

# Lauralyn

## Randall Garrett

Again, last night, I saw the ghost of Lauralyn.

Again, I tried to trap her, to go beyond her capabilities, and, again, I could not. And that is beginning to frighten me.

She has never come without warning; such a breach of manners would be beyond Lauralyn. Never less than sixty days apart, and never more than one hundred eighty—which may be the parameters of the random pattern I believe she has chosen—my commweb terminal signals at some time when I am not working, and her lovely voice comes without vision, as though she were calling from a ship in space, and she asks if she may visit next day.

Of course, I cannot say no.

And she always comes to Garden Four, where we first met.

To paraphrase some ancient of distant legendary Earth, I cannot live with her, and I cannot live without her. And yet, I am doing both and neither. She is an itch in my soul.

But there is a question that gnaws at my mind more painfully than she at my soul: *Who is Lauralyn?*

I am making this crystal record, partly to see that it goes permanently into the files of the Brotherhood, partly to verbalize it in order to clarify things in my own mind.

The soft, sweet sound signal lifted me from the depths of my meditation, and I rapidly took the steps necessary to lift me to full awareness. The time was 1104. I rose from my relaxer, a little puzzled; the signal had come six minutes early.

"Why the hurry, Brother Ambrose?" I asked.

"The technician from Galactic Machines is here. Father Superior," said the voice from Brother Ambrose's speaker.

"I see." I was mildly surprised; the Galaxy is vast, and even ultralight velocities are not fast enough for really quick travel. I had not expected the GM technie for another fifteen months. "Very well, Brother Ambrose," I said, "where is the technie waiting?"

"Garden Four, Father Superior." I took a quick trip through the cleanser and left my quarters, heading for Garden Four.

Garden Four is not designed for business or technical discussion; it is solely for relaxation and pleasant conversation. There are shrubs and trees and flowers from thirty-seven worlds, with the great oaks predominating, looming over the flickering neon bushes and the pale lavender-barked egg trees. The turf underfoot is mutated Terran bluegrass, and the softly tinkling chime vines are pure Glavian. The frosted mirror-moon overhead bathed the garden in softly colored silver, and the air was just perceptibly

perfumed by the bracing tang of aroma from the poon blossoms.

There is beauty there, but at that moment it was dominated by a greater beauty.

She stood in the center of the main glade, looking up at the frosty rose-white of the mirror-moon, her hands clasped at the small of her back. The tiny kilt she wore was decoration and nothing more; it was the same pale yellow as her hair, which came just barely to her shoulders. The rest of her was a sweeping flow of three-dimensional curves of beauty.

Though she did not look at me, she was aware of my presence, for, without shifting her gaze, she said: "I didn't know anything could be so beautiful."

*Nor did I*, I thought. But we were not talking about the same thing.

Then she turned to look at me. "How do you get that effect?"

I looked up. "You're in luck," I said. "You caught one of our mirror-moons transiting Fuzzball. Fuzzball is a globular cluster about sixty-seven parsecs in diameter and something like nineteen hundred parsecs away, so it subtends about two degrees of arc. Every ninety-four days, one of the three mirror-moons transits it at the full, so you get a rose-white reflection from our K-5 primary centered in the cluster. The mirror-moon is half a degree across, so it gives a nice effect."

She nodded and looked back up. "The moons are artificial, of course."

"Yes; three of them, one hundred twenty degrees apart."

"How high up are they?"

"About a kilometer. Eleven hundred and forty-five meters, actually, since they're fifteen hundred meters from the center of our little world."

"Ten meters in diameter, then. They orbit? Free?"

"They orbit. There's, no air above fifty meters; the paragravity field seals it in close."

"It's lovely. Nice design." Then she took her eyes from the sky display and turned slowly around to look at the whole glade. "It's all lovely."

*Yes, it is.* But I said nothing.

I cleared my throat. "I am Father Tomas, Superior of the Brotherhood of Machine Teachers. Would you care for refreshment?"

She made a half bow. "I am Technie Loralyn, of Galactic Machines. You asked for an appointment."

"Yes. Just over eight years ago. You were gratifyingly prompt; I had not expected you until the tenth year."

"I'm sorry, Father; have I come at an inopportune time?"

Had she blushed? In the rose-white light. I could not tell. Hardly likely, and yet there had been a touch of embarrassment in her exquisite voice.

"Not at all," I said reassuringly. "Our future projections indicated a need for the expanded capacity of Brotherhood Central's Machine capacity within half a century, but that has been cut back now to just over thirty years, due to the vast new exploratory projects building up in the volume beyond Tucana. We need more capacity for our own Machine if we are to coordinate the work of the Brotherhood in setting other Machines to work. We of the Brotherhood are thinly scattered, but there are nearly eighty million of us—far too few for the Galaxy's needs, but far too many to coordinate without Machine help."

"I know. We technies have a similar problem."

"One moment," I said. Then: "Brother Ambrose, is the Coldfire Glade prepared?"

"Yes, Father Superior. As you ordered."

She heard the voice, naturally, although if I had so ordered it, Brother Ambrose's answer would have come to my ears alone.

"Is that a continuous monitor?" she asked.

"Oh, no. He only hears when I call his name. 'Brother Ambrose' is the code for the conversational mode of Central."

"Of course. What is Coldfire Glade?"

"Come. I'll show you." I led her through the trees, along the turfed path that winds through Garden Four. Shortly, we could see the glimmering of light between the trunks of the overshadowing oaks.

Coldfire Glade is small, a circle three meters in radius surrounded by a two-and-a-half-meter hedge of coldfire shrubs from Faylixin. In the center, a table of refreshments for two was laid.

"Those are Faylixin glowlights!" she said in a hushed voice. "I've read of them, but I've never seen one. Absolutely beautiful! That rose-white light matches the mirror-moon! Or—no. Not quite. There's less yellow in it; just a touch less. They're very lovely creatures, aren't they?"

She and I sat down at the table. Her face seemed to glow from some inner light as much as from the illumination from the mirror-moon, Fuzzball, and the coldfire shrubs.

"You called them 'glowlights'," I said. "We call them 'coldfire shrubs'."

She smiled. "I'll go along with the 'coldfire', but they're not shrubs, you know."

I filled our glasses. "Really? Pardon me, but I am not a biologist. They're not shrubs?"

"Not exactly. They're not really plants, you see. Nor animals, either. They're—" She paused. "Do you know of the sea anemone?"

"I'm afraid not," I admitted.

"Earth organism. These are rather like them, except they live in air instead of water. They can live on radiated energy, like a plant, or on chemical energy, like an animal. What do you feed them?"

I laughed with a touch of embarrassment. "I'm not sure. I'm not the gardener."

"Oh." She had an oddly pleasant giggle. "Of course not. I merely thought you might know."

"Sorry. Failure on my part. Have some of these little cakes; they're made by Brother Morthil. A real Brother. by the way, not another conversational mode."

"I can't eat much," she said. "I have to watch my figure."

"So do I," I said ambiguously.

"I hadn't realized that the Galactic headquarters for the Brotherhood was so beautiful. All the Brothers I've met lived austere, rather ascetic lives, and I just assumed . . ." She let her voice trail off.

I had to laugh. "Well, we don't exactly indulge in riotous living here, but we do indulge ourselves a bit. More comfort and less austerity after we retire."

"Retire?" She looked puzzled. Delightful.

"Practically. We have the Rule to obey, and one of the rules is that a man must put in at least a century and a half of field work before he can take up administration, which is a much easier job. And we also take care of the very old, who do pretty much what they want until they die."

"What percent of your eighty million actually do retire?" she asked softly.

"Point oh oh one oh four percent. Of our present actual force, eight hundred and thirty to eight hundred and forty will live to retire. Moving around the Galaxy to teach Planetary Machines is—ah—somewhat hazardous."

"I know. Our figures run about the same. But somebody has to do it, or Galactic civilization—what there is of it—would collapse. And, as you said, we are thinly scattered."

"So few can qualify," I said. "In the very early days, when space flight itself was in its infancy, our profession was called 'programming'. Even then, it took a special kind of mind to be able to do it well. We no longer program a Machine; we must teach it because it is far too complex for anything else. It must learn to program itself. I'm not telling you anything new, I know, but perhaps you've never thought about the kind of mind it takes to be in rapport with a Machine mind."

She nodded. "I've thought about it. The difference between my job and yours is akin to the difference between a cerebral neurosurgeon and a telepathic psychologist. What kind of mind *does* it take to read the mind of a Machine?"

"I don't know, I'm sure. That's not what we do. We have to mentally construct an analog of the Machine's mind, checking and rechecking until the analog is as near a one-to-one mapping as necessary, then—" I broke off. "Do you want to spend twelve years or so learning the basics so we can talk about it? You don't even have referents to most of the words I'd have to use."

Again that silvery laugh. "No. I just asked about the kind of mind required; I didn't ask how it worked. I understand that women can't do it.

"That's not quite true. Some can; about the same percentage as men. They *can* do it; they don't *want* to."

"Explain?"

"It's an emotional thing. They don't like what it does to them. Women are perhaps more human than men, and thinking like a Machine is not a human thing. The analogs we build stay with us, you see; not complete, but as shadow structures. And that makes us—different. We are called emotionless, ascetic, austere, cold. Apparently, men are more willing to accept that state of being than women."

"But you *do* have a Sisterhood." It was a flat statement, with barely a touch of questioning.

"Specialists," I said. "Specialists of a precision grade that no man has yet achieved. When one of the Brotherhood becomes unstable because of conflicting shadow analogs residual in his mind—"

I was cut off by the sound of a golden triple bellnote in the silvery, scented air.

"Father Superior," said Brother Ambrose, "Father Brac is now requesting your whereabouts of my submode-2: instructions?"

"Send him," I said. I think I only hesitated a moment.

After several seconds, Lauralyn said: "Father Brac?"

"Father Brac is one of our finest analysts and teachers," I told her. "You and he will be working together on the expansion of our Machine. He's spent thirty-five years learning this one Machine mind; he has its analog securely."

"It will be a pleasure to meet him. He's coming—here?"

At this point, I want to ask myself a question: *How did she know?* Garden Four is not designed for business or technical discussion: that much, she could have seen easily. It was only for light conversation such as we had been having. But she had never met Father Brac; how did she know that his personality would clash with Garden Four? Or am I now reading into my memories nuances that were not there? I cannot tell, now.

"Brother Ambrose," I said quickly, "tell the good father that we will be in Garden Seven."

I stood up and offered her my hand. "Come along. Seven's just next door." She rose and smiled, but did not take my hand.

"Lead on," she said.

I led her to the path that went through the oaks to the gateway to Garden Seven. As we walked, she looked all around at the plants surrounding the broad, winding path. "Is that mistletoe?" she asked, pointing to the berried shrubs that grew in some of the oak limbs.

"No, it's a look-alike from Kandasar. It is epiphytic rather than parasitic. But these flowers along the

border are straight Terrestrial *primula japonica*."

At the gateway, I stepped through and she followed.

Seven is formal, almost stiff. The mallord hedges, with their white bark and black leaves, are neatly trimmed and mathematically straight, defining the roofless rooms and hallways of the garden and concealing the too-near horizon. (It can be disconcerting to planetbred folk to see objects less than a hundred meters distant leaning away from them at sixteen degrees; they get the feeling they are in the center of a blast area.)

The borders and flower beds are laid out with geometrical and symmetrical precision. There is beauty there, but it is a different kind of beauty.

The brilliant lighting almost gives a feeling of a warm planetside afternoon, although the sky is black overhead. Fifty meters of air is not enough to give blueness to any sky.

Father Brac was already seated at the park table, waiting for us. He is a big man-190 cm tall and broad and heavy in proportion, massing around 100 kg. His head is large, domelike, and hairless; his brow unfurrowed; his nose large and fleshy; his jaw broad and massive; his eyes dark are heavilylidded beneath overhanging brows. Signs of emotion rarely cross that huge face, but it is not empty; there is humor and intelligence there.

He stood up as we entered the small hedged square. I made the introductions, and we sat down. Immediately, Brac took out his plan projector and energized it. "Here is what we have in mind, Technie Lauralyn," he said in his slightly raspy, almost monotonic baritone.

For the record, I cannot explain what I felt then—not adequately. The only comparable reaction is one I had when I saw a man deliberately smash a spun silicate free-form—an intricate, delicate work of three-dimensional art—simply because it was in his way. Or the time I sat on a chair in a home on Tornag, which has a 1.3-kilodyne gee-field, and the chair collapsed and landed me painfully on my coccyx. But the chair was no work of art, and I find it difficult to make any connection between the two analogs, to say nothing of a connection between them and that moment in Garden Seven.

What I felt was a surge of irritation against Father Brac for doing no more than bringing up the subject we had come there to discuss. That was the whole purpose of her being there, and yet I wanted to discuss something else. It was irrational, and I cannot explain it.

"Father Superior," Brac went on, "would Brother Ambrose cut the illumination to Level Six? It would be easier to see the fine detail in the holograms."

"Certainly," I said. "You heard. Brother Ambrose?"

"Yes, Level Six, Father Superior."

The illumination dimmed.

"Recording mode, Brother Ambrose," I said. "Technical discussion of Projected Expansion 3-Hd-776."

"Recording mode, Father Superior," said Brother Ambrose.

"Thank you. Carry on, Father Brac."

Brac began manipulating his projector, and the analog modules of our Central Machine began forming around us.

This entire sequence is in the permanent files under the proper identification, so I shall not bother to describe it here. I shall only say that I became so thoroughly involved in the technical discussion that followed that I forgot any small, irrational pique that I may have felt.

Actually, all such meetings and discussions, including those with other members of the Council, blend into each other; they are clear in my memory, but not distinct. It was simply a matter of our telling Lauralyn what we wanted our Machine to be able to do, and her explaining to us the functions of the various new modules she had, and their abilities and capacities, and how they could be fitted together to do what we wanted . . . but it only sounds simple when you say it. In practice it was change, compromise, rethink, connect, reconnect, couple, decouple. route and reroute. It was the conversion of analogs into homologs. It was the seemingly endless process of moving three-dimensional holographic projections in and out and around and through each other until we knew how the Machine could best be restructured.

Even at the best, there was faulty communication. A Teacher, in theory, does not need to know how a Machine is put together, only what it will do. Similarly, a Technie doesn't give a damn what a Teacher wants to do with a Machine, only whether it will function properly. But of course the two fields overlap, and it is only in the overlap that the two viewpoints can communicate.

Of course. the Machine itself must be consulted; you don't tear into a thinking being without its advice, consultation, and consent. So Brother Ambrose came into the discussions, too.

But when I could I talked to Lauralyn.

"Father Brac," she said once. "is more like the kind of Brother of your Order I've met before in the field. Does your Rule include a vow of celibacy?"

We were in the Main Glade of Garden Four. It was daylight, but the ruddy light of our primary makes for an eternal sunset. As one of the Brothers had put it: "On Central there are but three times of day: sunrise, sunset, and night."

The Coldfire Glade is not remarkable during daylight.

I thought about her question and tried to frame the proper words to answer her. "No," I said, "not a vow. It isn't like that. Let me ask you a question. Do you feel any sexual attraction toward Brac?"

"None whatsoever."

I chuckled. "Nor he for you, I assure you. He must think too much like a Machine to be attractive to you—and he is too busy thinking like a Machine" to pay any attention to you."

Again her silvery laugh. "I see. But you're not like that."

"Perhaps not. You asked once about our Sisterhood. When it comes time for a man to do administrative

work, or retire. the Sisters take care of him for a while. The shadow analogs are—removed. It—er—clears the cobwebs out. Or if man becomes unstable. the Sisters take care of him."

"They are psychologists, then?" she asked.

"And more. Far more."

"I take it. then, that Father Brac is still on active duty?"

"Oh yes, of course. Very much so. Any one of us could go back on active duty to complete and teach our Central. but Brac is a long way from retirement and has made a special study of our Machine for decades now. Frankly. I don't think he will ever retire or go into administration. It's not his—style."

"What's *your* style?"

I thought that one over carefully. "After better than two centuries of consideration and comparison," I said at last, "I find that I prefer people to Machines. They have infinite variety; Machines are limited."

At that, she seemed to change. She looked off into the red-and-black sky as though she were seeing something a billion parsecs away. "Mathematically, of course," she said in a soft voice, "you are misusing the word 'infinite', but you speak poetically. But I think you underestimate the Machine. Complexity increases variety, and the Machine becomes more and more complex with time. Humans may be doing that, too, but the rate of change is several orders of magnitude slower." Then she looked down and smiled at me. "Don't underestimate the Machine."

It was some time before the slowdown was called to my attention, and at that point it was hardly serious, but Brother Ambrose was extrapolating toward the deadline originally computed—the ETC, or Estimated Time of Completion.

I was in my relaxer—not meditating, but thinking—when Brother Ambrose chimed for attention.

"Yes, Brother Ambrose?"

"There is a loss of efficiency in the Brac-Lauralyn teamwork which should have your attention. Father Superior." .

I felt a peculiar ambivalence emotionally at that point. A sudden loss of efficiency in a two member team almost always indicates an emotional communication blockage. The spectrum runs from ignoring the work because they are too wrapped up in each other in a love affair to subtly fouling up each other's work because a condition of hatred has become established.

"Let me have the details," I said. I knew it was not yet serious; Brother Ambrose would have caught the trend long before either of them was aware of it. The recording of the facts and figures may be found in their proper file, so there is no need to quote it here. I put a temporary seal on the report and took the drop chute three hundred meters down to the area where the work was being done, a hundred levels below the surface. I went personally because this was far too important to be left to staff. Besides, no one but myself could have handled the situation; no one else had all the data available at that point.

Lauralyn was working somewhere half around the core. directing the installation of new modules—new



types that did marvelous things.

Father Brac was in his work area, surrounded by holographic analogs. I could barely see him beyond the maze of tubes and knots and threads of varicolored light. But I could see that he had merely set up the projections and left them there while he went about other business. He was scowling and scribbling on the impression surface of his desk. I watched for a minute. He was doodling.

I walked through the hologram projections, ignoring the lights that flickered around my eyes. "Father Brac?"

"Eh? Oh. Hello, Father Superior. Come in." With a gesture, the holograms and the doodling vanished. "Something?"

"Nothing serious," I said. "Just doing my rounds. Am I intruding on your work?"

"Not really, Father Tomas." His smile was carefully molded of thermoplastic. I sensed at that moment that something had happened in the past few minutes, something which had caused the situation to deteriorate rapidly in a very short time. Brother Ambrose would have it processed by now, but I wanted to get Brac's version first.

"Everything going smoothly?" I asked innocently.

"Mmf." He stared at me and then looked down at his desktop. "Did you ever hear of a Machine with an intuitive mode?"

"A what?"

He looked back up at me. "An intuitive mode. A Machine with an intuitive mode."

"No, I haven't," I admitted. "I'm not even sure what one would be, or of what use."

"Well, we're getting one, whether we want it or not, apparently. That Technie is working *her* way, not ours." His voice trembled with anger—or something very like it. A most unusual phenomenon.

"Father Superior," he went on, "I cannot work with that Technie. There is no accord between us, no clear communication. And now we are getting something called an `intuitive mode'! It is not needed, not necessary, but we're getting it despite everything! I want you, to forbid her to put it in. Forbid it!"

"Now, hold on a bit, Father," I said. "I'll need to get some background on this. I want to know what's going on as much as you do. Has Brother Ambrose recorded all this?" I knew he had, but I wondered whether it had been by Brac's permission or by my orders.

"Of course," he said. "All technical discussions must be recorded." "Then let's run through the record to inform me and to refresh your recollection."

"Excellent idea."

The replay showed exactly what I had suspected, as you will notice when you play it. At one point, Lauralyn says: "When you connect that modular array in the multidimensional manner you have indicated, you will be able to use an intuitive mode. I fully approve." Her "intuitive mode" was not a thing added, it

was a condition that would prevail.

That was exactly the sort of thing Brother Ambrose had warned me about. The communications breakdown was all on Brac's side. He always misunderstood what she had clearly said, whereas his statements to her were unclear and often inaccurate. One of his remarks is typical: "We can either have direct synaptic correlation through the pseudocortical area, or relay it through an idealizing interface, but not both, so it looks like that's what we'll have to do." I wonder what he thought that meant.

*He* certainly didn't see any discrepancy. "You see what I mean?" he said. "What's this 'intuitive mode' nonsense? Machines don't have intuition. Machines can't have intuition. It isn't logical."

"By definition," I said, "intuition isn't logical."

When he said, "I knew you'd agree," I saw that I wasn't getting through to him, either.

I took the only steps I could, and I am certain that a review of the proceedings will justify my actions. The Board certainly agreed they were necessary. Father Brac agreed with Brother Ambrose when he said: "You'll have to make a choice between me and the Technie." But I was surprised when he further agreed with my choice.

I pointed out that if we sent Lauralyn back to GM Central it would be another ten years before we could expect a replacement, whereas Brac could be replaced almost immediately. And we did, after all, have a deadline to meet.

"Of course," he said. "It's the only logical choice." Then he paused for a moment before asking: "Who will be my replacement?"

"I will."

After a moment, he nodded his massive bald head. "I am grateful. Yours is the only mind here that may be able to control and teach such a Machine."

I thought I knew what he meant then, but now I am not so sure. "Meanwhile," I said. "it is my recommendation that you report to the Mother Superior."

His eyes widened for a second, then relaxed. "I see. Yes, of course, if that is your recommendation. Thank you, Father Superior."

"Not just yet." I added. "I'm going to have to internalize your analogs of our Machine before I can go to work. I'll need your help."

"Of course. Father Superior."

The work went smoothly enough after that. Like Brac, I could not really see what she meant by an "intuitive mode", but unlike Brac, I could see no point in arguing with her about it. The Machine was there: we could do with it what we wanted: If it had an unused function, then let it lie there dormant. ;

Any device or tool can be used as a substitute for some other tool. All tools have a dormant function. But

a knife does not need to be used as a screwdriver, nor a screwdriver as a cold chisel. Or put it another way: A hologram projector can be adjusted to an octave higher than normal—but of what use is a UV picture in three dimensions if you can't see it? That function is left dormant.

So I didn't try to interfere with Lauralyn addition of the new types of modules she'd brought from GM Central: that was her business. All I insisted upon was that the completed Machine would function the way we wanted it to. We worked well together, building and rebuilding what is probably the finest Machine in the Galaxy.

Those were happy years.

Brother Ambrose was, of course, retained, nor did we actually add to him until the final activation and coordination of the entire complex. The activation itself was more monotonous than laborious: shunting in a section at a time, balancing and rebalancing. testing reactions, running real-time problems, and all the other things, I won't bore you with it: look it up in the files if you think it will shed any light on the problem.

There was surprisingly little debugging to do.

And then, suddenly, it was time for Lauralyn to leave.

"Eighty-seven parsecs," she said that evening. "Not too far, but it's only a delivery. The next hop is over twelve hundred parsecs." She looked up. "I'll miss old Fuzzball. He's pretty."

We were in Garden Four. A mirror-moon was passing close to Fuzzball, but not transiting it. The result was two eyes gazing at us—one small and pink, the other large, pearly, and fuzzy at the edges.

"You'll still be able to see Fuzzball at that distance," I said, "that is, at eighty-seven parsecs."

"No, I checked. That whole section of the sky will be black, with very few stars between me and Xaviera's Veil. But the Veil will be between me and Fuzzball."

"Oh, you're headed toward the Arrowhead, then. I've never been in that part of the Galaxy."

Small talk. Delaying the inevitable.

She sat down in one of the contoured chairs that look like carved oak stumps. "It will be all yours, now—Teacher. Your new Machine will do all you wanted it to—and more."

I smiled. "I know. It's the 'more' you are concerned with." "Concerned. yes. But not worried. If you have no intention of using the intuitive mode, then you will not use it."

"If we have a need for it, we will use it, never fear."

"That may not happen for a long time. Do you know what happens if a child is not taught to talk before its fifth year?"

"Yes. The unused ability atrophies and the child never learns properly. Are you saying that can happen to a Machine?"

She shook her head. "No, of course not. But the Machine will be happier if it is allowed the full use of its abilities." She held up a hand, palm towards me. "No, no. Don't worry about it, and don't ask how a Machine can be happy. You're too full of analog logic circuits now. Just wait." She paused and gave me her lovely smile. "And I want to say I think you're a very wonderful man."

Precisely sixty days after Lauralyn left our little world, the commweb terminal in my office requested attention.

I identified my terminal, and a voice said: "Father Tomas, this is Lauralyn. Could I make an appointment to see you in the next day or two?"

It took me a second or two to get over the shock. I had thought she was many, many parsecs away. "Why, of course," I said. "Will tomorrow at 1120 be all right?"

"Tomorrow at 1120. Fine, Father Tomas. In Garden Four?"

"Of course, if you wish."

"I'll be there. Thank you Father."

And the connection was cut.

I wondered for the next twenty hours what had happened. She had an itinerary; she had other work to do. Why come back to our little world?

There had been no panic, anxiety, or even urgency in her voice, so it couldn't be an emergency. Or could it? Perhaps she was feigning calmness. But if it was an emergency, why not say so?

I am afraid my efficiency during that time period was not up to my usual standards.

When Brother Ambrose announced that she was in Garden Four, waiting for me, I fear I put speed ahead of dignity.

She was standing exactly as I had seen her the first time, in the center of the Main Glade, looking up at the sky. And the sky was the same, too, with a mirror-moon in the center of Fuzzball. Coincidence? I do not think so. Not now.

She looked the same—beautiful except that the short kilt she was wearing was rose pink instead of yellow. She turned her head to look at me and smiled. "Thank you for coming. I'm glad to be here. I trust your Machine is functioning to your liking?"

"Certainly. Is something wrong?" "I don't know yet," she said. "We'll have to find out."

"You mean—there might be something wrong with the Machine's functioning that I know nothing of?"

"It depends on what you mean by 'wrong'." There was laughter in her voice. "Is there anything wrong with me?"

I was puzzled. "I don't understand."

"I want to try an experiment. Hold your arm straight out in front of you. Fine. Now close your eyes."

I did as she asked. After a second or two, she said: "Feel anything?" "No."

"Open your eyes."

I almost screamed. Before I jerked it away, my hand had been buried to the wrist in her face.

Then common sense asserted itself. I was talking to a hologram.

"Then you're merely projecting. But why?"

"You'll admit I'm Luralyn?"

"Certainly. I don't understand."

"Luralyn is parsecs away, wondering how this interview will turn out," she said. "I hope for all our sakes it will turn out well."

All the crazy pieces came together then. I knew.

"The intuitive mode," I said. "The perfect Turning Machine."

"That's what we don't know," she said. "That's what we'll have to find out. My modular complex was instructed by one of your own Brotherhood, but . . ." She shrugged. "We don't know. Now that you have been told, we hope you can find some way to prove us either wrong or right. Think up tests. Find some way, if you can, to prove it one way or another."

"That's silly. How can I have proof when I have no comparison?"

"I will come again. Luralyn will come again. Or she may not. If she contacts me by commweb, she will take over; you will never know who—or what, if you will—is in control of this projection. Please do your best to find out."

With that, she turned and walked out of the Glade and the Garden.

Since then, the ghost of Luralyn has come and gone many times. She seems anxious to be of help, but I cannot be sure. I cannot be sure of anything.

Brother Ambrose can control the holographic projectors, too, now. She fancies him as a pre-spaceflight Christian monk, and so he appears. He sometimes comes in through the wall of my office and we play chess or converse as we used to. But I can see into him, as always; he is analyzable. She is not.

So I still work at the problem she has given me. I take pleasure in her appearances, whether they are long or short. And I do not know.

But that is not what bothers me. You see, when the—real?—Luralyn was here, she never touched anyone. She never did any of the mechanical work: she merely instructed some of our lesser technic

Brothers. I do not recall ever seeing her eat or drink.

You see my problem.

I love her very dearly.

;