

closed to me. There was a camera in each room that followed my movements.

I was in the Terminal Institute for Enemies of Humanity, three kilometers beneath Ptolemaeus, on the Near side. I had been there just over a year. Six months of that was consumed in the gathering of evidence against me. The trial was held in a few milliseconds of computer time one morning while I was still asleep. I was told of the results—no surprises—and scheduled for execution the following morning. Then my lawyer got a six-month stay.

I had no illusions. The stay had been granted, most likely, because my execution was to come before the end of the semester. The Institute was running short on Enemies of Humanity, and there were theses to be completed. Twice a day one of the walls of my cell changed color and began to glow. On the other side of the wall a professor was lecturing a psych class. If I put my face up close I could see ranks of students sitting in the lecture hall. But I quickly tired of looking.

About once a week I was visited by teams of graduate students. They would sit on my sofa and fidget, a series of girls and boys with earnest faces, brows furrowed in concentration. They would interview me for an hour, plainly not knowing what to think of me. At first, I thought up bizarre answers to their questions, but I tired of that, too. Sometimes I just sat there for the whole hour.

My life crawled toward its termination.

Lilo-Alexandr-Calypso sat in her cell and waited for morning. She still had not decided if she could bear to mount those lonely stairs. A year ago, when it hadn't been so goddam imminent, it had been easy to be brave. Now she could see that her bravado had come from the deep inner conviction that no one would actually kill her. But she had had plenty of time to think.

Gas chamber, gallows. Electric chair, stake, firing squad. Hang by the neck till you're dead, dead, dead, and may God recycle your soul.

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From John Vaplen,
The Ophuchti Hotline (Dial Press, 1977)

Prisons are not what they used to be. I did a little reading on the subject when it occurred to me that my work might cause me to see the inside of one. Some of the prisons of Old Earth were pretty barbaric.

My cell was nothing like that. It was better than the average run of workers' warren apartments. There were three rooms, well furnished. I had a vidphone, if I didn't mind the warden listening in. I didn't use it.

What the cell had in common with old prisons was the most basic thing of all: The door would not open to my command. Beyond that door were dozens of others, all

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imaginative as those devices had been, they had an extremely simple purpose. They were intended to stop a human heart from beating. Later, the criterion for determining death was brain activity.

That was no longer enough. The sad fact was that it was no longer possible to kill someone and be absolutely sure the person would not show up again. Lilo's execution in the morning was therefore largely symbolic, from the viewpoint of society.

From Lilo's viewpoint, it was much more than that. She was toying with an idea she had entertained only once before in her life: six months earlier, just before her stay of execution. She was thinking of committing suicide.

"And why not?" she asked herself, a little startled when she realized she had said it aloud.

Why not, indeed? A few years earlier she could have given a thousand reasons why not. She had been in her early fifties, still young, with her life stretching endlessly in front of her. But now she was fifty-seven, and suddenly ancient. Soon she would be dead. *Dead*. You can't get any more ancient than that.

Physically, Lilo was twenty-five. It was a popular age to be, and though Lilo did not like to ape popular trends, she had never felt good looking any older than that. Her body was largely her own, with a few surgical modifications. Her hair was light brown, her eyes were set far apart to accommodate a wide, slightly flat nose. She was tall and slim, and it suited her.

Her one vanity was her legs. She had added ten centimeters to her leg bones, making her two point two meters tall, slightly above average height. She wore fine brown hair, like chinchilla, from midway down her calves to the tops of her feet.

She got up and restlessly paced the room. What amazed her was that, once she had accepted that she was going to die, suicide began to seem like an attractive possibility. The State of Luna did not care if she killed herself; she

was going to The Hole in the morning, dead or alive. No attempt had been made to clear her cell of harmful tools.

The tool she was examining now was a knife. It was a lovely thing. Stainless steel, mirror-bright—it had a symmetry of line she found appealing. Cross-hatched grooves wound around the handle, giving a sure grip on cool metal. She drew it across her throat, keeping her mind blank. Her hand shook as she brought her fingers up to her neck. No blood.

She thought about the two alternatives facing her.

Tomorrow would be an emotional moment. She was sure nothing could possibly match the anticipation of mounting the stairs over The Hole. She had a horror of breaking down completely, of having to be restrained and thrown over the brink rather than stepping off by her own volition.

On the other hand, she felt reasonably calm now. All hope was gone. Could she meet her death now, by her own hand, in private? Was it better to go that way?

It seemed to her that it was. She told herself that three times in succession and reached for the knife. She drew it over her wrist. Shuddered, and felt her heart pound. She opened her eyes and looked down and there wasn't even a red line. She was *sure* she had been bearing down. Something trickled over her cheek. Alarmed, she brushed it away.

She sat in her chair beside the small table and gritted her teeth. She leaned over the table and rested her forearm on the surface. She put the knife blade to the soft part, looked at it, looked away, dragged her eyes back and felt them drying out as she refused to blink.

There was a red trickle of blood.

"Put the knife down, Lilo."

She jumped, and dithered with the bloody knife in her hand, blushing furiously. Trying to hide it in the cushions of the chair, she turned to see who had entered the room behind her.

"Is it serious?" he asked, walking toward her.

Disorientation. She couldn't string two thoughts together. The tank should have meant something to her, but it didn't.

"Come on, let's get up," someone said. It was a woman in blue, who reached over and helped the naked woman out of the tank, to stand dripping, swaying, leaning on a strong shoulder with a hand holding her firmly around the waist. She wanted to go back to sleep.

"Is she ready?"

"I think so." There was a second person, a man, also dressed in blue. "This won't take long."

She knew they were talking about her. She tried to shake the hand off, but she was too weak. It annoyed her, hearing them talk. She wanted them to stop.

"Leave me alone," she said.

"What did she say?"

They were leading her down the hall, helping her step up through the doorways, dogging them behind her. She couldn't hold her head up; it kept falling to the side. All she could see was her bare feet, her legs, and wetness dripping from her body onto the carpet. It struck her as funny; she laughed, nearly slipping from the woman's arms.

"What's the matter with her?"

She didn't hear the reply, she was laughing so hard. There was another door. They stopped in front of it and she became aware of someone slapping her face. She tried to make him stop but he wouldn't and she started to cry. Then a harder slap that rocked her back against the far wall. She recoiled, realized that she was standing on her own and looking into the man's face.

"Are you awake now?" He peered into her eyes.

"Yes... I..." She coughed, and tried to look around her, but he kept pulling her head back until she thought she would cry again. "I... that is..."

"She's all right. Take her in."

The man again. "You follow me, you hear? Just follow me."

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She looked at it. Just a small cut, the bleeding almost stopped already. He tossed her a cloth, which she used to dab at the blood on her hands. Taking a seat a few meters from her, he waited until she had cleaned herself.

"There's someone I'd like you to meet," he said, and gestured toward the cell door. It opened, and her blue-uniformed male guard entered, followed by a nude woman. She was tall, staggered slightly as she walked, and looked drugged. Her brown hair was plastered over her shoulders in ropes and nets; she dripped a thick, syrupy liquid from her hands and nose and chin. Her eyes met Lilo's for a moment, without comprehension, then she bumped into a chair and fell over. The guard helped her to her feet and half-carried her to the bathroom. A woman, also dressed in blue, entered the cell, and closed the door. She followed the other two. There was the sound of water running.

Lilo managed to look away. The woman's face had been terribly familiar. It was her own face.

Gold. Everything was yellow-gold. I opened my eyes underwater and knew that I was not breathing. For some reason, it didn't bother me. I sat up and felt thick liquid roll sluggishly from my body.

I choked, tried to cough, and a great amount of fluid came out of my throat. For a moment I couldn't cope with it. I was drowning. But someone was slapping me on the back and then I was gasping.

Being born is not easy.

Her eyes wouldn't focus. Someone was holding something out to her and all she could see was the end of an arm holding the object. It was a cup. She recoiled, but it followed her. She took it, and drank deeply.

She was sitting in a glass tank, wheat-colored liquid up to her waist. Wires trailed from her body, which still twitched from lime to lime under the influence of the muscle-tone program, winding down now after three months of enforced exercise.

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She nodded. He seemed to think it was very important and she was willing to do anything if he'd let go of her head. But she was all wet, her hair was all over the place, and she felt clammy. She tried to tell him that, but he had already gone into the room. She felt a shove on her shoulder, and staggered over the lip of the door.

She got a glimpse of the people sitting in the room. There was a man in a funny coat who tickled her memory. She knew him, but couldn't remember the name. And there was a woman in a chair. She knew that one. It was herself.

I never thought I'd meet ex-President Tweed face to face. You can't avoid him on the cube; he's there all the time on one program or another, pushing his crazy schemes. He'd been a fixture on the telepolitical scene since the time I was born.

Tweed dressed like a political cartoon from the turn of the twentieth century. He had allowed himself to develop a paunch, always wore striped pants and a claw-hammer coat, top hat, and spats. He smoked a cigar, and when elected, called the Presidential Warren "Tammany Hall." And he won elections. Though I never followed it closely, I knew he had been elected to three consecutive terms.

He paved the way for the current Lunar clown show we call government. Recognition is all, and the public had shown a perhaps understandable confusion between political rhetoric and the fantasies that surround it on the cube. So now we have our Tweeds, our Churchills, and our Kennedys. There is a Hitler, a Bouffort, a Lewiston, and a Trajan. Put them all in the same place and you might as well call it a circus.

Luckily, elected officials don't do that much any more; the posts are largely ceremonial or supervisory over the computers who do the actual governing. I've never been sure if that's such a good thing, but Tweed made me thankful for it. Not that my opinions mattered at the moment. I put political ruminations aside and prepared to listen

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to whatever pitch he was about to make. It had to be better than what I was facing.

"Don't get any ideas," he said, in that famous bass rumble. "I'm protected against anything you might try to do."

Lilo realized he was talking about attempts on his life. Nothing could have been further from her mind. He was here, where he had no legal right to be, he had just shown her what had to be an illegal clone; she could think of no reason he would have done these things unless he had something to offer her, and she was very interested in hearing it.

"You will find in our future dealings that I am invariably protected."

"I don't see how that information can be of any use to me unless I'm going to be dealing with you in the future. As you know, my future is limited at this moment." She tried to keep it light, to keep the hope out of her voice, but it was impossible. The guilty weight of the knife pressing against her thigh and the trickle of blood on her arm testified to how much bargaining leverage she could bring to the conversation.

"Yes, you will be dealing with me in the future. You—" he gestured toward the bathroom "—or that . . . other woman. The choice will be yours."

She could hear voices from the bathroom; the sound of water running and an angry voice that she barely recognized as her own. Her twin was waking up, and she dreaded it.

"What's the choice?"

"First, understand your position. I—"

"I know my position, damn it. Get on with it."

"Be patient. I want you to know a few things first." He paused, then took out a cigar and went through the process of trimming and lighting it. He was an extraordinarily ugly person, Lilo thought, with the ugliness that only caricature

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being left out. I sputtered and gasped, slapping my face and legs and shoulders. I thought I saw it now, and it was dirty, rotten, so bad I couldn't believe it. But I had to.

I stumbled and fell against the wall of the shower. The woman guard took my arm and pulled me to my feet. My eyes wouldn't focus. I struck out at her, but she was big and alert and the blow didn't land. Then I was screaming, tearing out.

She came running out of the bathroom, pursued by the man and woman. The man grabbed her, but she was slippery and powerful with hysterical strength. She got away, kicking at him with her bare heels as they grappled on the floor, then scrambling on her hands toward the woman in the chair. She screamed again.

Banging hard into a table as she tried to get to her feet, she toppled and fell loosely in front of the couch where Tweed sat. The man reached her and started to haul her away, but Tweed held up his hand.

"Let her alone," he said. "I think this is her room, after all." He looked at Lilo, sitting in frozen fascination. She couldn't seem to drag her eyes away from the woman on the floor. "That is, unless you want it."

Lilo tore her eyes from the clone. She opened her mouth to speak, but the words caught in her throat. The clone was looking at her again. The fear on her face was almost too much for Lilo to bear. To accept Tweed's offer would be to condemn this woman to death. She didn't want to think about that.

But the clone was looking at Tweed now, and Lilo could almost hear her mind working. She gripped the edge of the couch and got to her knees.

"I don't know what you were talking about," she said, "but I think you should tell me. I know I'm not up to date; I just woke up. Things have been happening, I can see that. I got the stay of execution, right? She's who I think I am, but six months later, right?"

"That's right," Tweed said, and smiled at her.

Lilo felt a chill pass through her, and realized she was

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can achieve. As repulsive as a twisted, stunted ghost from the past on Old Earth.

"The clone was grown illegally, obviously," Tweed resumed. "But you are no longer a useful witness to anything. You will never have a chance to tell anyone what you have seen here today, should you refuse me. Your only contact from now on will be with Yaffa and Hygeia, the two guards you just saw. Both are loyal to me."

"What else can you tell me that I'm so goddam anxious to know? You didn't do all this to taunt me. You're a . . . never mind. I don't like you much. Never did."

"And I don't like you. But I can use you. I want you to work for me."

"Fine. When do we get started? As you pointed out, we'd better hurry, because I don't have that long to live." But the sarcasm fell flat, even in her own ears, because her throat hurt so badly when she said it. He laughed, politely, and she was so receptive to him that she nearly laughed herself. She stifled it when it threatened to turn into a sob.

"There is that little problem," he agreed. "I'm offering you a chance to bow out of your execution. I'm offering you a stand-in."

He looked at the bathroom door—there were sounds of a struggle—and back to her. He raised his eyebrows.

The cold water made me gasp and choke, but some of the grogginess washed away. For the first time in that dizzy few minutes I could think straight. More than anything in the world I wanted to sleep, but things were happening too fast, and seemed to be out of my control.

Tweed! That was his name. What was he doing out there in the other room, talking to someone who looked exactly like me, in my own cell? And the tank. Had I died? I woke up in a vat, which had to mean that I had died. But I was under a death sentence; I shouldn't be waking up ever again.

I pushed my face under the cold stream. Stay awake, stay awake. Something important is happening and you're

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afraid of the clone. She did not want Tweed smiling at her. There was no reason to think Tweed had a preference; the clone might do as well for his purposes as the original. Nothing said she had to be the one saved just because she was older.

"Whatever the deal is," the clone was saying, "I can be just as good at—"

"I'll take the job," Lilo said, as loudly as she could. Tweed looked at her.

"Are you sure?"

The clone was looking dully from one to the other.

"Yes." She swallowed, hard. "Yes. Kill her. Let me live."

I felt as though I had suddenly disappeared.

Tweed and the other woman were talking right through me, right over my head as I knelt there on the floor. I couldn't believe it. I couldn't follow what they were saying; there was a roaring in my ears and I was dizzy again. I think I hit my head when I fell.

I had to make them notice me. My life depended on it. I got up, shakily, and stood between them, but still they took no notice. It was a nightmare. I screamed at them, but it was no use. They were getting up and leaving the room, the female guard imposing herself between me and the door. Her face was hard.

I lunged, struggled with the woman, but she held me tightly. They were gone.

I went in and out of consciousness, sitting in my chair, alone. Hygeia, the guard, had given me a double-dose of painkiller a few hours ago and I had been sitting there, waiting for it to take effect. My dreams were black and formless, except for the familiar forest I had always run through in my dreams: a forest beneath a blue sun.

When I could no longer feel much in my hands and feet I got up. Everything went black, and I found myself in the bathroom without remembering how I got there. I turned on the shower.

I stared down at my wrist for a moment. There was a deep cut, the blood was pumping sluggishly through my fingers and splattering on my bare legs and feet. How had that happened? My head was thick as soup, but I thought I remembered . . . I had put the knife down . . . hadn't I? That woman—what was her name?—had been in my room. Had she tried to kill me, and make it look like suicide?

Warm water was flowing over me. Pink rivers wound between my feet. I staggered, and hit my head on the wall. I knew it was too late. I was dying. It was so cold. I would be dead soon.

The spray was in my face. My feet were freezing. I looked at my wrist again and saw that the blood had stopped flowing. I got up, slipped and fell on my face in a puddle of red.

In the main room again. Unable to stand up. I was looking for something. What? There was another blank in my mind. The knife. I was going to finish the job the woman had started. Or was it me? I left the knife . . . where? In my hand. Hacking, my fingers losing their grip. The knife was gone again. I crawled.

I saw booted feet in front of me, tried to stand up.

"You passed out again." It was Hygeia.

"There's no pain," I told her. "Don't be afraid."

Circum-Luna 6 was a metal shell, five hundred meters in radius. The gravity on the outer surface was five meters per second squared, but a visitor descending through one of the three entrances would experience a perceptible rise in weight for each step downward. CL-6 had few visitors.

All orbital power stations were "holes," but only CL-6 was known as The Hole. Five or six times a year it was shut down for a few hours so people could descend into what had recently been a hell of radioactivity.

It was shut down now. At the one-gsec level a terrace hung beneath the gargantuan field generators which held the black hole suspended in the center of the station. Arcing away from the terrace was a span of unsupported metal with rails on each side and low steps built into it. The

thirteen steps were traditional, just a few centimeters high. The stretcher rolled over them easily, the body strapped to it bouncing as the black-clad man and woman pushed it out to the end of the arc.

One of the executioners removed the drape from Lilo's body while the other attached the stretcher to an ejection mechanism. Finished, they stood for a moment under the eye of the camera, then walked down the span and climbed to the surface.

The stretcher tilted, hung suspended for an instant, and then fell. It picked up speed asymptotically, and the interior of CL-6 blazed in hard light. Far down the slope of the hole, halfway to infinity, a tiny mass of neutronium that had been Lilo was orbiting at almost the speed of light, releasing energy as it was stressed to the limits of matter before it finally decayed into oblivion.

2

Living Together: A Child's Introduction to the Law,
by Ariadna-Clet-Jouic. Tycho-Under Educational,
552. Read-rating 1.

There are three kinds of lawbreakers. From bad to worst, they are violators, misdemeanants, and felons. Violations are crimes like jostling, creating a nuisance, verbal abuse, and body odor: crimes of bad behavior. If you are accused of a violation, you may defend yourself in court. You may demand a human jury. If you are found guilty, violations are punished by fine, either to the offended party or the State.

Misdemeanors are crimes like robbery, burglary, assault, rape, and murder: crimes of property. The more serious misdemeanors are those where the property involved is a citizen's body. All misdemeanors are punished by fines of 90% of the criminal's possessions. In cases of violence to a citizen's body there is a mandatory death penalty with automatic reprieve. The criminal's right to life remains in force, so after execution the criminal is revived at a subjective lifeline point before the first conception of the crime and is required to undergo preventive rehabilitation.

The worst crimes are felonies. These are crimes like arson, sabotage, possession of fissionables, vectoring, blowouting, and tampering with human DNA. Felonies involve a threat to the whole human race, or a large part of it, and are known as Crimes Against Humanity. The punishment for convicted felons is revocation of the right to life. The State

will search out and destroy every memory recording and tissue sample of the executed criminal. The criminal's genotype is published and declared outlaw, and if detected again will be put to death, as many times as is necessary.

(Read-rating II, see companion volume: *Crime Does Not Pay*. Comics and tapes accessible to verbal request.)

Vaffa took me from my cell. He hustled me through deserted corridors and into an elevator. I had been curious to see how they were going to get me out of there; thinking about doing it on my own had occupied a great deal of my time over the last year. I had made a study of escapes. Most of them involved bribery, help from the outside, or perseverance, in that order. I had nothing to bribe with, and no one on the outside I could appeal to. As for perseverance, the Count of Monte Cristo would have been stymied by the Terminal Institute. It was three kilometers below the surface. Worse, it was fifty kilometers from the nearest tube station. The only way to get out of it was to walk, or ride the unpresurized induction-rail. For that, a suit was helpful. Naturally, keeping track of suits was the major security precaution.

On the way up, I suddenly remembered what Tweed had been doing in the years since his last term of office. He had been appointed Commissioner of Corrections.

The elevator stopped and Vaffa motioned for Lilo to get out. She had gone about ten steps when he grabbed her arm and directed her through a door. The corridor on the other side was dim and narrow. Vaffa didn't seem worried. Obviously Tweed had many people he trusted at the institute. It looked as though it was going to be easy.

She stopped thinking that when Vaffa directed her to a door marked EMERGENCY AIRLOCK. She stepped inside, and noted with more than casual interest that there was no suit in the small chamber. She stared at the red light on the second door. Beyond it was vacuum.

"Wait a minute," she said, abruptly. "What are you doing?"

"There was no way we could get an unauthorized suit into the institute," he said. "Suits are monitored by a section we don't control."

"Yeah, but—"

"The sensor on this airlock has been disconnected. The computer won't know it's in use. Take these, and put them on." He handed her a pair of thick, flexible boots.

"Wait a minute. I can't."

"You must."

"I can't! You're trying to kill me, that's it! I should never have listened to you people. Let me out of here!" She was on the edge of panic. Like all Lunarians, Lilo had a powerful fear of vacuum. It was the enemy they fought from the day they were born, as fearful as Hell had been to earlier humans. She felt physically ill.

"Put them on," Vaffa said, reasonably. "You need them to protect your feet."

"What's . . . what is it I have to do?"

"If you hurry, you'll be in vacuum for five seconds. A crawler will be near the door, two meters away, at the most."

"What time of day is it out there?"

"The lock is in shadow."

She felt the panic rising again. "No. No, it's impossible." She was going to say more, but he touched her shoulder and held it tightly for a moment.

"If I have to knock you out and carry you, it will be much slower."

She saw that he meant it. He smiled slightly as he saw her realize he was too big for her to fight. So there was only one way out of the lock for her. She put the boots on and faced the door. Vaffa released the latches. The door was still tightly shut, held in place by fourteen thousand kilograms of pressure.

"When?" she asked.

"The crawler must not stop. The guard in the tower must be distracted at the right moment, because we don't trust

him. The car will be in range for ten seconds, and it should arrive in one minute." He looked up from his watch, and smiled. "If everything is still going according to plan." For the first time, she thought he had said something he had not been told to say. He stepped out of the lock and closed the inner door.

Suddenly, it was time. She heard a scream that was very familiar, but she had always been in a suit when she heard it before. It was the quick-release valve. Strangely, she didn't feel anything. She belched continually. The sound died away in a few seconds. She yanked the door open, and was running in silence. There was a dark moving shape, a hand reaching out for her, and she was pulled into the crawler. The door shut, and a shriek took form in the air that rushed in to fill the sealed cabin. Lilo was suddenly shivering.

"I made it," she cried hoarsely, and passed out.

A woman was leaning over her.

"Don't move, please." Lilo's left arm felt numb. She glanced down. It had been severed at the elbow.

"This will only take a moment," the woman said. There was a caduceus tattoo between her breasts: a medico. Lilo propped her head up on her other arm and watched.

"What's this for?" she asked.

"We'll be leaving the crawler at a station about a hundred kilometers from here. This is to get you through customs." She took a forearm from a metal lifetank and attached it to her black bag. The white chunk of meat began to color, and the fingers twitched. She popped Lilo's own arm into the tank.

"I'm Mari," she said, with a slight rising inflection on the end. There was the hint of a smile on her face.

"Lilo," she responded, and they touched palms, Lilo's right to Mari's left since Lilo was not equipped at the moment to do it properly.

"That'll be ready in a minute," she said, gesturing to the arm. She was reaching into a bag on the shelf behind her. There were two deep purple robes in it. She stood up to

pull one over her head. "You can put that on when I'm done with you."

"Where am I being taken?"

"To see the Boss." There was a tone in her voice that said Mari respected the Boss a great deal. So she was a Free Earther. Well, it wasn't exactly a disease. Lilo could tolerate them, except when it came to a fanatic like Tweed who wanted to lead the whole race into oblivion.

Mari got to work again, stitching the elbow joint together, attaching tendons, splicing nerves and vessels. In five minutes the skin sealed up and there was nothing but a faint red line to show where the arm had been grafted. She pulled a plug from the socket at the back of Lilo's head and the arm became more than dead weight. It was full of pins and needles, and cold.

"Sorry about the job," Mari said, packing things away. "You'll only need it for an hour or so, so there's no sense, is there? You won't have to use it much."

"That's okay. I'm right-handed." She made a fist. The arm was about five centimeters too short.

"Oh, really? So is my mother."

"Whose is this?"

"It was grown from somebody who is supposed to be in Luna. We put the genotype through customs every so often so the computer has a record of her . . . but I don't think I should be telling you this."

"Suit yourself." Lilo had figured it was something like that.

"You don't look very happy for a woman who's just busted out of an escape-proof jail," Mari said. Her smile had grown by stages; now it was wide and friendly. Lilo felt herself smile back.

"I guess I haven't had time to react. I've lived with a death sentence for so long."

Mari shifted a little closer. "Would you like to cop?"

"No, thanks. I guess I'd like to start with a man, after such a long time."

"Sure." The medico turned her attention to the flat, pitted landscape and angular shadows out the window.

Lilo tried to come to terms with the fact that she now had a chance to survive. It still didn't mean anything to her. She kept thinking of that other woman, the clone, who would die in her place. She began to cry, surrendering herself to the confused emotions that had to get out. It was not until Mari decided she had gone through enough and touched her on the shoulder that Lilo realized how hungry she had been for a friendly face, for the touch of another human being. She calmed down almost at once. Mari started to withdraw her arm, but Lilo stopped her with a touch.

"How long till we get there?"

Mari glanced at the chronometer on her thumbnail. "About two hours. Would you like to cop now? It might be the best thing for you. I know a little of what you're going through."

"Oh, what the hell." So they did...

(more...)

"You've already met Valfa," Tweed said, gesturing to the standing woman. Lilo glanced at her, noted the stance and the attitude of the hands. This woman could kill her in a second, and would. She had *thought* there was something familiar in the eyes.

"How many of them do you keep?" she said. There was a boa constrictor, fully twenty meters long, coiled in the grass at the woman's feet. "That's a hell of a pet."

"You don't like snakes?"

"I wasn't talking about the snake."

Tweed chuckled. "Valfa is very useful, loyal, smart as can be, and totally ruthless. Aren't you, Valfa?"

"If you say so, sir." Her eyes never left Lilo.

"In answer to your question, there are many Valfas. One here, the other who helped you escape a few hours ago. Others in other places." Lilo did not need to ask why Valfa was so useful. Though the faces and bodies were entirely different in the two she had seen, the feeling was the same. This was a killer. Quite possibly a soldier, though Lilo was not expert in mental diseases.

"Tell me about the Rings," Tweed said, unexpectedly.

"It was brought out at the trial," Lilo stammered. "I thought you knew."

"I knew, but I'm not convinced you were telling the whole truth. Where is the life capsule?"

"I don't know."

"We have ways of making you talk."

"Don't give me that crap." Tweed had a habit of talking that way, like an actor reading his lines in a third-rate thriller. "It's not a question of telling you," she elaborated. "I admitted setting it up. If I knew where it was, it wouldn't be much good to me, would it?"

At that moment, Lilo could see it might do her some harm instead of good. Tweed seemed unhappy, and that was disturbing. Keeping him happy had become very important.

Five years earlier, when her research began taking her into areas where she might expect to have trouble with the law, she had decided to build the capsule. She had contacts

Mari cut away the arm and replaced it with the original, then said Tweed was waiting for Lilo in the main dome. She pointed the way. Lilo took her time, looking into open doorways she passed. There would be just the one tube station, and the suits would be carefully watched. She fully realized this was as much a prison as the institute had been, but the time to start planning was right now.

Water was flowing down the hall. She splashed through it until the hall became a brook running through trees, in an artful mix of holes and real plants. She hadn't detected the transition. The creek bed was lined with polished stones of varicolored crystal and the deeper pools were full of fish. A panther studied her from the shore, joined her as she reached dry land, and stropped himself against her after smelling the fur on her calves. She fussed with him for a while, then sent him away with a cuff on the head.

The trail led to a clearing, and in the clearing was Tweed, sitting in a chair with a nude woman standing beside him. She spotted a man, also nude, in the trees at the edge of the clearing.

Lilo had been trying not to be impressed, but it was useless. She had no idea how much money it took to maintain a pocket disneyland like this, but she knew it was a great deal.

"Sit down, Lilo," Tweed said, and a chair unfolded from the high grass. She did, putting one foot up on the seat. She searched the pockets of the robe, found a brush, and began to comb the burrs from the wet hair on her legs.

among the Ringers, and the money to get the project going. The idea, which had looked good at the time, was that if she got caught and convicted her work could go on without interruption. Now she was not sure her motives had been that selfless. The urge to live is a strong one, as she had just learned.

"They questioned me with drugs," she said. "I have a friend out there. When I left the capsule, she moved it. I can't lead anyone to it. I don't know where it is."

"This accomplice," he said. "Did you have any way of getting in touch with her?"

"Have you ever been out there?"

"No, there's never time." He shrugged expressively. Lilo had seen it before, on the cube. Tweed was adept at the self-effacement routine, playing the part of one who's always busy with the People's work.

"Well, the Rings are *big*. If you haven't been there, you can't know just how big. I might get in touch with her by radio, but we couldn't think of a way she could be protected, too. I mean, anything could be drugged out of me, and she'd have no way of knowing if she was being lured into something. It was hard enough to get her involved in this, anyway. Ringers tend to be solitary. They don't worry much about other people's problems."

"But you have a way of getting in touch with her?"

"If you mean finding her, no. I can leave a message at the Janus switchboard. She calls every twenty years, like clockwork."

He spread his hands. "Not very efficient."

"That was sort of the idea. If it was easy for *me* to stop this project, it would be easy for someone who knew what I knew."

Tweed got up and walked slowly a few paces away, looking at the sky. The snake stirred, and coiled around Vaffa's leg. She bent over to stroke it, never looking away from Lilo.

"What was the name of this accomplice?"

"Parameter. Parameter/Solstice."

(note...)

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I'm not a frequent visitor to any of the disneylands. To me, a desire to work in the dirt with your bare hands and eat dirt-grown food is harmless, but silly. It makes us yearn for something we can never have, something that's always up there in the Lunar sky. It leads to lunatic fantasies like the one that had obsessed Tweed for so long: the retaking of Earth, the liberation of our home planet from the invaders.

I grew up surrounded by metal, and have never felt deprived because of it. Stories of Old Earth glories leave me unmoved. Our frontiers will be found not by trying to recapture the past, but by looking within ourselves. I had tried to do that, and ended up in jail.

Tweed must have set the thermostat on his private paradise at around forty degrees. I was sweltering. Maybe the plants needed a summer, but I definitely didn't. And some unspeakable little vermin had found their way into my leg hair. Nature. I stripped off the bulky robe and tried to cool myself while Tweed pondered my fate.

Lilo saw Tweed make a signal to the man on the edge of the woods. She tensed. Was this it? He could decide she wasn't worth the trouble—she still didn't know what he had in mind for her—and things could start to happen fast. She watched Vaffa carefully. If they came at her, she vowed to do some damage on the way out.

But Tweed was hurrying through the thick grass. Vaffa relaxed a little when Tweed had gone out of sight. She sat in the grass and stroked the snake. This female Vaffa

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was two and a half meters tall, had no breasts and very little fat anywhere, and was completely hairless. She was bone-white all over. A death's-head: spare, economical of movement, powerful and lethal.

Someone came running through the field toward them. Lilo wondered why anyone would run in this heat. Was she in trouble? But it was sheer high spirits. She saw the tattoo first, then the face.

"Hello, Mari."

"Hi," she gasped. "Isn't it wonderful? Being here, I mean."

"Uh-huh." Lilo slapped at something that buzzed; her hand came away red. Bloodsucker!

"Hi, Vaffa." The woman nodded to Mari. The medico was covered in sweat, and seemed to love it. She stood for a moment, getting her breath back. "You're supposed to come with me," she said.

"What for?"

"I have to make a recording of you. Boss's orders. Come on, it won't take a minute."

Lilo knew it took a bit longer than that, but followed her along a path leading into the woods. Turning, she saw that Vaffa was following, giving more attention to the snake than to Lilo. It wasn't very flattering. It would have been nice to think of herself as dangerous, but Vaffa did not seem impressed. Well, that was probably best. Maybe she'd get a surprise one day.

She had thought she would be taken back to the more conventional part of Tweed's residence. Instead they went to a glade in the middle of a dense forest. There was a waterfall nearby. Mari had carried her bag with her; now she set it on the ground and gestured to Lilo. A thin plastic sheet had been spread on the ground.

"Right here?" Lilo said. "Don't you need . . ." But Mari was opening what looked like a tree stump. Inside was metal.

"Why not? Don't worry, you'll love it."

Lilo had to admit the setting was more restful than the

standard medico's operating room. Maybe it would help her over her nervousness.

Lilo's fear of memory recording was a common one. She could tell herself as often as she wished that what she feared simply could *not* happen; she could not be awakened after the recording process to be told she had died and it was now several years later. A *clone* could wake up and learn that, but not her. Human consciousness is linear, and her mind was stuck in the body she lived in, for all time. What memory recording did was to make it possible for a second personality, exactly like her own, to be implanted into a second body, also exactly like her own. But Lilo could never participate in the life that clone would lead, though it had her memories to the time of the recording.

She tried to relax as Mari plugged her in. She felt herself go limp and numb all over as Mari turned the dials on her black bag. From then on, it was impossible to see what the medico was doing, but she knew the process well enough. The top of her head was opened—she could see the blood on Mari's hands as they came into her range of vision.

There were tiny metal channels implanted in Lilo's brain, put there when she was three years old. They enabled her to interface with a computer, and also served as conduits for the recording medium: single-molecule chains of ferro-photo-nucleic acid. Mari strapped a recording band around Lilo's forehead. In operation, the recorder would render Lilo unconscious for three minutes.

It was simple enough in operation, impossibly complex in theory. Lilo often wondered if the human race would ever have perfected it without the information from the Ophiuchi Hotline.

Memory is a holographic process. A memory is stored not in one place, but all over the brain. It cannot be recorded or deciphered by any linear process, such as magnetic tape running past a playback head. It must be grasped all at once, whole, like a snapshot or a hologram. The

FPNA made that possible. Each strand, containing billions of bits, was interfered with by every other strand when the process took place. Unlike a visual hologram, where each segment of the photographic plate contains all the information of the whole picture, one strand of FPNA was useless by itself. Only in combination with the sheaf of other strands—forty-six in all—could the picture have meaning. The recording hand would cause magnetic fields to be set up all through the brain, producing a code of nearly infinite permutations.

Lilo had never worried about whether the process was actually capable of holding everything. She was not too impressed with notions of a soul, a *karass*, a *karini*, or an *atmani*. She knew people who had died and been brought back to life by memory recording and cloning, and there was no way to tell the difference.

Mari flicked the switch, and the last thing Lilo recalled was her smiling face.

The face was still there when she woke up, still smiling. Lilo smiled back, glad that it was over. She started to get up.

"Hold on, not so fast," Mari said, lightly. "I have to unhook you first, and close you up."

Something was different. She looked again, and realized it was the background. Something behind Mari's face had changed.

It was the leaves on the trees. They had been green, and now they were a riot of red and gold and purple.

"O God, no. No, I . . . I don't like this. I don't want—" Mari touched her forehead lightly. "I don't want to have to turn you off."

Lilo sagged. Gradually she became aware of a circle of faces at the edge of her vision, between Mari and the canopy of trees, looking down at her. There was Tweed, and Vaffa, and . . . the other Vaffa. Male and female, looking down at her.

Mari finished her work. "Let me give you a hand up,"

she said. "You're going to need it." Lilo let herself be pulled into a sitting position, then helped to her feet. She stood, dizzy for a moment but rapidly regaining her balance. She let herself feel, not daring to think: the grass under her feet, hair brushing her face, the cool skin and underlying warmth of Mari's naked back under her arm, the play of muscles in her legs and feet. Mari put her arm around Lilo's waist and walked her in a circle, like a drunk. "You'll get your legs back in no time," she said, soothingly. "I exercised you all through the growth process, while you were in the tank. You're strong, you're just not used to it yet. Feel ready to stand on your own?"

Lilo nodded, not trusting herself to speak. Mari let her go, and she stood facing Tweed. He had some papers in his hand.

"So I died," she said. He glanced at his papers and made a check mark.

"Doesn't anyone have anything to say to me?"

Tweed said nothing, just looked at his papers again and made another check. The male Vaffa was looking into the treetops, smiling. It was the first time Lilo had seen him smile. The female had her hand in front of her mouth, and Lilo realized she was trying not to laugh. Were they amused at her? What kind of people were they?

"What the hell is going on, would someone please tell me that?"

Tweed tore a sheet of paper and handed it to Lilo. She glanced down at it, looked back at Tweed, then had to look down again at what she was afraid she had seen.

"So I died."

"Doesn't anyone have anything to say to me?"

"What the hell is going on, would someone please tell me?"

The words were machine-printed, and each sentence had a fat check beside it. She felt dizziness again. There was an apparition: at the edge of the clearing, a huge clock, with crystal antlers refracting blue sunlight. Hallucination? She looked away from it. She wanted out of this crazy place.

"You'd better sit down and rest," Mari said, putting an arm around her again as Lilo's knees buckled. "Maybe you should cry it out."

"*No!* I'll cry later. Right now I want to know what's going on."

"And you shall," Tweed said. He gestured, and the male Vaffa unfolded a chair for him. He settled into it. "Mari, I told you not to interfere."

"I'm sorry, Boss," Mari said, helplessly. "I just can't seem to . . . when someone's in trouble, I just—"

"Never mind. I shouldn't have had you here for this. It's not that important, though. Lilo, as you already saw, you are not what you thought you were. You are a clone. Perhaps you know what happened to the original Lilo. I have reason to believe that she was hatching her plans even before I had her recorded. If not, she at least entered our partnership with a . . . a state of mind that was not the best. Do you know what I'm talking about?"

"You're saying I tried to escape. And I didn't make it." She glanced at the two Vaffas. Their expressions were unreadable.

"That's it exactly. You were planning it from the moment you realized you were not going to be executed."

"I guess there's no sense not admitting it, is there?"

"No, there isn't."

I'm afraid, she thought, but didn't care to say it. He might have it written down somewhere. She felt something building in her, something that had to find release. She welcomed it, even if it meant her death. She was going to rip the skin from his face, expose the flayed bone, and crack it with her teeth. She was going to kill him. She looked at the ground while the bloodlust built in her. She was about to spring . . .

She was looking at two bare feet. Her eyes went up a pair of legs, past hairless genitals and a flat chest to a bald head. The knees were bent, the arms slightly away from the sides. Her lips were pulled away from fashionably stained teeth. She *wanted* Lilo to attack. One of the Vaffas had moved between Lilo and Tweed before the thought

even began to form in Lilo's head. The anger drained away to a hard knot in her stomach. Vaffa relaxed a little.

"She knew where to be," Tweed was saying. "Do you see that?"

"Yes. I see."

"You are predictable, Lilo."

"I see that, too."

"Would you like to hear what has happened to you? You're four months out of date, you know."

"I guess I'd better."

I had been foolish. I saw it now, how ridiculously easy the escape had been.

They had taken me on survival training in the Amazon Disneyland, three hundred square kilometers of climate-controlled tropical rain forest twenty kilometers below Aristillus. It was in the back country, the part the public never sees, where the rain falls all day and the clothes rot off your back in the suffocating humidity.

We were on our way home through the public corridors. There was only one guard this time; Vaffa had been called away at the last minute. I had stolen the skin sample I needed from Mari's workshop. I was watching for an opening. The guard looked away—

I bolted through the crowd. In two seconds I was invisible. In thirty seconds I was two levels down and a thousand meters east on a crosstown sidewalk, doubling back. I passed customs with the skin sample in my palm, boarded a train to Clavius.

The car stopped for an override signal. Thirty minutes later the door sighed open at a familiar station. I wondered what they would do to me.

Vaffa stood there, the woman, the face I had come to know so well. I looked down at the dark metal thing in her hand, then back at her bared teeth. I still didn't understand.

Lilo retched helplessly. She had long since emptied her stomach, but she continued to be sick. Mari held her as she

turned it down. You were going to make your own escape this time."

"What did I do?"

"Now we come to the point of this whole distasteful exercise. I will not tell you how you tried to escape. Can you see why?"

Lilo tried to think about it, but it did her no good. All she knew was that she felt trapped. Nothing made sense.

"All right. I don't expect you to absorb all this at once. It will take some getting used to. What I want you to try to understand is that you did your very best to get away from me. You had no help this time. You planned for two months, and to all appearances you were cooperating with me. You came up with a plan. What you must understand is that *it was the best plan you will ever come up with.*" He thundered the words. Everyone looked at him; they could not help it. He could be a powerful speaker when he wished to be.

"That's what the demonstration with the script was meant to point out to you. I have seen you revived twice now. You reacted exactly the same each time. You had no choice; you can only be what you are. You started off each time with memories identical to the day you were last recorded, right here in this clearing. You became a slightly different person each time. The original Lilo was foolish, she didn't think it out far enough, and she paid for it. The second was very crafty. She killed Mari, and came as close as you will ever—"

"She *what?*"

"You heard me."

Mari was at her side. "Lilo, don't get—"

Lilo recoiled from the woman in horror. "No! I couldn't have. I could have killed . . . *that,*" she pointed to the paired Vaffas. "I could have killed either of those things. But not Mari."

"I didn't say there was no remorse," Tweed said. "Vaffa says you seemed relieved when he killed you."

"Lilo, I don't hold it against you," Mari said. "I know it sounds strange, but I got to know you . . . I got to know

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kneel on the grass above the mess of bile and vat fluid she had brought up, while Tweed put the pictures away.

"Vaffa is rather direct," Tweed said. "As I told you a long time ago, they are useful." He glanced at the two. Lilo saw the look, and wondered for a moment if he might be a little afraid of them, too. "Are you able to go on?"

She sat back on her heels. There was Vaffa, the woman who had shot someone who looked just like Lilo and then held up the bloody body with the face and chest caved in for someone to take a picture. Her face moved only when she blinked.

"There's more?"

"I'm afraid so. You don't give up easily. If you did, you wouldn't be the kind of person I'm looking for."

"And more pictures?"

"Yes. You must see them."

"Let's get it over with."

I had been foolish.

I saw it now, and prayed forgiveness from my two earlier incarnations. I had thrown away their deaths by my failure.

It didn't seem likely that I would be given another chance.

And the cost: Mari, Mari . . .

Perhaps Tweed would not bring me back again. Or if he did, maybe he wouldn't tell me about Mari and my shame.

Vaffa appeared at the door to my room. I welcomed him.

Tweed had lit another of his cigars. He blew a cloud of smoke, and Lilo saw the female Vaffa edge a step away from him. Her nose twitched.

"The first time, you bolted," he said. "You saw the chance I had arranged for you to see, and you look it." The clk, which turned out not to have been a hallucination, had entered the clearing and was cropping the grass behind Tweed. Lilo watched the light refract from the anthers as Tweed talked. She did not want to think.

"The second time you had learned, but not the lesson I want you to learn. You had decided to be more careful. I presented you with the same opportunity, and you wisely

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you twice now. I like you. You did what you thought you had to, and you waited until I'd had a recording taken. I only lost a few days. The Boss told me it was painless, you didn't make me suffer."

"That's true," Tweed said. He was studying Lilo.

"But I just can't believe . . ."

"You must. And know this, too. I *know* you now. There are signs I can look for, things you will not be able to hide from me. If I see them, I will know you are following the script. You, on the other hand, will never be sure." His fat fingers, ticking off the arguments, were like the bars of a cage closing around her.

"I'll leave you to think about what I've said. When you've decided if you'll cooperate, come and tell me. It's your choice, and I want a firm decision from you this time, not the lies you told me at the institute. I've spent enough time and energy on you already."

He left, trailing the male Vaffa behind him like a faithful dog. Lilo and Mari were left virtually alone, as the other Vaffa seemed to have forgotten about them. Lilo watched her as she tried to coax her snake down from a tree, then scrambled up a vertical trunk to join it.

The silence grew uncomfortable.

"I wish I knew what to say," Lilo whispered. "I really wish I knew."

"Say you'll do what he says. You don't have any choice."

"No, I . . . I wasn't talking about that. I don't . . . don't have much choice about that, I guess. That's how it looks, anyway. I just don't know what to say to you."

"There's nothing you need to say. *You* didn't do anything. I have nothing but good memories of you. So who was hurt? Someone who used to be me, and someone else who was you."

Lilo wished she could look at it that way. She knew she would be eternally shamed by what that person had done. But the only way to cope with it was to see it as Mari suggested.

"I fixed your legs the way you like them," Mari said. Lilo looked down. It hadn't occurred to her that her legs

would be different, but of course they would have been. The design in her genes did not include the hair.

"Thank you. I appreciate that."

"I knew you would."

Lilo gritted her teeth. She knew Mari meant no harm by it, but she would never be able to hear those words again without emotion. She did not relish being predictable. Not at all.

Wondering if it was what she had said the last time around, she said, "I guess I'd better go talk to the Boss."

(note...)

with arms and legs that's used in school to illustrate the idea. Picture an infant at one end of the worm, emerging from Mother's vagina or the placenta, depending on how mother likes to do it. On the other end is death. Make marks on the worm each time a person's memories are recorded. Each mark is a potential branch.

Eight or nine months ago, at the time of my reprieve, my four-dimensional cross-section had diverged into four branches. (Or could it be five, or six? Tweed had grown several clones of me while I was in jail, since as soon as I died each time he was able to revive me in a new body the next day. He must keep clones of Mari, too, or else she could not have been there the day after number three killed her.) Each had started with the same memories, ending on the day Mari recorded me. Three of those branches were terminated, dead. I was traveling, second by second, down the fourth branch.

Five years before that, when I made my own recording in the capsule orbiting Saturn, there was the potential for another branch. I had no way of knowing if that one had produced another Lilo, but it was possible. I hoped I would never meet her. I had met myself once, and learned something about myself I would have been happier not knowing.

But since I did know it, since I had seen what lengths I would go to stay alive, I intended to live. I intended to live forever.

3

Consider the shape of my life: I had lived fifty-seven years rather normally. Like everyone, I got a memory recording every few years. Then I was arrested.

The recording I owned had been confiscated and held pending the outcome of my trial. When I was condemned, it was destroyed, along with the tissue sample that would have been used to grow a clone body if I were to die.

At the time of my stay of execution Mari must have made another recording of me: I had probably been drugged; it would have been easy enough.

I had been confronted with the clone Tweed had grown, who had then gone to The Hole in my place. (It whose place? After all, she was as much me as I am. It gets confusing.)

That person—the original me; though it's hard to accept, I'm now living in a clone body—had managed to survive only a few weeks beyond the next recording, taken in the forest at Tweed's. Return to square one, in the first step of a depressingly repetitive process. A new "me" was awakened, missing those weeks from the original recording until the death of the original "me." This second clone was started on the same course as the original. She played it safe for two or three months, made her break, was caught and killed. Number four—me, me dammit—wakes up in the forest and sees Mari smiling down on her. But this time Mari is a clone, too. Number three had killed her while escaping.

Think of it in four dimensions. Think of the long worm

