THE TIME AXIS

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Т

ENCOUNTER IN RIO

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THE whole thing never happened and I can prove it—now. But Ira De Kalb made me wait a billion years to write the story.

So we start with a paradox. But the strangest thing of all is that there are no real paradoxes involved, not one. This is a record of logic. Not human logic, of course, not the logic of this time or this space.

I don't know if men will ever journey again, as we journeyed, to that intersection of latitude and longitude where a shell hangs forever—forever and yet not forever, in space and out of space—on the axis stretching through time from beginning to end.

From the dawn of the nebulae to the twilight of absolute entropy, when the framework of the cosmos has broken

down into chaos, still that axis will stretch from dawn to dusk, from beginning to end. For as this world spins on an axis through space, so the sphere of time spins on its own axis.

I never understood the ultimate answer. That was beyond me. It took the combined skills of three great civilizations far apart in time to frame that godlike concept in which the tangible universe itself was only a single factor.

And even then it was not enough. It took the Face of Ea —which I shall never be able to describe fully.

I saw it, though. I saw it, luminous in the reddish dusk, speaking to me silently above the winds that scour perpetually across the dead, empty lands of a day yet to come. I think it will stand there forever in an empty land on a dead planet, watching the endless night draw slowly on through days as long as years. The stars will stand and the Earth-nekropoh's will stand and the Face will stand there forever. I was there. I saw it.

Was there? Will be? Maybe? I can't tell now. But of all stories in the world, this more than any needs a pattern.

Since the beginning is in the past, before men as such existed at all, the only starting place I know is a temporal and personal one, when I was drawn into the experiment. Now that I know a little more about the nature of time it seems clearer to me that past, present and future were all stepping stones, arranged out of sequence. The first step took place two months ago.

That was here in this time and space. Or in the time and space that existed two months ago. There's been a change

Now this is the way it used to be.

For me, the Big Ride. You start when you're born. You climb on the toboggan and then you're off. But you can only have the one ride. No use telling the ticket-taker you want to go again. They shovel you under at the end of the slope and there's a new lot of passengers waiting. You've had your three-score and ten. And it's over.

I'd ridden the toboggan for thirty-five years. Jeremy Cort-land, Jerry Cortland of the Denver Post, the Frisco Call-

Bulletin, PM, AP, Time, CoHzers-sometimes staff, sometimes roving assignments. I leaned out of the toboggan and plucked fruit from the orchards as I sped by. Strange fruit, sometimes. Generic term is News. And that covers a lot of territory.

There was a splinter in the toboggan's seat. I had on red flannel underwear. I had a nervous tic. I couldn't sit still. I kept reaching out, grabbing. Years of it, of by-lines that said "cabled by Jeremy Cortland."

Russia, China, war coverage, Piccard's bathyscaphe, the supersonic and altostratosphere planes, the Russian earth-borer gadget, the Big Eye at Palomar—the coal strikes and the cracker lynchings and that dirt farmer in North Dakota who suddenly began to work miracles. (His patients didn't stay cured, you remember, and he disappeared.)

The Big Ride. In between I grabbed at other things. One marriage, one divorce, and more and more bulges. Long bouts, between assignments. I didn't give a-well, you can't use that word in some papers. But it was all right. What did I expect, heaven?

The eyes aren't quite as clear as they used to be. The skin under them is a little puffy. One chin begins to be not quite enough. But it's still the Big Ride. With a splinter in the seat.

Dodging alimony payments, I skipped to Brazil, got in on a submarine exploration of the Amazon, wrote it up, sold it to AP as a feature. The first installment appeared on the same day as another little item—buried in the back—that said 85 and 87 had been made artificially.

Astatine and francium—the missing link in the periodic table—two billion years ago you could have picked up all the astatine and francium you wanted, just by reaching down and grabbing. If you'd been around at the time. Since then 85 and 87 have decayed into other elements. But Sea-borg and Ghiorso at UC made them synthetically, with the big cyclotron and atomic oven transmutation, and the column on one side of that trivial item said SECOND BURN-DEATH VICTIM FOUND, and on the other there was a crossword puzzle.

I didn't care, either.

Those deaths, by an indefinable sort of burning, were just starting to confound the United States authorities at the time. They hadn't yet spread to South America.

There was another item in that same ParAr that concerned me though I didn't know it at the time seemed that Ira De Kalb was working with Military Intelligence on some sort of highly secret project—so secret you could read all about it as far south as Rio if you had the price of the paper.

I had my own current problem. And it was a very odd one.

The thing started six weeks before it began. You'll have to get used to paradox—which isn't paradox once you grasp the idea.

It started in an alley in Rio, a little cobbled tunnel opening off the Rua d'Ouvidor, and what I was doing there at three o'clock of a summer morning in January I'll never be able to tell you. I'd been drinking. Also I'd been playing chemin de fer and there was a thick pad of banknotes in the inside pocket of my white jacket, another stuffed into the dark wine-colored cummerbund I was wearing.

Looking down, I could see the toes of my shoes twinkling in the moonlight as I walked. The sky twinkled too, and the lights up in the hills and out on the bay. The world was a shiny place, revolving gently around me.

I was rich. But this time it was going to last. This time I'd cut out the binges and take a little house up in Petropolis, where it's cool, and I'd really get down to work on the analysis of news-coverage I'd been planning for so long. I'd made up my mind. I was drunk but I'd be sober again and the resolution would stay behind when the liquor died.

I don't often get these fits of decision but when they come they're valid enough and I knew this one was serious. That was a turning point in the career of Jerry Cortland, there in the moonlight on the checkered pavement.

What happened at the mouth of that alley I'll never really know. Fortunately for me I couldn't see or realize it clearly, being drunk.

It sprang from the deep shadow and put out two arms at me. That much I'm sure of. Two arms that never touched me. They never meant to. They shot past my ears, and I heard a thin hissing noise and something seemed to turn over in my mind, leisurely, like a deep-buried thought stirring to life. I could all but feel it move.

## I touched it.

I wish I hadn't. But I was thinking of my money. My hand closed on the thing—on a part of it—no one will ever know on just what. I Van only tell you it was smooth with a smoothness that burned my hand. Friction burned it, I think now. The sheer velocity of the thing, though it was not then moving perceptibly, took a neat thin layer of cuticle off my palm wherever it touched. I think it slid out of my grip on a thin lubrication of my own skin.

You know how it is when you touch something white-hot? For an instant it may feel cold. I didn't know I was burned. I closed my hand hard on the—on whatever it was I had hold of. And the very pressure of the grip seemed to push it away, out of my hand, very smooth and fast. All I know is that a moment later I stood there, shaking my band because it stung and watching something dark in the moonlight vanish down the street with a motion that frightened me.

I was too dazed to shout. By the time my wits came back it had disappeared and the feeling of unreality it left behind made me doubt whether I had ever seen or felt it at all.

About ten minutes later I found my money was gone. So it wasn't a turning point in my life, after all. If things had worked out any differently I never would have met Ira De Kalb. I never would have got myself mixed up in that series of deaths which so far as I was concerned were only signposts pointing the way to De Kalb. Maybe it was a turning point, at that.

The mind as well as the senses can be awfully slow sometimes. The hand doesn't know it has been burned, the mind can't recognize the impossible when it confronts it. There are many little refuges for a mind that must not admit to itself the impossible has happened.

I went back to my hotel that night and got into bed. I had met a thief, I told myself drowsily, as I'd deserved-walking a city street that late at night, loaded down with cash. I had it coming. He'd got my money and that was that. (He—it—hadn't touched the money, or me, except in that one brief unbalanced instant. The thing was impossible.

But since it had happened, then it was possible and the mind could dismiss it.) I went to sleep.

And woke at dawn to the most extraordinary experience I'd ever had in my life, up to then. Even that encounter on the Rua d'Ouvidor hadn't been like this.

The experience was pure sensation. And the sensation was somewhere inside me, vaguely in the solar plexus region—a soundless explosion of pure energy like a dazzling sun coming into sudden, radiant being. There aren't any accurate words to tell about it.

But I was aware of ring after ring of glowing vitality bursting outward from that nova in the deepest nerve-center of my body. For a timeless instant I lay there, bathed in it, feeling it pour like a new kind of blood through my veins. In that instant I knew what it was.

Then somebody turned off the power at its source.

I sat up abruptly, empty of the radiance, empty as if it had never happened, but filled terribly with the knowledge of what had caused it.

My head ached from the sudden motion. Dawn made the sky light outside and brimmed the room with a clear gray luminous pallor. I sat there holding my head in both hands and knowing-knowing-that

somewhere in the city an instant ago a man had been killed.

There was no shadow of doubt in my mind. I was as sure as if I had had that strange sensation a hundred times before and each time seen a man die as it burst into a nova-glow inside me.

I wanted to go back to sleep and pretend it had been a dream. But I knew I couldn't. I dragged myself out of bed and into my clothes. I took my aching head and jangled nerves down into the street and found a yawning taxi-driver.

You see, I even knew where the dead man would be found. It was unthinkable that I should go there looking for him—but I went. And I found him. He was lying huddled against the rim of a fountain in a little square not far from the place where I'd last seen my—my thief—of the night before vanishing with that disquieting, smooth swiftness in the moonlight.

The dead man was an Indian, probably a beggar. I stood

there in the deserted square, looking down at him, hearing the early morning traffic moving noisily past, knowing someone would find us here together at any moment. I had never seen a victim of the\* burn-death before but I knew I looked at one now. It wasn't a real burn, properly speaking. Friction, I though, had done it. The eroded skin made^me think of something, and I looked at my own palm.

I was standing there, staring from my burned hand to the dead man and then back again, when—it happened again.

The bursting nova of pure radiance flared into, violence somewhere near the pit of my stomach. Vitality poured through my veins. ...

I sold the series to AP as usual. There had been five of the murders in Rio before I got my idea about putting an end to them and by then the stories had begun to hit the States papers, some of them running my picture along with the sensational stuff about the deaths, and my uncanny ability at locating the bodies.

Looking back now, I suppose the only reason they didn't arrest me for murder was that they couldn't figure out how Fd done it. Lucidly my hand had healed before the police and the papers began to connect me so tightly with the deaths.

After the fifth murder I got a reservation for NQSV Jfttrk. I had come to the conclusion that if I left Rio the murders would stop—in Rio. I thought they might begin again ifli New York. I had to find out, you see. By then I was in pretty bad shape, for the best of reasons—or the worst. Any.hdw, I went back.

ΙI

### THE STAIN AND THE STONE

THERE was a. message waiting for me at the airport. Robert J. Allister wanted to see me. I felt impressed. Allister runs a chain of news and picture magazines second only to Life and Time.

I phoned for an appointment, and they told me to come right up. I walked through a waiting-room full of people with prior appointments and they passed me right into the sanctum, with no preliminaries. I began to wonder if I'd been underestimating my own importance all these years. Allister himself rose behind his desk and offered me his hand. I waded forward, ankle-deep through Persian carpets, and took it. He told me to sit down. His voice was tired and he looked thinner and more haggard than his pictures.

"So you're Jerry Cortland," he said. "Been following your Rio stuff. Nice work. Care to drop it for awhile?" I gaped. He gave me a tired grin.

"I'd like you to work for me on contract," he said. "Let me explain. You know Ira De Kalb?" "The poor man's Einstein?"

"In a way, maybe. He's a dilettante. He's a genius, really, I suppose. A mind like a grasshopper.

He'll work out a whole new concept of mathematics and never bother to apply it. He—well, you'll understand better after you've met him. He's onto something very new, just now. Something very important. I want some pieces written on it and De Kalb made a point of asking for you." "But why?"

"He has his reasons. He'll explain to you—maybe. I can't." He pushed the contract toward me. "How about it?" "Well—" I hesitated. My ex-wife had just slapped another summons on me, alimony again, and I could certainly use some money. "I'll try it," I said. "But I'm irresponsible. Maybe I won't stick to it."

"You'll stick," Allister said grimly, "once you've talked to De Kalb. That I can guarantee. Sign here."

De Kalb's house blended into the hillside as if Frank Lloyd Wright had built it with his own hands. I was out of breath by the time I got to the top of the gray stone terraces linked together by gray stone steps. A maid let me in and showed me to a room where I could wait.

"Mr. De Kalb is expecting you," she said. "Hell be back in about ten minutes."

Half the room was glass, looking out upon miles and miles of Appalachians, tumbled brown and green, with a

dazzling sky above. There was somebody already there, apparently waiting too. I saw the outlines of a woman's spare, straight figure rising almost apologetically from a desk as I entered. I knew her by that air of faint apology no less than by her outline against the light.

"Dr. Essenl" I said. And I was aware then of my first feeling of respect for this job, whatever it was. You don't get two people like Letta Essen and Ira De Kalb under the same roof for anything trivial.

I knew Dr. Essen. I'd interviewed her twice, right after Hiroshima, about the work she'd done with Meitner and Frisch in establishing the nuclear liquid-drop concept of atomic fission. I wanted very much to ask her what she was doing here but I didn't. I knew I'd get more out of her if I let it come her way.

"Mr. De Kalb asked me to meet you, Mr. Cortland," she said in her pleasant soft voice. "Hello, it's nice to see you again. You've been having quite a time in Rio, haven't you?"

"Old stuff now," I said. "This looks promising, if you're in on it. What's up, anyhow?"

She gave me that shy smile again. She had a tired gentle face, gray curls cut very short, gray eyes like two flashes of light off a steel beam when she let you meet her direct gaze. Mostly she was too shy. But when you caught that rare quick glance of her it was almost frightening. You realized then the hard dazzling mind behind the eyes.

"Ill let Mr. De Kalb tell you all about that," she said. "It isn't my secret. But you're involved more than you know. In fact—" She paused, not looking at me, but giving the corner of the carpet a gentle scowl. "In fact, I'd like to show you something. We've got a little time to spare, and I want your reaction to—to something. Come with me and we'll see."

I followed her out into the hall, down a flight of steps and then into a big room, comfortably furnished. A study, I thought. But the bookshelves were empty now and everything was lightly filmed with dust.

"The fireplace, Mr. Cortland," Dr. Essen said, pointing.

It was an ordinary fireplace, gray stone in the pine-panelled wall, with a gray stone hearth. But there seemed to be

a stain at one spot on the hearth, close to the wall. I stepped closer. Then I knelt to look.

The speed of a chain of thoughts conies as close as anything I know to annihilating time itself. The images that flashed through my mind seemed to come all at once.

I saw the stain. I thought—transmutation. There was no overt reason but I thought it. And then before I could take it in clearly with my conscious mind, in the chambers of the unconscious I was standing again at the alley mouth in Rio at , three in the morning, seeing a dark thing leap forward at me with its two hands outstretched.

I heard the thin humming in my ears, felt the burning of its touch. I remembered the sunburst of violent energy deep inside me that had heralded murder whenever it came. And I knew that all these were one—all these and the stain upon the hearth. The knowledge came unbidden, without reason.

But it was sure.

I didn't question it. But I looked very closely at the stone. That stain was an irregular area where the stone seemed changed into another substance. I didn't know what the substance was. It looked wholly unfamiliar. The gray of the hearth stopped abruptly, along an irregular pattern, and gave place to a substance that seemed translucent, shot through with veins and striae that were lighter, like the

veins in marble.

The pine panels beside the fireplace were partly stained like the stone and a little area of the carpet that came up to the edge of the hearth. Wood, stone and cloth alike had turned into this—this marble stain. The veins in it were like tangled hair, curling together, embedded like some strange neural structure in half transparent flesh.

I looked up.

"Don't touch it," Dr. Essen said quickly.

I didn't mean to. I didn't need to. I knew what it would feel like. I knew that though it was perfectly motionless it would burn my hand with friction if I touched it. Dr. Essen knew too. I saw that in her face.

I stood up. "What is it?" I asked, my voice sounding

oddly thin.

"The nekron," she told me, almost absently. She was searching my face and the keenness of her gaze was al-

most painful to meet. "That's Mr. De Kalb's word for it. As good a word as any. It's—a new type of matter. Mr. Cort-land—you have seen something like this before?" Her rare, direct look was like the\* sharpness of a knife going through me, cold and deep.

"Maybe," I said. "No, never, really. But-"

"All right, I understand," she nodded. "I wanted to vert fy something. I've verified it. Thank you." She turned away toward the door. "We'd better get back. No, please—no questions yet. I can't possibly explain until after you've seen the Record.

"The Record? What-"

"It's something that was dug up in Crete. It's-peculiar. But thoroughly convincing. Youll see it soon. Shall we go back?"

She locked the door behind us.

Certainly De Kalb didn't look his forty-seven years any more than a Greek statue does. He looked like a young man, big and well proportioned. His sleek hair lay flat and short upon his head, and his face was handsome in the vacant way the Belvedere's is.

There was no latent expression upon it and you felt that no emotions had ever drawn lines about the mouth or between the brows. Either he had never felt any or his control was such that he could suppress all feeling. There was the same placidity you see in the face of Buddha.

There was something odd about his eyes—I couldn't make out their color. They seemed to be filmed as though with a cat's third eyelid. Light blue, I thought, or gray, and curiously dull.

He gave me a strong handshake and collapsed into an overstaffed chair, hoisted his feet to a hassock. Grunting, he blinked at me with his dull stare. There was a curious clumsiness to his motions, and when he spoke, a curious ponderous quality in his diction. He seemed to feel something like indulgent contempt for the rest of the world. It was all right, I suppose. Nobody had better reason. The man was a genius.

"Glad you're here, Mr. Cortland," he said hoarsely. "I need you. Not for your intelligence which is slight. Not for your physical abilities, obviously sapped by years of waste-

ful and juvenile dissipation. But I have an excellent reason to think we may work well together."

- "I was sent to get an interview for Spread," I told him.
- "You were not." De Kalb raised a forefinger. "You err through ignorance, sir. Robert Allister, the publisher of Spread is a friend of mine. He has money. He has agreed to do the world and me a service. You are under contract to him, so you do as he says. He says you will work with me. Is that clear?"
- "Lucid," I told him. "Except I don't work that way. The contract says I'm to handle news assignments. I read the fine print too. There was no mention of peonage."
- "This is a news assignment. I shall give you an interview. But first, the Record. I see no point in futile discussion. Dr. Essen, will you be kind enough—" He nodded toward a cupboard.
- She got out a parcel wrapped in cloth, handed it to De Kalb. He held it on his knee, unopened, tapped his fingers on its top. It was about the size and shape of a portable typewriter case.
- "I have showed the contents of this," he said, "only to Dr. Essen. And-"
- "I am convinced," Dr. Essen said dryly. "Oh yes, Ira. I am

convinced I"

- "Now I show it to you," De Kalb said and held out the package. "Put it on the table—so. Now draw up a chair. Remove the wrappings. Excellent. And now—"
- They were both leaning forward, watching me expectantly. I glanced from them to the battered box, then back again. It was a tarnished blue-white rectangle, battered, smudged with dirt, perfecly plain.
- "It is of no known metal," De Kalb said. "Some alloy, I think. It was found fifteen years ago in an excavation in Crete and sent to me unopened. Not intentionally. Nobody has ever been able to open it until recently. It is, as you may have guessed, a puzzle box. It took me fourteen years to learn the trick that would unlock it. It is also apparently indestructible. I shall now perform the trick for you."
- His hands moved upon the battered surface. I saw his nails whiten now and then as he put pressure on it.
- "Now," he said. "It opens. But I shall not watch. Letta,
- will you? No, I think it will be better for us both if we look away while Mr. Cortland-"
- I stopped listening 'along about then. For the box was slowly opening.
- It opened like a jewel. Or like an unfolding flower that had as many facets as a jewel. I had expected a lid to lift but nothing of the sort happened. There was movement. There were facets and planes sliding and shifting and turning as though hinged, but what had seemed to be a box changed and reassembled and unfolded before me until it was—what? As much a jewel as anything. Angles, planes, a shape and a shining.

Simultaneously there was motion in my own mind. As a tuning fork responds to a struck note, so something like a vibration bridged the gap between the box and my brain. As a book opens, as leaves turn, a book opened and leaves turned in my mind.

All time compressed itself into that blinding second. There was a shifting reorientation, motions infinitely fast that fitted and meshed with such precision the book and my mind were one.

The Record opened itself inside my brain. Complete, whole, a history and a vision, it hung for that one instant lucid and detailed in my mind. And for that moment outside time I did comprehend. But the mind could not retain it all. It flashed out and burned along my nerves and then it faded and was only a pulse, a glimpse, hanging on like an after-image in my memory. I had seen—and forgotten.

But I had not forgotten everything.

Across a gulf of inconceivable eons a Face looked at me from red sky and empty earth. The Face of Ea. . . .

The room spun around me.

"Here," Dr. Essen's voice murmured at my shoulder. I looked up dizzily, took the glass of brandy she offered. I'm not sure now whether or not I had a moment of uncon-sciouness. I know my eyes blurred and the room tilted before me. I drank the brandy gratefully.

Ill

THE VISION OF TIME

DE KALB SAID, Tell us what you saw."

"You—you've seen it too?" The brandy helped but I wasn't yet steady. I didn't want to talk about what had flashed through my mind in that unending, dissolving glimpse which was slipping fragment by fragment out of my memory as I sat there. And yet I did want to talk.

"I've seen it," De Kalb's ponderous nod was grim. "Letta Essen has seen it. Now you. Three of us. We all get the same thing and yet—details differ. Three witnesses to the same scene tell three different stories. Each sees with a different brain. Tell us how it seemed to you."

I swirled the brand around in my glass. My thoughts swirled with it, hot and potent as the liquor and as volatile. Give me ten minutes more, I thought, and they'll evaporate.

"Red sky," I said slowly. "Empty landscape. And-" The word stuck in my throat. I couldn't name it.

"The Face," De Kalb supplied impatiently. "Yes, I know.

Go on."

"The Face of Ea," I said. "How do I know its name? Ea and time—time—" Suddenly the brandy splashed across my hand. I was shaking with reaction so violent I could not control it and I was shaking because of time. I got the glass to my lips, using both hands, and drained what was

left.

The second reaction passed and I thought I had myself

under control.

"Time," I said deliberately, letting the thought of it pour through my mind in a long, cold, dark-colored tide that had no motion. Time hasn't, of course. But when you see it as I did, at first the concept makes the brain rock in your skull.

"Time—ahead of our time. Uncountable thousands of years in our future. It was all there, wasn't it? The civilizations rising and falling one after another until—the last city of all. The City of the Face."

- "You saw it was a city?" De Kalb leaned forward quickly. "That's good. That's very good. It took me three times to find that out."
- "It didn't see it. I-I just knew."
- I closed my eyes. Before me the empty landscape floated, dark, almost night, under the dim red sky.
- I knew the Face was enormous. The side of some mountain had been carved away to reveal it and, I supposed, carved with tools by human hands. But you had the feeling that the Face must always have been there, that one day it had wakened in the rock and given one great grirnace of impatience and the mountainside had sloughed away from its features, leaving Ea to look out into eternity over the red night of the world.
- "There are people inside," I said. "I could feel them, being there. Feel their thoughts, I suppose. People in an enormous city, a metropolis behind the Face."
- "Not a metropolis," De Kalb said. "A nekropolis. There's a difference. But-yes, it's a city."
- "Streets," I said dreamily, sniffing the empty glass. "Levels of homes and public buildings. People moving, living, thinking. What do you mean, nekropolis?"
- "Tell you later. Go on."
- "I wish I could. It's fading." I closed my eyes again, thinking of the Face. I had to force my mind to turn around in its tracks and look, for it didn't want to confront that infinite complexity again. The Face was painful to see. It was too intricate, too involved with emotions complex beyond our grasp. It was painful for the mind to think of it, straining to understand the inscrutable things that experience had etched upon those mountain-high features.
- "Is it a portrait?" I asked suddenly. "Or a composite? What is the Face?"
- "A city," De Kalb said. "A nation. The ultimate in human destiny—and a call for help. And much more that we'll never understand."
- "But—the future!" I said. "That box—didn't you say it was found in Crete? Dug up in old ruins? How could something from the past be a record of our own future? It doesn't make sense."
- "Very little makes sense, sir, when you come to examine
- the nature of time." De Kalb's voice was ponderous again.—He heaved himself up a little and folded his thick fingers, looking at me above them with veiled gray eyes.
- "Have you read Spengler, Mr. Cortland?" he asked.
- I grimaced and nodded.
- "I know, I know. He has a high irritant value. But the man had genius, just the same. His concept of the community, moving through its course from 'culture' to dead and petrifying 'civilization' is what happened to the city of the Face.
- "I said happened' because I have to use the past tense for that nekropolis of the future. It exists. It has accomplished itself in time as fully as Babylon or Rome. And the men in it are not men at all in the sense we know. They are gods."
- He looked at me as if he expected me to object. I said nothing.
- "They are gods," He went on. "Spengler was wrong, of course, in thinking of any human progress in one simple, romantic curve. You have only to compare fourteenth century Rome with sixteenth century Rome to see that a nekropolis, as Mumford calls it, can pull itself together and become a metropolis again, a living, vitaLunit in human culture.
- "I have no quarrel with Spengler in his interpretations of a culture within itself. But both he

and Toynbee went astray in their ideas of the symbolic value of a city. When you go further into the Record you'll see what I mean."

He paused, put out a large hand and fumbled in a dish of fruit on the table at his elbow. He found an orange and peered at it dubiously, hefted it once or twice, then closed his fingers over it and went on with his discourse.

- "In a moment," he said, "I want to show you something with this orange as an illustration. First, however, I must do Spengler thel justice of allowing the validity of his theories, in the ultimate. The City of the Face has run its course. It is a nekropolis, in the .sense that Mumford uses the term.
- "In our times, a nekropolis such as Rome once was, and such as New York must be someday, needn't mean the end of our civilization, because a city isn't a whole nation. There were outlying villages that flourished all the better when
- Rome ceased to dominate their world. When the dark ages closed over Europe it wasn't by any means the end of the civilized world-^elsewhere on the planet new cultures were rising and old ones flourishing. "But the City of the Face is a very different matter. "That City is really Nekropolis and there are no outlying villages to carry on, no outlying cultures rising toward fruition. In all that world there is only the one great City where mankind survives. And they aren't men—they are gods. Gods, sir!"
- "Then it can't really be a nekropolis," I objected. ' "It need not be. That's up to us." "How?"
- "You saw my hearth. Dr. Essen showed you the stain of plague that is creeping across it. Oh yes, my friend, that stain is spreading! Slowly, but with a rate of growth that increases as it goes. The negative matter—no, not even negative. Not even that. But it happened to the world of the Face. That whole planet is nekronic matter except for the City itself.
- "You didn't sense that from your first experience with the Record? No? You will. The people in the City can't save themselves by direct action on the world around them. They appeal to us. We can save them. I don't yet know how. But they know or they wouldn't have appealed in just the way they did."
- "Wait a minute," I said. "Let me get this straight. You're asking me to accept a lot, you know. The only premise I've got to believe in is the—the Record. But what do you want from me, personally? How do I come into it? Why me?"
- De Kalb shifted in his chair, sighed heavily, opened his fingers and peered at the orange he held as if he had never seen it before. He grimaced.
- "Sir, you're right. I accept the rebuke. Let me give you facts. Item, the Record. It is, in effect, a book. But not a book made by human minds. And it must, as you know, be experienced, not read. Each time you open the box you will get the same flash of complete vision, and each time you will forget a little less as your mind is conditioned. But there will always be facets of that tremendous story which
- will elude us, I think. Our minds can never wholly grasp what lies inside that box....
- "It was found in Crete. It had lain there perhaps three thousand years, perhaps five thousand—I think, myself, a million. It came into my hands half by accident. I could not open it. Off and on I tried. That is my habit. I used X-rays to look through the substance of the box. Of course I saw

nothing.

"I detected radioactivity, and I tested it with certain of the radio-elements. I exposed it to supersonics. I-well, I tried many things. Something worked. Something clicked the safety, so that one day it opened. You see-" He looked at me gravely. "You see, it was time."

"Time?"

"That box was made with a purpose, obviously. It was sent to us, with a message. I say to us but

the aim was less direct. It was sent through time, Mr. Cortland—through time itself—and the address said simply, To be opened only by a skilled technological civilization.' "

"All right," I said. "Suppose it came through time. Suppose it's an appeal for help. I didn't get that, but I'm willing to believe I might if I opened the box often enough. But why do you assume this is a living issue, here and now? You imply the fate of the City depends on us. If that box is as old as you say, isn't it more likely the City of the Face existed somewhere in the prehistoric past?

"They made a record—I can't deny that. They cast it adrift in time like a note in a bottle and it floated ashore here and we read it. Sure. But it makes a good enough news-story for me the logical way—a relic of a dead civilization a million years old. That I could write. But—"

"You are not here to write a news story, sir!" De Kalb's

voice was sharp.

"That's what my contract says I'm here for."

"You were chosen," De Kalb said heavily. "You were chosen. Not by Allister. Not by me." He shifted uneasily. "Let me go on a little." He peered at the orange, tossed it up and caught it with a smack in his palm. "I opened the box for the first time," he said, "in my studio.

"You've seen it. I saw the box unfolding like a flower. For the first time in a million years—opening up in four dimen-

sions, or perhaps more than four, with that tesseract motion which the eye can only partly see. But that first time, sir-something more happened." He paused, hesitated, said in a reluctant voice, "Something came out of the box."

I waited. Dr. Essen, who had scarcely moved since this talk began, got up abruptly and went to stand at the window, her back to us, looking out over the great brown tumble of mountains beyond.

"It came out of the box," De Kalb said in a rapid voice, as if he didn't want to talk about this and was determined to get it over as fast as he could. "It passed me. It leaped toward the fireplace. And it was gone. When I looked, I saw nothing. But that evening I noticed the first spot of the stain upon the stone. In the stone. It meant little to me then— I had not yet learned enough from the Record to be afraid. But I know now."

IV

THE LAURENTIAN STORY

AGAIN I waited. This time I had to prompt him.

"Knowwhat?"

"The nekron," he said. "It's growing. It will never stop growing, until—" He paused, shrugged. "We have to believe they're in the future," he said. "We have to help them. They made sure of that. For unless we do the nekron will grow and grow until our world is like theirs—dead matter. Inert. Nekronic. I call it that because it is death.

"An absolutely new form of matter, the death of energy. It breaks a supreme law of our universe, the law of increasing entropy. Entropy trends toward chaos, naturally. But the nekron is the other extreme, a pattern, a dead null-energy pattern of negation."

"You mean," I demanded, "that the people of the City deliberately set a trap for the man who first opened the box?"

"They had to. They had to make sure we'd answer their appeal to save ourselves."

"Then you're convinced they exist in the future, not the

past?"

- "You saw the Face. You were aware, you say, of the waves of civilization rising and falling between our time and theirs? How can you doubt it, then, Mr. Cortland?"
- I was silent, remembering.
- "It doesn't matter," De Kalb went on. "That question is purely academic. Past or future is all one in the time-fabric you will understand better after you've opened the

box again."

- "But," I said, "how can we help them? If they can't destroy the menace to their own world, whatever it is, how could we? It's ridiculous. And anyhow, if time-travel was possible for the box—which I don't for a moment really accept—how could it be possible for tangible, living men from our time? And if it were, how could you be sure you weren't dashing off to save a city that would prove when you found it to be already dead? Overwhelmed a million years ago? How is it—"
- "No, no, Mr. Cortland!" De Kalb held up a large hand with an orange balanced on its palm. "You have so much to learn! Allow me the intelligence to think of those objections myself! Surely you don't imagine all that hadn't occurred to me already?
- "The answer is that the nekron can be destroyed—or at least that the problem it poses can be solved. I believe it can be solved only by this method—three men and one woman must go into the future age that holds—the Face of Ea. For that, apparently, was the original plan of the people of the Face."
- "What makes you so certain of that?"
- "A number of factors. The Record was sent to 'our civilization, remember?": I had him there. "But it was found in Cretan ruins, you

said."

- "Certainly. And the ancient Minoans didn't open it. I suspect the Record existed long before the time of Theseus— but it remained unopened until a neotechnical civilization had developed on this planet. Only men—and women—who were products of such a culture would have the qualities necessary to solve the nekronic problem."
- "Why didn't they send the Record directly to our era? Why did they miss the right time by thousands of years?"
- "I am no expert in. the specialized restrictions of time-traveling," De Kalb said, with some irritation. "It may be that too-accurate aim is impossible. How can I tell that? The Record reached the right hands. I can easily prove that."
- But I was searching for errata. "You said we'd have the qualities that could solve the nekronic problem—destroy it, I suppose you mean. Well? Have you solved it?"
- De Kalb lost his ill-temper and beamed at me. "No," he said. "Not yet. The nekronic matter itself is very curious— atypical, completely. It is absolutely nonreactive. It has no spectrum. It emits no energy. No known reagent affects it in the slightest degree. It is a new type of matter, plain and simple. I cannot destroy it—not yet. Not now. But I believe I can do it with the guidance and aid of the people of the Face. As a matter of—"
- The telephone on the table beside him buzzed sharply. Dr. Essen swung around with a start. De Kalb grunted, nodded at her, muttered, "I'm afraid so," as if in answer to a question and took up the telephone with his free hand.
- It sputtered at him.
- "All right, put him on," De Kalb said in a resigned voice. The receiver buzzed and sputtered again. De Kalb's placid features grimaced, smoothed out, grimaced again. "Now Murray," he said. "Now Murray—no, wait a minute! Confound it, Murray, allow me to—I know you are, but—"

The telephone would not let him speak. It crackled angrily, a word now and then coming out clearly. De Kalb listened in resigned silence. Finally he heaved himself up in the chair and spoke with sudden resolution.

"Murray," he said sharply, "Murray, listen to me. Cort-land's here."

The phone crackled. De Kalb grinned. "I know you don't," he said. "Probably Cortland doesn't like you either. That's not important. Murray, can you come up here? Yes, it is important. I have something to show you." He hesitated, glanced at Dr. Essen, shrugged. "I am casting the die, Murray," he said. "I want to show you a certain box."

"You know Colonel Harrison Murray?" De Kalb asked. I nodded. I knew and disliked him for personal qualities quite

apart from his ability. He was old army, West Point, a martinet. He had the violent, uncontrolled emotions of an hysterical woman and the mechanical brilliance of a —well,

a robot.

No one could deny his genius. He prided himself on being scrupulously just, which he wasn't. But he thought he was. A fine technician, a genius at strategy and tactics. He confirmed that in the Pacific, back in '45. I'd done a profile on him once and he hadn't liked it at all.

"You're taking him in on this?" I asked.

"I've got to. He can make it too hot for me unless he understands. You see, I've been working with him on—never mind. But he insists I go on with it. He can't see how important this new business is."

"Ira." Dr. Essen put in timidly. "Ira, do you really think it's wise? To bring the colonel in yet, I mean. Are you

sure?"

"You know I'm not, Letta." He frowned. "But there's so little time to be lost, now. I don't dare wait any longer. Mr. Cortland—" He swung around toward me. "Mr. Cortland, I see it is now time to give you one more bit of knowledge. I have a story to tell you, about myself and you. Surely you must have realized by now that you are involved in this thing far beyond any power of mine to accept or dismiss."

I nodded. I did know that. I thought briefly of the things that had happened to me in Rio, of the affinity I had sensed without understanding between that stain on the hearthstone and the—the creature which had scorched my hand in Rio and the deaths that had come after. Would they stop now—in Rio? Would they begin again, nearer home? There had to be some connection—coincidence just doesn't stretch that far. But all I could do was wait.

"This is my story," De Kalb said. "Our story, Mr. Cortland. Yours and mine, Dr. Essen's—perhaps Colonel Murray's too. I don't know. I wish I did. Well, 111 get on with it." He sighed heavily. "After I had experienced the Record many times," he said "I began to realize that there was in it reference to a certain spot on the earth's surface that had a rather mystifying importance.

"I was unable to grasp why. The place was localized by

latitude, longitude, various methods of cross-reference. It took me a long while to work it out in terms of our own world and era and decimal system. But finally I did it.

"I went there." He\* paused, regarding me gravely. "Have you ever been in the Laurentians, Mr. Cortland? Do you know the wildness of those mountains? So near here by air, and so far off in another world, once you arrive and the sound of your motor ceases. You imagine then that you can hear the silences of the arctic wastes, which are all that lie beyond that band of northern forests.

"Well, I hired men. I sank a shaft. They thought I was simply a prospector with more money and fewer brains than most. Fortunately they didn't know my real reason—that the spot I was hunting

had turned out to be underground. You get some curious superstitions up there in the wilds-perhaps not curious. In many ways they're wise men. But my spot, in this era at least, had to be dug for..

"My instruments showed me a disturbance toward which the shaft was angled. And eventually we came to the source of that disturbance. We found it. We hollowed a cavern around it. After that I dismissed the men and settled down to study the thing I had found." He laughed abruptly.

"It was twenty feet of nothing, Mr. Cortland. An oval of disturbance, egg-shaped, cloudy to the eye. I could walk through it. But, inside that oval, space and matter were walled off from our own space and matter by a barrier that was, I know now, supra-dimensional. A man may move from light to dark, encountering no barrier—yet the difference is manifest. There were tremendous differences here

"Also there was something inside. I was convinced of that long before I got my first glimpse of it. I tried many things. It was finally under a bombardment of UV that I saw the first shadowy shape inside that nothingness. I increased the power, I decreased it, I played with the vernier like a violinist on a Stradivarius.

"I chased that elusive mystery up and down through the light bands like a cat on a mouse's trail. And at last, quite clearly, I saw—" He broke off, grinning at me.

"No, I shall not tell you yet what I saw," he said. "You wouldn't believe me. The moment has now come, Mr. Cortland, when I must give you a little lesson on the nature of

time." He held up the orange, revolving it slowly between

his fingers.

"A sphere," he said, "revolving on an axis. Call it Earth." He put out his other hand and took up from the fruit

bowl a silver knife with a leaf-shaped blade a little broader

than the orange. With great deliberation he slid the edge

through the rind.

V

THE DEATH CARRIERS

WHAT happened then came totally without warning. In one moment I sat comfortably in my chair watching De Kalb drew the knife-blade through the orange. In the next-

A blinding nova of pure energy exploded outward from a nexus in the center of my body.

The room ceased to be. De Kalb and Dr. Essen were unrealities far off at the periphery of that exploding nova. Vitality ran like fire through every nerve and vein, like an adrenalin charge inconceivably magnified. There was nothing in the world for one timeless moment but the bursting glow of that experience for which I have no name.

The first thing I saw when the room came back into focus around me was the blood running from De Kalb's hand.

It meant nothing to me, in that first instant. Blood is the natural concomitant of death, and I knew that somewhere not far away a man had died a moment before. Then my senses came back and I sat up abruptly, staring at De

Kalb's face.

The color had drained out of it. He was looking at his cut hand with a blank unseeing gaze. There was a little blood on the silver knife. It was nothing. He had only cut himself slightly because of—

## Because of-

Our eyes met. I think the knowledge came simultaneously into our minds in that meeting of glances. He had felt it too. The explosion of white energy had burst outward in his nerve centers in the same moment it burst in mine. Neither of us spoke. It wasn't necessary.

After what seemed a long while I looked at Dr. Essen. That bright steel glance of hers met mine squarely but there was only bewilderment in it.

"What happened?'4 she asked.

The sound of her voice seemed to release us both from our speechlessness.

"You don't know?" De Kalb swung around to look at her. "No, evidently you don't. But Mr. Cortland and I—Cort-land, how often have you—" He groped for words.

"Since the first of the deaths in Rio," I said flatly. "You?"

"Since the first of them here. And ever since,- though, very faintly, when they happened in Rio."

"What are you talking about?" Dr. Essen demanded.

Heavily, speaking with deliberation, De Kalb told her.

"For myself," he finished, glancing at me, "it began when I first opened the Record." He paused, looked at his hand with some surprise and, laying down orange and knife, pulled a handkerchief from his pocket and wrapped it around the bleeding cut. "I didn't feel that at all," he said, almost to himself.

And then, to me, "I opened the Record. I told you that—something—went by me very fast and vanished at the spot where that nekronic strain later came into existence." He looked at me soberly, his eyes narrowed. "Mr. Cortland," he said, "can you tell me that you did not experience any feeling of recognition when you first saw that stain on the hearth?"

I got up so suddenly that my chair almost tipped over. Violently I said, "De Kalb, somewhere a man has just died! Something killed him. Something is making you and me accessories to murder! We've got to put a stop to it! This isn't an academic discussion—it's murder! We—"

"Sit down, Mr. Cortland, sit down." De Kalb's voice was tired. "I know quite well it's murder. We must and will discover the truth about it. But not by shouting at one another. The truth lies in that box on the table. It lies somewhere very far in the future.

"Also, the truth is a being that roams our world, murdering at will. I released it, Mr. Cortland. Unwittingly, but I released it. That was a Pandora's box I opened. Trouble and

death came out of it. We can only pray that there is hope in the bottom of it, as there was in Pandora's box."

"Look," I said. "Tell me how I can help and 111 do it. But let's not have any more generalities. I'm too close to these deaths. I think I'm in personal danger. Maybe you are too. What can we do?"

"We are not in personal danger from the killer. From the law-perhaps-if this connection from which we suffer were to become known. What can we do? I wish I could tell you. -I'm sure of this much-that thing which came from the box, leaving the stain of nekronic matter like a footprint behind it, is a living and dangerous creature. It touched me as it went by. I think by that touch I've become-well, remotely akin to it. Were you touched too?"

I told him.

"Very well," he said. "We are in danger. Has it occurred to you yet that where it touched the hearthstone, the nek-

ron took root?"

For a moment I didn't see what he meant. Then the implication hit me and I went cold and empty inside. De Kalb, seeing the look on my face, laughed shortly.

- "I see it has. Very well. So far I haven't detected any sign of nekronic infection in myself. I assume you haven't either. But that proves nothing."
- "Have you seen the creature?" I asked. He hesitated. "I can't be sure. I think I have. WiD you tell me exactly what happened to you, please? Every detail, even the irrelevant."
- And when I had finished, he exchanged troubled glances
- with Dr. Letta Essen. "Directive intelligence, then," she said.
- "The way it moved," De Kalb murmured. "That's highly
- significant. And the impossibility of getting a firm grip on
- the creature. So-Letta, do you agree?"
- "Frictional burns?" she asked. "But it didn't move fast enough to cause those. That is—not spatially."
- "Not in space, no," De Kalb said. "But in time? Limited, of course. A few seconds' leeway would be enough if you consider the energy expended and the tremendous velocities involved. It looks like a shadow—it seems to have mass without weight—and it has high velocity without spatial motion.
- "And Mr. Cortland's tightening his grip on the creature seemed to push it away. Time-movement, then! It vibrates— it has an oscillating period of existence, certainly limited within a range of a lew seconds. A tuning-fork vibrates in space. Why not vibration through time—with an extremely narrow range?
- "No wonder you couldn't hold the creature! Could you hold a metal rod vibrating that rapidly? You would get frictional burns on your hands—since your own weight would prevent you from partaking of its motion. The being's existence must be, to a limited degree, extra-temporal.
- "Consequently, I suppose any weapon used against it would have to be keyed to its own temporal periodicity. That is, if we had a pistol oscillating in time, we might be able to shoot the creature. But the hand that squeezed the trigger might have to be oscillating too."
- "Trembling like'a leaf," I said. "I know mine would be."
- He brushed that away. "How intelligent is this killer? Is ego involved, or merely vampirism? If the creature read your mind—" He grimaced. "No. No! The missing factor is what the nekron itself is and its special qualities. And we don't know that. We probably never will until we go to the Face of Ea."
- I sighed. I sat down. I'd had too many jolts in the past half hour to feel very sure of myself.
- "So we travel in time," I said wearily "Mr. De Kalb-you're crazy."
- He had enough energy left to chuckle rather wanly.
- "You'll- think me even crazier, sir, when I tell you what it was I saw down there under the mountain, in the cavern. But I must finish my demonstration before you'll be able to understand."
- "Get on with it, then."
- He took up orange and knife again. He fitted the blade into the cut and finished the job of bisecting the fruit a little above its equator. The severed top half lay upon the blade as on a narrow plate. Below it he held the other half of the orange in place, so that it still maintained its unbroken sphere.
- "Consider this blade Flatland," he said. "A world of two dimensions, intersecting the three-dimensional sphere. Now

- if I revolve the lower half of the orange, you will please imagine that the upper half revolves with it. One fruit—you see? The axis remains immovable in relation to the plane in Flatland it intersects.
- "Now. I cut this lower half again, straight through. The same axis intersects the same point on this Flatland. In other words, the spatial axis remains stable. You understand so far?"
- "No," I said. He grinned, tossed knife and fruit back into the bowl.
- "It takes thinking," he said. "Let me go on. Now time is also a sphere. Time revolves. And time has an axis—a single stable extension of a temporal point, drawn through past and future alike, intersecting them all, as that knife-blade touched the orange everywhere in the Flatland dimension. And that, Mr. Cortland, is what makes travel in time theoretically valid.
- "The theory of time-travel usually ignores space. The traveler steps into some semi-magical machine, presses a button and emerges a thousand years in the future—but on earth!" He snorted.
  "In a thousand years, or a thousand days, or in one day, or one minute, this planet along with the whole solar system would have traveled far beyond its position at the moment the traveler entered his machine.
- "But there is one point from which he could enter the machine, enter time itself and be sure always of emerging on earth. For each planet, I think, there is one single point. The spot in the Laurentians where I saw—what I saw—was that point for our planet. It is the spot at which the axis of the time—sphere intersects our own three—dimensional world. If it were possible to follow the line of the particular axis you would move through time.
- "Well, I believe there is movement but along still another dimension, beyond this theoretical fourth which is time—or supertime. Gall it a fifth. This much I'm sure of—if you could stay in the time axis indefinitely the ultra-time drift would carry you into another era, through era beyond era, wherever other ages intersect the time axis." He shook his head.
- "I admit I don't understand it too clearly. It's a science beyond ours. However, I think I can explain the presence
- of the Record box now. I believe the people of the Face sent it back in a direction parallel to the time-axis-which, remember, intersects the same area in space always, at any given moment. They sent it very far back, millennia into our past—as you say, like people tossing a message in a bottle into the stream of time.
- "Look." He held up his hand, thumb and forefinger touching at the tips. "Two times—my finger and thumb. But they touch at one point only. There you can cross. From the time of the Face to, let us say, some thousands of years B.C. This is vague again, and it is something I don't understand.
- "The extension is along still another dimension, possibly the ultra-sphere, this figurative fifth. But it's logical to suppose there would be such a limitation. There is in space. You can step spatially only into areas spatially adjoining yours. And in time—well, it may apply there too."
- "All right," I said. "Okay up to now. I'll accept it. Now let's have the kicker. What was it you saw in your cave?"
- De Kalb leaned back in his chair, regarding me with a grin.
- "I saw you, Mr. Cortland."
- I gaped at him.
- His grin broadened.
- "Yes, I saw you, lying alseep on the floor of the—the egg. I saw myself there too, asleep. I saw Dr. Essen. And lastly I saw Colonel Harrison Murray."
- He looked at me with obscure triumph, his grin very wide.

- "You're crazy," I said bluntly.
- "You're thinking you've never been in a cavern under a Laurentian mountain, I suppose. Very likely. Nor has Dr. Essen. Nor, I imagine, Murray. But you will be, my friend. So will we all." The grin faded. Now the deep voice was graver. "And we are all changed, there in the egg. You understand that?
- "We are older, by a little, not temporally, but in experience. You can see that on our faces. We have all passed through strange experiences—good, bad, awe-inspiring, perhaps. And the men look—tired, older. But Dr. Essen looks strangely younger." He shrugged heavily. "I don't
- attempt to explain it. I can only report what I saw, " He smiled at me.
- "Well, so much for that. Don't look so stunned, Mr. Cor-land! I assure you it was yourself. Which means that you will go with us when we take our 'great leap into the future, into the world of the Face. I believe we will all stand together in the living flesh before that great Face we have seen only in our minds, today.
- "Believe? I know it. Those people lying asleep in the time-axis, with instruments on the floor around them to regulate their slumbers, will go forward in time-have gone forward. And they will return in the end to here and now.
- "They will go as the box went. From the here and now, forward through the time-axis to the world of the Face. But there is no backward flow along that axis. No one can risk meeting himself in his own past, even if such a thing were possible. So when we return, we must come as the box did, along a path which is parallel to the axis, to that continuous point in time which may be millennia B.C., where the box originally emerged.
- "In effect, one goes forward with the flow along the time axis and back around the circumference of the sphere which is time. And there we enter the time-axis chamber again, and are carried forward along the flow to our own present time." He smiled.
- "Do you see what that means? It means that one day those four in the Laurentian cavern will waken. And as they wake, as they step out, three men and a woman will enter the chamber and begin their journey into time!"
- I gave my head a quick shake. Images were whirling in it like sparks from a Fourth-of-July pinwheel. None of them made sense to me, or perhaps only one. But that one was definite.
- "Oh no they won't," I said.
- "Why not?"
- "I will quote you a vulgarism," I said meticulously. "There may be flies on some of you guys, but there ain't no flies on me. Tm not going. I know when I'm well off. Jerry Cortland is staying right here with both feet firm upon his own temporal axis. I will write you the best story you ever saw
- about yourself, Mr. De Kalb, but I won't climb on any merry-go-rounds with you. Is that clear?"
- He chuckled deeply.
- "But you did, Mr. Gortland—you didl"
- VI THE MILITARY MIND
- COLONEL HAHRISON MURHAY, at sixty, still had a fine military figure and was proud of it. You could see him remember to throw his shoulders back and pull in his waist about once every ten minutes. Then age and the subject at hand would gradually divert him and he would sag slowly—until he remembered again.
- He had a discontented drooping mouth, a face all flat slab-shaped planes and an incongruously high thin voice that got higher when he-was angry, which was most of the time. He was angry now.

- "A man can't help it if he was born a fool, De Kalb," he said. "But luckily we're not all fools. You're going to drop this idiotic sideline of yours, whatever it is, and go back to work on our current job. You agreed to assist the War Department—" He gave me a quick, wary glance. "You agreed to do a certain job."
- "I've done it," De Kalb told him. Tve set up the Bureau and laid out aU the plans. Oh, it's no secret—we're not the only ones who've been experimenting along this line. I'll be willing to bet Mr. Cortland knows more than you think about this top-secret Bureau of ours. How about that?"
- He was looking at me. I said, "Well, I've heard rumors on the grapevine. Hypnotism, isn't itF'
- Murray swore softly. De Kalb chuckled.
- "Subliminal hypnosis," he said. "It doesn't matter, Colonel. The important secrets are the specialized techniques that have been worked out and they're still under cover—I hope. The Bureau is operating efficiently now. I've set up the plan. Now there are competent researchers doing quite as much as I could do. If I stayed on now it would simply be as a
- figurehead. My usefulness was over when I explained my theories to the technicians and psychologists who were able to apply them."
- "Allow me to decide that," Murray said angrily and there was a pause.
- Quietly, from her chair by the window, Dr. Essen spoke. "Ira, perhaps if Colonel Murray saw the Record-"
- "Of course," De Kalb said. "No use squabbling any further. Cortland, will you do the honors this time?"
- I opened the cupboard door. I took down the wrapped bundle which was the box. I set it on the table between De Kalb and Murray. The Colonel looked suspiciously at it.
- "If this is some childish joke-" he began.
- "I assure you, sir, it's no joke. It is something the like of which you've never seen before, but there's nothing humorous about it. I think when you've looked into this—this package—you'll have no further objections to the problem I'm working on."
- De Kalb undid the wrappings. The stained and battered box, blue-white, imperishable as the time-currents upon which it had drifted so long, lay there before us, the universe and the destiny of man locked inside it.
- De Kalb's fingers moved upon its surface. There was a faint, distant ringing as if the hinges moved to a sound of music and the box unfolded like a flower.
- I didn't watch. I knew I'd get nothing further from it now until my mind had rested a little. I looked at the ceiling instead, where the lights from the unfolded leaves and facets of the Record moved in intricate patterns on the white plaster. Even that was hypnotic.
- It was very quiet in the room. The silence of the end of the world seemed to flow out of the box in waves, engulfing all sound except for De Kalb's heavy breathing and the quicki rasping breath that came and went as Murray sat motionless, staring at the flicker of lights that had been lit at the world's end and sent back to us along the circumference of time.
- I found that I was holding myself tense in that silence. I was waiting—waiting for the nova to burst again inside me, perhaps. Waiting for another killing, perhaps somewhere in my sight this time, perhaps someone in this room. And I was
- waiting for one thing more—the first spreading coldness that might hint to me that my own flesh, like the stone of the studio hearth, had given ropt to the nekron.
- The box closed. The lights vanished from the ceiling.
- Murray very slowly sat upright in his chair. . . .

De Kalb leaned back heavily, his curiously dull eyes full on Murray's face.

"And that's the whole story," he said.

It had taken over an hour of quick, incisive questions and painstaking answers to present Murray with a complete picture of the situation in which he himself played so curious a part. We all watched his face, searching, I think, for some sign of the tremendous intellectual and emotional experience through which everyone must go who opened that box.

Nothing showed. It was the stranger because I knew Murray was almost a hysteric, psychologically. Perhaps he'd learned to control himself when he had to. Certainly he showed nothing of emotion as he shot his cold, watchful questions at De Kalb.

"And you recognized me," he said now, narrowing his eyes at De Kalb. "I was in that—that underground room?"

"You were."

Murray regarded him quietly, his mouth pulled downward in a curve of determination and anger.

"De Kalb," he said, "you tell a good story. But you're a grasshopper. You always have been. You lose interest in every project as soon as you think you've solved it. Now listen to me a minute. The indoctrination project you were working on with me is not yet fully solved. I know you think so. But it isn't. I see exactly what's happened. Hypnosis as an indoctrination method has led you off onto this wild scheme. You intend to use hypnosis on whatever guinea-pigs you can enlist and—"

"It isn't true, Murray, It isn't true." De Kalb was not even indignant, only weary. "You saw the Record. You know."

"All right," Murray admitted after a moment. "I saw the Record. Very well. Suppose you can go forward in time. Suppose you step out, back in the here and now, ten seconds

after you step in. You say no time is lost But what energy you'll lose, De Kalb! You'll be a different man, older, tired, full of experiences. Disinterested, maybe, in my project. I can't let you do it. I'll have to insist you finish that first and then do what you like on this Record deal of yours."

"It can't be done, Murray," De Kalb said. "You can't get around it that way. I saw you in the time-chamber, remember. You did go."

Murray put up an impatient hand. "Is this telephone connected with the exchange? Thanks. I can't argue with you, De Kalb. I have a job to do."

We all sat quiet, watching him as he put a number through. He got his departmental headquarters. He got the man he wanted.

"Murray speaking," he said .briskly. "I'm at De Kalb's in Connecticut. You know the place? I'm leaving immediately in my plane. I want you to check me in as soon as I get there, probably around three. I'm bringing a man named Cortland with me, newspaper fellow—you know his work? Good? Now listen, this is important." Murray took a deep breath and regarded me coldly over the telephone. Very distinctly he said into it,

"Cortland is responsible for that series of murders he reported from Brazil. I'm bringing him in for questioning."

VII OUT OF CONTROL

I DIDN'T like the way he flew his plane. His hands kept jiggling with the controls, his feet kept adjusting and readjusting the tail-flaps so that the ship was in constant, unnecessary side motion in the air, Murray was nervous.

I looked down at the trees, the tilted mountain slopes, the roads shining in the sun, with little glittering black dots sliding along it that were cars.

"You know you can't get away with this, Murray," I said. It was, I think, almost the first thing I had said to him since we took off half an hour ago. After all, there had

been little to say. The situation was out of all our hands, as Murray had meant it to be, from the moment he spoke into the telephone.

- "I have got away with it, Cortland," he said, not looking at me.
- "De Kalb has connections as powerful as yours," I told him. "Besides, I think I can prove I'm not responsible for those deaths."
- "I think you are, Cortland. If there's any truth in what De Kalb was saying, I believe you're a carrier."
- "But you're not doing this because you think I'm' guilty. You're doing it to stop De Kalb."
- "Certainly." He snapped his lips shut. I shrugged. That, of course, was obvious.

We flew on in silence. Murray was uneasy, perhaps from the experience of the Record. I think now that he had entirely shut his mind to that. I think he was denying it had ever happened. But his hands and feet still jittered on the controls until I itched to take the plane away from him and fly it myself.

It was a nice little ship, a six-passenger job that could have flown alone, almost, as any good plane can do in smooth air if the pilot will only let it. I would probably have said just then, if you'd asked me, that I was in plenty of trouble. My troubles hadn't started. They were about to.

The first intimation was the sound Murray made—a sort of deep, startled, incredulous grunt. I stopped to turn toward him. And then—time stopped.

I had a confused awareness that something was moving through the ship, something dark and frighteningly swift. But this time there was a difference. The thing I had first encountered in a Rio alley had returned. The first pulse of that nova of blinding brilliance burst outward from the core and center of my body. But it did not rise to its climactic explosion of pure violence. The energy suddenly was shut off at the source. The plane was empty of that monstrous intruder.

Beside me Murray hunched over the controls, slowly bending forward. I could not see his face. That instant of relief passed in a flashing time-beat.

Again the pulse throbbed through me. And again it was

shut off. There was something terribly wrong with gravity. The earth stood upright in a blurred line that bisected the sky and was slowly, slowly toppling over from left to right. The weight of Murray's body, slumped heavily forward, was throwing the ship out of control.

I couldn't move-not while those erratic jumping shocks kept pounding at me.

But I had to move. I had to get hold of the controls. And then, as I put forth all my strength, the explosion channeled into my brain—different, somehow incomplete. I could feel a swiftly-fading ebb-tide draining into the empty void.

Then it was gone altogether.

Another part of my mind must have taken over then. And it must have been efficient. Myself, I seemed to be floating somewhere in a troubled void with the image of Murray's lolling head and limp arms. Murray—dead. Dead? He must be dead. I knew that nekronic shock too well.

In the mindless void where my awareness floated I knew that I was a bad spot temporally. Jerry Cortland was in a bad spot. Murray's headquarters must be expecting him in already with a murder suspect in tow. I was the murder suspect and murder had been done again. And Murray and I had been alone in mid-air when it happened.

The efficient part of my mind knew what to do. I left it at that. I had no recollection whatever

of fighting the plane out of its power dive or of turning in a long high circle as I got lost altitude back. But that must have happened. Time and distance meant nothing to the half of my mind that floated but the other half very efficiently flew the plane.

"All right now?" De Kalb's voice inquired.

I sat up shakily. The room was swimming around me but it was a familiar room, I could see Dr. Essen bending above a couch and I could see polished boots and a shoulder with something shiny on it. I must have brought Murray back. Murray—dead?

"It was-it was the nekron," I said thickly.

- "I know, I know," De Kalb said. "You told us. Don't you remember?"
- "I don't remember anything except Murray."
- "I don't think we can save him," De Kalb said in a flat voice.
- "Then he's alive?"
- "Just."

We both looked automatically toward the couch, where Dr. Essen lifted a worried face.

"The adrenalin's helping," she said, "But there's no real improvement. He'll sink again as soon as the effect wears off."

"Can't we get him to a hospital?" I asked.

"I don't think medical treatment will help him," De Kalb said. "Dr. Essen has a medical degree, you know. She's already done everything the hospitals have tried on the other victims.

"That creature strikes a place that scalpels and oxygen and adrenalin can't reach. I don't know what or where, but neither do the doctors." He moved his shoulders impatiently. "This is the first time the killer hasn't finished its job. You interrupted it, you know—somehow. Do you know how?"

"It was intermittent," I said hesitantly. "It kept going away and coming back." I explained in as much detail as I could. It wasn't easy.

"The plane was moving fast, eh?" De Kalb murmured. "So. Always before the victims have been practically immobilized. That might explain part of it. If the nekronic creature is vibrating through time it might need a fixed locus in space. And the plane was moving very fast in space. That could explain why the attack was incomplete—but complete enough, after all."

I nodded. "This is going to be pretty hard to explain to Murray's headquarters," I said.

"There's been one call already," De Kalb told me. "I didn't say anything. I had to think." He struck his fist into his palm impatiently and exclaimed: "I don't understand itl I saw Murray with us in that cave! I saw him!"

"Has it occurred to you, Ira," Dr. Essen's gentle voice interrupted, "that what you may have seen in the time-chamber was Colonel Murray's dead body, not Colonel Murray asleep?"

He turned to stare at her.

"It seems clear to me," she went on, "that Mr. Cortland

is a sort of catalyst in our affairs. From the moment he entered them things have speeded up rather frighteningly. I suggest it's time to make a definite forward move. What do you think, Ira?"

De Kalb frowned a little. "How's Murray?" he asked.

"He's dying," she said flatly. "I know of only one thing that could possibly postpone his death."

- "The neo-hypnosis, you mean," De Kalb said. "Well, yes —if it works. We've used it on sleeping subjects, of course, but with a man who is as far gone as Murray, I don't know."
- "We can try," Dr. Essen said. "It's a chance. I don't think he'd ever have entered the time-axis of his own volition but this way we can take him along. Things are working out, Ira, very surprisingly."
- "Can we keep him alive until we reach the shaft?" De Kalb asked.
- "I think so. I can't promise but-"
- "We can't save him," De Kalb said. "The People of the Face—maybe. And after all, Murray did go with us. I saw him. Mr. Cortland do you think that plane would carry the four of us as far as the Laurentians?"
- "Obviously, Mr. De Kalb," I said with somewhat hysterical irony, "obviously, if I guess what you have in mind, it did!"
- You could see the shaft-mouth from a long way up, dark above the paler slide of dug earth, and shadowed by the thick green of the Canadian mountains.
- It was easier to spot from the air than to reach on foot.
- We left the plane in a little clearing at the bottom of the slope. It seemed wildly reckless, but what else could we do? And we carried Murray's body up the mountain with us, De Kalb and I, while Dr. Essen, carrying a square case about two feet through, kept a watchful eye on the unconscious man. Once she had to administer adrenalin to Murray.
- I still hadn't come to any decision. I could simply have walked away but that would have meant shutting the last door of escape behind me. I told myself that I'd think of some other way before the final decision had to be made. Meanwhile I went with the others.
- "It wouldn't be as though I were running away from pun-
- ishment," I told De Kalb wryly as we paused to catch our breath on the lip of the shaft. Tree-tops swayed and murmured below us, and the mountains were warm in the late, slanting sunlight of a summer evening.
- "If your theories are right I won't be escaping from anything. The moment I step into your timetrap my alter ego steps out and goes on down the mountain to take his medicine. All I can say is I hope he has a fine alibi ready."
- "He will have-t/ow will have," De Kalb said. "We'll have all time at our disposal to think one up in. Remember what our real danger is, Cortland—the nekron. An infection of the mind. An infection of the earth itself and perhaps an infection in our own flesh, yours and mine.
- "What it is that I turned loose on the world when I opened that box I don't yet know but I expect to know when I go down that mountain again—ten minutes from now, a million years from now. Both." He shook his head.
- "Let's get on with it," he said.

# VIII FANTASTIC JOURNEY

- I DON'T think I ever really meant to embark on that fantastic journey along the time axis. I helped carry Colonel Murray's body down the dusty shaft but it was a nightmare I walked through, not a real experience. I knew at the bottom of the tunnel I'd wake up in my hotel in Rio.
- At the foot of the shaft was a hollowed out room. Our flash-beams moved searchingly across the rough walls. We carried Murray into the cave and laid him down gently on a spot the scientist indicated, Dr. Essen immediately became busy with her patient. Presently she looked up and nodded reassuringly.
- "There's time," she said.

But De Kalb waved his arm, sending light sliding erratically up the rock, and said, "Time—there is time here! This space and this air form one immutable axis upon which all the past and the future turn like a wheel."

It was bombastic but it was impressive too. Dr. Essen and I were silent, trying to grasp that imponderable concept, trying perhaps to catch the sound of that vast turning. But De Kalb had moved into action.

"Now," he said, kneeling beside the black suitcase Dr. Essen had set down. "Now you shall see. Murray is all right for a while? Then—" He snapped open the case and laid down its four sides so that the compact instruments within stood up alone, light catching in their steel surfaces.

He squatted down and began to unpack them, to set up from among part of the shining things a curious little structure like a tree of glass and blinking lights, fitting tiny jointed rods together, screwing bulbs like infinitesimal soap-bubbles into invisible sockets.

"Now, Letta," he said presently, squinting up at her in the dusty flash-beams, "your turn."

"Ira-" She hesitated, shrugged uneasily. "Very well."

I held the light for them while they worked.

After what seemed a long while De Kalb grunted and sat back on his heels. There was a thin, very high singing noise and the tiny tree began to move. I let my flashlight sink upon my knee. De Kalb reached over and switched it off. Dr. Essen's beam blinked out with a soft click. It was dark except for the slowly quickening spin of the tree, the flicker of its infinitesimal lights.

Very gradually it seemed to me that a gray brightness was beginning to dawn around us, almost as if the whirling tree threw off light that was tangible and accumulated in the dusty air, hanging there upon every mote of dust, spinning a web that grew and grew.

It was gathering in an egg-shaped oval that nearly filled the chamber.

By the gray luminous dimness I could see Dr. Essen with her hands on a flat thick sheet of metal which she held across her knees. There were raised bars of wire across its upper surface and she seemed almost to be playing it like a musical instrument as her fingers moved over the bars. There was no sound but the light slowly, very slowly, broadened around us.

"In theory," Dr. Essen said, "this would have worked years ago. But in practice, only this very special type of space

provides the conditions we need. I published some papers in Forty-one on special atomic structures and the maintenance of artificial matrix. But the displacement due to temporal movement made practical application impossible. Only at the time-axis would that displacement theory became invalid.

"I am creating a rigid framework of matter now. Call it a matrix, except that the vibratory period is automatically adaptive, so that it's self-perpetuating and can't be harmed. Really, the practical application would be something like this—if you were driving a car and saw another car about to collide with you, your own vehicle could automatically adjust its structure and become intangible. So—"

"It isn't necessary for Mr. Cortland to understand this," De Kalb said, his voice suddenly almost gay. "Eager seeker after truth though he may be. There is still much I don't understand. We go into terra incognita—but I think we will come to the Face in the end.

"Somehow, against apparent logic, we have managed to follow the rules of the game. Somehow events have arranged themselves—in an unlikely fashion—so that all four of us are entering the time axis where all four of us lie asleep—intangible, impalpable and invisible except under ultraviolet.

"Murray may die. But since the nekronic creature attacked through time, as I believe, then perhaps sympathetic medicine may cure the Colonel. Some poisons kill but cure in larger doses. I don't know. Perhaps the long catalepsy outside time will enable Murray's wound to heal—wherever it is. I

suspect that the people of the Face may have foreseen all this. Are you getting drowsy, Mr. Cortland?"

I was. The softly whirling tree, the sweet, thin, monotonous sound of its turning were very effective hypnotics though I hadn't realized it fully till now. I made a sudden convulsive effort to rise. On the very verge of the plunge I realized that my decision had been made for me.

I felt my nerve going. I didn't want to embark on this crazy endeavor at all. A suicide must know this last instant of violent revulsion the moment after he has pulled the trigger or swallowed the poison. I put out every ounce of

energy I had-and moved with infinite sluggishness, perhaps a quarter of an inch from where I sat.

De Kalb's voice said, "No, no. The matrix has formed." My head was ringing.

The gray light was like a web that sealed my eyes. Through it, dimly, remotedly, far off in space and time, I thought I could see motion stirring that was not our motion —and perhaps was—

And perhaps was ourselves, at the other end of the closing temporal circle, rising from sleep after adventures a million years in the future, a million years in the past. But that motion was wholly theirs. I could not stir.

Sealed in sleep, sealed in time, I felt my consciousness sinking down like a candleflame, like a sinking fountain, down and down to the levels below awareness.

The next thing I saw, I told myself out of that infinite drowsiness, would be the Face of Ea looking out over the red twilight of the world's end. And then the flame went out, the fountain sank back upon the dark wellspring of its origin far below the surfaces of the mind.

"And now we wait," De Kalb's voice said, ghostly, infinities away. "Now we wait-a million years."

#### ΤX

## STRANGE AWAKENING

THERE was a rhythmic ebb and flow of waves on some murmurous shore. It must, I thought, be part of my dream

## Dream?

I couldn't.remember. The murmur was a voice, but the things it said seemed to slip by over the surface of my mind without waking any ripples of comprehension. Sight? I could see nothing. There was movement somewhere, but meaningless movement. Feeling? Perhaps a mild warmth, no more. Only the voice, very low—unless, after all, it were some musical instrument.

But it spoke in English.

Had I been capable of surprise that should have surprised me. But I was not. I was utterly passive. I let sensations come and go in the darkness that lay just beyond me, on the other side of that wall of the silenced senses. What world? What time? What people? It didn't matter yet.

"-of waiting here so long," the voice said on a minor chord of sadness so intensely sweet that my throat seemed to tighten in response. Then it changed. It pleased—and I knew even in my stupor that no one of flesh and blood could possibly deny whatever that strange sweet voice demanded. "So I may go now, Lord? Oh, please, please let.me go!" The English was curious, at once archaic and evolved. "An hour's refreshment in the Swan Garden," the plaintive voice urged, "and I shan't droop so." Then a sigh, musical with a deliberate lilt.

"My hair-look at it, Lord I The sparkles all gone, all gone. Poor sparkles! But only an hour in the Swan Gardens and 111 serve you again. May I go, Lord? May I go?"

No one could have denied her. I lay there enthralled by the sheer music of that voice. It was like the shock of icy water in the face to hear a man's brisk voice reply.

- "Save your tongue, save your tongue. And don't flatter me with the name of Lord. This is business."
- "But so many hours already—111 die, I know I'll die! You can't be so cruel—and I'll call you Lord anyhow. Why not? You are my Lord now, since you have the power to let me live or—" Heart-rending sorrow breathed in the sigh she gave.
- "My poor hair," she said. "The stars are quite gone out of it now. Oh, how hideous I am! The sight of me when he wakes will be too dreadful, Lord! Let me take one little hour in the Swan Garden and—" "Be quiet. I want to think."
- There was silence for a moment or two. Then the sweet voice murmured something in a totally unfamiliar language, sullenly. The man said, "Tou know the rules, don't you?" ^es, Lord. I'm sorry."
- "No more impudence, then. I know impudence, even when I can't understand it. Pay attention to me now. I'm going to put an end to this session. When this man wakes bring him-"
- "To the Swan Garden? Oh, Lord Paynter, now? I will love you forever!"
- "It isn't necessary," the crisp voice said, "Just bring him to the right station. The City's the nearest connection since this is confidential so far. Do you understand?"
- "The City? Walk through the City? Ill die before I've gone a dozen steps. My poor slippers-oh, Lord Paynter, why not direct transmission?"
- "You'll have new slippers if you need them. I don't want to remind you again all this is secret work. We don't want anybody tuning in accidentally on our wave-length. The transmitter in the City has the right wave-band, so you can bring him—"
- His voice trailed off. The girl's tones interrupted, dying away in the distance in a faint, infinitely pitiable murmuring quaver. There was a pause, then the sound of light feet returning on some hard surface and a rush of laughter like a spurt of bright fountaining water.
- "Old fool," she said, and laughed again. "If you think I care—" The words changed and were again incomprehensible, in some language I had never heard even approximated before.
- Then movement came, and light-a brief, racking vertigo wrenched my brain around,
- I opened my eyes and looked up into the face of the girl, and logic was perfectly useless after that. Later I understood why, knew what she was and why men's hearts moved at the sight and sound of her. But then it was enough to see that flawless face, the lovely curve of her lips, the eyes that shifted from one hue to another, the hyacinth hair where the last stars pulsed and died.
- She was bending over me, the tips of her scented ringlets brushing my shoulder. Her voice was inhumanly sweet, and so soft with warmth and reassurance that all my bewilderment melted away. It didn't matter where I was or what had happened, so long as that lovely voice and that lovely face were near—which was exactly the effect she had meant to make and exactly the reason why she was there. I knew her face.
- At that moment I was not even trying to reason things out. My tongue felt thick and my mind was lightly furred
- all over with the effects of-what? Sleep? Some drug they might have given me while I lay there helpless? I didn't know. I accepted all t|jat was happening with a mindless acquiescence. Later I would wonder. Now I only stared up at the lovely, familiar face and listened to the lovely, familiar face and listened to the lovely, remotely familiar voice.
- "You're all right now," she was murmuring, her changing eyes on mine. "Quite all right. Don't be worried. Do you feel strong enough yet to sit up? I have something I want you to see."
- I got an elbow under me and levered myself slowly up, the girl helping. I looked around.
- I was dressed in unfamiliar dark garments and I was sitting on a low couch apparently composed of

a solid block of some hard yet resilient substance. We were alone together in a smallish room whose walls looked like the couch, hard yet faintly translucent, just a little yielding to the touch. Everything had the same color, a soft graylike mist or—I thought dimly—sleep itself, the color of sleep.

The girl was the color of—sunlight, perhaps. Her smooth skin had an apricot glow and her gown was of thin, thin silky stuff, pale yellow, like layers of veiling that floated when she moved. There were still a few fading sparkles in her curls. Her eyes just now were a clear bright blue'that darkened as I met them to something close to violet.

"Look," she said. "Over there, behind you, on the wall."

I turned on the couch and looked. The far wall had a circular opening in it. Beyond the opening I could see rough rock walls, a grayish glow of light, four figures lying motionless on the dusty floor. For a moment it meant nothing to me. My mind was still dim with sleep. Then—

"The cave!" I said suddenly. And of course, it was. That little glittering tree which was the last thing I had seen before sleep overtook me stood there, motionless now. Beside it lay De Kalb.

Dr. Essen slumbered beyond him, the flat metal sheet with the bars of wire still leaning against her knee. She lay on her side, the tired, gentle face half hidden by her bent arm, the gray curls on the dusty floor. There was a rather

unexpected gracefulness to her angular body as she lay there, utterly relaxed in a sleep that was already—how many thousands of years long?

My eyes lingered for an instant on her face, moved on to Murray's motionless body, moved back again to search the woman's half-hidden features for a disturbing something I could not quite identify. It was—it was—

The figure beyond Murray's caught my attention suddenly and for an instant my mind went blank with amazement. The puzzle of Dr. Essen's face vanished in this larger surprise, the incredible identity of that fourth person asleep in the dusty cave. I gaped, speechless and without thought.

Up to that instant I suppose I had been assuming simply that all of us were being awakened, slowly and with difficulty, and that I had awakened first. But the fourth person asleep on the cavern floor was Jeremy Cortland. Jerry Cort-land-me.

I got to my feet unsteadily, finding after a moment or two that I was in fairly good control of all my faculties. The girl twittered in concern.

"I'm all right," I said. "But I'm still there!"

Then I paused. "That means the others may have wakened too. De Kalb-Dr. Essen-have they-?"

She hesitated. "Only you are awake," she said at last.

I walked on slightly uncertain feet across the floor and peered into the cave. There was no cave.

I knew it when I was close to the wall. I could see the light reflected slightly on the texture of the surface. The cave was only another reflection, television perhaps, or something more obscure, but with startlingly convincing depth and clarity.

And if that scene was separated from me in space it might be distant in time as well—I might be seeing a pio ture of something hours or weeks old. It was an unpleasant moment, that. So long as I thought myself near to that last familiar link with my own world I had maintained a certain confidence that broke abruptly now. I looked around a little wildly at the girl.

"I'm not in that cave now—they're not there now either, are they? This was just a picture that was taken before

any of us woke. Did you wake first, then?" It was no good. I knew that. I rubbed my hand across my face and said, "Sorry. What did happen?"

X

#### MUSEUM

SHE smiled dazzlingly. And for one flash of an instant I knew who she was. I knew why my eyes had been drawn back in puzzled surprise to Letta Essen lying with curious unexpected grace on the cavern floor.

I met this girl's shining gaze and for that one instant knew I was looking straight into the keen gray eyes of Letta Essen.

The moment of certainty passed in a flash. The girl's eyes shifted from gray to luminous blue, the long lashes fell and the unmistakable identity of a woman I knew vanished. But the likeness remained. The familiarity remained. This girl was Letta Essen.

My mind, groping for similes, seized at first on the theory that in some fantastic way Dr. Essen herself stood here before me masked by some science of beauty beyond the sciences I knew, in a shell of youth and loveliness through which only her keen gaze showed.

It was all a trick, I thought—this is Letta Essen who did wake before me, somehow leaving her simulacrum there in the cave, as I had. This is Letta Essen in some amazingly lovely disguise for purposes of her own and she'll speak in a moment and confess—But it couldn't have been a disguise. This soft young loveliness was no mask. It was the girl herself. And her features were the features Letta Essen might have had twenty years ago if she had lived a wholly different life, a life as dedicated to beauty as Dr. Essen's had been to science.

Then I caught a bewildering gray flash again and I knew it was Letta Essen—no disguise, no variation on the features such as kinship or remote descent might account for. The mind is individual and unique. There are no duplications of

the personality. I knew I was looking into the eyes of Letta Essen herself, no matter how impossible it seemed.

"Dr- Essen?" I said softly. "Dr. Essen?"

She laughed. "You're still dreaming," she said. "Do you feel better now? Lord Paynter—the old fool—is waiting for us. We should hurry."

I only gaped at her. What could I say? If she wasn't ready to explain how could I force her to speak? And yet I knew.

"I'm here to welcome you, of course," she said lightly, speaking exactly as if I were some stranger to whom she must be polite, but who was of no real interest to her. "I was trained for work like this—to make people feel at ease. All this is a great mystery but—well, Lord Paynter will have to explain. I'm only an entertainer. But a very good one. Oh, very good.

"Lord Paynter sent for me when he knew you would awaken. He thought his own ugly face might put you into such a mood you'd never answer any questions." She giggled. "At least, I hope he thought so." She paused, regarding me with exactly the cool keen speculative stare I had so often met when the woman before me was Letta Essen. Then she shrugged.

"He'll tell you as much as you ought to know, I suppose. It's all much too mystifying for me." Her glance shifted to the cavern where the sleepers lay motionless and I thought there was bewilderment in her eyes as she looked uneasily from face to sleeping face. Again she shrugged.

"Well, we should go. If we're late Lord Paynter will have me beaten." She seemed very unconcerned about the prospect. "And please don't ask questions," she added, "for I'm not allowed to answer. Even if I knew the answers. Even if I cared."

I was watching her with such urgent attention that my eyes ached with the effort of trying to, be more than eyes, trying to pierce through her unconcern and see into the depths of the mind which I was certain was Letta Essen's. She smiled carelessly at me and turned away.

"Come along," she said.

There was nothing for me to do but obey. Clearly I was expected to play the same game her actions indicated. With

some irony I said, "You can tell me your name, can't you?"

- "I am Topaz—this week," she said. "Next week, perhaps—something else. But you may think of me until then as Topaz." \*
- "Thanks," I said dryly. "And what year are you Topaz in? What country? Where am I, anyhow?"
- "The Lord Paynter will tell you that. I don't care to be beaten."
- "But you speak English. I can't be very far from home."
- "Oh, everyone who matters knows English. It's the court language of the Mother Planet, you see. The whole galaxy operates on an English basic. There has to be some common language. I—oh dear, I will be beatenl Come along."

She turned away, tugging me by the arm. There was a button on the opposite wall and the way she walked beside me toward it, the way she reached to touch the button, followed so definite a pattern of graceful motion that it seemed like dancing.

In the wall a shutter widened. Topaz turned. "This is the City," she told me.

I had seen the beginnings of such places in my own time. In the second level under Chicago, by the canal—at Hoover Dam—in the great bridges and the subways of Manhattan. Those had been the rudiments, ugly, crude, harsh. This was a city of machines, a city of metal with blood of invisible energy.

Ugly? No. But frightening-yes.

Topaz led me across a strip of pavement to a cushioned car like a big cup and we sat down in it and the car started, whether or not on wheels I can't say. It moved in three dimensions, rising sharply in the air sometimes to avoid collisions, to thread its intricate pattern through that singing city.

The sound was, perhaps, the strangest part. I kept watching and listening with the automatic attention of the reporter, senselessly making mental notes for articles I would never write. A single note hummed through the city, clear and loud as a trumpet, sliding up and down the scale. Not music, for there was no pattern, but much like a clarinet, varied every changing second.

I asked Topaz about it. She gave me a glance from Letta

Essen's eyes and said, "Oh, that's to make the noise bearable. You can't get rid of the noise, you know, without sacrificing the effect but you can transform it into harmonious sound that does convey the proper things. There's— what do you call it—frequency modulation. I think that's it.

"All the noises of the City every second add up to one key vibration, a non-harmonic, and that's simply augmented by a machine so the audible result isn't so unpleasant. The only alternative would be to blanket it completely and that would mean sacrificing a good part of the total effect, you know."

"I don't know," I said. "What do you mean, effect?"

She turned in the car to look at me. Suddenly she dimpled.

"No, I see you don't understand. Well, I won't explain. I'll save it for a surprise." ,

I didn't argue with her. I was too busy staring around me at the City. I can't describe it. I won't try and I don't need to. You've read about such places, maybe pictured them for yourself. Precision, perfect functionalism, all one mighty machine made up of machines.

There were no humans, no life, except for us under the dome of steel sky. The light was gray,

clear, oddly compact, and through that steel-colored air the city trumpeted its wailing cry of a world that was not my world, a time that was yet to come.

Where was the red twilight of the world's end? Where was the Face of Ea, from which the call for help had come.

Or did that world lie somewhere just outside the city? Something had gone strangely wrong in the time-axis-that much was certain. If I let myself think about it I'd probably start gibbering. Things had been taken out of my control and all I could do was ride along.

We drew up before a towering steel and plastic building. Topaz jumped briskly out of the car, took my hand confidently and led me into the low door before us. We had stepped straight into an elevator apparently, for a panel sighed shut behind us and I felt the familiar pressure underfoot and the displaced air that means a rapid rising up a shaft.

The panel opened. We stepped out into a small room similar to the one in which I had awakened.

"Now," Topaz saijl with relief. "We're here'. You were very good and didn't ask too many questions, so before we go I'll show you something."

She touched another button in the wall, and a plate of metal slid downward out of sight. There was thick glass behind it. Topaz fingered the button again and the glass slid down in turn. A gust of sweet-smelling air blew in upon us. I caught my breath and leaned forward to stare.

We were very high up in the city but we were looking out over a blossoming countryside, bright in the season of late spring. I saw meadows deep in grass and yellow flowers, far below. Streams winked in the bright, clear sunlight, here and there fruit-trees were in blossom. Bird-song rose and fell in the sunshine.

"This of course," Topaz said, "is the world we live in. There's only one museum."

"Museum?" I echoed almost absently, "What museum?"

"The City. There's only one. All machines and robots. Isn't it horrible? They built like that, you know, back in barbarous times. We keep it in operation to show what it was like. That's why they can't blanket the noises altogether-it would spoil the effect. But no one lives here. Only students come sometimes. Our world is out there."

"But where do people live?" I asked. "Not in-well, villages, communities?"

"Oh no. Not any more. Not since the dark ages. We have transmission now, you see, so we don't need to live huddled up together."

"Transmission?"

"This is a transmitter." She waved at the room behind us. "That other place, where you woke, was a receiver."

"Receiver of what? Transmitter of what?" I felt like Alice talking to the Caterpillar,

"Of matter, naturally. Much easier than walking." She pressed the stud again and the glass and metal slid up to shut out that glowing springtime world. "Now," she said, "We'll go-wherever it is we're going. I don't know. Lord Paynter-"

"I know—the old fool."

Topaz giggled. "Lord Paynter's orders are already on record. In a moment we'll see." She didjiomething with the buttons on the wall. "Here we go," she said.

Vertigo spun through my mind. The wailing of that ancient, wonderful, monstrous City died away.

XI THIRTY SECOND INTERLUDE

IT WAS a little like going down fast in an elevator. I didn't lose consciousness but the physical

sensations of transmission were so bewildering and so disorienting that I might as well have been unconscious for all the details I could give—then or later—about what happens between transmitter and receiver. All I know is that for a while the walls shimmered around me and gravity seemed to let go abruptly inside my body, so that I was briefly very dizzy.

Then, without any perceptible spatial change at all, the walls suddenly steadied and were not translucent pale gray any more, but hard dull steel, with the rivets showing where plates overlapped and here and there a streak of rust. I was in a somewhat smaller room than before. And I was alone.

"Topaz?" I said tentatively, looking around for her. "Topaz?" And then, more loudly, "Dr. Essen—where are you?"

No answer, except for the echo of my voice from those dull rusty walls.

This time it was harder to take, I don't know why. Maybe things like that are cumulative. It was the second time I'd taken a jump into the unknown, piloted by somebody who was supposed to know the angles, and come out at the far end alone and in the wrong place.

I looked at the walls and fought down sheer panic at the possibility that this time I had really gone astray in the time-dimension and wakened here in the same room from which I'd set out in the City museum, a room now so aged that the wall surfaces had worn away and the exposed steel corroded and only I remained alive and imprisoned in a dead world.

It was a bad moment.

I had to do something to disprove the idea. Obviously the one possible action was to get out of there. I took a long step toward the nearest wall-

And found myself staggering. Gravity had gone wrong again. I weighed too much. My knees were trying to buckle, as if the one step had put nearly double my weight upon them. I braced my legs and made it to the wall in wide, plodding steps, compensating in every muscle for that extraordinary downward pull.

The moment my hand touched the wall there was a noise of badly oiled hinges and a door slid back in the steel.

Now let me get this straight.

Everything that happened happened extremely fast. It was only later that I realized it, because I had no sense of being hurried. But in the next thirty seconds the most important thing that was to occur in that world, so far as I was concerned, took place with great speed and precision.

Through the opening came a cool dusty light and the sound of buzzing, soft and insistent. I guessed at anything and everything.

I stood on the threshold of an enormous room. It was braced, tremendously braced, with rusted and pitted girders so heavy they made me think of Karnak and the tremendous architecture of the Egyptians. In an intricate series of webs and meshes metal girders ran through the great room, catwalks, but perhaps not for human beings, since some were level while others tilted dizzily and on a few one would have had to walk upside-down. I noticed, though, that while most of the catwalks were rusted those on which a man could walk without slipping off were scuffed shiny.

There was a series of broad high windows all around the room. Through them I could see a city.

Topaz had said there were no cities in her civilization except for the Museum. Well, perhaps there weren't. Perhaps I had plunged unknowingly into time again, and looked upon a city like that Museum, no longer preserved in dead perfection. This city was living and very old. An obsolete metropolis, perhaps a nekropolis in the sense De Kalb had used

the term. Everywhere was decay, rust, broken buildings, dim lights.

The sky was black. But it was day outside, a strange, pallid day lit by bands of thin light that lay like a boreah's across the dark heavens. Far off, bright but not blinding, a double sun turned

in the blackness.

But there were people on the streets. My confidence came back a little at the sight of them, until I realized that something curious was taking place all through the city as I watched a strange, phantom-like flitting of figures—men flashing into sight and out again like apparitions in folk-lore. I stared, bewildered, for an instant, before I realized the answer.

Perhaps in a city of the future like this one I had expected vehicles or moving ways of endless belts. Now I saw that at intervals along the street were discs of dull metal set in the pavement. A man would step on one—and vanish. Another man would suddenly appear on another, step off and hurry toward a third disc.

It was matter-transmission, applied to the thoroughly practical use of quick transportation.

I saw other things in that one quick look about the city. I won't detail them. The fact of the city itself is all that was important about that phase of my thirty seconds' experience there.

There were two other important things. One was the activity going on in the enormous room itself. And the third was waiting almost at my elbow. But I'm taking these in the reverse order of their urgency.

Something was happening on the far side of the room. It wasn't easy to see, because of the distance and because a number of men in dark close-fitting garments clustered around it. I thought it might be an autopsy.

There was a table as high as an operating table and a man or a body lay stretched out on it Above the table hung a web of thin, shining, tenuous matter that might have been lights or wires. It made me think, for no clear reason, of a complex chart of the neural system.

At the lower edge the bright lines appeared to connect with the object on the table. At the top they vanished into a maze of ceiling connections I couldn't follow. Some of

the wires, or lights, were brilliantly colored, others were silvery. Light and color flowed along them, coalesced at intersections, glowed dazzlingly and flowed on along diverse channels downward.

That was the thing of secondary importance which I saw there. The thing of primary importance stood about six feet away from me, waiting.

Now this is the difficult part. I must get it as clear as I can.

A tall man stood facing me. He had been standing there when the door opened. Obviously he expected me. He wore tight-fitting dark clothes like the others. He was well-made, even handsome, with the emotionless face of a Greek statue or a Buddha.

He was Ira De Kalb.

I had a moment of horrible internal vertigo, as if the bottom had dropped wholly out of my reason. It couldn't be happening. For this was De Kalb and it wasn't, exactly as Topaz had been Dr. Essen—and not Dr. Essen. In this case, at any rate, there was almost no physical difference. This man before me was the man I had last seen asleep in the cavern of the time-axis, no younger, no older, not changed at all except for one small thing.

The Ira De Kalb I had known possessed strange veiled eyes, filmed like a bird's, grayed with light blue dullness. But this De Kalb, who regarded me with unrecognizing coldness, as if he had never seen me before in his life, looked out of curiously changed eyes.

His eyes were made of metal.

It was living metal, like burnished steel with depth behind it, yet not real steel—some alloy unknown to me, some bright unstable thing like quicksilver. I could see my own face reflected in the eyes, very small and vivid, and as my reflection moved, the eyes moved too.

I took a deep breath and opened my mouth to speak his name.

But I did not make a sound. There wasn't time. He had been standing there with an immobility that was not human. An image of metal would stand like that, not seeming to breathe, no tiniest random motion stirring it. And I had an

instant's uncanny recollection that the De Kalb I knew had moved with curious clumsiness, like an automaton.

Then the metal eyes moved.

No, I moved.

It was a fall, in a way. But no fall I could accurately describe. It was motion of abnormal motor impulses, fantastic simply because they were without precedent. One walks, actually, in a succession of forward-falling movements, the legs automatically swinging forward to save one from collapse toward the center of gravity.

This was reaction to a sort of warped gravitational pull that drew me toward De Kalb. It was the opposite of paralysis—a new gravitation had appeared and I was falling toward it. It was like rushing down a steep slope, unable to halt oneself.

His strange, smooth face was expressionless but the metal eyes moved, watching me, reflecting my twin images that grew larger and larger as I fell upon him down a vertiginous abyss. The eyes came toward me with an effect of terrible hypnosis, probing into mine, stabbing through the reflection of my own face, my own eyes, and pinning the brain in my skull—probing into my mind and the little chamber behind the mind, where the ego lives.

Then he was looking out—through my own eyesl Deep in my brain the metal gaze crouched, looking watchfully outward, seeing what I saw.

A telepathic rapport? I couldn't explain it. All I knew was the fact. De Kalb was a spy in my brain now.

I turned around. I went back toward the door into the transmission room. I closed the door. I was alone there. But the metal eyes looked at the room as I looked at it. I had no control over my motions while I saw my own hand rise and finger the wall. But when the room began to shimmer and the disorientation of matter-transmission shivered through my body I knew I had my muscles and my will back again. I was free to move as I liked. I was free to think and speak-But not about what had just happened. It may have been something like post-hypnotic command, to give it a label. That's easy for me. Remember, I'd looked into De Kalb's quicksilver eyes.

All this happened in something under thirty seconds. I've given you, of course, conclusions and afterthoughts that came to me much latej, when I had time to think over what I'd seen and correlate it. But I woke in the rusted room, I looked out into a city on a planet outside our solar system, I saw something like an autopsy in a vast laboratory braced as if to withstand unearthly pressures, I met the gaze of Ira De Kalb and then the tiling had happened between us—happened. And I returned to the transmitter.

The room vibrated and vanished.

XII THE SWAN GARDEN

TOPAZ squealed with sheer delight.

"Come on out!" she cried. "It's the Swan Garden! What are you waiting for anyhow? I'll take back all I ever said about Lord Paynter. Oh, do look, isn't it wonderful here?"

Silently I stepped after her through the door.

So little actual time had elapsed that I don't think she really missed me. Something had reached out through the matter-transmitter and intercepted one of us and let the other go on. But Topaz must have rushed out of the door the moment it opened and been too overcome with pleasure at finding herself just here to realize I was lagging behind.

And I-had I really been for a round-trip through a galaxy? Had I dreamed it? Was this whole

interlude a dream while my own body slept in the time-axis, waiting for the world's end? In preparation for that sleep I had begun to learn how to ignore time as a factor in our plans.

In this world, waking or sleeping, evidently I must learn to ignore space. Distance meant nothing here with the matter-transmitters functioning as they did. You could live on Centaurus and get your breakfast rolls fresh from a bakery in Chicago.

You could drop in on a friend on Sirius to borrow a book, simply because it might be easier than to walk around the corner for one. And in the annihilation of space, time too

seemed to undergo a certain annihilation. Just as, in ignoring time, you could as a corollary overstep space.

I had overstepped reason too. I had come into a world where nothing made sense to me, where the people who had been my companions moved behind masks, stirred by motives that were gibberish. I had overstepped both space and time just now, and so compactly that the girl who called herself Topaz never missed me.

I was still too dazed to argue. I could control my own motions again but my mind had suffered too much bewilderment to function very well. I followed Topaz dumbly, staring about me at the remarkable landscape of the Swan Garden—knowing in some indescribable way that inside my mind other eyes stared too, impassive metal eyes that watched my thoughts as they watched the things around me.

Topaz spun around twice in sheer delight, her sun-colored veils flying. Then she ran her hands through her hair, dislodging a last sparkle or two, and, smiling at me over her shoulder, beckoned and hurried ahead through what seemed to be a wall of white lace.

A gentle breeze stirred it, shivering the folds together and I saw that we were following a narrow path through a grove of head-high growths like palmetto, except that the leaves and flowers were white, and shaped like enormous snow-flakes, each a perfect crystalline pattern and every one different from every other.

Topaz ran her hands lovingly through the flowers as we went down the path. Underfoot the ground had the look and feel of soft down. After a moment we entered a cleared space with what seemed at first glance a stream of water tracing an arabesque path among huge, humped boulders. The breeze freshened, the lacy curtains shimmered and thinned before it and I saw a gossamer vista beyond of unreal gardens where fantastic beauties lay in wait.

"Sit down," Topaz said. "I don't know why Lord Payn-ter sent us here but I suppose he'll join us when he's ready. Isn't it lovely? Now 1 can have my hair starred again. Oh, do sit down! Right there, on that—"

"That rock?" I asked.

"No, that chair. Look." She sank lightly on one of the

boulders and it curved and moulded itself beneath her to a couch the shape of her body, fitting every bend of her limbs perfectly. It looked very comfortable.

I grinned at her\* and sat down myself, feeling thick, re-silent softness yielding as I sank. Deliberately I turned off my mind. Events wholly beyond my control had catapaulted me into this world and this complex situation.

The only way I could keep sane was to ride along without a struggle until the time for action came. I thought I'd know it when it did. There was no use asking questions of this lovely deliberately feather-brained little creature beside me. Perhaps, when Paynter came—

"Have some fruit," Topaz invited, gesturing at the stream flowing past.

I looked again. It wasn't a stream. Call it a tube, of flowing crystal, hanging unsupported in the air about three feet off the ground. It came out of the downy earth at the edge of the trees, twisted intricately around the boulders and dived into the ground again farther on. From where I

sat I could touch one arch of it without stretching.

Drifting past my hand came a globe, large as an orange, of a pale green translucence. Topaz put out her hand, waited for it to drift nearer, plucked it out of the stream. She gave it-to me, cool and dripping from its bath.

"Eat it if you like," she said. "Choose what you will. I'm going away for awhile. Oh, I've been so good to you! Hours and hours I sat waiting for them to wake you up and my hair grew all dull and horrible." She shook her curls and her face brightened.

"I'll show you," she promised. "Ill use the star-powder all over. It takes some planning, though. The stars in my hair will have to be a different color and my face—a half-mask, do you think? A dark mask, set off by the stars? Or jet stars along my arms, like gloves."

Somewhere among the trees in the direction from which we had just come a gong sounded one clear note. Topaz looked up. "Oh," she said. "Lord Paynter."

I felt in the center of my mind a sudden quickening of interest. The spy who had usurped my senses was preparing for action. But—what action?

I bit into the pale green fruit Topaz had handed me.

It wasn't yet my problem. If anything, it was De Kalb's. I'd have to know more before I could do a thing. I sank my teeth into crisp moist sweetness that tingled on the tongue like something mildly alcoholic. It was delicious.

"Lord Paynter—welcome to the Swan Garden!" Topaz rose from her rock and swept an elaborate and probably ironic curtsey, her bright veils billowing. "Hideous as I am," she added, "and it's all your fault, I make you welcome. I—"

"Be quiet, Topaz," a familiar voice said.

I got to my feet and turned to face him as he came out from among the crystal-shaped flowers that hid the path. It was the voice I had heard in my dim awakening moments here. But seemed to me now even more familiar than that. A thin cold flat voice, a little too high. Oh yes, I had heard it before—perhaps a thousand years before.

He was a tall man, big, thick, heavy, with a fine military bearing. He had a down-drooping mouth between the flat slabs of his cheeks, very sharp pale blue eyes—Murray's eyes, Murray's face, Murray's voice. It was Colonel\* Harrison Murray.

It wasn't surprising, of course, So far as I knew, there might be other people in this world and there might not be. Maybe it was simply a dream, peopled by the three who still lay asleep beside me in the time-axis, dreaming as I dreamed. Only, they didn't suspect, apparently. They thought all this was real. Only 1 knew that the whole thing might explode like a bubble at any moment. ..

Murray, if this were not a dream, had been healed in the long bath of time, for he looked perfectly restored now. That injury to the hidden place of the mind or the soul or the body, where the nekronic being struck, was something that could mend, then, with time. With time-Were we in the world of the Face? Had we wakened? Did we still sleep? How could I possibly find myself now in a world where Dr. Essen moved behind a mask of beauty by the name of Topaz and Murray, unchanged in any particular, called himself Paynter with a perfectly straight face, and De Kalb-De Kalb-what about De Kalb?

I do not know.

Blankly I looked around. No one had spoken. But the voice was in my brain. De Kalb? It came again.

I do not know but I intend to learn. Be quiet and we will learn together.

Paynter strode brkkly forward, his boots ringing on the downy earth. He wore what might have been a uniform, tight-fitting, dun-colored. He gave me a keen, competent glance in which no recognition stirred, then nodded.

- "Good day. Hope you're feeling better. All right, men, bring the boxes over here."
- He stood aside and two men in uniform lugged forward a gray box the size of a small table. It had metal .banding around it and a series of sockets along the top. They set a second and smaller box beside it and stood waiting.
- I found myself staring at them with far more interest than I felt in the boxes. Here were the first people I had seen closely, at first hand, who didn't belong in the dream. Their presence shook me a little. Perhaps it wasn't a dream then. Perhaps there really was a tangible world around us, outside this garden. Perhaps I had really awakened out of the time-axis.
- I turned to look at Murray—at Paynter—who still regarded me keenly as he sat down on one of the rubber-foam rocks. .1 sat down again too, watching him with new patience now. I could afford to wait. After a moment he spoke.
- "Topaz showed you the cave where we found you?"
- I nodded.
- "Oh yes, I did everything you ordered, Lord Paynter," Topaz contributed. "I pretended that nothing—"
- "Be quiet, Topaz," Paynter said with some irritation. And then to me, "What's your name?"
- "Cortland," I said, and added ironically, "Lord Paynter."
- "Job Paynter," he corrected me calmly. "Topaz calls everybody Lord—when she wants something. Call me Paynter. It isn't customary to use courtesy titles here."
- "Oh, but it is," Topaz said. She was kneeling by the stream and flicking bits of spray out of it. "Mister and Mistress and Lord and—"
- "Topaz, stop playing and run away for awhile." Paynter was half irritated, half indulgent.
- "Oh, thank you, Lord Paynter!" She was on her feet in an instant, beaming with smiles. "My hair—there's so much to do! Call me when you want me." She vanished among
- the snow-crystal trees, moving with that extraordinary grace that was as natural to her as breathing,
- I watched her go, seeing incongruously superimposed upon her averted face the features of Letta Essen. They were the same. I was sure of it. Imagine Letta Essen twenty years younger, with the same keen brilliance turned to deliberate irresponsibility, deliberate loveliness, and you would get—Topaz. But a Topaz who did not seem to know she had a double.
- "Now, Cortland," Paynter said, putting his hands on his knees and regarding me narrowly, "we have a lot of talking to do. I've heard the playback of your conversation with Topaz when you first woke. I assume you—ah—believe you're from the first half of the twentieth century,

## right?"

- "You know I was asleep in the cave," I said. "You must
- have seen me."
- "I did. We analyzed the tissues and clothing of all the sleepers. Low radioactivity, so we know the sleep began before the atom wars. So that's all right. It's time-travel. We can't very well doubt -that. But you'll have to tell us how the sleepers got there and how I came to be with them." He shook his head rather dazedly.
- I glanced around the little snow-veiled clearing where we sat. The two soldiers had finished their task and left us at a wave from-Paynter? Topaz was gone. We were quite alone, lying back comfortably on our rubber-foam boulders, the stream gurgling faintly past us through the rocks and

the air.

"Maybe you can explain things now, Murray," I said. He regarded me with a sort of fixed watchfulness, alert,

waiting.

"Murray?" he said after a moment when I did not speak

again. "Murray?"

- "All right-Paynter," I conceded. "But let's have the explanation. Things are getting too far ahead of me."
- "Ill be glad to explain everything I can to you, in a few minutes," Paynter said, gesturing toward the gray boxes. ""I don't understand what it is you're implying, though. I almost get the impression that you think you know me."
- "I knew a man named Murray who looked exactly like

you—if you want to play it this way," I said. "But it looks pretty obvious what happened. You and the others woke before me. You may have wakened months or years sooner. You went out into fhis world, whatever it is—whenever it is—and made places for yourselves. Now it seems to suit all of you to pretend I'm a poor relation you never heard of. That's what I think happened. Maybe you've got a better story."

He exhaled noisily, a heavy sigh that was partly of impatience.

- "I think I see what you mean. That doubling of images confuses all of us. You really don't know, then?"
- "I really don't know."
- "Obviously, I—or my image—was in that cavern with yours. There was also a woman there. I didn't recognize her. The third man was Belem." He paused and fixed me with that expectant look again.
- "Belem," I echoed. "Where I come from we pronounce it Ira De Kalb."
- "Belem," he told me firmly, ignoring the feeble levity, "is a Mechandroid. He isn't human. Did you know that?"

## XIII LORD PAYNTER'S PROBLEM

NOT human, I thought, remembering those eyes of cool metal. I sent an inward thought searching out the mind that crowded my own mind in the narrow confines of my head. Not human? I got no. answer, for a moment. Then there was a whisper like a distant voice.

Watch and wait, it told me quietly.

"I don't know what a Mechandroid is," I said as calmly as I could. "I don't seem to know much of anything about this place. One thing I'd like to get clear—where I'm not. Tell me, Paynter—Murray—whoever you are, whether you remember anything about the Face of Ea."

He scowled thoughtfully. I was watching but I saw no flicker of recognition.

- "I can have inquiries made," he offered. "It means nothing' to me, but we have colonies now on so many worlds—"
- "Never mind," I said rather dizzily. "Forget it." Whether he knew or not he wasn't going to give away anything in that connection. "All right, one more thing then. What

century is this?"

He told me. It doesn't matter. It wasn't the time of the world's end. I was sure of that-or as

sure as I could be of anything just then. Nowhere in the galaxy yet was that red twilight or the towering Face. Something had gone wrong during our journey. Something had broken it and roused us to wakefulness too soon. Perhaps millennia too soon. And I was the only one of us who remembered at all what mission we'd set out upon.

Remembered? A sudden idea struck me and I said quick-

ly.

- "How about this, Paynter-suppose you really are Murray with amnesia? You could have awakened and forgotten somehow. You might-"
- "That's impossible," he said firmly, shaking his head. "I know my complete history. I was born Job Paynter, on Col-chan Three, of Earth stock, fifty years ago, and I can remember a complete life. No intervals missing."
- "All right," I said. "You suggest something."
- "I wish I could. We seem to be at a stalemate. We-"
- His voice suddenly went thin and dim in my ears. I felt my breath rush inward with a shuddering gasp and—
- Out of the past, into the secret recesses of my mind burst a familiar soundless roar of energy. Paynter and the garden behind him,, were fading, insubstantial shadows. Nothing existed for a terrible blinding moment except this bursting light-speed gush of energy as—

As the thing made its kill.

- The next thing I saw was Paynter's face. He was watching me narrowly out of hard blue eyes and it seemed to me his cheeks were curiously flushed.
- I don't know how long a time had elapsed. Obviously it was time enough for a report to come through, for he was speaking into an instrument on his wrist. I didn't understand the language he used. I sat there limply, too
- dazed still to move or think, while he watched me with that pale stare.
- I struggled to regain my detachment in the face of a shock that had left me sweating with plain physical fear. Somehow I had lost touch with my human companions in the long journey but it was clear that there was one fellow-traveler whom I had not lost. The creature whose track was the nekron—the killing thing whose touch was an infection of matter itself.
- Paynter lowered his wrist. "Cortland," he said, "one of the men who helped set up this machine has been killed just now. Burned. It's something no one seems to have seen before—burns of that type, I mean. You—ah—you seemed affected just now. Have you anything to tell me about this?"
- I looked at him dumbly. Then there was a stirring in my mind and the metallic gaze of the dweller there seemed to glance out through mine.
- That was very curious, the cold, watchful awareness that was De Kalb said calmly. Comply with Paynter now. Do as he suggests. I think I may be starting to understand.
- I sighed heavily. I hoped he was. Things were entirely out of my hands now. I watched Paynter take a black helmet out of the smaller box before him, plug in its cord to the larger box, hold the headpiece out to me.
- "Here," he said briskly. "You and I could ask one another questions until doomsday and not come nearer any understanding. This will put us in a mental rapport—fast and complete."
- I looked at the thing sceptically, feeling dubious. It was all very well for De Kalb in my mind to urge compliance. How did I know what his real interests were? What Payn-ter's were? Certainly not the same as mine.

"Let me think this over a minute," I said doubtfully. "I don't understand-"

"The control is set for certain basic problems." Paynter said in an impatient voice. "Well open our minds to each other, that's all. There's automatic screening to eliminate trivialities but everything centering around the basic of time-travel will be revealed in three seconds, much more clearly -'it you could possibly convey it in words. In return,

ill understand all you need to know, so that you can talk

to me intelligently and won't have to stop for questions every third word. Put it on, man, put it on!"

I lifted the helmet dubiously. For a moment I hesitated. Then the memory of the dead man so near us flashed vividly through my mind and I knew I had no time to lose. It might happen again. I was afraid of what Paynter might discover—but how could I refuse now? How much had he noticed when the killer struck? Perhaps it would be better if he knew the whole story.

The helmet slipped easily on my head and seemed to adjust itself automatically. Paynter was saying something about projection.

"You had books in your time. In a good one there's projection—you felt the way the author wanted you to feel. This is simply a further development. You may relive the experiences of historical persons, if the screening works out that way. Ill get certain knowledge from you, you from me— and we draw on the projection library as a supplement, a concordance, if necessary."

His fingers were busy adjusting controls. I had time e-nough to think, "This is the forerunning of the Record, of course. One of the steps toward something more complex."

Then a bar of spinning light sprang up from the larger box, whirling so rapidly that atoms of light seemed to spiral out from it. And—then 1 was somebody eke.

I was a guy named Bannister who'd been born after Hiroshima. I was standing in a room a mile underground. The General was sitting at his desk playing with a pistol. We were temporarily safe here, though it wasn't really safe anywhere. Still, there was a half mile of valves, Geigers and filters—the atomic absorption stacks—between us and the surface, so not much radiation could get in.

"Let's have it," the General said,

This was one war that hadn't gone by the rules. This time the top men were getting killed—the ones who'd always died in bed before. So they were beginning to grope frantically around in Pandora's box muttering, "Where'd Hope get to?"

They were beginning to find out they should have stood in bed.

The Second Atomic War. I-whoever I was-never thought

about it. I'd lived it for some years. I guess I was one of the early mental mutations, part of the social mutation that had to take place after the world began to rock like a gyroscope slowing down. I knew already I didn't think in quite the same way the older men did. Sometimes I wondered if the change, after all, meant only a keener ruthlessness.

The General said, "Well? Where's the report?"

"He's done it, sir," I said.

The General put the pistol down on his desk and showed his teeth. "Is is practical? That's the point."

"It's practical sir," I said. "Inanimate matter only, so far. But such matter can be transported for a thousand-mile radius. A receiver must be spotted first, though. It means interplanetary colonization one of these days—because the first space-ship can take a receiver with it and open up a pipeline for supplies. This is only the start."

- "A matter-transmitter," the General said and suddenly crumpled the papers on his desk. "Armistice? Well forget that now. GHQ will change its tune now we've got this new weapon."
- "The inventor wants to use the device for peaceful purposes, sir," I said. "I heard rumors the war was over."
- He looked at me. "They all do. Yes, the war was over yesterday. But well start it again."
- Then I knew that I was a mutation after all—mentally. The General and I fust didn't think the same way. We didn't have the same values and we never would. He hadn't matured in an atomic world.
- I had. I picked up the pistol from the General's desk. His brain was obsolescent anyway.
- Then I was somebody else.
- "Cities?" I said to my visitor. "No, well never rebuild them. We won't need to."
- "But the world is in ruins."
- "Technology is the answer."
- "You mean machines can build where men cannot?"
- "Aren't they doing it?"
- They were—yes. Old as I was, over a hundred—whoever I was—I could not remember a time when the planet had not been radiotoxic. Not all of it, of course. The men that were left, the survivors, gathered in the islands relatively
- free from the poison. Travel, even by plane, would have been too dangerous, but we had the matter-transmitters. So we were not insular. There were the colonized planets.
- Still, Earth was the home. With the halftime of the radio-dust, it would be a long time before most of the planet would become habitable. Yet Earth could be rebuilt, in preparation,
- by machines.
- "I will show you my plan," I said. "Come with me. Ill be dead long before there's a use for my Mechandroids, but that day will surely come."
- He followed me along the corridor. He was a powerful man, one of the most powerful in the world, but he followed me like a young student.
- "It's hard to know the best plan," he saidj half to himself.
- "We have a Galaxy to colonize. Human minds can't cope with that. Nor can machines. The machines must fail because they're emotionless and inhuman. What you need is a human machine or a mechanical human. A perfect blend. A synthesis. Like my Mechandroids."
- I pulled back a curtain and showed him the young strong body in the glass coffin. The machines clicked and hummed from all around. The wires quivered slightly.
- "This is one of my Mechandroids," I said. "They cannot reproduce; they do not breed true. But they can be manufactured. It's as though a machine had given birth to a human."
- "He looks thoroughly normal."
- "I chose his parents. I needed the right heredity. I selected the chromosomes most suited to my needs—and I tried time after time before I succeeded. But then this Mechandroid was born. Almost since birth he has been trained—hypnogeni-cally—educated, indoctrinated, by the thinking-machines.
- "He has been taught to think as accurately as a machine. The human brain is theoretically capable of such discipline but the experiment has never been tried before to this extent. Mechandroids, I believe, can solve all human problems, and solve them correctly."

"Machine-trained?" he said doubtfully. "Machines must serve men. They must free men, so that the capacity of the human brain may be fulfilled. These

Mechandroids will smooth the path, so that man may follow the highest science-that of thought."

"There's no danger?" he asked, looking at the silent Mechandroid. «

"There's no danger," I said.

XIV VEGA-BORN

THEN I was somebody else.

Saturn blazed in the sky above me, blotting out half the firmament, as I fled down the twisting street from the Mechandroid. I had to find somebody who knew what to do. But nobody seemed alive in the city. Nobody but the silent striding creature that was pursuing me.

Homecoming, eh? I was Vega-born. I was sixteen. I'd taken the great jump across interstellar space in the matter-transmitter with my Age Group-nine of them-for the Earth tour and, because all Solar tours start with the other planets, we'd stepped out of the matter-receiver in Titan.

Then everything happened at once, too fast for me to follow. The Mechandroid came running toward us—and we began to fall, one by one. So we scattered. With my usual bad luck, I managed to blunder right into a group of the Mechandroids who were working at something.

They were in a big room, gathered around a table where a body lay. Above the table was a shining web—a neural matrix, hooked up to a matter-transmitter. I knew enough about basic physics to get some idea of what was happening and I stopped right there, like a statue, watching.

The Mechandroids were making a super-Mechandroid—if that's the term. People had talked about the possibility. Everybody, I guess, was a little afraid, because the Mechandroids were plenty smart and if they worked out a collateral mutation—they're individually sterile—why, then, a super-Mechandroid would be horribly powerful and dangerous.

For the Mechandroids can be controlled, but a super-Mech-android couldn't.

They said, not long ago, that they weren't capable of solving certain galactic problems and they wanted to go ahead and build what they called a second-stage Mechandroid. Of course they were forbidden.

But the body on the table before me, under the shining neural web, was a super-Mechandroid in the making. If a thing like that—with all its potential intelligence and lack of emotion—came alive it would be too dangerous to think about.

I turned around and started running again. I kept on running. Once I heard a scream, pretty far away.

If the only way the Mechandroids could build their second-stage Mechandroid was to destroy every human in the Titan city—why, that was the logical solution. So that's what they'd done. I passed an Exploratory Station and took a minute to go in and grab a vacuum suit. Carrying it, I headed for a gate in the great dome that covered the city.

Two hours later I was sitting on a mountainside half a mile away, looking down on the dome and wondering how long my air would last. I felt pretty lonesome with Saturn dropping toward the horizon and only the dark and the stars around me.

After awhile I saw the ships come. You don't see many ships these days but I knew what they were. Half a dozen of them came down silently out of the blackness and hovered above the city and a moment later there wasn't any city -just a big burst of light and sound and energy.

I sent up my SOS rockets and got picked up. On the trip back I heard a lot of talk about how we were going to get the Mechandroids under tight control and keep them there. Supervision for every one of the creatures. No chance to get together and make a super-Mechandroid.

I guess I didn't enjoy Earth as much as I'd thought. It had been rebuilt and most of the radioactivity was gone. There was just one machine-city left—a museum these days. But the planet seemed small.

Of course we started out from Earth in the beginning. But now we've got the Galaxy.

Then I was somebody else.

I was Job Paynter.

Every individual is expendable, but the race is not. I am not, but not unnecessarily. My value to the solar community is high. And why not? I am competent in my work—general integration, Seventh Galactic Sector, Earth-based. (I am competent, or was until we opened that cavern under the mountain on Earth, and found Job Paynter asleep there. No, I am competent still. Puzzled but able to find an answer when all the returns are in. Meanwhile I must think objectively about this mystery. I must think objectively.)

The Mechandroid Belem's desertion should have been reported to me immediately. There is no excuse for incompetence in a world where specialized training begins before birth and where reorientation treatment can be had as often as necessary.

When I investigated Belem's disappearance I was much disturbed to learn how many other MecKandroids had vanished at the same time. I immediately assigned an all-out search, Galaxywide. But I was not too hopeful.

The race moves on. It has its human limitations. The tools we make have no limitations at all. When we educate our-. selves to learn to handle those tools most efficiently we can go on to the next step, whatever it may be. Meanwhile there must be check and balance-rigid control.

I assigned to the Mechandroid Belem a problem involving the opening of the Betelgeuse system. I had worked with Belem before. While Mechandroid knowledge and experience goes into a common pool Belem's reactions would be a shade quicker since he had once opened a similar system before, so I asked him. At that time I was on the Antares base. When I checked later on Belem he had vanished.

We went through the automatic routine. We studied the records and traced Belem's movements up to the moment of his disappearance. We learned several interesting things. Obviously Belem had thought it necessary to disappear in order to solve his assigned problem. So we checked on the problem. The Andromeda system was involved and we discovered that there was something odd, hitherto undiscovered, about the Andromeda sector.

First of all there was a potential nova involved. Secondly,

a new type of matter existed on one of the planets revolving about the star that was preparing to explode. It seemed to be a neutral matter, in absolute stasis. We quarantined the system immediately, pending farther investigation.

You never know into what queer bypaths a Mechandroid's investigation will lead. The creatures see factors involved that no human mind would bother with. They're never content with ten decimals but always work down to the absolute quantity. It didn't surprise me a great deal to find recording-tapes in Belem's laboratory which described and localized a terrestrial time-axis.

We went to the point charted. Belem had already worked out a system for displacing the special atomic structure involved and waking the subjects. What subjects? I learned that soon enough.

At the time-axis, which existed not far from the ancient bed of the St. Lawrence River, we found a shell of matter. R-type radiations showed us there were four living beings within that shell. They were in drugged hypnotic sleep. One of them was the Mechandroid Belem. The second was myself. The others were an unknown man and woman.

My Director discussed the situation with me.

"Belem has been located?" I asked.

"We thought so," the Director said, "but you're in the time-axis chamber too. You're apparently in

two places at once—so Belem may be as well. You know how dangerous a Mechandroid on an unorthodox problem can be. Don't forget what happened to Titan twenty years ago. Well-obviously four people have, in the past, used drags and hypnosis to free their minds from time-consciousness as their bodies were freed by the atomic displacement their device has set up around them."

- "And I'm with them, it seems."
- "You have no memory of it? But they came out of the past-all three of them."
- "Circular time? Spiral time?"
- "I don't know," the Director said. "It's theoretical so far. The empirical method obviously is to waken these four and find out what happened to them. How they came to be in this time-axis. Certainly a Mechandroid loose in time is too dangerous to be permitted. As for you-"
- We had no answer to that, either of us. I was standing here, solid and real. But my double, my other self, was in the time-axis.
- "Waken them," the Director said.
- That was obviously the next step. The only possible step.
- "Very well," I said. It was my job. A job must be completed at any cost. Men are expendable. Mankind is not.
- Then I was Jeremy Cortiand again.
- We were in the Swan Garden, Paynter and I, looking at each other across far distances. The shadows of a dozen other selves faded and wavered through my mind—and simultaneously I felt a strange sort of mental withdrawal. With the dying remnant of Paynter's memory, I knew the reason. As I had been reading—living in—other minds, so he had been reading my own.
- But he did not know that the Mechandroid Belem—De Kalb—was spying through my brain. I felt certain of that, as certain as though—De Kalb—Belem had told me in so many words. No, Paynter might have stripped my mind clean of its memories, but there was one memory of the Mechandroid's curious powers had kept from his grasp—the brief adventure I had had, via matter-transmitter, on another planet among Mechandroids.
- Abruptly full realization came to me. I remembered the "autopsy" I had glimpsed—the Mechandroids clustered a-bout a long table on which a body lay and above which a shining web quivered. Once, twenty years ago, a boy had seen a similar sight on Titan—the creation of a super-Mech-android, the experiment utterly forbidden through all the Galaxy. A city had been blasted into dust to stop that danger. I remembered, strangely, with another man's memory.
- Now it was happening again. A second stage man-machine was being constructed somewhere on some far planet—and Paynter did not know that, and I could not tell him. The post-hypnotic command was too strong for me. I could not betray the secret to Paynter even if I tried.
- Which reminded me that Paynter now had my memories. His face was grayish as he watched me.
- "That new type of matter we've just found in the Andromeda system," he said. "I know what it is now. You called it the nekron."
- Then he must know as well that I was infected with the —the thing, that I was a carrier, a culture for that swift, slaying thing that no grip could hold.
- But he did not mention it. Instead, in a troubled way, he began to talk about Belem.
- "Belem was set the problem of opening the Betelgeuse system. Which is simple enough. But the Mechandroids are thorough. I suspect that Belem checked all the possible influential factors, and saw that nekronic matter exists in Andromeda on a planet of a sun ready to become a nova. "When that happens the violent explosion will cany the nekronic atoms, on light radiations, far into interstellar space—far enough to reach and infect Betelgeuse. For some reason I don't know yet Belem decided the time-axis should be—" He paused, scowling. "Did he leave those notes purposely?

Did he want us to open the time-axis chamber, Cortlandr

- "How should I know?" I asked. "You've got all my memories now, haven't you?" ^
- "I think he did. But where is Belem now?" I knew that-but I couldn't tell him.
- "Why did Belem disappear? Why have a dozen other Mechandroids disappeared? Why didn't they announce the problem publicly?"
- He had forgotten he was still wearing the helmet. Now he lifted it slowly from his head and I followed his example. "Because they had to work in secret," he said tentatively. "Now what could they do in secret that they couldn't do with all the science of the Galaxy to help them? There's only one thing. The Mechandroids must solve the problems set them—
- "They are making a second-stage Mechandroid," Paynter said flatly. "That must be what's happening. Scylla and Charybdis then. For a super-Mechandroid is as certain a menace as the nekron itself."
- "But why?" I asked, prompted by a conviction that the devil I knew—the nekronic infection—was far worse than any manlike machine, no matter how perfected.
- "Because the Mechandroids would probably obey it instead of us," Paynter told me. "The Mechandroids are vulnerable because they're partially human. A second-stage type probably wouldn't ba. When you consider the knowledge and skills the Mechandroids already have—and if they're applying them to the creation of a mutation of their own—why, such a monster could easily be invulnerable. Suppose it worked on absolute logic? That might call for the extinction of all lifeforms! I don't know. No one knows. How can anyone think like a mutation from the Mechandroid type?"
- I shook my head. "Don't ask me. I've got my own problems. Those four asleep in the time-axis. There must be an answer somewhere, Paynter. There must be!"
- "There is an answer." He said it so soberly that I felt an instant's chill in my own mind. I had good reason to feel a chill. Paynter went on in a very somber voice. "Now I'll tell you the truth, Cortland," he said.

## XV CRUMBLING FLESH

- THE four silent figures lay deep in their age-old slumber in the chamber under the mountain. I saw them there again. I could feel the weight of the helmet on my head and I was this time fully aware of the Swan Garden around me and the sound of Paynter's breathing at my side. But I was seeing the projection of a three-dimensional film. I was looking into the chamber as a camera's eye had looked.
- "This is the official record we made when we opened the cave," Paynter said invisibly at my elbow. "Now watch carefully what happens. No one knows this but you and myself and the few technicians who were on the spot. We<«e kept it quiet. It's so-so-well, watch and you'll see."
- Nothing moved in the cave. Nothing had moved, I suppose, for a thousand years or more, not since all motion ceased when we sank into our long slumber. But now lights began to flash from beyond the gray egg of nothingness that walled us in. Paynter's technicians were at work, trying
- to break that shell, trying to hatch out—what? Something terrifying. I knew that by the tone of Paynter's voice.
- The lights flashed and faded, glowed again, paled. Now the camera drew back and I could see Paynter himself, standing beside a group of workers and a battery of machines. All were intent upon the egg of time that held the sleepers.
- It was curious to hear Paynter speak then—the Paynter of the cavern, speaking in the film, not the Paynter who sat beside me. Duplication piled upon duplication.
- "What are the chances?" I heard him ask. "Are they going to wake?"
- Murmurs answered him. After awhile, during which his eyes were very thoughtful upon the sleepers

and upon the woman among the sleepers in particular, I heard him say in a musing voice, "We should have one of the entertainers here. If this is actually a time involvement, as you say, then these people will have been asleep a long while and they'll feel bewildered when they wake.

- "We need someone like-Wee-yes, Topaz-to speed their adjustment." (I knew why he had thought of Topaz. I knew he had seen, without realizing it, the face of Topaz implicit in Dr. Essen's sleeping face.)
- "Send for Topaz," he said firmly, his voice echoing in the cavern as ours had echoed once, a thousand years or many thousand of years before.

(Now perhaps this is as good a place as any for a word about the language he was speaking. It was certainly English but not as familiar a language as I write down. Any living tongue rapidly accumulates new words and phrases, drops old ones, assigns new meanings to words already in use, so that the colloquialisms of one generation are gibberish to the generation before it.

(The English we were speaking was changed, not a living language. Matter-transmission had spread civilization over a vast area and some common tongue was a necessity, but it couldn't be a tongue that changed or it would soon cease to be a common language. So it wasn't easy to follow what these people said around me-but it wasn't impossible either.) The camera ground on for about thirty seconds more

and then blurred briefly. Beside me Paynter spoke in a quick, impatient voice.

"Skip all that. It's^just more experiments. This was the period when they completed the analysis of the clothing and established the period from which it came as mid-Twentieth Century. It was about six hours after that before they breached the shell of force. I was notified and I sent for Topaz and came in myself for the finish. Now watch."

The cavern took shape again before me. Clear in the bath of what was probably ultra-violet, because it brought the images out so clearly, the four sleepers lay. But this time there was a hum of activity around them. Men passed before the camera, obscuring it now and then, carrying lenses and long glowing tubes and angular tilings a little like sextants. I heard Topaz's sweet high laughter and Paynter's rebuke,

"Watch," Paynter said beside me. "It happened very suddenly."

As he spoke, I saw the change begin. It was like a cleavage in space, a widening crack that spiderwebbed across the empty air like a riven bubble of plastic. The sleepers showed for an instant, distorted as though seen through a shattering substance with a different refractive index from air.

Then the cavern darkened for an instant. The four bodies seemed to spring into more dimensional reality—I sensed that their clarity was not due to the ultraviolet bath. It was as though a stereopticon image had become tangible. For a flashing second the four figures became part of—normal space. The shell of energy Dr. Essen had created so long ago no longer prisoned them beyond space and time.

The place grew darker still. It gave me a feeling of inexplicable urgency. I was on the verge of remembering something—that reddish twilight with faint lights twinkling through it was—was—

My thought paused. For the bodies were-crumbling,

I had a second of horrible, sickening terror, as though I felt my own flesh falling into dust too. Instinctively my fingers tightened on my legs. It was bewildering to feel my own flesh firm beneath my hands while before me in the projection I could see the same flesh crumble from my bones.

I watched myself disintegrate in the red twilight that had

filled the cavern, fall swiftly into dust as if the thousand years of time we had cheated as we slept was taking its toll all in one final moment. But I knew that was not the answer. Living flesh does not crumble like that and we had been living until the egg broke around us. There was

some more terrifying solution than that.

Suddenly, in my bewilderment and terror, I knew what the answer was. That shadowy red twilight, with lights faintly flashing across an empty world—I had seen that dusk before. In that same twilight I had seen the Face of Ea looking out over the world's night. That crumbling of our flesh into dust had been no accident.

I knew I had watched the four of us murdered in our age-long sleep, deliberately dispersed into nothingness—by what? By whom? I had no way of guessing, but it seemed to me the red twilight that filled the cave indicated something of an answer. Nothing was happening to us at random, I knew fully in that moment of revelation. It was planned, deliberately planned—and by the people of the Face?

They had summoned us across the millenniums. Had they planned our shipwreck here on the strand of some middle future and then, with calm intent, scattered our dissolving bones upon the cavern floor, having used and finished us?

No, for we were still alive.

Only I remembered my own identity clearly, but I was sure the icily violent ego of Murray lay buried somewhere beneath the surface of Paynter's mind. I had looked into Letta Essen's eyes in the lovely face of Topaz. De Kalb must linger somewhere, submerged but waiting, behind the metal eyes of Belem. So we were not dead.

The dust that had been ourselves ceased its crumbling and falling and settled into long, roughly man'shaped mounds on the floor of the cave.

"That happened coincidentally," Paynter said with elaborate detachment. "But something rather odd took place at the same time. Look."

The scene changed. The focus had shifted to another lens on the far side of the cavern. In the foreground Paynter stood, behind Topaz. Their faces were intent and horrified as they watched the egg begin to crack.

The film had stepped back sixty seconds and I was watch-

ing again the first beginnings of the disaster \* inside the shell of time. That curious riving of the air began again, the red twilight glimmering through, repeating itself as it would repeat endlessly whenever anyone chose to play this recording over.

But now, as the bodies began to crumble, I saw a change slip across Paynter's face. I saw it go blank, then suddenly go quite bright with a blaze of awareness—and then totally blank.

His knees sagged. He folded up and dropped limply forward. Someone jumped to his side from the crowd at his back, caught him and eased him to the dusty floor. As he fell I could see beyond him the small, brightly colored body that was Topaz, collapsed without a sound.

There was milling confusion around the two for a moment. Then Paynter stirred and the crowd backed away a little. Paynter sat up, consciousness returning visibly to his blank face. Topaz, beside him, stirred and moved her hand, lifted it and, with her eyes still closed, brushed the clustering curls from her face with a curiously innocent vanity.

At my elbow Paynter said, "All right, that was that. A moment's faintness. Neither of us suffered anything worse. But let's go back again to the moment the shell cracked and Topaz and I fainted. There was a crowd outside, waiting to see what would happen. You'd be surprised how easy ft is to draw a crowd. They didn't take long to assemble, via matter-transmission, once word got out. Some of our other cameras caught an interesting detail or two."

Now I saw a rolling slope thronged with men and women. Figures were toiling up from a plain below, where last I had seen the forests of northern Canada stretch unbroken. In the far distance a low white building gleamed in the sunlight among orchards.

"That building," Paynter told me, "is the Kerry Plum Orchard transmitter. All these people came

through it. They came from all over the galaxy, of course. No way to trace where they started from. Which is a pity because—well, look."

- I looked-and saw my own face.
- Duplication doubled and redoubled. My head swam as
- I tried to realize it, to count up how many Jerry Cortlands were in existence in this one space and time. One had fallen to dust in the cave. One sat here in the Swan Garden beside Paynter. One strolled up the hillside toward the cavern, casually, through the crowd. It was myself, all right. I wore rather ragged shorts and a tattered pullover.
- I turned left around a rock with part of the crowd and then there was a sudden humming excitement all over the hillside and a flash of reddish light from the cave.
- "We've gone back again to the moment when the bodies began to disintegrate," Paynter reminded me. "Down in the cave Topaz and I are collapsing. Up here—watch yourself."
- I saw the same look of dazed wonder melt into blank-ness on my pictured face. I saw myself fall.
- "When you woke again," Paynter was saying, "you were in the transmitter room by the City. Topaz was with you. That was when your memories started. Remember?"
- "You mean—that was me?" I demanded. "That man who came with the crowd? The me sitting here now? Oh no, that isn't possible! I remember! I went to sleep in the cave in the Twentieth Century and woke here. I never came out of a transmitter and joined a crowd in the Laurentians. You told me you'd wakened me in the cave!"
- "Not, exactly, no," Paynter said. "I just gave you your head. There was so much here that nobody understood, you see. I wanted you to go your own way until I knew all I could learn from you. Then I told you the truth. What could be fairer than that?"
- "But I'm not that man on the hillside! Who was he? Where did he come from? He isn't me!"
- "Well, you're that man. You saw what happened to the bodies in the cave. Your duplicate, my duplicate, Belem's, the woman's—they all disintegrated. As for who you are, I don't know. It's odd but not unheard of. With galaxy-wide colonization there must be a good many people in stray corners who have never been registered. You're one of them.
- "We tried but there's no record of your prints and history. However, you are the man who fainted on the hillside. It took you longer to recover than it did us and when you woke you called yourself Cortland and you've just given
- me some very fantastic history. Which rings true, incidentally. You believe it. You aren't faking."
- "Of course not. I was in the time chamber with the others. I\_»
- "You fell to dust, I suppose." Paynter's voice was impatiently amused. "Wait a minute. I thought I noticed something in the crowd near you. Hold on."
- I felt him move. The picture flashed on before me, picked up again the scene on the slope. Paynter gave some orders in an undertone, and the camera paused, halting in mid-stride a man who had just entered the edge of the picture.

ItwasDeKalb.

- No, not De Kalb-Belem. He turned his face to the camera and light glinted on the quicksilver eyes.
- The daylight flashed suddenly red again. The crowd nearby surged, chattering around me-my duplicate—as he fell. And Belem staggered. You could see the cold resolute Mechandroid brain gather itself to resist whatever assault this was upon its integrity. And the Mechandroid succeeded where the merely human had failed. Belem stumbled a little, leaned against the rock I had seen myself circle a moment before in the film, slid down so that he half crouched against it,

his face in his hands.

Then quietly, in about a quarter of a minute, he rose and walked back toward the Kerry transmitter, moving stiffly even for him, his face bewildered.

Paynter was saying in my ear, "So that's where he was!" But deep in the center of my mind a stirring of surprise gathered all my attention. Belem was watching too. Belem was thinking in almost the same words Paynter used, "So that is what happened! Now—now 1 almost understand."

XVI

## THE SUBTERRANE

THERE was silence in the Swan Garden for a long moment. Then Paynter lifted the helmet from my head and stood looking down thoughtfully at me. The crystalline bower

came back around me. I was looking into Murray's face but it was Paynter, from Colchan Three and this middle

future, who spoke.

"There were four asleep in the cave," he said. ""There were four who blanked out for a time when the sleepers disintegrated. That must mean we living four were duplicates in more than appearance to those who were destroyed. I don't understand, of course.

"The integrating machines are working on it now. Eventually they'll hand us all the factors and their conclusions. Meanwhile, Cortland, I think I caught an impression of yours while our minds were in rapport. Is Topaz a duplicate of that woman in the cave?"

"Dr. Essen," I said. "I think she is. Yes." But silently, to myself, I was thinking. "They all have identities but me. I'm myself. And yet I saw Jerry Cortland dissolve. That must mean that I'm the nameless man, the one who came up the hillside from nowhere and fainted. When he woke up, he was Jerry Cortland—me. And I'll never dare sleep in this world for fear that when I wake 111 be—him. Not myself. I saw myself disintegrated in the cave for a purpose, by some means I don't understand. I'm dead. When this man

wakes up, I'll-"

"All right, Cortland," Paynter said briskly. "I'll leave you here for an hour. You'll be quite safe, of course. Topaz will rejoin you in a moment or two."

"Am I a prisoner?" I asked.

"Well, no, not exactly." He gave me a grim smile. "You want the same things we do, I suppose. An answer to all this. I'm assuming you've told us the truth. I'm as sure of that as it's possible to be. Of course you may have powers you've been able to hide from us, so we'll keep an eye on you until we know more. Topaz will bring you to me in an hour. By then I hope well have an answer from the integrators."

He gave' me a stiff salute of farewell and turned away, pushed among the lacy palmetto growths and was gone, presumably into the matter-transmitter. I couldn't understand why he hadn't killed me.

For there had been five in the time-axis, not four. And the fifth was the most dangerous thing ever let loose upon

a galaxy. The nekronic killer had come out with me. How, I could not guess, if it were true that I was not Jerry Cortland, but a nameless man from the hillside below the Laurentian cavern. The Infection was not in the flesh then but in the-mind? The memory? At any moment I knew I might feel that blinding shock thrilling through me, the exploding burst of energy that meant another death.

Paynter knew. He had read my memories. He wasn't top man, of course. When his findings were integrated the orders might be simply, "Kill Cortland." It's what I'd have done in their place. It was only logical.

So they expected me to wait, did they? Wait for what, the firing squad?

Well, maybe I wouldn't do it. I felt like laughing when I remembered how complicated life had seemed back in my own day. There I'd had only one time, one space, one Jerry Cortland to consider. And even then I'd been on the rollercoaster with a splinter in the seat of my pants. Now Jerry Cortland was dead. He was lying in a heap of dust in a cavern somewhere on another planet for all I knew.

Illogical? Oh, sure. For now I was up against something too big for the human mind to comprehend, really and—irrationally—I felt cheerful.

I saw another of the pale green oranges floating along the stream and plucked it out deftly, sank my teeth into it It was alcoholic, in a mildly exhilarating way. I let the tingling juice run down my throat and—

Tow are in great danger," a voice in my brain said coldly and suddenly.

- I clapped my free hand to my head and pressed the bone beneath the skin in some primitive impulsive attempt to nassage the devils out of my brain. He was there—De iJtalb, Belem—with his cold metal gaze looking out through «y eyes and his cold metal thoughts moving through mine.
- "Can you read my mind?" I asked, all but vocally, mak-fcg the question clear in the front of my mind.
- "No. Only when you put your thoughts as clearly as this. Hease try to keep them clearer. That fruit you are eating— ft fogs the mind. Throw it away. I must consult you now."
- -Deliberately I took another deep bite of the alcoholic or-
- ••ge. No one had invited him into my mind, I thought
- somewhat incoherently, the Swan Garden looking pleasantly blurred before me. I had no real reason to trust either De Kalb or Belern. I didn't like the way the Mechandroid could crawl into my head, pull up a chair and settle down for a free sight-seeing trip.
- If it worked the other way now—I'd enjoy a quick round-trip through Topaz' mind, for instance. She was not only lovely but unpredictable as an ocelot. I'd have given a good deal to look into her mind. I imagined it would surprise me. And as for Paynter—I knew his type. He had that conviction of absolute rightness that makes fanatics. He hadn't left me entirely on my own, I was pretty sure.
- "Drop that fruit," the voice in my mind said. "Drop that fruit."
- I didn't intend to. I started to flex my elbow to bring the orange up for another bite—but my muscles weren't working very well. They weren't working at all. My arm went lax, my fingers turned into putty and the orange fell with a splash back into the stream. Regretfully I watched it bob away.
- "Do you see that purple fruit?" the inexorable voice inquired. "There, coming over the bend. Catch it."
- I decided to do nothing.
- I found myself plucking a purple object shaped like a cigar from the stream, lifting it to my mouth, biting off a section. It was succulent too, but astringent. The giddy elation began to leave me. More soberly I took a second bite.
- "Very good," Belem's disembodied voice said. "I don't want to work that hard again. It isn't easy to do this. You may need all the strength I can give you sooner than you think. Don't make me exhaust myself fighting you."
- "How do you work it?" I inquired with the front part of my consciousness. "Where are you, anyhow? Isn't it crowded in there? Look out for the left lobe—it's slippery."

- "That is probably humor," Belem said coldly. "Wasted on a Mechandroid. I have no intention of telling you how I do this but there is no reason why you shouldn't know where I am. Exactly where you saw me last. My body remains in stasis while my mind is in close rapport with yours.
- "I can see and hear and feel everything you do. I can read your clearer thoughts. I can, with a great effort, con-
- trol your motor reflexes for a brief time. Whether you like it or not your fate and mine are now linked until I can effect a separation again."
- "For better or worse\" I said wildly. "For richer or poorer —I see another orange coming along; shall we have one together?"
- "Finish that purple fruit," Belem ordered, "You may need another. I am going to take you through the transmitter now to a certain underground region whose existence we have suspected for a long while. I learned its location during your rapport with Paynter.
- "It is a highly secret place but together I believe we can enter it and perform an important task. I believe it will in the end be as important to you as to us. In some way none of us yet understands your destiny and mine are linked through that time-axis where we both have slept. We—" "Don't forget Paynter was there too," I reminded him. "I know. I've explored your memory along with Paynter. I know all the essentials now and I believe I begin to get a glimmer of the pattern. Our first task is to visit the Government Subterrane. If you will turn to the left now and go back along the path to the transmitter room—"
- "Why should I?" I was feeling sullen as the exhibaration died in me. "This is my brain, not yours. I have my own problems. Go crawl into somebody else's mind or do your own dirty work. I'm in enough of a jam right now with Paynter, or I will be when—"
- "When he realizes that you are a carrier for the nekronic killer, exactly. Paynter will not hesitate to sacrifice you when the time comes. When it does you'and I will be at a safe distance, with the object I mean to get in the Subterrane. Now will go or must I force you?"
- I started to speak—aloud in my anger—but before the words could come there was a ripple of self-conscious laughter among the star-shaped leaves and Topaz swept forward through the fronds and spun around before me. She was covered with spangles, glittering, dazzling, flickering, all colors, clinging to her skin, her hair, her floating veils.
- "Oh, how beautiful I am!" she caroled, with an air of
- innocent vainglory. "Tell me, did you ever see anything so beautiful before?"
- "Never in my life," I assured her. "It's—" My jaw snapped shut on the last word. My muscles tightened and without the least conscious volition I found I had turned my back to her and was marching down the path toward the matter-transmitter. In my brain a cool, metallic mind seemed to be saying with an intonation of despair, "Human beings!"
- It was interesting to watch my own hands manipulating the buttons that selected the proper wave-bands for our destination. The process looked far too simple—there were only half a dozen buttons in all—but I assumed the Mechandroid, gazing through my eyes, tightening and releasing my muscles, knew what he was doing.
- He did. The room shimmered before me, disorientation and brief nausea shook us both together in gigantic oblivion and—
- We emerged into a large underground concourse—I think it was underground; it sounded and felt like it—thronged with busy men and women who paid me only the slightest of glancing attention as I pushed among them, half guided now and half of my own volition. There were people here in costumes so various that I suppose my own clothing was no more outlandish than anyone else's.
- I think this was a nexus in the great web of matter-transmission, under the surface of what planet I have no idea.

People from colonies all over the Galaxy must have changed stations here. I know I attracted no attention as I hurried through the cosmopolitan crowd toward a row of transmission rooms in the center of the concourse, closed the door behind me, manipulated more buttons.

It was curious, I thought to myself as the familiar disorientation swam through my brain, how little I was seeing of this marvelous world of the middle future. Topaz had assured me that cities were obsolete and mankind lived in luxurious isolation wherever his fancy dictated.

Yet all I had seen so far, except for the Swan Garden, had been the underpinnings of the culture, the girders upon which its farming luxuries were builded. What lay above-ground, on the flowering surfaces of the planets, I was not to know, then or—perhaps—ever.

The room steadied about me. The door slid open.

- I looked down a long corridor bathed in white light.
- "This is the Subterrane," Belem's voice in my brain said.

#### XVII THE WORLD OF BELEM

HAD I been expecting something semi-miraculous I should have been disappointed. I had seen similar passages under Grand Central Station. Here there was nothing at all unusual—simply a white corridor, empty and silent.

"In your day," the Mechandroid told me, "this would have been a grouping of thick doors and locks. The Subterrane is the arsenal of the government. It isn't on Earth. Walk forward."

I obeyed. I felt a brief tingling, a rather pleasant vibration that passed and was gone.

"You have just passed between a cathode and anode that would have disrupted the brain of any Mechandroid. The pattern is keyed so that it's harmless to humans. No Mechandroid has ever been permitted in the Subterrane— till now."

So they were vulnerable after all.

"Why, yes," Belem remarked, surprised. "Every existing thing is capable of negation—of altering its condition to non-existence. The less adaptable an organism, the easier it is to destroy. But this cathode-anode device is not portable and its field is quite limited.

"It is useful only for defense—not for offense. You would be destroyed, too, if you hurled yourself on a sharpened stake. The other devices are aimed at human beings who aren't wearing the protective helmets. Luckily—"

I wasn't in a corridor any more. Not a normal corridor. Planar geometry had suddenly and empirically been disproved.' My eyes, conditioned to normal perspective, went dizzily out of focus as abruptly as gravity itself seemed to alter.

You can't describe the indescribable. Lines of perspec-

tive meet at the vanishing point—sure. So they say. But the walls and floor and ceiling of the white-lit tunnel curved in insanely a few feet ahead of me, crossed somehow and re-extended themselves toward me like a tapering cone. Such distortions of matter may be normal at the end of the universe but you shouldn't be able to reach out and touch—Touch? But I couldn't even do that. Gravity had gone wrong, too. I suspected there was a riptide in the semicircular canals of my ears. Because I felt that I was falling, no matter in what direction I looked.

There was no corridor. There was only white emptiness. Dead white and featureless except for the cone that pointed accusingly at me. I tried to move forward and a horrible, sick, giddiness loosened my muscles and then tightened them again as I strained to stand rigid. As long as I didn't move an inch I might not fall.

"Walk forward!" the voice in my mind insisted. I shut my eyes and walked forward. At Belem's annoyed command, I reopened them and either fell or ran toward the white cone that was the corridor itself extended beyond infinity and in geometric reversal. As I moved I found myself

curving away, along the line of the distortion, so that without knowing how it had happened I was hurrying in the opposite direction with my back to the

## cone.

- "I can't do this too often without resting," Belem said. "Open your mind. Relax. Let me control your muscles. This illusion is for human eyes only. I can screen it out and see the right way.",
- It took tremendous effort on my part to keep my eyes open and my muscles relaxed. That disgusting falling sensation kept growing stronger and every sane instinct I had reacted violently at what my optic nerves described. I was walking into a vanishing point—that was the only way to describe it. I walked right into the point of the white cone and through it—don't ask me how, because it was an illusion—and then I was in the white corridor again.
- I took ten unsteady steps, and came out into a wider tunnel that stretched, curving, to left and to right. Belem guided me to the left.
- There were hieroglyphics on the walls at .regular inter-
- vals but I didn't realize they indicated doors until the Mech-android told me to stop. All I had to do was touch the wall and a shutter opened like a cat's-eye, slitted, then oval, enlarging till I could step through into the room beyond. Behind me the panel closed noiselessly.
- It was a large room and there was a matter-transmitter in a corner. The walls were banked with paneling carrying the most complicated set of controls I had ever seen. On a glassy pillar in the center of the floor was a transparent box, small enough to hold in my palm, and it was bathed in a sparkle of glittering lights that poured out from two pencil-like cylinders embedded in the pillar, one on each side of the box.
- Within the box was a golden marble.
- "I know," I said dizzily. "It'll grant me three wishes."
- "That type of humor is a defense mechanism against fear," Belem told me unsympatheticaUy. "Here is the main reason why I chose the difficult and dangerous method of entering your mind. No men of this age would have gone with me this far. They're all conditioned against Mechan-droids.
- "You were the only one who could and would have got into the Subterrane. In that transparent box is, I think, the only weapon against which we have no defense at all. As long as it's within the field of radiation, as it is now, it's harmless. Remove it and, within two minutes, it, becomes activated."
- "Whatisitr
- "A complicated pattern of energies. It's positively charged now. When it's activated, it becomes negatively charged. Then it creates a dead field for nearly a mile around it, in which no matter-transmitters will operate."
- "That doesn't seem so dangerous. You can get along without matter-transmitters long enough to walk a mile, can't your
- "Not if we're under seige. You saw our laboratory. Warfare is still a matter of siege unless one wants to wipe everything out and they don't. They'll want to inspect our work. With matter-transmission you can't besiege a place.
- "Everyone inside would simply leak away and escape, taking all their important work with them. This one weapon
- here is the only completed matrix available at this time. It takes a long while to complete the necessary energy-pattern. So, if we eliminate it, we can stand off a siege long enough to clear out the laboratory."
- "Eliminate it how?"

"Set the matter-transmitter controls to—anywhere. Some obsolete receiver at the edge of the galaxy, maybe. Pick up that box and—fast!—put it in the transmitter, before the radiation dies and it activates. Then the box will appear at the edge of the galaxy and paralyze energy facilities there."

"For how long?"

"I don't know. Long enough. It wouldn't harm humans but they'd have to walk to a station outside its field. The box can't be moved, incidentally, or you could just carry it to a spot beyond the range of the nearest transmitter. After it's activated it has almost absolute inertia. Right now, though, it's portable. Can you touch it?"

I put out a tentative hand that was stopped in mid-air about a foot above the box. I pushed against nothing. I couldn't pass the invisible barrier.

"I thought so," Belem said. "That stud in the pedestal -try pressing it."

I did. I reached for the box again. This time I could do it. The defense field, whatever it had been, was gone. The box was not very heavy. I set it down again with care.

"All right," I said. "Fine. But what about me? Why should I help youF'

"Paynter will kill you if you don't," Belem said patiently. "If he doesn't his superiors will as soon as it's established that you're a carrier of that nekronic killer, whatever it is. And I think I know. If you help me I believe I can solve that

problem too.

"There are two obvious reasons why I'll protect you. First, I can't get out of your brain until you're in physical contact with me again. If you're killed before then the psychic rapport impact may kill me too. After we finish this job you'll get in the transmitter and return to the world where I am now—the one where you first saw me. As for the second reason—"

A sudden, violent contraction of all my muscles, like a

simultaneous cramp in every limb, doubled me up without the slightest warning. I fell forward—saw the floor hurtling toward me—and felt my rebellious muscles relax again just in time to save myself from a crash. I was so startled that I scarcely noticed the lance of gauzy light, tendriled like a cobweb, that floated in the spot from which I had just been hurled. But Belem's thought said, "Paralysis projector!"

What happened after that took almost no time at all.

When I got my feet under me I whirled and faced the opened door-panel and the man standing there in arrested motion, weapon lifted. It was Paynter, his pale eyes glittering, his mouth drawn down in a grimace of anger and surprise. The weapon had a basket-hilt and a muzzle that looked like rubbery lips, puffing in and out petulantly.

Belem had sensed his presence before I did. It was the Mechandroid's control of my motor reflexes that had jerked me forward in a spasmodic dodge that barely cleared the blast of the puffing weapon.

I had no weapon of my own. Paynter was centering his on me for a second, more accurate shot. I hadn't the ghost of an idea how to avoid it.

"What do I do now?" I demanded in desperation of the mind in my brain.

"I don't know-be quiet, I'm trying to think!" was all Belem had to offer.

I sought Paynter's eyes, trying to put hypnosis into my own, saying, "Now wait a minute, Paynter! Hold on! I-"

He did not answer in words. He raised the weapon and took deliberate aim at me. I wondered whether he had been following from the first, how much he knew—why he chose to kill me now, without

hearing a word of defense. He wasn't even curious about how I'd got here.

The puffy mouth of his weapon sucked in deeply and began to pout out again. In another second a web of light would shoot out at me and there was no room here even to dodge again, without colliding with that pedestal upon which the marble in its glass box rested. If I dodged I'd hit it

## If I dodged I'd-

That was the answer, of course. So obvious neither of us

had seen it. It was the simplest answer in the world. I almost laughed as I snatched the glass box from its resting place and, in the same quick motion, hurled it straight at Paynter's face.

No one can say he wasn't fast. His mind recognized the danger I had dropped in his hands in the same instant his muscles reacted. There was only one possible thing to do, and he did it. He dropped his gun and caught the precious and terribly dangerous box in mid-air.

I didn't stop to watch. I was already halfway through the door of the matter-projector by the time Paynter's weapon hit the floor. I slammed the door shut with one kick and put my hands on the wall where the dials were.

"Belem!" I thought urgently.

On the other side of the slammed door, Paynter would be rushing the box back into place, back into its bath before the two-minute interval elapsed that would activate the thing and stop all matter-transmission for a cubic mile. If he fumbled it I was stuck here—unless Belem moved fast.

Luckily he moved. My fingers, without my own volition, were hastily spinning the verniered dials. Tarnished metal walls flashed into view around me.

#### XVIII SPACE WRECK

BELEM said, "No, we're not going out. We're in the transmitter of an abandoned space-ship around Centaurus II. We located it from our laboratory years ago. We know a good many of these out-of theway transmitters, useful in cases just like this. I can't set the controls to take us directly to my headquarters or Paynter could simply read the dials and follow us as he did from the Swan Garden."

I found I was breathing hard. The Mechandroid said we'd have to hurry. "We transported several cubic yards of air with us bfe that won't last long. Here, let me-"

I watched my hands move deftly on the corroded dials.

I had one dizzying moment in which I thought of the terrible deeps of space all around us, the dead ship circling an alien star-group while our last air seeped out around us into the infinities of the dark.

Fortunately for my own sanity, I had very little time in my turbulent hours in this middle future to pause and think. I had been catapulted into a culture so different from my own that my mind could not, I think, have endured the concept of those vast spaces which everyone here took as a commonplace. It was only in the small, unchanging superficialities of the culture that I could conceive bf it at all.

The walls shimmered, blurred—were translucent metal through which I could see a circle of bright green grass and a ring of low-roofed houses whose eaves turned up like Chinese roofs. The only living things in sight were a pigeon, flying low and trailing a red ribbon in its beak, and a dog who ran below, jumping to catch the ribbon now and then. I could hear it barking.

"Hurry," Belem said and my hands found the dials on the clouded transparency of the wall. These dials were set in rings of colored tile but they worked like any other dials. I turned them, the room blurred . . .

I had had no idea there could be such a variety of transmitter-receiver rooms. Few of them had

transparent walls, so that I had to guess what lay outside, but the rooms themselves ranged from functional steel boxes to padded lounges. Several times they swam with the perfume of exotic unknowns who must just have stepped out after a trip from—who could begin to guess where?

And once two wilting flowers the size of dinner-plates and colored a deep plushy crimson lay on a glass floor where some traveler had dropped them, stepping out. They went with us through four transitions and we left them at the fifth when Belem said at last, "Here we'll get out. It's another concourse. I think we'll be safe now if we take a long jump to my base laboratory. Open the door."

Like the other concourse it reminded me vividly, of the Times Square shuttle. Crowds hurried across vafct open spaces, vanished into cubicles and poured from other cubicles

in an intricate mesh of movement that linked a whole galaxy together.

"See that row of doors with the blue lights over them?" Belem said. "Try to find an empty booth. I think the third from the end-"

A door opened as he indicated—with my own hand— which one he meant and a fat man in a long furred cloak upon which snow lay in still unmelted crystals came bustling importantly out, beating his cloak as he came.

I stepped in, closed the door, avoiding the puddles of melting snow which the fat man had tracked in from some world I couldn't imagine. Perhaps Earth.

"These rooms would be a fine way to spread disease, wouldn't they?" I asked Belem as I reached for the dial. "No telling where this snow-water came from, but it'll go along with us, I suppose, and we'll track your laboratory with melted water from Neptune or Canopus or—"

"It is most unlikely," Belem began pedantically in my mind, "that you would find snow-"

"Okay, okay. Forget it." I had just uncovered a disturbing thought. I was a carrier of disease myself. Had I been sowing the nekronic death on a dozen worlds already, leaving the virus in transmitters for those who came after me to carry still farther abroad?

"There is no way of knowing that yet," Belem said. "Turn the dials." I did.

It seemed to me that this time the vibration of the transmission was a little longer and more violent than before. I wondered if we were going an unusually long distance. Then the room steadied again and I pushed open the door.

I expected the laboratory, enormously braced, enmeshed with catwalks and, sparkling far across the room, the bright neural, webbing that meant the dangerous man-machine was in the making. Perhaps Belem's motionless figure would stand there waiting beside the door.

I looked out into the seething concourse we had just left. The fat man in the snowy cloak was only a dozen paces away in the crowd. We had not stirred from this station.

"Try again," Belem said in my mind, after what seemed a very long pause, full of strain.

I tried. The room shook and blurred, steadied. I opened the door. \*

The concourse was till there. This time the fat man had almost vanished in the crowd though I could still see his fur cloak swing out as he dodged to avoid a group of adolescents with bright knapsacks on their shoulders, bound for—what resort world in what distant corner of the galaxy?

"Shut the door," Belem said. I got a feeling of tight-reined control from his mind superimposed upon mine. He was frightened, trying to keep panic down. "This is very simple," he said, perhaps as much to himself as to me. "The receiver in our laboratory is no longer working.

"It can mean only one thing-Paynter must have known all along where we were. Or he had access to those who did know. However he found us he must already have sent the weapon ahead." He didn't name the weapon, but I caught his mental picture of the golden marble in the glass box.

- "All right," I said. "That lets me out, then. We're finished."
- "Not at all." Belem's thought was sharp. "We must find the nearest receiver to the laboratory that works. It will be somewhere in the city. Then we must waBc. There are secret entrances the government can't possibly have found yet. After all there hasn't been time for much to happen. But I must get back to my body and you'll be safer with us than with the government."
- "It looks more to me as if we'd be safe in jail together," I said.
- "Try the dials again," was all Belem replied.
- Someone was knocking impatiently on the door of the cubicle as the walls shimmered again and the long stretches of infinite space drew out between this world and the nameless place of the laboratory. I suppose the particles of my body dispersed along that path and reassembled again. I never did know much about how it worked. But when ' my head cleared I was in another room, smaller, square, smelling of machine oil. I opened the door.
- This was it. I remembered the strange, pale daylight, the bands of thin borealic light across the black sky, the double sun swinging far off and not very bright above the time-ruined city.
- But it was a very busy city this time. Men in uniform were hurrying through the streets in low square cars that floated without wheels, quite fast. Groups of them flickered and materialized and groups flickered and were gone at the transmission-centers which were this city's transportation system. Far off over the rusty roofs a cone of blue-white light, blinding in that dark daylight, seemed to clamp down over something at the city's edge—I could guess what.
- "Hurry," Belem said in my mind. "Out here, around the next corner and step on the black disc in the pavement. If you move fast I don't think anyone will recognize you, though a cordon must be out for you by now. They'll expect us."
- "Me, not us," I said, dodging through the doorway. "I wouldn't be surprised if Paynter let me go and then trailed me with the idea I might lead him to you. He'll have a lot of explaining to do now that I'm missing. But he can't have guessed you were there—more or less—all the time. Here's the disc. Now what?"
- "Step on it," Belem said. "The dark half."
- The circle was six feet across, half dark, half palish.
- The pale half was unmarked, but the dark half had an arrow inlaid in it which was pointing right.
- I stepped gingerly on the arrow.
- I was standing on the pale half of a large disc. But not the same one. The buildings were different around me. A carload of soldiers drifted rapidly past toward one of the bigger discs, floated over it, centered and vanished.
- "At the next corner," Belem urged me. "Take the dark half again. Hurry!"
- Leap by miraculous leap I traversed the dark clear air of that curious city. And as I went it seemed to me I began to get a glimmer of the decoration which had once made it spectacular in its heyday, something one couldn't see from a single standpoint but grasped bit by bit as one went through great arcs and vistas of its streets.
- One bit at a time showed nothing but each leap through
- space, each glimpse from a different point, built up a little more of the plan in the memory, so that eventually a strange concept of the art emerged, a step farther than the architecture of my own day, when solids and surfaces were used. Here movement and distance were of equal importance. Like a moving picture, except that it was the city which stood still and the watcher who moved.
- Presently Belem halted me. We had come out near a fenced enclosure full of hunks of junked machinery, floating cars that still hovered motionless just off the ground, all their ribs showing, small lifeboats from beached spaceships, odds and ends of jetsam wholly nameless to me.

"Over there, the little ship under the girders," Belem said. "Make sure nobody's watching, then climb into it."

I did, wondering who had last sat in the tattered leather bucket-seat before the instrument panel, what he had seen through the glass, what wrecked liner and whirling stars. Belem interrupted the fancies impatiently. Under his orders I pushed the seat aside and pulled up a trap in the floor. A ladder went down.

Nobody had discovered this passage yet, though I expected to find at any corner that somebody was waiting for me with a paralyzer that puffed rubber lips inv and out. At the end I tapped a signal on a metal door and after awhile someone pulled it creaking open.

The gigantically braced laboratory was blue with smoke and bluer with the bunding light of the cone that hung above it, glaring through the broad windows.

Belem's motionless figure waited where he had left it.

#### XIX THE MARBLE

IT WAS curious to look into his face and find it alien, he who had been so intimate a part of my mind. The emotionless features, the strange, quicksilver eyes belonged to De Kalb but the voice was—as I/pointed out to him—the voice of Esau.

He wasn't amused. He seemed to find his own body rather strange for a moment or two, for after he had left me he tried it out stiffly, moving to and fro with short steps.

"You look like De Kalb," I said, watching him. "You move like De Kalb. Belem-wftere is De Kalb now?"

He gave me a swift, strange, emotionless look. "I told you I was beginning to understand," he said. "I was. But I haven't the full answer yet and—look, Cortland."

I followed his gesture. The enormous room, braced with its monstrous girders, lay before us. There was orderly activity all through the vast place, centering around a control panel that might be the device creating the dome of light that shielded this area, a white wall curtaining off everything outside the windows. Sometimes coruscating flashes sparkled here and there along the curtain. Attacks—failing? So little time had elapsed, really, since we left Paynter. This siege must be less than half an hour old and its full violence yet to come.

Under a web of shimmering fire at the far side of the room the table still stood with a body stretched out on it. Here most of the figures were at work on their second-stage Mechandroid, waiting for it to come alive.

"That's the most important thing that's happening here now," Belem said gravely. "I'm needed. I have no time nor mental energy to spare to solve your puzzles for you. Later, if we live, 111 try."

He turned swiftly away from me and crossed the big room toward the table. I followed in silence.

The second-stage Mechandroid lay quiet on its table, its eyes closed, the face serene and not quite human. There was, I thought, a remote familiarity about it too. Belem? I glanced at him, recognizing a likeness but not enough to explain the feeling that I had seen this man before. Man? Machine? Both and either.

"Is he alive yet?" I asked.

"It should take about four days more," one of the workers answered in English,. speaking with mechanical precision. He sounded as if he had learned the language from records, so accurately that he reproduced even the buzz and click of the recording machine.

"He is beginning to think and be alive already, but he

will not be finished for four days. Before then our defenses will have gone down, I think. We

haven't enough power to maintain the blocking » screens for long."

- "Couldn't we all go out the way I came in?" I asked. "We could not take him along. No, it's impossible. All we can do is defend ourselves as long as we can and hope to finish in time. I doubt if we will," he added casually.
- "The other time a second-stage Mechandroid was attempted," I said rather tactlessly, "they blew up the whole city, didn't they? Why don't they do it now?"
- "That was recognized as an error at the time," Belem told me. "They have improved siege weapons now and they will be curious about our devices. We must do the blowing up ourselves to prevent them when the time comes." "But you'll go right on working until—" "Naturally." Belem sounded surprised. "There is a demonstrable mathematical chance that we may succeed. It would be foolish to throw such a chance away. I was set a problem, you see, and I must work to solve it as long as I am able to move and think. This is part of the solution—this second—stage Mechandroid."
- "I should think," I said with even less tact, "that you'd have a sort of built-in block against making anything really dangerous to civilization."
- "So we have, within limits. This creation will not be basically destructive. Paynter is wrong. Human thinkers are very often wrong. The Man-Machine will endanger only obsolete things that should be destroyed. Humans ignore the obvious fact that machines can evolve exactly as men can. They have evolved.
- "What is a city but a machine? Sooner or later it would have been necessary to create a secondstage Mechandroid anyhow. The coming problems will be too complex for solution by either humans or Mechandroids."
- Belem looked down impassively at the serene sleeping face. Then he turned and walked away with a purposeful stride. I trailed him curiously. We ducked under girders and circled groups of workers who ignored us, reaching at last a rusty wall that opened under Belem's touch. I looked into the time-worn room of matter-transmission from which I had first glimpsed this scene.
- On the rusted floor a silver marble lay. That was all.
- "It was gold before," I said stupidly.
- "Simple transmutation. It's a tricky pattern of radio-elements."
- "It's so small," I said.
- "Pick it up."
- I tried. I could easily slip my fingers around it but it wouldn't budge. It might have been riveted to the floor.
- "Nothing—no known force—has power enough to move a negatively-charged activated matrix of this type," Belem said.
- "The well-known immovable body."
- "Eh?"
- "You know that paradox. What happens when an irresistible force meets an immovable body?"
- "But the existence of one automatically negates-"
- "That's just my compensatory humor," I said. "I'm scared to death, so I'm joking." He didn't seem entirely satisfied. Well, neither was I.
- I kicked at the thing and hurt my toes.
- I can't describe that battle because I didn't understand what was going on. It was probably an epic. I couldn't tell. Outside the windows the shining wall occasionally sparkled and sometimes

bells would ring and the needles on gauges would jump wildly. From outside our protective shell it was probably a more spectacular scene.

Inside there wasn't even a feeling of tension because the Mechandroids went calmly about their duties and showed no sign of nervousness. Belem got busy on tasks of his own. I wandered around and watched, trying to make myself believe I was a war correspondent. Sometimes I went back and looked into the matter-transmitter at the silver marble. It just lay there.

That was the strange, yet obvious point about this future— I didn't understand the simplest basic things. I got glimpses of the Galaxy in operation, but I didn't know why it worked that way. A Neanderthaler legman on the Piltdown Chronicle might have had some similar difficulty in writing a feature story about Oak Ridge so his hairy readers could understand it.

Well, with matter-transmission, you could live on a planet

named South Nowhere, right on the edge of the Galaxy at the jumping-off-place, and yet be able to reach out your hand and pick up a California orange, practically fresh off the tree. \*

Space didn't mean anything any more, so concepts of thinking based on familiar spatial frames of reference had to change. Except, perhaps, as far as initial exploration went. The first matter-transmitter had to be taken bodily to its destination. After that you could step into a transmitter on earth and step out on South Nowhere.

So, in a war in this time, the trick was to immobilize your opponent. Nail him down—as we were nailed down. After that, just keep pounding.

What we needed was a claw-hammer to pull up that nail.

I had seen enough of this future to begin thinking galac-tically. Stray thoughts crossed my mind-random concepts involving yanking Centaurus II out of its orbit, clamping on a tractor-beam-what the devil was a tractor-beam?—and letting Centaurus pull up the silver marble, as a tractor pulls a mired car out of the ditch. I mentioned this idea to Belem. He said it was a striking bit of fantasy but not very practical—and what was a tractor-beam?

Discouraged, I sat down and thought some more.

"What makes you think the second-stage Mechandroid can destroy the nekron?" I asked Belem.

He kept working on a cryptic device composed chiefly of vari-colored lenses. His placid face never changed.

"I can only hope so," he said. "He was designed expressly to solve that problem and he will have a fifty-five-power brain, compared to my twenty-power one. Hell be a tool— an extension of the social mechanism."

"With free will?"

"Yes—within obvious limits. Hell have to fulfil his purpose. He wouldn't be functional unless he did that."

"What is his purpose? Besides destroying the nekron?"

"I told you he was an extension. Like the specialized tool of your hand."

"But I can control my hand."

"Not always consciously," Belem pointed out. "If you suddenly found yourself falling your hand would seize the

nearest grip. Extend that parallel a bit farther and imagine your hand has a brain of its own.

"It will do—within its limits—what a hand can do best and it would know its potentialities better than you could. And it wouldn't try to rebel, because it's part of the unit. The second-stage Mechandroid is a better hand for humanity—or a better brain in matters of intellect and logic."

He turned to his work again, flashing lights on and off at what looked like random. After a moment he went on speaking.

"As for the nekronic matter itself, it may be symbiotic or vampiric. I wonder. Thought and matter are very similar. It may be that nekronic matter has the potential ability to embody itself provided it finds a suitable host. It's significant that the creature itself is superficially manlike. Quite possibly it uses whatever prey it feeds on as a pattern from which to shape itself."

"You think it feeds?'

"You know as much as I about that. Probably more if you were capable of thinking the thing through. We don't know why the embodied nekronic entity kills. The most obvious solution is to replenish itself, to spread. Even a null-entropy organism might do that, in a sort of reverse pattern from the norm."

He flashed a blue light thoughtfully and considered the results. So far as I could tell, there had been none but Bel-em seemed to fall into a minor trance for a few minutes, considering his work.

I was watching a rift like black lightning that ran across the light-wall outside. A red cloud puffed through but the gap healed swiftly and the cloud was dissipated.

Belem twisted a dial, bringing two lenses into sharper focus. "Very likely we'll never know," he said. "We can't last much longer now. A War Council has taken command of this planet."

"Not Paynter?"

"He's one of them. That's odd. They've outvoted him three times already on the question of attack. He doesn't want us destroyed—which means he doesn't want you destroyed."

"Nice of him," I said. "After he tried to kill me in the Subterrane."

"Paralyze, not kill," Belem corrected.

Silence after that, while Belem worked and I watched. "What would happen if you had time and material enough to make another of those marbles?" I inquired idly, after a while.

"A great deal. Both matrix-weapons-technically they're electronic matrices-would be negatively charged, and would repel each other. Unfortunately we have neither time nor equipment for that."

"What you need is a hacksaw to split that marble in two," I said. "Then they'd both change from immovable bodies to irresistible forces and shoot each other out of the galaxy. Right?"

"Wrong. Besides being impossible it wouldn't help. You wouldn't have two electronic matrices of the same pattern as before. It's exactly the same reason why the second-stage Mechandroid wouldn't be dangerous to the social body. The whole is never larger than the sum of its parts, and the sum of the parts always equals the whole."

"Then you never heard of Banach and Tarski," I said. ^Whor

"Once I was assigned to write a feature science story on their experiment. I did plenty of research, because I had to find human interest in it somewhere and it was pure mathematics. The Banach-Tarski paradox, it was called—a way of dividing a solid into pieces and reassembling them to form a solid of different volume."

"I should remember that," Belem said, "since I have all your memories. It was only theoretical, wasn't it?" He searched my memory. I felt uncomfortable as though, under partial anaesthesia, I watched a surgeon investigating my digestive tract.

"Theoretical, sure," I said. "But I did a repeat on the subject later. It took twenty-three years before somebody figured out how to apply the trick to a physical solid. I forget the details."

"No you don't," Belem said, turning from his work and staring at me. "You have no control over

your mind, that's all. But the information is stored there. Apparently I didn't

get all the details when Paynter searched your memories. There's a name-Robinson?"

"It could be. I don't know."

His face showed no change but I thought I sensed a growing excitement within him. "Cortland," he said, "I want to enter your mind again. I think-"

## XX LAST DEFENSE

APPARENTLY he thought I might object—not that that would have made any difference—for the next thing I knew the quicksilver eyes were growing larger and the next instant they had changed and refocused so that I saw them, as it were, behind my own eyes. I could see the motionless body of Belem standing before me but bis face was blanker than ever.

Within my head, he spoke to me. "Remember. It's all there, in your memory. The right associations will recall it. The unconscious never forgets anything. Robinson. The University of—"

"California," I thought and something clicked and swung open and I saw a page open before me—a page I had first read thousands of years ago—and the fine print swam into remembered visibility.

'Professor Raphael M. Robinson of the University of California now shows that it is possible to divide a solid sphere into a minimum of five pieces and reassemble them to form two spheres of the same size and the original one. Two of the pieces are used to form one of the new spheres and three to form the other.

" 'Some of the pieces must necessarily be of such complicated structure that it is impossible to assign volume to them. Otherwise the sum of the volumes of the five pieces would have to be equal both to the volume of the original sphere and to the sum of the volumes of the two new spheres, which is twice as great.' "

That was all. It wasn't as much as Belem would have

liked—I could feel his impatience and the way he seemed to be shaking my mind over for more details but I couldn't give him what I didn't have. After awhile the metallic mind unlinked from mine and in a moment the motionless figure before me stirred, turned without a word and began making tentative drawings on the corner of a chart convenient upon the wall.

When I asked him questions he told me remotely to go away.

That was how it started. There's no use in my trying to tell you how it ended. I didn't understand. It would be ridiculous for me even to pretend I know how it was done in concrete fact before my eyes. But it was done.

Not easily. Not quickly. In fact it came dangerously close to not being done at all, simply because it took so long.

I was able to watch the first stages of Belem's experiments. He knocked down the problem of lenses and lights upon which he'd spent so much time and began setting up theoretical paradoxes in three dimensions, following the Banach-Tarski geometric plan. I watched him playing with ghostly spheres and angles of light until my head began to ache from following the changing shapes. What he was attempting was clearly impossible. I wandered away after awhile and watched the play of lights outside. The display had recently become a lot more spectacular and more interesting to watch but that was not good. Even I could see that, though nobody would answer my questions. The methodical machine-men were not panicky but you could see they had accelerated their pace. They were recognizing the need for hurry.

The second-stage Mechandroid on its table had changed, too. The brilliant neural webbing above it had simplified. Light ran now only in the main channels, letting the finer nerve-wires run very pale, but the synapse-points glowed like stars along the major lines.

And there was a pale glow hanging like a cocoon of radiance low over the motionless figure.

I watched little groups of workers cluster around it, bending their heads together over the table, and I had the impression that they were communicating with their new-born super-kinsman. I even got the idea that he was advising

them, for those who left the group went directly to work with a fresh impetus.

It was a little like what must go on in a hive as the workers cluster around the queen-mother.

They were very definitely working against time now- perhaps against hours, even minutes.

It was when the black lightning opened a second rift in the wall of shielding light that the last galvanic spasm of activity before the end stirred the workers to their final

tasks.

Another red cloud puffed through the wall where the lightning had ripped it but this time the breach did not close. Instead, a horizontal pillar of red light lengthened through the smoke, unfolding straight toward the laboratory

walls.

It was then that a bell rang behind me.

The effect was electrifying upon every Mechandroid in the building. Like everyone else I turned to stare. Belem was standing back from his work-table, a look of smugness upon his otherwise expressionless face.

"This is it," he said.

Even the crowd around the neural-web table thinned as the workers in the laboratory flocked around him to

watch.

He had a sphere about the size of a grapefruit, floating in mid-air above his table. He did things to it with quick flashes of light that acted exactly like knives, in that it fell apart wherever the lights touched, but I got the impression that those divisions were much less simple than knifecuts would be. The light shivered as it slashed and the cuts must have been very complex, dividing molecules with a selective precision beyond my powers of comprehension.

The sphere floated apart. It changed shape under the lights. I am pretty sure it changed shape in four dimensions, because after a while I literally could not watch any more. The shape did agonizing things to my eyes when I tried to focus on it.

When I heard a long sigh go up simultaneously from the watchers I risked a look again.

There were two spheres floating where one had floated before.

"Amoebas can dp it," I said. "What's so wonderful about reproduction by fissionr

"Don't bother me," Belem said. "But get ready to leave when I give the word. There isn't much time left." He cast a worried glance at the window.

All over the enormous room an orderly withdrawal was in progress. They had taken down the neural webbing over the big table and were setting up a lower webbing on the table itself, just within the radiation of that cocoon of light. I could see now that the table was no longer supported on legs but floated free of the floor. They were ready to move it, obviously, which must mean that matter-transmission was about to resume operation.

'Take this tube," Belem said, "and go over to the transmitter. Careful, hold it with the blue side up. I'll be with you in a minute."

"Even if you can do it again with the silver marble," I remarked, taking the tube, "can you be sure you'll be any forrader? Nothing much happened when these two spheres shaped up."

"The marble, as you call it," Belem said, busily unhooking a glass spiral from its base, "is in effect an electron now, a negatively charged unit. Have you any idea how many tons of repulsion exist between cathode-ray particles, for instance, no matter how far apart they may be?

"You're about to see a demonstration. The degree of repulsion is practically infinite for our purposes. When you get over there, open the transmitter door—and hurry, will you?"

The silver marble lay there on the floor of the transmitter, dully gleaming in the red light from the laboratory. The light was red because that cylinder of crimson had breached the protective radiations outside and was reaching inward, quivering back under the assaults of defense-lights, but stubbornly gaining yard by yard toward the laboratory wall.

Belem worked methodically, setting up his tubes and prisms. The table cocooned with bright webbing floated now just beside the door, ready to go out first when

transmission functioned again. I could see dimly the face of the sleeper inside. The serenity of that face was impressive in a way I can't describe.

The second-stage Mechandroid slept, yes, but he wasn't wholly asleep now. The mind of the machine was awakening. It was time for it to wake. I could feel something in the very air that told me what was happening behind those impassive, emotionless features.

The shape of the features disturbed me, too. There was that haunting familiarity which I had no time now to track down. But I knew I had seen it before.

There wasn't much time for speculation. I think the laboratory defenses collapsed all at once. I heard no warning but overloaded screens suddenly went down with blinding soundless lashes between us and the attacking forces. I think Belem must have been drawing heavily on the power-reserves in order to finish his experiment in geometric paradox.

He didn't seem surprised, nor did the others, when there was a dazzle of red and green brilliance in conflict, streaming like colored lightnings through the vast room, making the twisted girders stand out in black silhouette. One of the Mechandroids at Belem's elbow said something in one of the languages of this age which meant nothing to me.

Belem asked him a question. I caught the name of Payn-ter in the answer.

Belem moved a prism. His voice was quick but very calm. And this time as he spoke I caught an overtone in the air which the others perhaps, had been realizing for some minutes. I can't say what it was. A pressure, a deep, serene wave, a quality of newness and difference too intangible to name.

But it was there. After a moment or two I knew what it was.

The sleeper was awake. Not physically yet. His body remained helpless in the cocoon of light. But the mind was speaking to the minds of his creators, a smooth strong mind functioning like perfect, machinery with a deep hum of power.

Belem laid down his tools and turned to me, gripped my arm, urged me away toward a sloping catwalk that spanned the great room.

"What's the matter?" I asked in bewilderment, following him willy nilly, because I could feel the metal of his machine-ancestry in that tight .grip. "Something wrong? Won't the gadget work?"

"It will work. You and I are needed elsewhere now. The others can handle the escape."

"But I wanted to watch-"

"There is no time. You won't see the demonstration, after all."

I looked at him dubiously. There seemed to be no threat in his tone, but then there never was.

"What's happening?"

"A platoon of men is attacking under Paynter. We must hold them back until the matter-transmitter is reactivated. I'm acting under orders. The second-stage Mechandroid is conscious enough to take charge. He told me what to do— look!"

XXI

## INFECTION SPREADING

AND that was when the last defense of all went down. There was a blazing flash of crimson that seemed to lick every corner of the room. It died and the white-lit air trembled a little in its wake. But only for an instant.

Then, from somewhere outside, a spear of red light drove at us and, almost concurrently, a steel piston, ten feet thick, shot out like a battering-ram after it. I had a single glimpse of that blank solid-steel muzzle rushing forward like a Titan's fist—then it crashed through the wall of the building, with a thunderous impact and a shriek of torn and twisted metal, and ripped an irresistible path through the great girders.

It halted.

That cylinder of metal must have been more than half a mile long. Thirty feet of it extended through the riven wall into the chamber where we stood.

The blank muzzle opened like a shutter. Through a trans-

parent wall I saw a little room banked with intricate control boards, and Paynter in a bucketseat, his eyes shielded by darkened lenses, his mouth drawn down in a grimace as his hands moved swiftly across the panel before him.

A section of the cylinder dropped away. From its interior came leaping men, hooded and armored 'by light-colored suits of webbing. Each carried one of the basket-hilted paralysis-weapons.

I risked a look behind me. Far away, down a long vista of arched girders, I could see the Mechandroids gathered in a little group about the floating platform on which the second-stage Mechandroid lay and I thought that quick flashes of light were moving there—the same knife-like stabs of brightness I had seen when Belem divided his experimental sphere.

But the soldiers of Paynter were getting dangerously close—more than a score of them, inhuman and frightening in their hoods and protective suits.

Deliberately Belem turned his back on the soldiers running toward us and looked at me.

Twice before I had had this experience. But it wasn't a trick you could get used to—the quicksilver eyes expanding, rushing forward, slipping, inside your head—and, impossibly, moving into place like supplementary lenses so that Belem was looking out through my own eyes, from within my mind.

I felt his will grip mine with paralyzing strength. Perhaps he thought I might resist. Certainly I would have, had I known what he intended.

Then he had control of my brain as well as my body. Belem's thought? But they were my own thoughts—superimposed, directing—

He was using my mind, as he might use a telegraph-key, to send out a message-a summons.

I had time only to realize what it was Belem was calling. There was no time to react, to fight the summons—for the answer came almost upon the heels of the call.

From high above the great room I could see that answering shadow sweep into sight. It came out of nowhere, literally out of nowhere, springing into being and moving for-

ward with a speed so blinding I could not focus upon it. I had again that instant of recognition, of revulsion—that knowledge of its burning speed.

And then the nova of pure energy exploded outward, as it had done so many times before, from somewhere in the center of my consciousness.

But this time it was different. Never before had the thing been deliberately summoned. Whatever it was, from where-ever it came, it had always before struck of its own will. Now it struck through mine—through Belem's, speaking with my mind. And that gave it a significance and a quality of culmination which its coming had never had before. This time it meant something. This time, perhaps, I would know-The shock of energy blinded me. I waited for the fading to begin.

There was no fading. Instead a second shock followed close upon the first, then another and another—wave after rising wave, tide upon tide of devouring violence. Nothing like this had ever happened before. I was too sick and shaken with the overloading of my nerves, the staggering blows of sensation that battered me. I could not think or reason. I only knew that this time I was lost, drowned in the bursting violence.

It would not cease. It would never cease. It would go on forever. ...

I saw the shadow of violence fade from a face. Across what seemed to be wide distances I saw the reflection of unimaginable violence ebb. Yes—the mind behind that face had known the staggering onrush of inhuman tides as deeply as my own.

In the control room of the great steel cylinder Paynter met my gaze—and I read sick horror in his eyes.

I could not move. Every nerve in my body felt burned out, short-circuited. I could see and hear a little; that was all. I saw Belem clambering up into the hollow side of the huge piston.

In a moment he appeared behind Paynter. Paynter, I thought, tried to move. His stare broke away from mine. But the Mechandroid's hands darted out, touching Payn-

ter's neck, his head, his spine. Belem spoke a word and took Paynter's shoulder as the latter rose.

Belem's quicksilver eyes were no longer within my mind, I realized.

But I wasn't thinking clearly. I had forgotten the armored soldiers.

Now I saw them. They were quite dead, all of them. I saw how they had died. I remembered the chain of bursting explosions as the killing shadow had swept down from above.

It was gone now-but it had fed well.

Belem and the silent obedient figure of Paynter came toward me. I felt the Mechandroid's fingers reach out and probe deeply into my flesh. There was brief pain, then I could move again. But I still could not think very clearly. Belem seemed to be listening to a voice I couldn't hear, He said, as if to himself, "There isn't much time—" and urged both of us forward. Now that I turned, I could see that the matter-transmission chamber at the other end of the room was empty. The crowding Mechandroids with their slowly waking Sleeper had gone. They had stepped, in so many instants, from this place to some other planet that might be anywhere at all in the immeasurable vastness of the Galaxy.

"Come," Belem said and we moved toward the matter-transmitter.

The rusted metal walls shimmered around us, faded, vanished.

Across the depths of space the atoms that made us up dispersed, drew out, reintegrated again. Bright alloy plates shimmered into being. We had stepped again from one world to another.

Belem pushed the panel open. We stepped out-into a cavern of dusty rock.

On the floor at our feet a little glittering tree stood motionless, beside it a flat metal sheet with wire bars. Belem sighed with satisfaction.

"I didn't think they could do it," he said. "Word went out to one of us in the laboratories to get these things re-

placed but I didn't really think-well, there just isn't much

- I time. Cortland, bring Paynter here, please."
- I obeyed, moving in a curious dreamlike state, the aftermath perhaps of that monstrous rapport with the slaying shadow. Belem was kneeling beside the barred device dial Dr. Essen had used to create the vibratory matrix that had isolated us from space.
- "Useless," he said. "As I half suspected." I looked up at the enclosing walls of stone, beyond which my own home planet stretched. It was curiously comforting to know that the rock overhead and the rock underfoot were the native structure of Earth. Here, on this uneven floor, my own body had fallen to dust.
- I wondered if the drifts in which our feet left prints had once been-
- "This is the cave of the time-axis, then," I said slowly. "And it's no good. Not if you can't work the machine Dr. Essen used. Is it too complicated even for you, Belem? I should have thought-"
- "That isn't the problem. It's comparatively simple, really. The trouble amounts to personalized mental mutation. We could understand how a thing as simple as a Neanderthal-er's battle hammer worked but we couldn't use it—we don't have the same muscular training and balance. And mental habits are far more subtle.
- "An invention, in practical application, fits its age and the people of that age. By studying this apparatus, I could work back to the basic principle and construct something similar that would operate in my hands. But only Dr. Essen could use the device that's so completely hers. In effect it's an extension of her mind. And we're in a hurry. I've had to make other plans."
- He glanced toward the closed panel of the transmitter and before he had finished speaking, it began to open. I think there was some mental warning which Mechandroids could exchange over considerable distances. Belem put a restraining hand on my arm "as a second Mechandroid stepped into the cavern. He came directly from some world of dust and wind, for his hair was wildly blown and a reddish dust shook from his garments as he moved. He carried very carefully in both hands a milky-white crystalline egg.
- Without a word he came forward, put it in Belem's hands and turned back to the transmitter. It sighed shut behind him and he was gone—back, perhaps, to the wind and dust of his unknown world.
- Gingerly Belem laid the crystalline globe on the floor between the glass tree and the useless Essen device.
- "This will do what has to be done," he said, looking down at it. "Give us a temporary force-field. It doesn't tap the basic cosmic energies as Dr. Essen's does but I hope it will protect us long enough. After the second-stage Mechan-droid wakes we'll be safe. He can take over."
- "And do what?" I asked, a little rebelliously. "Keep us asleep, set up a matrix to guard us—sure. And then send us in to the future? Maybe I don't want to go any more. What good could I do there alone? De Kalb's gone. Dr. Essen's gone. Even Murray would have been more help than nobody. As it is, I'd rather stay right here. It looks like an interesting world, what little I've managed to see of it. If you hadn't interfered I think I could have got along very well with Paynter."
- "Except for one thing," he said calmly. "You're a carrier of the nekronic infection, as I think the People of the Face may have planned from the beginning. As a spur to prevent just what you've suggested."
- "Why are you going, then?" I demanded. "It has nothing to do with you."
- "Yes, it does have. Two things. First-I don't know why I'm going. The order came and I must obey it."
- "From the second-stage Mechandroid?" I asked incredulously.

- "Yes. The second reason is"— He looked up at me over his shoulder. He was kneeling to puzzle over the Essen machine, and gave me a sudden cool smile. "I go under orders," he said. "You go because of the nekronic spur. Do you know why Paynter must go too?"
- "Because you've got him hypnotized," I said. "Why else?"
- "Paynter is infected too." . I gaped at him.
- "Of course he is. Why else did he fail to kill you when he knew the danger you carried wherever you went? But suppose he had killed you—and the murders went on? The
- authorities would have had to look further—&ejr would bwe found Paynter himself. So long as you lived, you were Ike

obvious scapegoat."

- "All right," I said slowly. "It adds up. Is that die attf reason why he has to go with us? Does your second-Mage Mechandroid care about that?"
- "Of course not." Belem had turned from the mystifying Essen machine and was working carefully with the milky-crystal globe now, his large fingers moving over it with the same clumsy deftness I had watched so often in De Kalb's identical fingers.
- "Of course not. The real reason is very different. You've probably guessed it already. Do you not know, really, why you have trusted me so far? If your mind had put up any real opposition, I couldn't have done all I did with it. Don't you know why you and I must go on to the world of the Face together—as toe first set out to do?"
- I stood there in the dusty cavern, in perfect silence, not surprised to find that I was trembling a little as his metal eyes met mine. After a long time I said, very softly, in a shaken, questioning voice, "De Kalb-De Kalb?"
- "I think so," he said calmly. Then he reached out and with one finger stirred the heavy dust on the floor. He looked ip at me, smiling wryly. "De Kalb is there. De Kalb is that. But here—" He struck his head a light rap, "Here I think he itill lives. Latent. In abeyance. But still here."
- I sat down suddenly, in the dust that may once have >een Jerry Gortland. I was remembering the sudden oblivion hat had briefly overtaken all of us who were duplicates of the sleepers in the cave as those original bodies fell apart.
- "There would be no reason for you to go on to the World of the Face alone," he said, "if you went alone. But you won't. You can't. You never have been alone, have you, in his era? Always Topaz—who is Dr. Essen, asleep—or Payn—er, who is Murray, asleep, or I—who am De Kalb—were with fou. None of us knew. All of us have been moving along the ines of some pattern vaster than we can guess. Only now it >egins to emerge a little."
- As I drew a breath to speak, the sound of the opening
- panel startled us both. Only Paynter, standing motionless in
- be grip of his hypnosis, did not move. My quick start was
- futile but Belem's two hands covered the crystal globe, ready, I think, to activate it and throw out the temporary force-field that would isolate us from attack—for awhile.

## XXII REUNION

- WE WERE both expecting soldiers to come pouring from the transmitter. But no one came through the open panel. Instead, a voice spoke. A woman's voice, cool, clear, level.
- "Ira?" it said. "Mr. Cortland? Colonel Murray, are you there?"
- Dr. Essen! I thought. Letta Essen! An instant later Topaz came alone across the threshold.

- It was Topaz and yet—it was Letta Essen too, more clearly than I had ever seen her before in the girl's amazingly adaptable features.
- "I expected this," Belem said with perfect calm. "I didn't even send for her, I was so sure she would have to come. It's the pattern, Cortland. It's working itself out faster and faster now, beyond our control, I think. Is she Letta Essen?"
- I nodded in bewilderment. The voice was not Dr. Essen's, of course, for it came from the vocal cords of Topaz, but it was not Topaz's voice either. It was cool, emotionless, nobody's voice. Dispassion speaking aloud. And the face was Topaz's face but changed, different.
- I had seen the almost fluid mobility with which every emotion altered those lovely features but I had not been prepared for a change like this. And the ego, the soul, of Topaz was submerged. A tight, wary blackness was all that showed now—that and a sort of bright alarm.
- "The soldiers!" she was saying a little breathlessly now, as she hurried toward us across the dust which was her own disintegrated body. "They're following me, Ira. It is Ira?" Her eyes were questioning on Belem's face.
- The Mechandroid nodded. "They're following you?" he demanded. "How much do they know? Never mind—you can tell us later. Activate your machine—quickly 1" And he gestured toward it.
- She dropped to her knees beside the metal plate, hesitated, touched it doubtfully. "The connections have been changed," she said. "I can put then back in order but"—she glanced up~-"it may take time." "How long?"
- "Too long." She looked from face to face, a little of Topaz's facile despair coming through the calm. "The soldiers—" Belem's breath hissed through his teeth. We turned, seeing the panel in the wall opening again. Bright uniforms gleamed through the gap.
- Belem's hands flashed with blinding speed above the crystal egg. Then a tower of golden light shot up like a fountain and spread out above us. It thinned as it spread, came showering down again into an enclosing hemisphere. Its brightness faded until we were looking through amber glass at the soldiers who came swarming from the transmitter, more and more with every opening and closing of the panel. Their weapons spat fire at us.
- A burst of starry light sparkled on the amber of our shield and died. Another nova flared and faded against the screen. And another.
- "We're safe," Belem said calmly. "For a few days, until the power dies. By then the second-stage Mechandroid should waken. But meanwhile, Dr. Essen—you had better repair your machine if you can."
- She nodded, the bright curls tumbling. Then she rose and stepped carefully around the motionless, glittering tree toward the milky egg that was projecting our temporary salvation.
- "I can't remember—very clearly," she said. "There was light—and then suddenly I knew I was myself—with some memories of a girl called Topaz." She frowned. "Maybe it would be clearer if—may I see your projector, Ira? Belem? Which are you, now?" She looked searchingly into his face.
- "I am Belem," the Mechandroid said. "Do you know what it was that roused you out of the Topaz-state and reawakened the Essen mind? We are nearly sure now that, in the moment the time-axis shell and the sleeping bodies inside it crumbled, their sleeping minds merged with the minds of the physical duplicates. Why is not yet known. Why the minds
- of Paynter, Topaz and myself remained dominant while Cortland's submerged the mind of his host is still-"
- He paused. For Topaz-Dr. Essen-was bending above the luminous egg. Now she seized it, lifted it high, and with one smooth gesture smashed it against the rocky floor.
- It was Topaz, of course-not Letta Essen, never Letta Essen.
- The amber shell above us began to rift and shimmer into tatters. Beyond it the armed men pressed

forward, shouting. A lance of hot white light shot past Belem's head and spattered fire from the rocky wall behind him. Topaz laughed, a shrill, high sound of pure excitement.

Then Belem moved.

He fell to one knee beside the shattered globe from which amber light was dying swiftly. His hands settled down over it, heedless of the sharp, cutting edges of the broken crystal. And his body began to glow.

Swiftly the rifted light in the shell above us began to mend itself. The amber shining spread, met, joined. The armor strengthened, was solid again.

I could feel the tremendous energy pouring out of the Mechandroid's mind and body. It made the air quiver inside the hemisphere. As a man may suicidally bridge a gap between two charged electric wires, so Belem was using himself now. I saw him shudder as that frightful energy poured through him.

Paynter, forgotten in the melee, suddenly stirred beside us. I saw him take an uncertain step forward, then another, the blankness fading from his face. Belem's mind was losing control over his. Released from the hypnosis, active now, our enemy—he emerged from his paralysis.

From outside the shell that was our only hope the confused shouts of the soldiers came thinly. One voice rose above the rest, an officer's voice, full of urgent command.

"TopazI" it shouted. "Topaz-stop the Mechandroid!"

Her quick response made double clear what had been clear enough before. She was wholly their tool. She had never been Letta Essen. Their integrators had worked out the truth as quickly as the Mechandroids had fathomed it and Topaz

was a ready instrument to their hands. She was still their most dangerous weapon and she had not failed yet.

I heard her high, clear^ laughter, in response to the call and I whirled in time to see her snatch out a tiny, glittering weapon exactly like that rubber-lipped paralyzer Paynter had once turned upon me. This was smaller and it glittered with jewels and the flexible ring of its muzzle was fantastically colored. But it was no toy. I saw the lips suck in as she pressed its trigger, ready to send out a web of paralyzing force upon Belem.

The Mechandroid neither saw nor heard. All his •mind was concentrated on keeping the force-field active. He was depending wholly on me.

I flung out an arm just in time to throw Topaz off balance. The bright-lipped weapon spat out its web, which floated just clear of Belem and flared into violent oblivion against the amber shell around us. Topaz hissed savagely at me and fought to level her weapon again at Belem. She was lithe and astonishingly strong, a protean shape that writhed snake-like in my arms.

There wasn't anything I could do about Paynter. He was almost fully awake, and reaching half dazedly for the gun at his belt. Topaz, twisting furiously, was trying now to center her paralyzing weapon on me. Above us the shell of force began to tatter again. There was a limit to Belem's powers.

My mind, ranging wildly for an answer, stumbled upon the mad thought of re-hypnotizing Paynter. I knew I had not the power but—suddenly my glance fell upon the glittering little tree at my feet. There in its base was the switch I had once seen De Kalb press, a thousand years ago.

After three tries I reached it with my toe. Topaz was a furiously writhing burden in my arms, almost overbalancing us both. But the jeweled branches lighted, began slowly to

move.

"Paynter!" I barked. "Look at that-Zoofc at itl"

He was not yet fully out of his hypnosis. He turned, startled, saw the branches that were spinning

now with a dizzying blur of brightness. He grimaced and looked away.

Recklessly I let go of Topaz with one arm to point at the whirling tree.

"Look!" I yelled insistently. "Paynter, look."

My own eyes were averted but I could see his head turn as he glanced at the hypnotic spinning. His head turned away again, slightly—but not his eyes. They stayed fixed, focused on lie tree.

Slowly, slowly his head swung back, till he stood facing the circling lights. Intelligence faded from his stare. His hand dropped from his belt.

Simultaneously I realized that Topaz was no longer fighting me. She too was watching the tree.

Hypnotized-both of them.

Paynter said in a dazed voice, "Cortland-Cortland, is that you? De Kalb? What's happening?"

"Murray?" I said, softly, tentatively. I knew it was probably a trick and yet—under the hypnosis of the tree the submerged mind of Murray might be wakening.

Belem let out a long, shuddering sigh. His body slumped. And the amber force-field about us seemed to run down like water and vanished. Across the suddenly cleared space the soldiers stared at us, caught for a second by surprise. Their eyes sought Paynter's.

But they met Murray's eyes. "Wait!" he barked at them sharply. "Halt!"

Confused, they fell back a little. They would obey him— for a moment. So long as they thought he was Paynter.

Was he Paynter?

He turned a bewildered gaze to me, murmuring thickly, "Cortland, what's happened? I've been dreaming, haven't I? Dreaming I was a man named Paynter?"

There was a restless surge among the soldiers. They were muttering to their officers, uncertain, ready to be swayed one way or the other. Paynter-Murray-turned back to them.

"Halt!" he shouted again. "Wait for your orders!"

It worked—for awhile. But they would not wait long. Commands could not stop them from thinking. And I knew that if Murray told them to drop their weapons their indecision would crystallize into disobedience.

But the solution was very simple after all.

A gray light flickered around us, vanished, steadied again. A thin humming began. The light seenied to gather upon every dust-mote in the air, thickening in veil beyond veil. The soldiers faded into misty ghosts....

Belem lifted his head wearily. "We're all here now," he

said. "Cortland, Murray-"

"-Dr. Letta Essen-';

Only then did I turn my head. Kneeling beside the original force-field device was Topaz, her fingers flickering over its controls.

Not Topaz, I thought. Not now. The face was hers, and the body, but when she glanced up and smiled it was Letta Essen's keen gray eyes that met mine. Hypnosis had released her, as it had released Murray, from the prison of the alien bodies, the alien minds.

"Now I will join you," Belem said, and turned to face the spinning tree.

There was silence under the dome of gray light.

When the Mechandroid turned he was still a man-machine but it was De Kalb who looked at us out of the metal eyes. He smiled. "Goodbye to Belem," he said. "We're here again, all of us."

"But why did it happen—why?" Letta Essen spoke with  $\sim$  the voice of Topaz but it was unmistakably her own mind framing the thought and the words.

"I think I can guess," De Kalb said, through Belem's lips. "It was no accident that stranded us temporarily in this era. We set out to fight a battle, the four of us against the nekron. Well, / think we have fought that battle. I think what happened was a testing-field in which each of us was tried and found—useful. Now we go on to the final battle."

"And the nekronic killer with us," I said.

"The killer too. That is part of the pattern, I think."

"But wait a minute," Murray said. "What's become of this fellow Paynter? Where's Belem? Where's Topaz? And Cortland, were you always yourself?"

"The others are recessive in our minds, I think," De Kalb said. "Just as once we were recessive in theirs. Cortland's alter ego has always been recessive. Only he hasn't changed —except in that he changed bodies, as we all did. Why that had to happen I don't know—yet. Remember, Cortland has always been our catalyst. When he enters the picture things happen!"

"There's one thing that isn't going to happen," I said. "We

can't get our bodies back, can we? These we borrowed. Or stole, if you want the accurate truth. The real owners are-sleeping, maybe. But will we ever dare sleep? Will we ever be sure well waken as ourselves? Each of us is a double mind in a single body now. If we come out alive from the world of the Face, what's going to happen then?"

"We'll know that," De Kalb said firmly, "when we wake again. We will sleep, Cortland. And whichever ego wakes at the end of the world will be the ego that was predestined to wake."

He hesitated briefly. "Now we must go," he said. "Look at the tree, Cortland. Murray, Letta-watch the tree. We will know the real truth-but later, much later-when we waken at the end of the world. When we look into the Face of Ea."

# XXIII THE FACE

TIME TURNED on and on upon its axis where we slept.

Time flowed like a river, wheeled like a sphere, moved like a galaxy through its own unimaginable dimensions toward its own inexorable ends. Motionless at the heart of motion, we slept on.

I think I dreamed.

Perhaps it was a dream in which the waters of time parted above us like a Red Sea parting and, through the walls of water, inquiring faces looked down into mine, mouthed words in unknown languages that came to me faintly from far away. If it was a dream the dream wore thin for an interval and I could almost hear them, almost feel their hands on me, tugging me awake.

And then, among them, a deep serene powerful command seemed to break and through the parted waters of sleep and time I looked up dimly into the face I had last seen beneath the cocoon of fight, still in its natal slumber. But this time I saw the calm quicksilver eyes and heard the calm voice running deep with power.

The eyes met mine. Their command was irresistible, and the command was-

Sleep.

The waters closed over me again and I ceased to oast

As dreams repeat themselves in interrupted shnnber ft seemed to me that this dream returned. The quiet of turning time wore thin and I looked up again into inquisitive faces seen from far away, felt inquisitive hands plucking me awake. But these were strange faces, so strange I was startled a little out of my oblivion and all but sat up in my shock as I saw them.

Above the clustering misshapen heads the great calm figure of the Man-Machine loomed. I knew him by his eyes and by the deep humming tide of power that flowed from his mind to mine, silencing the chatter, healing over the breach in time. But I would not have known him, I think, except for that.

For long eons had passed in that measureless interval. The serene face was changing. But the tide of his command had not changed at all. He still said to me, "Sleep," and I slept again.

Once more the dream returned. This time it was not faces that looked down at me but small, sharp, twinkling lights, insistent, deeply troubling. And as I roused enough to turn my head aside, trying to escape them, I had one glimpse of quicksilver eyes beneath calm brows, one remote echo of a voice that rolled like thunder. The lights vanished like candle-flames in a hurricane.

The thunder was so deep that it had tangible volume, rolled from a tangible source. I knew how mighty the source was. I knew, from that glimpse of the quicksilver eyes, how tremendously they had changed. The Man-Machine was no longer the size and shape of man. The face had changed, the functions had changed, the size was too vast for my dazed mind to comprehend.

"Sleep," the thunder commanded through diminishing vistas of space and time. And this time I sank into depths so profound that no dreams could plumb them.

I had thought that, when the time came, I would have much to write about the Face of Ea, that stands in the twilight of the world's end. But now, when I try, the words

are hard to find. I have seen things no human being ever saw before. But the paradox is that it can't be communicated. Between experience and inexperience lies a gulf that can be bridged in one way and one way only.

You would have to go, as we went, to time's end and stand before the Face of Ea. Then I could tell you what I saw—and then I wouldn't need to tell you, for you would know.

I awoke.

The long, long sleep drained slowly out of my mind, like water receding down a sloping beach, leaving me stranded in a place I had never seen before. This was the time-axis—but it had changed. I looked with blank eyes around the dome that closed us in, a thin, gray dome through which red light filtered. We were no longer underground. I suppose the mountains had worn away, grain by grain, -while we slept.

Murray's was the first face I saw. I thought to myself, "Is it Murray this time or is it Paynter?" I watched him sit up on the gray floor, rubbing his face dazedly, his flesh pink in that filtering light. And I never knew whether it was Murray or Paynter.

Beyond him De Kalb looked at me with metallic eyes, smiled and sat up. And Topaz lifted her bright curls from the dusty floor and turned swiftly from face to face, a glance that combined Letta Essen and herself in indissoluble unison.

"Are we there?" she asked in a soft voice.

For answer I gestured toward the gray dome that shut us in, the world outside the dome.

As far as we could see, in every direction but one, the world lay flat and gray with a surface very familiar to us all in one way or another. A glazed grayness, solid, through which veins of rosy color, like curled hair, twined at random. The world was all nekronic matter now—except for one other thing.

We looked up at the Face of Ea, and we were silent.

As we looked, the dome above us shimmered, thinned, was gone. Down upon us the red twilight poured

unbroken. It was faintly warm upon the skin. A very faint wind blew past us and I can remember still the strange hollow odors it

carried, wholly unlike anything I had ever scented before

from winds blowing over open country.

We did not speak again, any of us. The time for talk had passed and a higher authority from that moment took all initiative out of our hands. We looked up at the Face of Ea.

How can I tell you what it was like—now? You know how I saw it in the Record, when the images of this same scene recreated themselves in my mind and I looked up from this same spot, in a faraway age, into the towering Face. Even then I saw it as a Face far transcending the human, reflecting experiences unknown to my era and my world, complex beyond any possible human guessing.

When I looked up now and saw the vast cliffside rising above the gray nekronic plain, it was not as a Face I saw it. Not at first. It was too complex to be recognizable. It was shaped into equations so far beyond my comprehension that I could not read them in terms of a human likeness.

I suppose a Piltdown man, gazing from under his eye-ridges at the face of a Toynbee or an Einstein would realize only very remotely that this was the face of an evolved member of his own species. And there were greater gulfs than that between the Face and me.

You will have guessed already what likeness it was that I finally recognized. I should have guessed too. It was not very surprising, really. Belem had given me the clue. A city, he had told me, was simply a machine for human living, an extension of the Mechandroid organism. And this city, which was the Face-It looked down at us with a vast calm gaze, the same gaze that had brooded over our slumbers while time turned on its axis where we slept. The eyes that had once been quicksilver metal were very different now but I knew that gaze. The voice that had once run deeper and deeper with the volume of its power was a voice no longer, for it had passed beyond the need for a voice. The thing that had once been a Man-Machine had grown, developed, changed, synthesized with all of human living as the millennia went by.

Its functions had broadened to encompass every aspect of the civilizations through which it passed.

I understood very little of the complex symbiosis which had taken place, and I can convey only a very small part of

what I understood. For mankind had changed too. Perhaps love and hate and fear survived but not in the forms we know. Perhaps human features were not so different as we imagined. Perhaps, through the streets and plazas of the city, which had begun as a Man-Machine and was now the cradle of the surviving race, men and women like ourselves really did move still.

I'm not sure. I walked the streets. But I am still not sure among what crowds I walked.

I've said the Face no longer needed a voice. This is why. In the old days I suppose the Man-Machine would have said, "Come," when it wanted us nearer. Now in effect it said, "Come"—and we came. But not on foot. Not under our own directions.

A whole segment of unnecessary, primitive activities was simply eliminated. There was no need for the clumsy human mechanisms to hear the summons, comprehend it, consider it, debate obeying, decide to comply, set muscles in motion and trudge across the plain.

Instead, the Face issued its voiceless command—and there was a sort of vortex in the red twilight air between the cliff-side and ourselves. Smoothly, gently, inexorably, we were drawn up along that spinning of the air, seeing the gray earth fall away beneath us and then slide backward with blurring swiftness. The Face grew startlingly larger, too large to see as a whole, large and near and very clear.

We lost sight of the tremendous serene brow, of the vast smooth chin, of the great downward slope of the nose, of the cheeks etched with experiences which no human and no machine could ever have known separately.

Walls of rock rushed at us, opened, sucked us in.

What did I see? I wish I could tell you. I can make useless sketches in the air with both hands, trying to show how the spiral streets sloped and how the blurred house-fronts slid past. But if I did you would picture ordinary house-fronts and a street that curved but was like any street you know. And these were too different to describe.

It may be that the street really did move with all its strange shapely houses. I have an idea that the whole interior of the city was actually in constant motion, as a ma-

chine might be, and that if motion ceased the would cease too, the city and the race of man.

But I can tell you this much. Ideas blew through that cfty like puffs of smoke through an industrial town. They brushed my mind and were gone, leaving only bewildering fragments in their wake. Sometimes they brushed two of us at once and we had incredible glimpses into one another's minds wherever the idea touched, evoking mutual memories, interlocking thoughts like rings that spread in water.

De Kalb had said, long ago, that these men were gods. He was right. They were far beyond any concept the men of my day had ever dreamed of for his gods. We walked through their city, were brushed by their thoughts, breathed the air of their streets, but we never saw them.

They were there. They were all around us. I am perfectly sure of that. I didn't see them. I didn't feel or hear them. But I knew they were there as surely as you know the chair in which you sit now has a back upon which you are leaning, though you won't see it unless you turn.

I had constantly the odd feeling that if I could turn I might come face to face with any man of the city I chose. But I was not capable of turning in the necessary direction, which would probably have been through a dimension we know nothing of.

I wish I could have seen them.

# xxrv

## BATTLING THE NEKRON

THE GUSTS of thought blew thicker and faster around us as we were drawn up the spiral. Our minds linked in impossible chords and discords as impossible ideas struck responses from

us all.

Then the light failed us. Perhaps our sight failed us. I think we were drawn through a rather long space of solid wall, like a locked doorway which only this vortex could open for material things.

When we could see again we were in a bare and empty

room. The shape of it was indescribable because of the extensions along which it reached. I was reminded a little of the corridor down which Belem had guided me toward the Subterrane of the middle future. Geometry, blindingly confused in patterns of inverted planes.

And then the room around us spoke directly, in the very air that pressed upon our minds. The Face of Ea spoke.

I had heard that voice before, if voice you could call it The Man-Machine who guarded our age-long slumbers had said, "Sleep-sleep," in this same voice, growing deeper, calmer, less human as the eons passed. Now it was the voice and the mind of the Man-Machine but immeasurably altered, incomprehensibly more complex.

"You have seen my first beginning," the Face of Ea said. "You and I have come together to this place at the end of our planet's life. I have watched over your sleep for a purpose. You are my weapons now.

"The nekron can never be destroyed. But with your help it can be excised out of normal space,

normal time. For that I summoned you. For that I guided your journeying in time. Think and you will understand."

- I believe the same knowledge flowed through the minds of my companions in the moment of timeless revelation that came to me. In a series of small, clear pictures I saw the manlike, killing creature that was the nekron, touching me as it swooped through oscillating time, becoming part human by the touch, running rampant through the worlds of humanity.
- "Because of its release and its attacks," the voice of Ea said, "it is part human now. You have learned to fight it. To save yourselves and us you must finish the fight. The nekron cannot be touched—except by you. But we must somehow excise it out of the universe, not only in space but in time. We must cut back through time, so that we divide and alter the past as well as the present."
- Pictures flashed again through our minds but I at least was able to understand. I saw the worlds of the galaxy turning on their axis and, more cloudily, I saw time turning also, linked to the turning worlds each by its own axis as tangible as the planets themselves to that inner vision. Very dimly I saw something that flashed a little as Belem's severing
- lights had flashed when the two electronic matrices split in duplicates from the original.
- "I need a wedge, a blade, to split the nekronic infection from normal space and time," the voice went on. "You are my weapons. Do you understand the task before us?
- "Belem learned the way, through the linkage of the knowledge of two eras. Now, on an infinitely larger scale, we must accomplish the same cleaving of two spheres. And each must remain equal in every way to the one original or the balance of the universe will be destroyed.
- "They will differ—if we prevail—in one way only. One will be nekronic matter, one will be normal. Never in contact anywhere through all time and space. Do you understand your tasks?
- "You must fight as my weapons against the nekronic universe. Together we must cleave the universe itself in two."
- If you can imagine a sharp tool made sentient, you may guess a little of how what followed seemed to us, who were so integral a part of the tremendous conflict, the ultimate destruction.
- First, the voice died.
- Then there was movement past me and the room seemed to slip into darkness—or was if I that moved? Those corners of non-Euclidian shape were vortices that swept us apart. We four were the component parts of an exploding nova that shot outward through space, through time. Around me I saw stars, moving very swiftly, and I was alone and there was an inexplicable changing everywhere.
- I knew then that I was moving through time, not a continuous movement but an oscillation, a vibration that swung me back and forth like a pendulum through a period of a few seconds. As the nekronic being moved.
- There was further motion—not my own—around me. I could see only the vibrating stars but I knew through senses without name that my companions were not far away now. Paynter was a strong harsh relentless ego within reach of my mind, though all I could see was stars beyond stars, flaring into sight as my vision penetrated farther.
- Belem was De Kalb and De Kalb was Belem, strongly egocentric, brilliant as the stars, a double mind that had
- shared a single body and learned to work with a single purpose in the dark levels below the conscious will. Topaz was Letta Essen, doubled and doubly armed.
- There was a rushing shadow before me. Swifter and swifter, larger and larger, rushing upon me as I swept forward through the stars. I saw it, and then it was upon me in the same instant. The gap was bridged, the leap made. And I—I changed in size. I was as large as the shadow.
- I touched it.

A fiery burning flared out around us and died instantly and the creature flashed into clear outline. Outline only, for it had no features and never did have, only the vague likeness to humanity it had drawn from the minds of its human hosts. Perhaps it was my own will, perhaps the will of the godlike hand that wielded me, that made me close with that solid

shadow.

Where and how I gripped it I do not know. Perhaps I never really touched it at all. Perhaps it was merely will against will. All I could feel now was a furious deadly pressure against which I must exert the utmost of my strength in a direction I could not understand. Mental energy, pure will, perhaps simply the maintenance of temporal reality-how does the chisel know what force it exerts?

Somewhere I felt the enemy give back—not at any point where I met him. He weakened briefly far off in—space—time? How can I even guess? Perhaps we were hemming him in all around, temporally as well as physically, for some other human tool, De Kalb or Paynter, Letta Essen or Belem—had cut deeply into the resisting substance that was the nekronic universe.

The dark was a flashing, coruscating whirl of suns that blazed white. Tracks of fire burned in curves as stars rolled across that white vault. I knew how swiftly I must be moving in time.

With a jolt I was halted, pressed back. The blind, featureless face of the Adversary loomed larger, blotting out half the white heavens. Back and back I fell—

And then suddenly there was support all around me, a merging of familiar minds with mine. It was deeper than the nearness I had felt before. We were drawn together, we four. Our minds touched and blended and became a single

larger entity, a whole that yet preserved the individuality of us all. The cold clear thoughts of Belem and De Kalb lighted my mind like the facets of brilliance shot from a diamond. The blind white-hot violence of Murray and Paynter, the infinite resource that was Topaz and Letta Essen.

Now the Adversary shifted its grip. I felt it give a little before our combined pressure. And we seemed to be viewing it from several points at once—in time. Cross-bearings in time

itself. But how?

I knew the answer very clearly, in one flash.

We were the chosen weapons, the doubly sharpened blade. That was why my own body and the bodies of the rest had crumbled into dust when the time-axis chamber was shattered. Two identical matrices can not exist in the same space-time, but two identical matrices had been necessary to forge this weapon that was ourselves.

No mind fixed and conditioned to one sector in time could pin down the nekron. It took a larger concept, a binocular view from two points in time. And the Face of Ea had doubled our striking power when it doubled our minds in bodies that were basically identical with the ones we wore when we were born.

We had fought this battle before in miniature. In the world of the middle future we had been tempered to this final task. The nekron was fixed and trapped here—it could no longer evade us through time. Our strangely multiple mind could fix and focus upon it.

But the battle was yet to come.

With reckless, single-minded violence that multiple mind smashed out at the nekronic Adversary. As Paynter had driven the metal ram no harder than he drove himself against the fortress barrier, as Harrison Murray had so often hurled himself in stubborn, blind fury against foes tangible and "intangible—so the weapon that was ourselves crashed against the black nekronic force striving to destroy us.

Somehow, somewhere, in some hidden weakness of ourselves, it sought and found a flaw. It drove us back. Its own incredible power smashed through warping channels of space and time at our welded minds.

If a single one of those inconceivable bolts of destruction had struck us it might have been the finish for us all. But

none struck. For Topaz was part of the weapon which was ourselves and all Topaz's memories of infinite cleverness, infinitely adaptable life—with Letta Essen's cool, watchful mind to guide her.

Oh, Topaz was adaptable—that had been her purpose and her goal in society. She had incredible mental, emotional, muscular control and she reached instinctively, automatically to any outside threat. Now I saw her talents' ultimate extension as—somehow, in a black star-blazing gulf that yet embodied the whole universe—we dodged and whirled and shifted so that none of those nekronic assaults quite smashed home.

Then, abruptly, we were falling. There was neither up nor down, but a frightful, abysmal vertigo that sucked us with impossible acceleration into the deeps below the universe itself. We were drawn into the black nighted heart of the nekron—its soul and center—and life itself receded to a point of infinity and was shut wholly out, away from us. If we had size it must have changed. If we had warmth and life it must have frozen instantly in all minds. In its last defense the nekron itself absorbed us.

## XXV RETURN VOYAGE

LUCKILY I cannot remember that last horror very clearly.

It was I who saved us from that.

This was my purpose. It was the plan from the beginning. That was why I had been allowed from the start to keep my own memories intact. For I was the anchor man at the end of the chain, the solid rock and the lifeline extending beyond the shore of sanity and logic and the monstrous, non-matter maelstrom engulfing the others.

They had needed their double minds to meet and fight the nekron, to carry -the battle to its own grounds. But my purpose was to anchor the line. I could feel them losing touch with all familiar things, feel the dark destroying silence of the nekron closing them in.

It closed about me too but not completely. It could not shut out my memories. I had a singleness of mind that made a chain £00 strong to snap. I remembered my own world, my own time, with a clarity unimpaired by double memories. All the small things that are changeless realities came back to me in one strong pouring tide.

The little things that mean nothing alone—things like firelight moving on the walls of an old room, the smell of freshly-cut grass at twilight, the sharp fragrance of printer's ink, the heart-shaking thunder of a flight of planes moving in formation overhead, the taste of cold sweet springwater gushing from a mountainside.

## I remembered Earth.

So I woke them out of the dead emptiness of the nekron's heart. Their minds clung to mine and mine clung to the lifeline of my own world, my own time, my own indestructible memories.

Last of all De Kalb struck-with Belem's mind locked into his.

We were in the nekron's heart now. We had been admitted to its most vulnerable spot. Once before Belem had done something very like this—when he joined his mind with mine and summoned the nekronic killer to defeat Paynter's men.

Now in the nekron's very citadel, its innermost heart—he gripped our minds closer together. He forced them until they were one indeed.

He opened that gigantic ultimate mind to the nekron!

Two of the finest brains of two cultures guided us then—Belem, inhuman, emotionless, machine-bred, half-human— and De Kalb, with all his brilliance and his humanity balancing Belem's cold

logic. Behind these two-in-one, the rest of us-a single unit now.

Paynter and Murray-hammer and anvil!

Topaz and Letta Essen-incomparably resourceful, evading the counter-attack.

I with my single mind, holding fast to the solidity of the normal universe, standing like a wall behind the others, holding open the gates in that wall through which we had come, through which the power of the Face of Ea poured to help us.

The power of the nekron flowed through us, channeled by Belem and De Kalb. It emptied, drained like a falling ocean into us. But we were not vulnerable, now. It could not-feed -upon us.

Water, changing to steam, must expand, find room to accommodate its physical change. The process must be completed. But this monstrous change could not be completed in any way normal to the nekron. It had not drained its force into us by choice—Belem had drawn and channeled it.

Now its normal release was blocked.

We were battered back beneath the onslaught of that terribly concentrated power. But we held. Somehow we held— the multiple minds of two civilizations, chosen and tempered by the last, greatest science of all.

Then-it exploded.

There is no other word. It expanded tremendously, through us and beyond us, and that frightful concentration of alien force was gone. The disincarnated, dissolved units of the nekron expanded—seeds of the death beyond death—but helpless in this single moment beyond time, no longer a functioning unit capable of planned action.

We could never kill it—but we had it helpless for the first instant in the history of the universe. One moment outside time was all we had—but one moment was enough.

The burning suns reeled around us again. They blurred-time blurred and space and the incredible infinite complexity of the universe shuddered and was divided. That was the end.

The suns flickered out around us. We were sinking into a dimness that swallowed up our senses as the darkness swallowed the light. But I could not quite let go. There was trouble somewhere—a question unanswered.

"Have you finished with us now?" I wondered in the darkness. "Are you sending us back, double-minded, into worlds where only a single body can dwell? It was you who destroyed our bodies-"

The great calm Face that was the composite of so many faces took shape before my mind's eye, perhaps tangibly before us in the thickening dark. The great, quiet voice said, "If Belem could divide matrices and I universes, do you need

to doubt that your bodies can be divided too and each be duplicated exactly from a single matrix? It was done once, in Eden, before the first civilization rose. It shall be done again, by the power of tEis last civilization of all. Sleep, now —sleep."

In the dimness that followed upon the darkening of the suns and the stilling of the voice I remembered Genesis, and Adam's words. Bone of my bones, flesh of my flesh. . . .

The Face that watched drew further and further away, grew tinier and tinier in red-lit distances down a vista of diminishing temporal lanes. ...

I knew now that we must have swung far off around that other pole of time, the beginning, the wellspring of life and space and duration. We must have moved forward along the unchanging temporal axis toward our own world.

In which there was no nekron now, had never been, never would be.

But there were not even dreams in this slumber to hint at the stations of that journey.

So we returned,

So we woke.

It was Topaz whose eyes met mine when I sat up dizzily after that tremendous nightmare and found the rough walls of the cavern intact around us. Topaz? No—and yet not Letta Essen either. She smiled and it was Topaz's smile-but the long, long eons had changed her.

Letta Essen's slumbering ego in the doubled body of the girl Topaz had wrought subtle alterations, pulling back that flexible flesh into a more fitting body for the woman who had been Letta Essen. It was an older and wiser Topaz, a younger Letta Essen, who met my first dazed glance when I awoke.

Murray was sitting up dizzily. De Kalb had already risen and was trying the flashlight that lay in the entry to our cavern, his face bewildered. I knew why. It seemed incredible that the battery should still be working after such millennia.

Only no millennia had passed. We had been asleep no time at all as time is counted in this world.

We hardly spoke. We were still too stunned for clear

thinking—it seemed only a moment ago that we had last looked into the Face of Ea. Unsteadily we made our way out of the cave. The low slanting sunlight of a summer evening still lay across the wooded mountain.

Instinctively I looked for the white building of the Kerry transmitter that opened upon the farthest worlds of the galaxy—but that was still a thousand years away. The mountains stretched in unbroken forests to the horizon.

At the foot of the slope, near the place where Murray's plane still stood awaiting us, was the cabin where De Kalb had lived long ago-months ago, perhaps, as we count time here but eons had passed just the same-when this cavern was first dug out of the mountainside.

De Kalb unlocked the door. The cabin was musty from long disuse but we didn't care. Oddly enough we needed sleep more than anything else in the world. Oddly, because we had just now risen from a sleep of countless millions of years.

So that's the story.

And now you know why I can say—and prove—that the whole thing never happened. This isn't my world, now. Not any more. Not the world I left. This is a world in which no nekronic flash leaped from a box that Ira De Kalb opened and dropped to his hearthstone to infect the world, De Kalb and me. All that did happen once, in another world that hasn't existed since the four of us, a doubled weapon wielded by the Face of Ea, wrought the cleaving apart of two universes.

Imponderable forces shifted when that cleavage took place. You and I know nothing about it, for it happened far beyond the perceptions of any sentient creature. But it happened. Oh yes, it happened.

Funny, how important the little changes are. It's so hard to get used to the absence of so much I used to take for granted. And there are so many new things too, things that weren't there when I went away. Nobody knows that except the four of us, of course. Everybody thinks these things have always been as they are now.

Well, it's all right as a world-maybe.

But not as a world for me. Here I've always been on that

roller-coaster, snatching as things rush by. Maybe I'd do the same thing in any world. You never can tell till you try.

So I'm going to try.

There are still sleepers in that cavern where the time-axis turns, you know. If De Kalb had looked deeper when he first brought out our images under ultra-violet, he'd have seen more than we ever guessed, at the time. He'd have seen more than our doubled images, still asleep, waiting for the world of the middle future which is the final station in their round-trip through time. Paynter, 'Belem, Topaz are sleeping there. And so am I. And I mean myself, Jerry Cortland—twinned.

You see, I've looked. And I'm there. The other fellow, tie one who came up the hill from the Kerry transmitter and blacked out and received my dominant mind, is asleep of course, waiting for his own time. But beside him is—Jerry Cortland. Two of us. Double images.

You realize what that means?

I'm going forward. I know-because 1 went. It was a wonderful world they had. I want to see more of it. I want to wake up in a time when the race of man is spreading through the galaxy, leaping across the gulfs between the stars, opening the gates to all the worlds. I want to and I will.

But I'll never see Topaz again—unless I'm luckier than I expect to be. Ill never see Belem or Paynter or the world where they'll wake—finding it changed too, I suppose, and a little bewildering, as mine is now.

The trouble is, two identical matrices can't exist in the same time. And that other fellow has priority. It's his world, his time. He'll wake with the others and go out. I'll sleep on until the way is clear. That means, of course, until he dies.

I wish I knew more about him. He had no record in the vast files of the galactic government. He was dressed in ragged clothing when I saw him. That indicates he's some wanderer of the outland planets, living a dangerous life—if he goes back to it. He may not. Waking with Paynter, Belem, Topaz, he may be drawn into another kind of career entirely. I'll know someday. But not until he's dead. Not until I wake again.

And when I wake, who knows how many years will have

elapsed since Topaz stepped out of the time-axis into her own world again? She may be an old woman before I see her. She may be only a few years matured. She may have been fifty years dead. Perhaps I may never be sure. You see, I don't even know her name.

She was Topaz that week in which I wakened. Next week, and the week after and the year beyond that—do you think any records are kept of the whims of a girl like Topaz? Not even she will remember by the time I wake, if she's alive then. Time moves too fast for that.

Well, all this belongs to the future. And so do I. Even before the cosmic cleavage altered all history I was a misfit in this civilization. And now it just isn't my world anymore. I don't belong here. So I think I'll take my chances in that other place, where I won't have to get used to the little things that keep bothering me here and bother nobody but me—

Like Washington being the capital of the United States- now!