then started

again. He was wearing blue coveralls like I used to wear in the Service, not the orange tunic. I couldn't see his feet no matter how hard I looked for them; it was as if my eyes glanced off. I wear a Service ring but I couldn't see it; the Shadow's hands were blurred. I wanted to ask him who he was, but I felt it was not my place. We had agreed earlier that no one but Hvarlgen was to speak.

"Who are you?" she asked.

The voice, when it came, surprised us all: "Not a who."

Everyone in the room turned to look at me, even though it was not my voice. I would have turned, myself, had I not been the point toward which everyone was looking.

"Then what are you?"

"A communications protocol." The sound of the voice was completely out of synch with the image's mouth. Also, the sound did not seem to come from anywhere; I heard it directly with my mind, not my ears.

"From where?" asked Hvarlgen.

"A two-device."

The lunies sitting in a row on the bed were absolutely still. No one in the room was breathing; including me.

"What is a two-device?" asked Hvarlgen.

This time the lips were almost in synch with the words: "One and"—the Shadow inclined toward us in a curious, almost courtly gesture—"the Other."

The sound seemed to originate inside my head, like a memory of a voice. Like a memory, it seemed perfectly clear but characterless. I wondered if it were my voice, as the image was "my" image, but I couldn't tell.

"What Other?" Hvarlgen asked.

"Only one Other."

"What do you want?"

As if in answer, the image began to flicker again, and I was suddenly sick to my stomach. The next thing I knew I was looking down into the bowl, at the original dark nonsubstance we had called the Shadow. Though still dark it seemed clearer, and cold,

and deep. I was suddenly conscious of the cold stars blazing through the dome overhead; the fierce vacuum all around; the cold plastic chair on my butt.

“Major?”

Hvarlgen’s hand was on my wrist. I looked up—to applause from the bed where the lunies were sitting, like bright yellow birds, all in a row.

“Nobody leaves!” said Hvarlgen. She went around the room. All agreed on what the Shadow had said. All agreed that it had been inside their heads, more like the memory of a voice, or an imaginary voice, than a sound. All agreed that it had not been my voice.

“Now everybody leave,” she said. “Dr. Kim and I need to have a talk.”

“Including me?” I asked.

“You can stay. And he can stay.” She pointed toward the bowl, which the lunies were placing back on its table. They left it by the door.

* * *

“Damn!” said Hvarlgen. Irrationally, she shook the recorder but there was no record of the Shadow’s words, any more than of its image. “The problem is, we have no hard evidence of any communication at all. And yet we all know it happened.”

Dr. Kim took a snort of PeaceAble and smiled somewhat inscrutably. “Unless we think the Major here was hypnotizing us.”

“Which we don’t,” said Hvarlgen. It was late afternoon. We were having still more coffee under the magnolia. “But what I don’t understand,” she said, “is how can it make us hear without making a print, a track in the air.”

“Clearly, it works directly on the hearing centers in the brain,” Dr. Kim said.

“Without a physical event?” said Hvarlgen. “Without a material connection? That’s telepathy!”

“It’s all physical,” said Dr. Kim. “Or none of it. Is that thing material? Maybe it accesses our brains visually. We were all looking at it when we heard it talk. The brain is stuff just as much as air is stuff. Light is stuff. Consciousness is stuff.”

“So why the physical contact at all?” I asked. “The Shadow’s not really here; I can’t feel it, we can’t touch it or even photograph it. Why does it have to enter my body at

all? If it does, why can't it just sort of slip in through the skin, or the eyes, instead of . . . the way it does."

"Maybe it's scanning you," Hvarlgen said. "For the image."

"And maybe it can only scan certain types," said Dr. Kim. "Or maybe it's restricted. Just as we might be forbidden to trade with Stone Age tribesman, they—whoever or whatever they are—might have a prohibition against certain stages or kinds of life."

"You mean the 'New Growth' business?" I asked.

"Right. Maybe old folks seem less vulnerable to them. Maybe the contact is destructive to growing tissue. Or even fatal. Look at what happened to Mersault. But I'm just guessing! And my guess is that you have not quite finished menopause, Sunda, right?"

She smiled. Just as her scowls were smiles, her smiles were grimaces. "Not quite."

"See? And in my case, perhaps the flourishing cancer with its exorbitant greed for life was mistaken for youth. Anyway . . . perhaps we are dealing with prohibitions. Formalities. Perhaps even the innovative mode of contact is a formality, like a handshake. What could be more logical?" Dr. Kim took another snort of PeaceAble, filling the infirmary with a sweet heavy smell.

"It's hard to think of as a handshake," I said.

"Why? The anus, the asshole in vulgar parlance, is sort of a joke, but in our secret heart of hearts, for all of us, it's the seat—so to speak—of the physical being. It may be perceived by this Other as the seat of consciousness as well. We're much more conscious of it than, say, the heart. Certainly more conscious of it physically than the brain. It alerts us to danger by tightening up. It even speaks from time to time . . ."

"Okay, okay," said Hvarlgen. "We get the point. Let's get back to work. Shall we go again?"

"Without the lunies?" Dr. Kim asked.

"Why not?"

"Because without a video or sound image, they are our only corroboration that there is any communication going on here. I know it's your project, Sunda, but if I were you I would move more deliberately."

"You're right. It's almost five o'clock. Let's wait and go after supper."

* * *

I had supper alone. Hvarlgen was on the phone, arguing with somebody named Sidrath. A poster on the wall over her head said D=96. Hvarlgen sounded pleading, then sarcastic, then pleading again; I felt like an eavesdropper, so I left without coffee and walked to East alone.

Dr. Kim was asleep. The Shadow lay in its bowl. It was fascinating to look at it. It lay still but seemed, somehow, to be moving at great speed. It was dark but I could sense light behind it, like the stars through thin clouds. I was tempted to touch it; I reached out one finger . . .

“That you, Major?” Dr. Kim sat up. “Where’s Sunda?”

“She’s on the phone with somebody named Sidrath. She’s been arguing with him for almost an hour.”

“He’s the head of the Q Team. He’s probably setting up in High Orbital, for when the Shadow arrives. They are assembling all sorts of fancy equipment. They think we’re dealing with some sort of antimatter here, which is why they can’t take it down to the surface.”

“What do you think it is?” I asked. I pulled the plastic chair over and sat with him, looking up at the stars through the clear dome and the dark magnolia leaves.

“I think it’s unusual, surprising,” Dr. Kim said. “That’s all I require of life these days. I no longer try to understand or comprehend things. Dying is funny. You realize for the first time you are not going to finish Dante. You give up on it.” He took a shot of PeaceAble. “Did you ever wonder why the Shadow looks younger than you?”

“You have a theory?”

“Robert Louis Stevenson had a theory,” he said. “He once said that our chronological age is but a scout, sent out in advance of the ‘army’ of who we feel we are—which always lags several years behind. In your mind, Major, you are still a young man; at most, in your fifties. That’s the image the Shadow gets from you, and therefore the image he gives us.”

I heard his pipe hiss again.

“I’d offer you a shot, but—”

“It’s okay,” I said. “I know, I’m a test bunny.”

“You guys ready?” It was Hvarlgen, rolling through the doorway. It was time to go again.

* * *

The plastic chair had been left in place. Two lunies wheeled the bowl in on its table. The rest of the lunies drifted in, sitting on the bed and clustering by the doorway. At 7:34 P.M. Hvarlgen cleared her throat and looked at me impatiently. I pulled off my pants; I sat down in the chair and spread my withered old shanks—

This time, without ascending between my legs, the Shadow twisted in its bowl and disappeared; the movement was somehow sickening, and I gagged—

And there it was; he was. Was it my imagination, or was my image, the Shadow, clearer and more positive than it had been? It seemed to have a kind of glow. He smiled.

Hvarlgen wasn’t waiting around this time. “Where are you from?” she asked.

“Not from a where. The protocol is a where.”

“What do you want?”

“Adjusting the protocol,” said the voice. It was so clear now that I thought it must be a sound. But I watched the aural indicator lights on Hvarlgen’s video recorder, and there was nothing. As before, the voice was only inside our heads.

“Where are the Others?” asked Hvarlgen again.

“Only the protocol is where,” said the Shadow. “A wherewhen point.” It seemed to enjoy answering her questions. It had stopped flickering and its speech was now in synch with its lip movements. Its movements looked familiar; gentle; graceful. I felt a certain proprietary affection for it, knowing it was an idealized version of myself.

“What do they want?” Hvarlgen asked.

“To communicate.”

“Through you?”

“The communication will end the protocol. The connection is one-time only.” The Shadow looked directly toward us, but not at us. It seemed always to be looking at something we could not see. It was silent, as if waiting for the next question.

When nobody said anything, the image began to fade, ghostlike once again—

And the Shadow twisted into being in the bowl at my feet. It seemed even clearer than before. I could see stars behind it. It was like seeing the stars reflected in a pool, only I had the distinct (and uneasy) feeling I was looking up. I even checked the back of my neck with my hand.

That was it for the first day. We'd had three sessions, and Hvarlgen thought that was enough. Dr. Kim asked us to join him for 4-D Monopoly. He had a passion for the game with its steep mortgage ramps and time-release dice. While we played, the lunies watched movies in Grand Central. We could hear gunshots and bluegrass music in the distance, all the way down the tube.

* * *

We began the next morning with a leisurely breakfast. I was still on moonjirky, but I had no appetite anyway. The poster over the coffee machine said D=77.

"How many hours until sunrise?" I asked.

"I'm not sure; somewhat less than seventy-seven," Hvarlgen answered. But it wasn't a problem. Even though Houbolt was no longer environmentalized for the lunar day, it would be comfortable for all but the six days of the lunar "noon"—and would probably have been manageable even then, in an emergency. According to Hvarlgen's plan, Here's Johnny was to arrive and take us off soon after sunrise.

Hvarlgen went down the tube toward the infirmary first, followed by me, followed by the lunies. East smelled like PeaceAble, indicating that Dr. Kim had been up for a while. He suggested that he be allowed to ask one question, and Hvarlgen agreed.

Me, I was just the hired asshole. I took off my pants and the bowl was slid between my feet. Ignoring me (or seeming to) the Shadow in the bowl twisted itself into nothingness. This time I didn't feel sick. In fact, it was beautiful, slick and fast, like a whale diving.

"Is there a message for us?"

It was Hvarlgen's question. I looked up from the empty bowl and saw the Shadow standing across the room—or across the universe.

"A communication."

"Are you conscious?"

“The protocol is conscious and I am the protocol.”

“Who is communicating with us?”

“The Other. Not a who.”

“Is it conscious?”

The Shadow said, “You are conscious. The protocol is conscious. The Other is not a wherewhen string.”

There was a long silence. “Dr. Kim—” Hvarlgen said. “You had a question?”

“Are you a Feynman device?” Dr. Kim asked.

“The protocol is a two-device.”

“What is the distance?” Dr. Kim asked.

“Not a distance. A wherewhen loop.”

“Where does the energy come from?”

As if in answer, the Shadow began to flicker and fade, and I leaned over the bowl (even though I no longer believed that the Shadow was inside of me). And like a dark whale surfacing, the Shadow twisted into its bowl. I wondered how such a tiny space could contain a space so huge.

* * *

While the lunies cleared the room, and Hvarlgen hurried down to Grand Central to make a phone call, I pulled my chair over to the bed and sat with Dr. Kim.

“I see it’s no longer accessing our universe through your butt,” he said. “Maybe it has what it needs.”

“Hope so,” I said. “Meanwhile—what’s a Feynman device?”

“Have you ever heard of the EPR paradox?”

“Something to do with Richard Feynman?”

“Indirectly,” Dr. Kim said. “The EPR paradox had been proposed by Einstein and two colleagues in an unsuccessful effort to disprove quantum physics. Two linked particles

are separated. The ‘spin’ or orientation of each is indeterminate (in true quantum fashion) until one is determined, up or down. Then the other is the opposite. Instantaneously.”

“Even if it’s a million light years away,” Hvarlgen said, from the doorway. She rolled into the room, shutting the door behind her. “I told Sidrath about your question. He liked it.”

“It was never answered.” Dr. Kim shrugged.

“In other words, we’re talking about faster-than-light communication,” I said.

“Right,” said Dr. Kim. “Theoretically, a paradox. It was Feynman who proved that the paradox wasn’t a paradox at all. That it was true. And that FTL communication was, at least in theory, possible.”

“So that’s what our little isn’t is,” I said. “A muon bridge.”

“An ansible,” said Hvarlgen. “A device for faster-than-light communication. As I said, Sidrath agrees. What we have here seems to be some version of a Feynman device. Everything that happens to it here happens simultaneously, perhaps as a mirror image, at the other ‘end.’ ”

“Across the galaxy,” I said.

“Oh much farther away than that, I think,” said Dr. Kim, taking another shot of PeaceAble. “We may be dealing with realms of space and time that don’t even intersect our own. I think, for sure, that we are dealing with forms of life that aren’t biological.”

* * *

At noon I asked for a sandwich. “I’m going to quit worrying about my lower intestine,” I said. “The Shadow has quit worrying about it.”

“We’re not sure,” said Hvarlgen. “Stay on moonjirky just one more meal. This afternoon, we’ll try the session with your pants on and see what happens.”

The Shadow didn’t seem to notice. (I was a little hurt.) It twisted in its bowl, diving into—another form (my own), which appeared across the room as before.

“When is this communication going to occur?” asked Hvarlgen.

“Soon.” The way the Shadow said the word, it sounded almost like a place—like

“Moon.”

“What is soon?”

“When the protocol is adjusted.”

There was a long silence.

“What kind of communication will it be?” asked Dr. Kim. “Will we hear it?”

“No.”

“See it?”

“No.”

“Why is it that you never speak unless we ask a question?” asked Hvarlgen.

“Because you are half of the protocol,” said the Shadow.

“I thought so,” said Hvarlgen. “We’ve been talking to ourselves!”

The Shadow started to flicker. I resisted the urge to bend over the bowl, and watched him fade away.

* * *

I was tired. I went back to my wedgie to sleep, and I dreamed, for the first time in years, of flying. When I got up, Hvarlgen was still in East with Dr. Kim. They were on a conference call with High Orbital and Queens; they were somewhere between calling the Shadow an ET and an AD (alien device).

I left it to them. I ate alone (another sandwich) and then watched the first half of Bonnie and Clyde with the lunies. They had a kind of cult thing about Michael J. Pollard. Now I understood why every time something went wrong around the station, one of them was bound to say, “dirt.”

Hvarlgen rolled into Grand Central at almost nine P.M. “We’re going skip the evening session tonight,” she said. “Sidrath and the Q Team don’t want to miss this promised communication. They are afraid we’ll speed things up, or wear the Shadow out, like an eraser.”

“But you are in charge.” I was surprised to find myself disappointed.

“True. But that’s only a formality. In fact, Sidrath is already on his way here with Here’s Johnny, in case this communication occurs before they can get the Shadow back to High Orbital. We made a deal; I agreed to limit the sessions to one a day.”

“One a day!”

“I think we’ve learned all we’re going to learn here. All it does is answer the same questions, in a sort of a loop. We’ll go in the morning, Major, as usual. Meanwhile, want to play Monopoly?”

* * *

That night I dreamed again that I was flying. The flying itself was flying, so fast that I had to chase it in order not to disappear. The next morning, after breakfast (sausage and eggs) I followed the lunies down the tube to East, where Hvarlgen and Dr. Kim were waiting.

Hvarlgen insisted that I sit in my usual spot. Like a priestess at a ritual, she placed the bowl at my feet, then rolled back to Dr. Kim’s bedside. The Shadow twisted in the bowl and disappeared; the Shadow appeared again in his blue coveralls, bluer than I remembered.

“Who are the Others?” asked Hvarlgen.

“They are not a they. They are an Other.”

(Maybe Hvarlgen was right to limit the sessions, I thought. It was beginning to sound like word games.)

“Another what?” Hvarlgen asked. “Another civilization?”

I heard a sound like a growl. It was Dr. Kim, snoring; he had fallen asleep propped on one elbow, with his spraypipe in his hand.

“Not a civilization. They are not—plural like yourself. Not biological.”

“Not material?” asked Hvarlgen.

“Not a wherewhen string,” the Shadow said.

“Is the communication ready? Can it take place now?”

“Soon. The protocol is completed. When the communication takes place, the protocol will be gone.”

I wondered what that meant. We were, supposedly, part of the protocol. I was about to raise my hand to ask permission to ask a question—but the Shadow was already flickering, already twisting back into being into its bowl.

* * *

Being careful not to awaken Dr. Kim, Hvarlgen shooed everyone out of the infirmary and we went to Grand Central for a late breakfast. I didn't tell her I had already eaten. I had soup and crackers.

The poster said D=55. I had less than two days left on the Moon.

"Isn't Dr. Kim using a lot of that stuff?" I asked.

"He's in a lot of pain," Hvarlgen said. "I just hope he lasts until this communication, whatever it is. At the same time—"

"It's for you," said one of the lunies. "It's the Diana. They just completed TLI and they're on their way."

I went back to my wedgie for a nap, and dreamed again of flying. I hadn't dreamed so much since Katie died. I didn't have wings, or even a body—I was the flight itself. The movement was my substance in a way that I understood perfectly, except that the understanding evaporated as soon as I sat up.

The wedgie was cold. I had never felt so alone.

I got dressed and went to Grand Central and found two lunies watching Bonnie and Clyde, and Hvarlgen curled up with Sidrath on the phone. I had forgotten how lonely the farside could be. It is the only place in the Universe from which you never see the Earth. Outside was nothing but stars and stones and dust.

I went to the infirmary. Dr. Kim was awake. "Where's Sunda?" he asked.

"On the phone with Sidrath and Here's Johnny. They made Trans Lunar Injection right after lunch. You were asleep."

"So be it," said Dr. Kim. "Did you say hello to our friend?"

I saw the Shadow in the corner, under the magnolia, near the foot of the bed. I felt a shiver. It was the first time he had ever appeared without our—summoning him. The bowl on the table was empty.

“Hello, I guess,” I said. “Have you talked to him?”

“He’s not talking.”

“Shouldn’t I get Hvarlgen?”

“It doesn’t matter,” said Dr. Kim. “It doesn’t mean anything. I think he just likes to exist, you know?”

“I’m here anyway,” Hvarlgen said, from the door. “What’s going on?”

“I think he just likes to exist,” said Dr. Kim, again. “Did you ever get the feeling when you were running a program, that it enjoyed running? Existing? It’s all in the connections, the dance of the particles. I think our friend the Shadow senses that he won’t exist very long, and —”

Even as he spoke the Shadow began to fade. At the same time the dark substance twisted into being in the bowl. I looked down into it. It was dark yet clear yet infinitely deep, like infinity itself. I could see stars beyond stars in it.

Hvarlgen seemed relieved that the Shadow was gone. “I’ll be glad when the Diana gets here,” she said. “I don’t know which way to turn; which way to proceed.”

I sat on the foot of the bed. Dr. Kim took another shot of PeaceAble and passed the pipe to me.

“Dr. Kim!”

“Relax. He’s no longer the test bunny, Sunda,” he said. “His bowel is no longer the pathway between the stars.”

“Still. You know that’s only for people who are terminal,” Hvarlgen said.

“We’re all terminal, Sunda. We just get off at different stops.”

* * *

That night after supper, we played Monopoly. The Shadow appeared again, and again he had nothing to say. “He doesn’t speak unless we call him up,” said Hvarlgen.

“Maybe the ceremony, the chair, the lunies watching, are part of the protocol,” said Dr. Kim. “Like the questions.”

“What about the Others? Do you think we’ll see them?” I asked.

“My guess is that there’s no them to see,” said Dr. Kim.

“What do you mean?”

“Imagine a being larger than star systems, that manipulates on the subatomic level, where the Newtonian universe is an illogical dream that cannot be conceptualized. A being that reproduces itself as waves, in order to exist, that is one and yet many. A being that is not a wherewhen string—as the Shadow calls it—but a series of one-time events . . .”

“Dr. Kim,” said Hvarlgen. She played a conservative but deadly game.

“Yes, my dear?”

“Pay attention. You just landed on my city. Cash or credit?”

“Credit,” he said.

* * *

That night I dreamed. I slept late, and woke up exhausted. I found Hvarlgen in Grand Central, on the phone with Sidrath, as usual lately. A lunie was changing the poster from D=29 to D=11.

“Here’s Johnny and Sidrath just crossed Wolf Creek Pass,” Hvarlgen said, hanging up.

“They’re balling the jack,” I said.

“They’re using boosters,” she said. “We all have the feeling we’re running out of time.”

This was to be, by agreement, our last contact session. All the lunies were there; in their yellow tunics they were as alike as bees. I sat in the usual spot, which seemed to be part of the protocol. I enjoyed the position of prominence—especially since I got to keep my pants on.

Hvarlgen placed the bowl on the floor and the dark whale dove—twisted beautifully out of its bowl—and the Shadow appeared in the image of a man.

Hvarlgen looked at me. “Do you have a question?”

“What happens after the communication?” I asked.

“I cease to be.”

“Will we cease to be?”

“You are a wherewhen string.”

“What are you?” asked Dr. Kim.

“Not a what. A wherewhen point.”

“When does the communication take place?” asked Hvarlgen.

“Soon.” He was repeating himself. We were repeating ourselves. Was it my imagination, or did the Shadow seem weary?

Hvarlgen, nothing if not democratic, turned her chair toward the lunies gathered in the doorway and on the bed. “Do any of you have any questions?”

There were none.

There was a long silence and the Shadow began to fade. I felt like I was seeing him for the last time, and I felt a sense of loss. It was my image that was fading away . . .

“Wait!” I wanted to say. “Speak!” But I said nothing. Soon the Shadow was back in its bowl.

“I have to get some sleep,” said Dr. Kim, taking a shot of PeaceAble.

“Come on, Major,” said Hvarlgen. We left, taking the lunies with us.

* * *

I made my own lunch, then watched a little bit of Bonnie and Clyde with the lunies. Like them, I was tired of the Moon. I was tired of the Shadow. Tired of waiting for either the communication, or the arrival of the Diana—both events over which we had no control.

I took a walk around the little-used periphery tunnel that led from South to North via West. It was cold and smelly. Ahead of me I saw a new, unfamiliar light. I hurried to West, suspecting what it was. Forty kilometers away, the high ragged rim of 17,000-foot peaks at the western edge of Korolev was touched with sunlight.

Dawn was still hours away, but it had already struck the tops of the nameless mountains, which were as bright in the sky as a new moon, the Moon’s moon, casting temporary backward shadows across the crater floor. Everything seemed reversed.

I stood for what seemed like hours, watching. The dawn was as slow as an hour hand, and I grew cold.

From West I cut straight through to East, even though I hadn't been invited. Hvarlgen was still on the phone, and I felt like talking with somebody. Maybe Dr. Kim would be awake.

The infirmary smelled like a Tennessee hayfield, bringing back sudden memories of childhood and summer. The Shadow was standing in the shadows under the magnolia, looking—worn out. Like an old person, I thought, he was fading away.

Dr. Kim was staring straight up at the stars. His spraypipe had fallen from his fingers, onto the floor. He was dead.

* * *

Dr. Kim had left four numbers in an envelope marked "Sunda," with instructions that they were to be called as soon as he died, even though they lived in four different time zones, scattered around the Earth. They were his children. Most of them were awakened from sleep, but they weren't surprised; Dr. Kim had already said his goodbyes.

As I watched Hvarlgen making the calls, for the first time in years I felt lonesome for the family I had never had. I wandered from Grand Central back down to East. Dr. Kim's body had been put in the airlock to decompress slowly, and the room was empty except for the Shadow, which stood silently at the foot of the bed, like a mourner. I lay down on Dr. Kim's bed and looked up through the magnolia, trying to imagine what his eyes had last seen. The dawn light still hadn't touched the dome, and the galaxies hung in the sky like sparks from a burning city.

Hvarlgen came to get me, and we held a brief service in Grand Central. Dr. Kim's body was still in the airlock, but the Portable Dante and the spraypipe on the table represented him. The lunies attended in shifts, since they were preparing the station for incoming. Hvarlgen read something in Old Norse, then something in Korean, then a bit from the King James Bible about the Valley of the Shadow of Death.

Then we suited up.

* * *

Burial on the moon is illegal according to at least three overlapping legal systems, but Hvarlgen didn't seem to mind. Here's Johnny and Sidrath had made LOI (lunar orbit insertion) and told her to finish before they landed, so they wouldn't be compromised

by her bending of the rules.

The dawn was already halfway down the mountains by the time we locked out. Soon the raw sunlight would be racing, or at least loping, across the crater floor. The station would be livable for several more weeks, at least until mid-morning; but as we didn't have proper suits for a sunlight EVA, even a dawn EVA, we would have to hurry.

It was my first EVA in years. One of the lunies and I were the pallbearers (only two are needed on the Moon), while Hvarlgen followed in her fat-tired EVA chair. Even though we had decompressed Dr. Kim's body as slowly as possible, he had still swelled in the vacuum. His face was filled out and he looked almost young.

We carried him a hundred meters across the crater floor, to a fairly flat stone (flat stones are rare on the Moon), following the instructions we had found in the envelope. Dr. Kim had picked out his grave site from his bed in East.

We laid him face-up on the table-shaped rock, the way they used to lay Indians so the vultures could swoop down to eat their hearts. Only here was a sky too deep for vultures. Hvarlgen read a few more words, and we started back. The crater floor was half lit by the mountains to the west. The sunlight had painted them from peak to foot; so that we cast long shadows—the "wrong" way. In a few weeks, as noon approached, with its 250-degree temperatures, it would cook Dr. Kim into bone and ash and vapor; until then he would lie in state letting the stars which he had studied for over half a century study him.

* * *

When we locked back in, the chimes for incoming were ringing. Here's Johnny and Sidrath had timed it all perfectly. Hvarlgen rolled off on two wheels to meet them; I was in no hurry. By the time I got to Grand Central, it was empty—everyone was greeting the Diana at South. I walked back down the tube to East. The bowl was gone; it had been returned to Other for Sidrath's arrival. But the Shadow didn't seem to notice. He was standing at the foot of the bed, no longer faded. For the first time he seemed to be looking directly at me. I didn't know whether to say hello or goodbye. The Shadow seemed to be receding faster and faster, and me with him. I lost my balance and fell to one knee just as I "felt" what came to be known, much later, around the world, as the Brush.

III

Four days short of eleven months later, there was a knock at the door of my Road Lord.

"Major Bewley?"

“Call me Colonel,” I said.

It was Here’s Johnny. He was wearing a faux leather suit that somehow told me he had gone ahead and taken retirement. I wasn’t surprised. He was on his way to Los Angeles to live with his sister. “Aren’t you going to ask me in?”

“Better than that,” I said. “You’re spending the night.”

It was almost as if we were friends, and at my age almost is as good as the real thing, almost. I cleared a place on the couch (my picture—the same one—was in an eighteen-inch stack of magazines) and he sat down. Here’s Johnny had gained twenty pounds, which often happens to lunies when they lock in for good. I put on a fresh pot of coffee. It must have been the smell of the coffee that made us both think of Hvarlgen.

“She’s in Reykjavik,” Here’s Johnny said. “When the film didn’t show anything, that was it for her. The last straw. She left the rest of it up to Sidrath and the Commission.”

“The rest of what?” There was no more Shadow; both the image and the substance in the bowl had disappeared with the Brush. As promised. “What did they have left to do?”

“All the surveys, interviews, population samples. All the stuff you’ve read about the Brush; it all came from Sidrath and the Commission. But without Hvarlgen’s help. Or yours, I happened to notice.”

“I’d had enough, myself,” I said. “I felt like we were all getting a little crazy. That whole week was like a dream. Plus, there seemed at the time, to be nothing to say. What I had experienced was, literally, as you know—as we all know now—indescribable. Since my contract was up, I sort of cut and ran because I didn’t want to be roped into some elaborate effort to figure it all out.”

“And you thought you were the only one.”

“Well, didn’t we all? At first, anyway.”

It had taken several months of research to determine, positively, that every man, woman, and child on and off the planet (plus, it was now thought, a high percentage of dogs) had experienced the Brush at the same instant. We were no more able to describe it than the dogs were. It was intensely sensual but in no way physical, brilliantly colorful but not visible, musical but not quite a sound—an entirely new sensation, indescribable and unforgettable at the same time. The best description I heard was from an Indian filmmaker who said it was as if someone had painted his

soul with light. That's poetic license, of course. It had happened in less than an instant, but it was days before anyone spoke of it, and weeks before the SETI commission realized it was the communication we had been promised.

By then it was only a memory. And lucky it was that we all had felt it—otherwise, some of us would be spending the next few centuries trying to describe it to those who hadn't. A new religion, maybe. As it was, most people on the planet were going about their business as if it had never happened, while a few were still trying to figure out what the Brush meant to the children. And the dogs.

* * *

"It was a bitter disappointment to Hvarlgen," said Here's Johnny. It was late; we were sitting outside, having a whiskey, waiting to catch the sunset.

"I know," I said. "To her, it was an insult. She called it the Brush-off. I can understand her point of view. We are finally contacted by another, maybe the only other life-form in the Universe, but it has nothing to say. No more than a hello, how are you. A wave from a passing ship, she called it."

"Maybe because it happened to everybody," Here's Johnny said.

"I can understand that, too," I said. "We all thought it was going to be just for us."

One of my unofficial grandsons rode up on a bicycle carrying a turtle. I gave him a dollar for it, and put it into a polyboard box under the trailer with two other turtles. "I pay the kids for the ones they pick up off the road," I said. "Then after sundown I let them go, away from the highway."

"Me, I'm more optimistic," Here's Johnny said. "Maybe the children who experienced the Brush will grow up different. Maybe smarter or less violent."

"Or maybe the dogs," I said.

"What do you think?" he asked. "You were, after all, the first contact."

"I was just the pattern for the protocol," I said. "I got the same communication as everyone else, no more or no less. I'm convinced of that. I was just used to, you know, set up the tuning."

"You weren't disappointed?"

"I was disappointed that Dr. Kim didn't get to experience it. But who knows, maybe he did. As for me, I'm an old man. I don't expect things to mean anything. I just sort of

enjoy them. Look there."

Off to the west, a range of barren peaks was hurling itself between Slab City and the nearest star, painting our trailers with new darkness. The clash of photons set up a barrage of colors in the sky overhead. We watched the sun set in silence; then I got one end of the box and Here's Johnny got the other, and we dragged it out to a pile of boulders at the edge of the desert and deposited the turtles into the still-warm sand.

"You do this every night?"

"Why not?" I said. "Maybe it's turtles all the way down."

But Here's Johnny didn't get the joke. Which goes to show, as Chuck Berry once said, you never can tell.