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A man, a woman, and a one-way rocket

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BOOK

FIRST TO THE STARS



REX GORDON

First Book Publication

A GREAT NEW NOVEL OF INTERSTELLAR DISCOVERY

When David Spencer was picked to pilot the first rocket to visit a neighbor planet, his companion was selected for him. She was a woman scientist he neither knew nor liked. But as this trip was to be short, practical, and strictly business, she had to be tolerated.

But space held secrets they had not taken into consideration. Their trip was vaster and longer than planned. Theirs turned out to be the **FIRST TO THE STARS**. And in the conflict of these two opposing personalities arose the shocking new problem that would confront their alien rescuers—with the future of two worlds depending on the solution.

A Note from the Author:

The stars are so far away that it takes their light years to get here—and nothing in the physical universe will ever be able to travel as fast as light. So man will never be able to get to the stars.

This is the opinion of the very best pundits: the same ones who in our generation have been telling us that man and his machines would never reach the moon or the solar planets.

Their opinion is worthless because neither they nor any other man knows anything yet about the physics of time and space or the working of whatever relationship exists between them.

All we do know is that if man is ever to find a companion race of comparable intelligence, in the vast immensities of the cosmos he is not likely to do so in our little and local solar system. He must raise his sights to the stars, to the prize of a million million glittering worlds, and pay the price and face the difficulties and be prepared for shattering surprises when he gets there.

—R. G.

FIRST TO THE STARS

by
Rex Gordon

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Chapter One

It was E who worried me.

In the circular orifice, after E had entered, I stopped and looked down. The stark light of the floodlights showed the army of scientists and technicians snaking down the gantry away from me. The transport was assembled to take them back to the bunkers and control posts. For the first time the rocket beneath me stood clear and unencumbered. It was a cool, windless dawn, with the light already growing in the east.

The MASAP project was due to take off in fifteen minutes. I had seen E go inside to begin work, and the last of the technicians were taking to the cars. In the circle of light the floodlights cast upon the ground, I saw one small arc of men who had stood against the tide. The General was foremost among them, head thrown back and looking up at me as he waited to be the last

to leave. I stood there in the opening, breathing for the last time the sweet cool air of Earth.

Beneath my control compartment, with its forward lenses covered and its antennae still folded back under the expendable nose-cone, the rocket was ten feet in diameter. Beneath my feet was the dark band that marked the radiation barrier composed of solid fuel rockets that would only be used on landing. Beneath the barrier, the slender column of the third stage was largely empty for a hundred feet, containing only the slender tubes of the accelerators and the atomic motors. It was these, discharging atomic ash, that would be used for prolonged low power when we were in space.

The third stage stood on the rounded shoulders of the second stage that in turn descended and tapered away, foreshortened, as it rested on the tall cylinder of the first stage. Liquid fuel, burning out, all of it, in a hundred and sixty seconds. High acceleration and automatic firing. I would have no control of the liquid fuel section comprising the first and second stages. I saw that the arc of men behind the General had already scattered and were taking to their jeeps; he stood there implacable and alone. Then it happened.

There was a click and a hiss beside me, and the long delicate ladder-bridge that we had used to enter the control compartment drew back and began to turn away. Before my eyes, the upper sections of the gantry were folding back and down. I waved the signal to the General and he stood there for a moment, then waved back shortly once and turned away, going deliberately to the last jeep that stood waiting for him with its engine running.

I reached out to the wheel beside me and began to turn it. The circular door began to swing in towards me to close the orifice.

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I thought of E then, E who was already working in the rocket. I turned and looked behind me. Should I speak or not? Were we on speaking terms at the beginning? The prospects were poor if we were not. We *had* to speak.

"Ground crew clear!" I said. "You can log the fact that I am closing up!"

There was a pause.

"Closing logged," she said.

The door was closing; then it was closed. The daylight and floodlights were gone, and I began to live in the dim, artificial light of the interior. It reflected grayly from the cork-lined walls, and there was a ringing clang of metal sounds as I engaged the great bolts that held the door. I examined the mating of the flanges on which our lives depended and a shadow fell on me as one by one I screwed the bolts to permanent tightness. Elvinia spoke; her words were flat:

"Zero minus ten. We are just on schedule."

"You've checked the tank temperatures of the symbiosis unit?" My voice was steady.

"Normal. Everything is normal. Base is giving us count-down. I'll turn up the loudspeaker."

I looked around me at the interior of the cabin. Above us hung the great tanks and pipes and pumps of the symbiosis unit, accessible by ladders from our level. For air and water and food we would be dependent on that unit, on the greenstuffs and algae multiplying in the tanks, breaking down the waste products from our bodies and absorbing the carbon dioxide from our breath. I saw the faint glow from above the tanks that indicated that the radiation lamps were already burning, and then looked downwards at the instruments and dials and valves that lined the walls of our cell. Already some of the dials were alive and showing readings: the radiation

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of the pile and the voltage of the faintly humming generator that supplied our electric power. I looked inwards and more closely towards the floor and center of our one compartment, at the two soft couches, adjustable like dentists' chairs, that were the one provision for our comfort. They were surrounded by panels and controls, and before and above each of them was a screen on which was already depicted a limited image of the outside world below, by periscopes through which we would be able to see the starlight of naked space, indirectly as a guard against radiation burns.

"Nervous?" Elvinia said. Her voice was dry.

I descended down the five steps of the cat ladder into the interior.

She stood there efficiently trim and neat, her hair shorn and her body silvered by the skintight plastic of the support suit. Outwardly she was as calm as though she were working in her laboratory.

"Moderately nervous, Dr. Elvinia Köhl," I said.

I wanted her to confess that she had human feelings, to behave like a woman theoretically ought to behave by all the standards I had been born to.

"I would like to take your temperature and blood pressure and test your breathing before take-off, Major," she said.

"The name's David," I said. "Don't you remember? David Spencer."

We stood there facing one another in the gray, cork-lined instrument and machine-studded compartment that was to be our home for the next three years, for all the flight out to Mars, the maneuvering, the atmospheric sampling photography, and the long ride home. We might have gotten somewhere with that look; one of us might have outstared the other. But the loudspeaker burst into action above our heads:

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"Base to MASAP. Base to MASAP! Here is your zero check. Zero minus eight one. Zero minus eight. Zero minus seven fifty-nine . . ."

"Let's go," I said.

We went to the couches and lay down, beginning to adjust our harness. When the voice stopped, I spoke into the microphone that hung above me:

"MASAP to Basel Secure and ready. On take-off routine. No further signals. Over!"

"Base to MASAP!" It was the General's voice. "Received, and you are cleared. We begin your final countdown. Good luck!" Another voice began: "Five. Four fifty-nine. Four fifty-eight. Four fifty-seven . . ."

Then we were waiting.

The first great shock and crashing roar came at the very instant of the zero word. I had obeyed orders. I hit the zero with a lungful of air that I could exhale slowly as we went up. Even so, the noise and vibration were intolerable. They seemed to shake the skull until the brain was screaming. The acceleration came on after that as the fuel burned away and the weight decreased, but the power continued. The thrust built up until you thought you could bear no more thrust; still the thrust went on, as your eyes gave out and your vision went.

Beside me lay Elvinia Köhl, Dr. Elvinia Köhl, with a doctorate, the biologist.

Chapter Two

"You can get it into your thick head that you *have* to take a woman! Dammit, Major, it's been tried! Pilot or no pilot, trained or not trained, a man alone in a tank in zero gravity will go insane. Maybe you are insane after the tests and trials! Didn't O'Hara and Gollancz try to murder one another when we tried the experiment with the two of them? Do you think we can afford to send a third man, with a bigger symbiosis unit and all his gear? What possible stable human relationships are there? There's one, and that consists of one man, one woman; therefore you *take* the woman. Those are your orders!"

That was the psychological Colonel, outside in the car, before he led me in to the room where, six weeks before take-off, I met Elvinia Köhl.

I held my breath as he led me in, expecting a dried-up spinster, world-worn, or an athlete with a lantern jaw.

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She was not like that, and I thought, *My God, how does a woman like that get a job like this from a group of men?*

In the room, she said quickly, dryly, antagonistically, within the first thirty seconds, "Do you have to look at me like that?"

"My car's outside," I said. "Let's go somewhere and talk about this quietly."

She looked at the psychological Colonel, then at me again. It was not their business; it was ours. They objected and looked displeased. We went.

"I think you ought to know something about me," I said gently as I drove. "You probably have the idea that a man like me who has passed all kinds of spinning and falling and acceleration tests must have some special personality and force of character. I haven't. If you want to know, I passed those tests because I have a defect of the semicircular canals of the inner ear."

"How wonderful," she said dryly. "How lucky for you. If you want to know, my title of Doctor indicates that I'm not a physician, just a biologist. But I know all about the inner ear."

"You have preconceptions," I said conversationally. "You think a man called Major is necessarily brave and a courteous and gallant man. I'm not. If I'm alone with you in a rocket, I'll treat you like I'd treat any other woman. The way a man treats a woman. The way he treats a woman he's been wrecked on a desert island with. If you're a biologist it helps a lot. You'll know exactly what I mean."

"Yes?" she said. "Like when you're alone in a car with a woman and busy driving? Am I in danger now?"

"You don't drive a rocket all the time," I said. "That's one of your misconceptions. It just coasts. You don't drive a car all the time. I'm taking you to a place I know."

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"I'm scared," she said. "This is the latter half of the twentieth century and females are emancipated, but you scare me stiff."

We were out of town by then, and I swung the car sharply to the right. A sentry came out of a box at the double and made as if to shoot the car until he saw its color and my uniform and then thought better. The road curved away and to and up the only escarpment in that low flat country. From the open space at the top you could get a view of the sea and the take-off flats and rocket gantries. Maybe that was why that patch of country was deserted and protected by a sentry.

Sitting in the front seat beside me, and looking at the view from the top, she had the mute expression and attitude of one who sat there just waiting.

"You see it isn't as easy as that," I gently told her. "The reason you don't get raped in situations like this is that the participants go home after a little while. It isn't that your virtue is triumphant but only that he would have to face the music. Or do I get you wrong? Is it just that you look on three years in a rocket with a man in quite another way?"

"I can see your aim is not to make it easy for me to think of it in any way."

I thought about that, both of us sitting there in the car and looking down over the rocket flats. After I thought of it, I got out, walked round the car, and opened her door for her. The result of that was that she looked nervous. She got out and we went to sit on the low wall that protected the drop to the rocket bays and the distant sea. She sat on the wall, and I stood beside her. I could feel her nervousness.

"You hold it against me because I am a woman," she said explosively. "It's nothing to do with rape or sex, but because you think I'll introduce complications and

fly off at tangents and let you down. I want you to know I'm not that kind of woman!"

"You're kidding yourself about the sex side," I said. "It won't be better because I'm not attracted. Because it will be proximity only, it will be worse."

She looked up at me, inexplicably shocked. "Is that what you think I'm doing, letting the psychologists choose a man to be husband to me?"

"That's exactly what I think you're doing."

"Then you should quit!" she said. "You should give up this job. You should go back to whatever it was you were doing . . . experimental flying!"

I was staggered.

"I should quit!" I said. "What do you think I'm doing here except telling you that *you* should quit; you, the second member of the crew!"

We were close together against the wall, she on it and I standing beside her. We were both breathing heavily and looking at one another with a mixture of total opposition and dismay.

"Look," I said. "Who are you? What are you? What is this name, Elvinia Köhl? What nationality does it come from?"

I thought maybe she had some Irish somewhere. Her hair, which was short and cropped up the back of her neck, was distinctly a shade of red, but the name did not fit at that.

She met my eye. "Are we going to argue?" she said suddenly, flatly. "If we do, neither of us will make this trip."

She abruptly turned away and looked out towards the sunset where the sky held somber colors behind the rocket gantries. No one Irish could have dropped a fight like that.

She was right, of course. Our chance of making the

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MASAP expedition depended on if we acted as a crew. Either we made the best of it, or there were other crews of pilots and biologists waiting to take over.

Me too, I thought. Very carefully, and treating her with kid gloves, I counted up the rocket gantries and pointed to the fifth and said that that was ours.

At the same time I wondered if the psychologists had allowed for that, for the fact that we had every possible incentive to postpone all possible disputes until it was too late, until we were in space and could not be reconsidered as the chosen couple.

Chapter Three

It began as soon as I came to and saw before me the dark brilliance of the stars. It was the glitter and color and velvet blackness of space I could see before me in my screen, and it took me an instant to realize that we had taken off, and that the reason that there were violet wisps of light across the heavens was that we were already out of the atmosphere and seeing the sky as it was without the elimination of the ultraviolet rays.

I felt the falling sensation of zero gravity and had not time to think of E before my hand went out as it had been trained to do and pressed the lever that connected the accelerators with the electrostatic output of the pile.

"One-half G," she said officiously. "Initial acceleration is one-half G."

I took it as an insult that she should come out of black-

out at almost the same instant as I did. I could not answer because a blinding light shone out of my screen. The rocket was turning, and I had suddenly received a picture of a segment of the atmosphere of the Earth. I corrected course so far as the instruments could tell me what the course was, and simultaneously began to feed information into the computer that lay between us.

"Base calling MASAP!" the loudspeaker bellowed. "Base Calling MASAP. Initial co-ordinates for your flight plot. Hello, Pilot. Over!"

I had an instant's glimpse of a female figure in a skintight silver suit leaning over towards the microphone. "MASAP to Base," she said. "Pilot fully occupied. Give me your co-ordinates and I will feed them to the computer. Restrict communication. We are in some trouble here."

I took an instant to switch the radio off. "Don't tell them we are in trouble," I said. I switched the radio on again.

The loudspeaker was reading out strings of figures and she was reading back. The whole rocket was rumbling with pings and plucked violin strings and stress sounds. I would have wondered how much of it was the skin and skeleton settling down, and how much was the impact of micrometeorites, but I was trying to take a string of angular bearings on stars and the southern ice-cap of the Earth, none of which were coming in the expected range.

"MASAP to base!" I yelled. "Shut up. That stuff will keep." I looked to Elvinia. "Moon-Earth cross bearings!" I shut off the radio. "Errors on all bearings. Let's get a simultaneous cross!" Having told her, I put the radio on again.

"On automatic," she said smoothly, and above me a light came on, indicating that her screen was linked with

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mine and the computer would register the angular distance between the objects in our cross wires. "Moon Polar North," she said soothingly, like a golden voice giving a time check on the telephone. "On now. On. On. Off. On. On."

"Earth Polar South," I said. "On. On. On." A bell pinged as our buttons pressed together.

She leaned over from her couch, releasing her harness as she did so. She had the time I had not to look at the computer figures. "Sector red!" she said.

With my one free hand I slapped her and indicated the radio, which was on.

She took absolutely no notice of me or my intention. "MASAP to Basel!" she said smoothly in her oversweet, telephone-operator voice. "Our first computations would indicate that we are off our course a little. Continue with the take-off co-ordinates, please, so that I can get a check."

"Base to MASAP!" It was the General's voice. "What the hell's the matter with your pilot?"

"My pilot is busy, General," she said sweetly. "Please do not obstruct the line. Course deviations at this stage are most urgent."

If I had been the General I could have slapped her, and as it was I nearly did again. What restrained me was that the computer was not merely showing a red error that my later alterations had not altered, but the velocity-position line was registered as being two degrees different from the plan. At that rate we were not going to get to Mars or anywhere near it.

"Base to MASAP!" It was the General again. "Urgent to the pilot!"

"Come in General," I said grimly. It was hopeless. We could not conceal an error such as that.

"General Commanding to Pilot! Hold everything and

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reduce your G. Error in the firing of your second stage! Hold. I repeat. Hold. Massive error probably means new course for orbit and early return to Earth!"

"Don't be ridiculous, General," Elvinia said.

I shut off the radio. What with the General, the course error, and her, I was sweating, and it seemed safer.

"Will you stop barracking base?" I said.

"You aren't going to obey!" she said. "Oh no. I see you're not. You have your G still on."

"The G is my business," I said. "If base orders us to land, it's because there's enough scare about manned rockets and the risks. If this first attempt is lost, the General'll be ordered to revert to instrumented flights for a dozen years to come!"

"You aren't going to do that?" she said furiously and incredulously. "You aren't going back because of the risk of a course error and because someone has cold feet?"

"The General—" I said.

"I always said the General was a political General!" she said, too loudly.

Since I was just switching on the radio, and the microphone had to pick up her words, that did not help the situation either.

"Base to MASAP!" the General roared. "These are your orders! Your course has been charted to a major error of two degrees! Maximum acceleration and course correction useless! Here are your new thrust co-ordinates for orbit, space-trial, re-entry and return to Earth! Pilot, I said Pilot, answer, Over!"

"I have no patience with him!" Elvinia said.

Angered, I did the only thing I could do. I pulled the microphone nearer so that only my voice would register.

"MASAP to Basel!" I called. "MASAP to Basel Hello, Basel I can't hear you; Over!"

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"Base to MASAP!" the General bellowed. "Base to MASAP I say again—!"

"MASAP to Basel!" I said again. "MASAP calling Basel Mars Atmospheric Sampling and Photography! Basel! There's a fault in our communications. Over!"

"Base to MASAP—!" the General said.

"MASAP to Basel!" I said. "We fail to hear you. I am fully occupied with bearings and course correction. Will call you later. Proceeding! Proceeding to Mars! Over and out!" I switched off.

"Let me tell them," Elvinia pleaded. "Let me ask them if they want to waste millions and our rocket in a local orbit and ruin our only chance of fame!"

I caught her hand from the communications switch.

"Will you please keep out of my business and work on the thrust co-ordinates! Do you know we're lost?"

"Why do you have to make a show and plead a communications fault? Why don't you just tell them that we're going and let them stew?"

I was trying to get the north and south poles of the Earth simultaneously on my cross wires and read off the apparent diameter on my scale. I was trying to check the time as I did so, and press the computer button simultaneously, *and* keep the G quite constant. I was trying to keep an eye on the coolant temperature and register the three radiation intensity dials in different parts of my brain. There were a hundred and fifty routine tests and checks I had not yet made. I gave it all up and turned to her.

"Because," I said gently, heavily, with a sweetness that matched her own, "I don't like to hurt people's feelings. Not even a General's. *And because he can reduce my rank and stop my pay!*"

"You're a coward," she said calmly. "All you service

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people are. You have none of you the detachment of a scientist!"

The rocket was flying on, and we did not know where. We sat looking at one another in the intimacy of it. In her skintight plastic support suit, she sat looking at me interestedly, with calm contempt, like a very female fish. I do not know what my expression was, but I can guess that it was one of incoherent fury. If there was anything else that could go wrong, barring a head-on collision with a major planet, I did not know it.

Chapter Four

It happened, despite my wishes and despite all the restraint that I could use, in the intimacy of the rocket.

It was when she was asleep she was most beautiful. She moved me then, even in those early days, and I would sit on the edge of my couch and look at her and think.

We were more than intimate. We could not be otherwise, confined in that one small compartment for our every action of every day. As she lay on her couch sleeping I would see how her breasts responded to the lack of gravity, to the semiweightlessness that was ours even when we were using the maximum thrust of the ion beam in empty space. And, apart from one another, we were very lonely.

I tried to look on her dispassionately. This, I told myself, is a female member of the species *Homo sapiens*.

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And what was *Homo sapiens*? It was a creature that had evolved, by a slow and painful process, out of primeval slime. It was an animal, a mammal, that suckled its young, and had got the way it had because its ancestors had once taken to the trees and gained opposable thumbs; then had come down again and taken to the plains where they had learned to walk on two feet instead of four. Its brain was an accident, due to the fact that, having an opposable thumb, it had learned to manipulate objects. And what I was feeling at the sight of uncovered female mammalian glands was sexual desire.

It did not work. All kind of awkward questions kept cropping up. For example, what were two mammals doing there, in space? Suppose man *was* a mammal—all right; but why then did he comprehend the sweep of the Cosmos, the existence of galaxies beyond his universe, and the vast range of geological and astronomical time in the past and future? It was as though some insect, living its whole life on a single leaf, were suddenly discovered to be endowed with binocular vision that would enable it to see clearly for a hundred miles. There was no evolutionary purpose in it. There was no physical cause for it. It was about as sensible as the indisputable fact that man was the only creature to know and understand the certainty of his own death.

Some days, before I met Elvinia, life had looked to me like a poor joke. I never had thought much of a Creator who not only damned his creatures but took the trouble to let them know they were damned. But now life looked to me like a rosy poem. Sometimes.

Man found himself born into a universe that was going to last a million million years, of which his own span was seventy. So far as he could see, space went on for a million million light years, and his share of it was one tiny portion of a minor planet of an insignificant sun in

an obscure galaxy. But did man give up? He did not. He set out, with no tools but his hands and no advantages but his mammal's brain, to find out where he came from, what he was, what everything was all about, and where he was going. The first thing he did with the incomprehensibly vast universe was to measure it. Then he weighed it. Then he found out what it was made of. It happened to be made out of structures called atoms that were useful, and so he used them. Now he was going out across his universe to take a look; that is, I was.

She had that kind of spirit and I sat and scratched my head and looked at her. What made her tick?

She woke up and her eyes opened and looked into mine. "Have you no shame?" she said, and pulled a covering across her breasts.

"No," I said. "I was just wondering what made a girl like you come on a trip like this." That was honest.

She sat up and shook herself, letting her hair fall around her shoulders. No modesty, after all.

"What do you expect me to do, stay at home and mind baby and be content?"

"Yes," I said. "You're a fine figure of a woman when you don't get dressed."

"I've no intention of minding a baby in a rocket, if that's what you mean," she said.

"Pity," I said.

Chapter Five

It was the simple fact of using steady, continuous, maximum acceleration that did it, trying to go to Mars.

By the middle of the sixth week, I was getting worried. For ten days I had been taking observations with my screen, lining up the Earth and the Sun and various stars on the cross-wires of my screen, and feeding the results into the computer, and getting the wrong answers.

"Move over," I told Elvinia. "I'm going to use your screen for a while and see what results I get with that."

"What's worrying you?" she said. "You're like a cat on a hot tin roof. We won't get anywhere for years; and we won't get anywhere, period, unless you pay more attention to helping me clean the filters of the symbiosis unit!"

"That's what I thought," I said.

I set to work with Elvinia's screen and repeated all

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the observations I had made. It was a long, methodical process, but that was only half of it. When I saw which way the answers were going in the computer, I distrusted that too and set to work to add and divide and multiply and solve a representative proportion of the problems by logarithms, calculus and long division.

We were neither of us particularly tidy in the rocket, but when the whole interior was littered with scraps of paper torn from the log book and scrawled on both sides with extensive calculations, even Elvinia complained.

"I wouldn't mind," she said mildly. "But suppose we want to write something some day and have no more paper?"

I looked around me and saw that it was time that someone did a little clearing up.

"Have you any knowledge of relativity?" I said. "I know you're a biologist, but did they teach you anything about Einstein in your mathematics course?"

"Not in the domestic science department," she said, but she sat down among the litter and looked at me.

"We will cross the orbit of Mars in one week, two days and eleven and three-quarter hours," I said. "Mars won't be there, but that is a minor matter compared with the fact that we should have crossed so vast a distance in so short a time." It was.

She looked at me. Then she looked puzzled. Then she turned to the nearest screen, which happened to be mine, since I was using hers. She was no navigator, but at the same time she had had a scientific education and was no fool, not in that way.

When she turned back to me, after taking two of the obvious angles, she said, "There's something wrong with the position of the Earth in relation to the Sun."

"And with the position of the Moon, and Mars and Venus and Jupiter too," I said. "I noticed."

"Is that all you have to tell me after working ten days on a problem the computer should have solved for you in the first five minutes?" She was wonderfully scornful.

"The computer didn't solve this one," I said. "I'm going to perform an experiment, and I want you to realize the significance of it before I start. The result may be a shock to you."

"The symbiosis unit is still working, fortunately," she told me. "My shocks to date have all been concerned with that."

I glanced at the picture in my screen, at the Earth that had moved halfway round the Sun since we had left it. I looked at it broodingly. Even to me it looked a peculiar thing for the Earth to do inside six weeks.

"By the general theory of relativity," I said, "a body traveling at the speed of light would acquire infinite size and mass. That's easy. Every schoolboy knows that. What is not so easy is that it will also necessarily have zero time."

"I don't like infinities and zeros," she said. "They are the things that never come into biology. I'm prejudiced against them and consider them unreal."

"How do you measure time?" I said. "By the movement of clock hands across a distance, or by the movement of radio waves past a given point. But a body traveling at the speed of light would be instantly everywhere at once. There could be no movement within it because it would be there before it started."

"Us?" she said succinctly.

"Not exactly yet," I told her. "Six week's acceleration at one half G only gives thirty miles a second. But thirty is a small but appreciable fraction of a hundred and eighty-six thousand when you come to think of it."

"Not enough. Not enough to make any difference in our measurement of time."

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"That's what I thought. But thirty miles per second is what our speed is assuming that we have been accelerating at a constant speed. Only any change of speed must have some effect. Even a tiny acceleration continued over one hour must displace the body relatively towards the speed of light, and you can look at the effect of that in two ways. One is that the body in question has got fractionally larger; the other is that the constants of the universe, as seen from the body, have got fractionally smaller. Either time slows down or the distances around us begin to shrink."

"You *do* talk," she said.

"As time slows down or distances get smaller," I said, "so our speed and acceleration measured from this vehicle increases. It's an exponential curve. Maybe we aren't doing thirty miles a second; maybe we are doing three hundred miles a second, and the next measurement will show it to be three thousand. You know what the Army is. They worked out our trajectory on Newton and Euclid because that is the way it would look to them. They didn't stop to think that the man who controlled this vehicle would need to know his Einstein."

I knew what she was going to say, so I did not give her chance. I stepped over to the radio switch that we had regarded as permanently out of use and performed my experiment.

"MASAP calling Base," I called. "MASAP calling Base. Can you hear me? Our chronometers have stopped and we want a time and date check."

There was a fearful amount of stellar static on the call, and when the voice came it was incredibly far and distant:

"Base calling MASAP! Base calling MASAP! My God, where have you been? Here is your time-date check: 0746, 23rd July. Report in! Report in!"

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I switched off the switch.

I went back and sat down again.

"You see," I said, "we are already accelerating through time at a rate that has enabled us to cover six months in six weeks."

"And you didn't think of that?" she said. "You mean you've bungled it because you didn't know your Einstein, and we've missed Mars?"

"I was going to ask you," I said. "I was going to ask you if you wouldn't mind going somewhere else." I was speaking carefully. "Say to somewhere out among the stars."

"The stars?"

"Einstein says we can go to the stars despite the distance, only he never knew he said it."

Chapter Six

I was asleep, or had been asleep, but I had a peculiar feeling. I knew where I was. After three months of living in the rocket, I no longer awoke expecting to be somewhere else. I was on my couch in the closed, narrow compartment of the rocket, and that was where I was likely to be as though I had lived there all my life.

I allowed my eyelids to open a fraction of a degree so that I could see out of them hazily, through the eyelashes, through narrow slits.

The peculiar feeling was right. I was being watched.

Elvinia was sitting on the edge of her couch, looking at me with her head between her hands and her elbows on her knees. She looked as though she had been like that for the major portion of her on-watch period.

Strange, I thought. Most of her actions when we were

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both awake seemed designed to prove that she had not the slightest interest in me.

As I watched her surreptitiously, keeping my ears alert, I heard her give a sigh. It was a disappointment more than anything when she turned away and began to play with the screen, changing its focus and direction and getting pretty pictures. I did not move, however, for every twenty or thirty seconds she would glance at me.

The first picture she got was that of the universe ahead of us. It was a very beautiful universe except that it did not have any planets in it, only stars. The stars, too, did not look quite as they did from Earth. They had a blue, metallic, steely glitter; and there were far more of them, as though more had come up over the horizon ahead, brought into being by the blue-shift that lifted them out of the red. Even Elvinia must see, I thought, that our universe in that direction extended a long, long way.

She shifted the focus dial so that the scene dissolved, then turned to me, looked at me for a while, and sighed again.

Maybe it was because I did not move, but lay there apparently sleeping, that she turned to the screen again. This time it was the view astern that she chose. I knew it was the view astern as soon as I saw the number of red stars she was getting. The red-shift had affected all the stars in that direction, including our dear old sun. And there were not many of them. While the universe ahead was almost milky with innumerable stars and galaxies, the view astern was largely holes, black space, with nothing there. The light from the receding galaxies was simply failing to catch up with us, and it was a most depressing picture.

Elvinia turned and looked at me again. She looked at me for a long time with what I thought, or hoped, was a

kind of yearning expression. Once she moved, and I thought she was going to touch me, though whether to cover me or uncover me I could not even guess. I was disappointed that the question was unanswered when she turned to the screen again.

She chose the view abeam, and that was probably the most interesting of the lot. There was a solar universe that we had seen from far off, too far round on the bow for us to go to it, and now it was abeam, with three planets revolving closely round a sun. Our speed had been comparatively low when we had first seen it, and we had seen that it was one of the major stars, with the planets in a slow and almost imperceptible stately orbit. But now, abeam, that star, like all the other stars, had shrunk. It was a diminutive speck with the planets simply whirling round it. The whole universe abeam was like that: full of ridiculously puny stars in fast excited motion like atoms in a heated liquid. And I lay back contentedly, with my eyes open, looking at Elvinia and wondering what she made of it.

I snapped my eyes shut as she turned to me.

I kept them shut for a long time as I felt her looking at me doubtfully and suspiciously.

She must have been convinced in the end, for I felt her, incredibly, touch my hair and move a strand of it from across my eyes. I lay quietly and hopefully, expecting something else to happen, but it did not.

I decided that I had better wake up.

She had been looking at me, but she turned away from me quickly and gave her attention to the screen, with which she was suddenly very busy.

"How long will you have to live with me, Elvinia," I inquired delicately, "before you fall in love with me?"

"With you!" The face she turned to me bore every evidence of exasperation. It was not at all like the face

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I had seen a few moments before. "If you were the last man left alive. . . !"

"I might be," I said. "Those are very interesting pictures we are getting on the screen. They seem to indicate that we are traveling as fast through time as we are through space. Have you considered the point that all the other men you knew back on Earth before we left are probably dead already?"

She sat there looking at me with her mouth open. For once I had the satisfaction of seeing how Elvinia looked when, for once, she was shaken absolutely rigid.

"Relative time," I said. "We have covered a distance of maybe twenty light years, and to an observer on Earth we will have been accelerating slowly and steadily to a speed a fifth of that of light. You work it out."

"You mean that over a hundred years have elapsed on Earth already, and that everyone, every single person that we knew. . . !"

"It's for us that the constants of the universe have been decreasing," I said. "That's a function of our relative speed, you know. I've realized too late that while we are flying between the stars the people back home won't get that benefit."

Chapter Seven

It emerged out of the brilliant maze of stars before us. At first, in our screens, it was just a variable star, a star whose brightness varied, probably a binary. It was unique in that, however distant, it was directly in our path, and therefore we chose it as our destination.

"A massive binary is exactly what we want," I explained to Elvinia. "We need an object, a solar system of great mass, the gravitational force of which will swing us round with only a moderate reduction of our speed. We will go round it in a U-bend and fly back on a reciprocal course for Earth. There is a danger that if we fly too far across the cosmos we may be away too long and come back out of the human period altogether."

"Metaphysics," she said.

I said, "What?" I was adjusting my screen. I wanted to get the star into focus, absolutely true and clear, so

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that as we fell towards it I could begin our long deceleration.

"Metaphysics," she said. "I don't believe it. All this about relative time. As a biologist, you must permit me to remain a sceptic."

I had got the image clear. I began to operate the rocket controls for the first time in months. I added power to the gyros that permitted us to set our course, then put leverage on them so that the whole rocket began to turn over in space. When the star came into position on the screen again, directly below us now instead of above, I stopped the thrust on the gyros. I looked up.

"It isn't a question of belief. You've seen what happened. We accelerated steadily away from Earth as no man in no spaceship has ever done before. It is a physical fact that, so far as I can make out, we have covered a distance of over twenty light years. But from Earth we would be seen to be accelerating slowly for a hundred years. That is the only way we could possibly have covered such a distance."

She was sitting on her couch and looking at my screen. "But we haven't lived for a hundred years," she said. "If we had, we would be dead."

I was working. It was necessary to get the star in exact alignment and make sure that the deceleration was exactly right.

"For heaven's sake!" I said. "You know the answer to that! Time has become shorter for us and all distances have shrunk. It's elementary! You can deduce it from any of the Einstein formulae, and from the fact that light always seems to come to you at the same speed no matter how fast you travel! It's been known for years that if man was ever to fly between the stars, it must be this way!"

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"Human life," she said. "Physiological processes. They wouldn't vary."

It was awkward. I was trying to focus on the star again but it was not as easy as it seemed. It seemed to have a halo round it. I did not understand that. All the other stars ahead were clear and bright.

"Oh, hell!" I said. "You're a better scientist than that. It isn't a case of physiological processes or the speed of human life. It's a variation in the rate of time itself that's due to our speed of travel!"

"Since I don't believe in your theory about a big elapse of time on Earth," she said, "I'm going to insist on something else. We aren't going to whip round whatever star we come to; we're going to stop and see if it has planets. If possible, we're going to examine them and go in close orbit round them and take atmospheric samples and photographs, just as we were going to do on Mars."

I was so busy working on the faint but just detectable halo round the star that for a moment what she said did not penetrate to me. Then I looked up quickly.

"Are you mad? For us to slow down like that, then get into a planetary orbit, would mean going round the star at a planetary rate. It might take months! It might take years!"

"Why do you think I came on this trip?" she said sweetly. "Just to act as your cook and bottle washer and farm algae and air and condense water for you?"

It was my turn to be shocked. I looked at her for a moment, then turned to my star and saw it was centered on the cross-wires and cut in the rocket power. Halo or no halo, it was essential that we begin some kind of deceleration. Then I turned back to her.

"Listen," I implored her. "Try to keep a sense of proportion. We have made the biggest discovery of this or

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any age. Columbus had nothing on us. We've opened the pathway to the stars! That's enough for one trip. The thing to do now is to get back to Earth and tell them what we found!"

She looked at me with an expression of acute disinterest.

"Tell me the name of one member of Columbus' crew," she said.

I stared at her.

"That's what I'll be," she said. "I'll go down in history as the forgotten member of your crew. I don't appreciate that fate. The scientific work of this trip was supposed to be mine, remember? I was to sample the Martian atmosphere and produce the first proof of the existence of life on other worlds."

"But in relation to this!" I said.

"In relation to nothing," she told me. "You've discovered the way to the stars. So what? Who wants to go to the stars if no human thing can live there? People know about the stars. What they want to hear about are planets that are green and pleasant lands!"

She staggered me. What she seemed to be saying was that my whole great enterprise and discovery was absolutely nothing. Or was she? Was not her point that it was my discovery, not hers?

I looked momentarily at the halo. I was sure it was there. A halo round a star. It was a peculiar and unexpected phenomenon, and I ought to deal with it.

"I'm sorry," I snapped. "I'm commander of this expedition, and I hesitate to put it this way to you, but though I may get used to you as a person, when it comes to decisions, what I say goes!"

I was looking at the screen.

"Without a computer?" she said.

I looked back at her.

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My face set in horror. I could not believe it. She must have gone insane. She had moved from her position on her couch to the far side of the computer. She had picked up one of the heavy tools she used for opening the valves between the tanks of the symbiosis unit and was threatening the computer with it.

"God!" I cried. "If you do that we'll never get back to Earth at all!"

"I know," she said. "It's one way of convincing you that my good will is vital, that I'm quite essential."

I sat there wondering if I would be in time if I leapt forward and tried to grapple with her. The idea had some attractions. I began to see her through a kind of haze. I had thought from the beginning of the trip that sooner or later I would have to teach her some kind of lesson. But why was the idea attractive? I tried to imagine seizing her, our rolling on the floor, her upturned lips . . .

I shuddered. I wondered who was loonier, her or me.

I turned back to the halo, to the starlight in the screen.

"The argument is academic," I said. "I'm not sure there will be any planets. For good or bad, the one that lies ahead of us seems a most peculiar star."

She came across and gently kissed me.

Chapter Eight

As we approached the binary of Eclos we spent more and more time before the screens, at first in wonder, and then in anxiety, and finally in awe.

The halo was a disc, a series of ill-defined rings like those of Saturn, and long before we reached them they spread out diagonally across the universe ahead of us like a rainbow-colored mist.

Elvinia sat looking at the phenomenon for days on end. She seemed strangely subdued yet strangely elated. She was silent, unusually beautiful, and far too close to me in the rocket. I knew there was something brewing, but I did not know what.

My anxiety was caused by the fact that I had to use maximum power to decelerate sufficiently not to hit the suns of the binary or to pass too close. In theory we had

plenty of time to pull up or change our direction slightly before we reached the star. In practice it proved far more difficult. Either the star had an almost overwhelming mass and gravity, or there was some other force at work. I worked on the theory that what was drawing us forward was the still-vast expanse of the universe we could see ahead compared with the few red stars we could see astern. I awoke one night sweating as I thought of it. If gravitational attraction, like all other electromagnetic waves, was only effective at the speed of light, then as we ourselves approached the speed of light the universe ahead would grow vaster, with increased attraction, and that astern would fade away. We must have been very near a point at which nothing we could do would prevent us shooting on, faster and faster, towards a mass of stars ahead with nothing in our wake. How near had we come to total loss and death? I took measurements night and day after that. It was touch and go whether we were going to fall into the suns.

"Try to find some way through," I asked Elvinia. "Work with me to find some path, some orbit that will miss the rings. If there's one thing certain it's that we can't get round them now!"

I looked at the view of them across the screen. They extended into space across it, continuing, awesome and wonderful, beyond its ends. As we came nearer, it was as though we could feel the thunderous, soundless roar of the great suns in the center that lay ahead; and, having overshot in the early days of our deceleration, we were plunging, helplessly it seemed, almost straight towards them. At a minimum, it seemed that we would hit the rings. But rings of what? Of gas or dust or whirling chunks of jagged rock? There must be some way through or round them. There had to be.

"Have you thought that those rings might be rings of planets?" she said.

"Of planets?" The idea staggered me. "But we are seeing them as solid rings! How many planets would be required to give that impression, a hundred thousand or a million?"

"Why not?" she said. "Who knows how many planets it's possible for a star to have? Would anyone believe that it was possible for a planet to have rings like Saturn if we didn't have an example of it in our solar system?"

"We can find out!" I said. "If the rings are composed of solid planets, we should be able to separate them by use of the largest telescope, and you can make a spectroscopic analysis of their lines of light-absorption!"

We worked for a day, and then could not believe what we saw and the conclusions that we came to. We worked again, and all the time the vast rings about the two suns of the binary star spread out in space before us, tilted, turning in space, and slowly becoming more edge-on like two great arms flung out to hold us.

"It's no use," she said at last. "They are planets all right, whole worlds with atmospheres and oxygen in their air, but so dense that approaching them at this angle we must collide."

"If only we could forecast their movements and find some way through," I said. "I can't. They are all in mutual orbits so that every one is a satellite of every other. It's a mathematical problem beyond the range of our computer."

She looked at me, standing there in the small compartment of the rocket that was our home.

"You mean," she said dryly, "that we're going to die."

It was a statement, not a question. I looked at the screens again, at those vast rainbowlike rings, tilted and

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almost edge-on that spread out ahead of us across a starry sky. It was true what she said. We *were* going to die by accident. But why had I allowed her to make the calculations with me? If I had not, she would not have known.

"At least in this," she said, "you have treated me as your equal."

Standing there, in the moment that we knew, she looked beautiful and calm. She remained for a moment, thinking. And then she came to me.

"We have how long, six weeks?"

"Six weeks," I said.

"Six weeks now in which to live a lifetime," she quietly told me.

She had come halfway towards me. For the first time there was no resistance when I came to her. She threw her head back and looked at me when she was in my arms.

"I thought we would have to wait so long for this."

"Not now," I said. "Now we can at least make a beginning of the beginning."

"A beginning," she said, "that will also be the end."

We began then, with our bodies and minds together, in a dream of touch and feeling that did much to balance the knowledge of our fate and obliterate all thoughts of what might have been, of another world. We had waited too long, perhaps, and when our first real meeting came we were lost in the sea of our blinding passion. We knew no difference between night and day for those six whole weeks. To have had to wait longer, I thought, would have been too long. It would not have been worth it. For myself at least it was better as it was, physical and actual, a palpable dream world of

touch and feeling that was permitted and made actual by the fact of death.

But she did not lessen or break as the six weeks passed.

Chapter Nine

I looked curiously at her as she faced the screen.

She was standing naked, with one hand on the control, like some goddess who was immortal rather than someone who was so soon to die. She could see the information that the image in the screen contained. She could see the great planet looming, already with the diameter of a moon. She could see the minor discs, the planets on our level that were closing in before us and behind us; yet she stood there unmoved and cool and was calculating chances.

"You say this nearest planet is going to miss us?"

"I've calculated his orbit through the last three days. They move out to the periphery of the ring, then in again towards the suns. He has reached his farthest point. He will begin to recede before we hit him."

She altered the focus and magnification of the screen.

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"A pity," she said. "We never will know what lies behind that barrier of cloud he has around him. If he moves in to the suns and out again, his temperature must be equable. He must support some kind of life."

"Not us," I said. "We would have no chance at all if we fell on his vast mass."

"I am not assuming that we have any chance. We decided we had none six weeks ago!"

"That does not mean that I'm not going to make a fight of it and stave off defeat as long as possible."

She glanced at me and smiled.

"If you had told me we had any chance at all, these last six weeks would have seemed longer and been a little different."

"Don't delude yourself," I said. "Our fate lies here." I pointed to a faint speck in the corner of the screen, a tiny planet that was far away and as yet quite insignificant.

"So small a planet? It probably hasn't any atmosphere at all."

"That's what I mean. There will be nothing to break our fall."

She came and sat beside me at the screen to watch. Our movements were taking place with interstellar speed. The great planet came nearer than I expected, so near that I half expected to hear the roar of an upper atmosphere around the rocket and begin to feel the searing heat. When it seemed certain that we would be burned in his upper layers, he suddenly moved away and our course curved round him, deflected but not captured or stopped by his attraction.

It was a pale green planet that, as I had calculated, we passed near to. We watched it coming towards us and saw baleful sunlight glinting on what looked like terrestrial seas.

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"If only we were going slower," Elvinia said. "If only we could use our landing rockets!"

"We could use our landing rockets all right," I said, "if only we could slow down our relative speed sufficiently to be able to get near enough and enter an atmosphere without burning to incandescence like a meteor."

"Is that how we are going to die, by burning?"

"But instantly," I assured her. "And in a flash of light."

She looked at me strangely. "Six weeks have softened you," she said. "Even I know it won't be fast like that. You begin to pull your punches."

"Six weeks have been worth a little softening," I said. "If it were humanly possible I would arrange for us to die some other way than this."

She laughed, her naked arm around my naked shoulders. "You don't mean that. It would be possible for us to die at any time. You said you prefer to make a fight of it."

The pale green planet came very close. I altered the angle of attack of our overloaded atomic motors.

"You are trying to get near it?" Elvinia said. "I would have thought you would try to get away!"

"A risk," I said. "The closer we get the more we will be affected by its gravitational attraction. It won't slow us down, but every near contact means a pull to help us to follow their direction."

Again Elvinia altered the focus of the screen. It was the moment of risk again, when we might be grazing the upper atmosphere. "Look at this!" she said. "You can see the lands, the continents and the seas!"

"We can't reach them," I said. "Either we die in the atmosphere or else we miss them altogether."

"But this is important!" she said. "I saw . . . I thought I saw . . . some kind of city behind that orange cloud!"

"Strange beings," I said. "Who will come and rescue

us from the peril in which we find ourselves? I don't think they will." But I shared her strange excitement, her sense of what was important in a more than human way.

We traveled half round the planet, and the deviation of our course was such that for a moment I thought we were going to miss the next oncoming world and penetrate deeper into the swarm.

It was the small blue world I had seen in the distance, and it did not move across the screen as the others had done but remained in the same position and slowly grew.

What could I say? In the final seconds I found myself thinking that the most important thing I had discovered on that voyage was that I would rather live with her than die with her.

I moved to my own couch. "Strap down," I said. I adjusted my harness about my shoulders. I watched the screen.

I saw her lying on her couch, strapped by her harness, watching her screen, seeing the blue world grow and grow, looming ever vaster until it filled the screen.

Was I mistaken, or had it begun to move across? It was too late to wonder. At the crucial moment, I fired the solid fuel landing rockets. I thought I saw . . .

We were not aware that the atomic stage of our rocket had been cast off. We were aware only of the fierce, blinding pain as the full power of the solid fuel motors began to act on our tiny cockleshell of a cabin. Above me, above the screen in which the planet loomed, the needle of the G-meter was flashing round. Five G . . . Seven G . . . Nine G . . . How much was it that human flesh and blood could stand, and what was the duration of the solid fuel rockets?

I blacked out, my hand fell off the key, and there followed a sensation like that of a falling leaf. For an instant I was awake. There was a smell of burning, a sensa-

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tion of heat, and from the screen came nothing but the sight of a dull red glow.

I knew we were falling through the atmosphere and would shortly perish. My hand tightened on the key again. The solid fuel motors were arranged in banks. I fired and fired.

The screen was clearing. Below me I saw a countryside, a kind of forest that seemed to wheel and sway. Direction of rotation, I thought. In a blinding instant of revelation, I knew that I had got it right.

Chapter Ten

We were lying separately in pitch darkness.

"But how?" Elvinia said.

I fumbled with my harness. I was expecting explosion, fire, or noxious gas at any minute.

"But how?" Elvinia said insistently, her words coming through a strange silence. "How are we still alive? Or are we dead?" She sounded angry.

"Dead shortly," I gasped. "Try to clear your harness and make some kind of light."

A flickering light came on. Unlike me, she had found her emergency battery switch and found it worked.

I sat up and looked about the control compartment of the rocket. To sit up, I found I had to sit on the side of my couch. The control compartment was no more.

The remains of the rocket were lying horizontally, flattened on one side. The head, where the symbiosis

unit had been, was completely crushed. All I could see in that direction was a mass of twisted metal. There was every indication that we were trapped.

"The planet was moving across," Elvinia said. "It was moving across the screen, and there was every sign that we were going to miss it; then you suddenly lost your head and tried to land."

Some of the plates were bucked and bent and broken, but there was no light coming through the cracks. I wondered if we were buried.

"Spinning," I said. "The planet was spinning. I detected its direction of rotation. It was spinning fast."

"You mean you saw that in those instants? You worked it out?" Incredulously, she was strangely bitter because she found herself alive.

"Oh God, no! At those speeds, you don't think. You act. Let's get out of here! I came down along the equator, on the side the surface was going away from us. Atmosphere was turbulent. Perhaps no oxygen! It didn't burn us up."

She lay there. I thought she was thinking of my landing on a spinning disc; of coming down on the side of air already moving in our direction due to the rotation of the planet; and of fighting our machine to drive it down.

She said, "I feel you cheated me. I was going to die. I haven't." She cleared it by speaking of it, tried to.

Perhaps she decided it was too late, for she sat up and began to look around the crushed compartment as I was doing. She looked bruised and tired and quite unsteady.

"Air pressure?" she said. She was making a bid to control the biology of our situation.

"Instrument out of action!" Would she give up?

I had got away from my couch and only glanced at

the pressure gauge. I crawled up the side of the compartment that seemed to be on a slope. I could hear some kind of tapping at the other end. I glanced back at her.

She watched me. She was sitting there. It was not easy to know what to do.

I put my ear to the side of the rocket shell. I heard a tapping and a rustling, a faint trickle, and a humming sound. Then she began to act.

"There's a fluid, water, seeping in at our lower end!"

I tried to make sense of our impressions, but I could not do so. At least the threat had roused her.

"This is not a still and dead world," I said. "I hear something going on outside! Short of air though!—I'm breathing with difficulty from time to time."

She thought of it. She placed our situation in a nutshell, "We're hermetically sealed and the symbiosis unit is out of action." That was her brain at work again.

It was true. The air was not thin; it was foul. I tried to think what that meant.

"We've landed nose-first in a bog. We've got to break out. There's every chance that we're slowly sinking!"

She had got up from her couch—if "up" could be called an uncertain stance on both hands and feet in the semi-darkness of our fading light. We climbed up towards the air-lock hatch with its bolts and flanges on the upper side of the broken plates above the wreckage of the symbiosis unit. I began to unfasten the bolts.

"Stop a moment," she said, "and think!"

"Moments may be vital before we drown!"

"We will drown," she said, "if you open that and let the air out before we get out, because this thing sinks too fast; and there may be no oxygen on this planet!"

I stopped. I saw what she meant. There was every chance that the compartment we were in was forming a kind of bubble. Once the upper part was opened, the

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sinking might be fast. But if there were no oxygen . . .

"Got to do it!" I began again. "We'd not get out of the other end of the compartment without a flame-cutter! Either we get out of this or we are trapped for ever."

It was sheer luck that the rocket had landed with the hatch upwards. As it was, it was only upwards in the sense that it was on the upper part of the lower end. I could see the water rising towards it as I worked.

There was only one bolt left, the far one from the hinge. In position on top of the wreckage of the symbiosis unit, I moved to one side.

"Up beside me, quick! When I release this, the hatch may fly open. If it does, you go! Don't delay by looking round for me; you'll only block my way!"

She came up and crouched beside me, cheek-to-cheek and thigh to naked thigh, as I worked and the water rose. I thought of clothes but decided we must do without them.

The hatch did not fly open. It opened a few inches and the air began to rush out with a screaming hiss. For an instant we waited for one another, dangerously, with the water rising and the rocket sinking and the air escaping. Then I moved up and got my shoulder to the hatch. It opened and I tried to get her past me. She could not, or would not, go. I got out and bent down to pull her out. She was caught in a current of water in the submerging compartment, and almost pulled away from me. I did not let go. She came up gasping and we rolled over in the water on the outside of the rocket. When we climbed upright, we were up to our knees in water. There was a bank with a kind of blue vegetation a dozen yards away, and the rocket was moving under us. There was water and reeds all round us in semidarkness, and the bank looked like nothing more than a tiny island.

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The rocket was visibly sinking and rolling over under us. Great gulps of air broke from the submerged hatch; it was about to go. Elvinia clung to the projection of the hatch door and I seized her around the shoulders and pulled her off into the water. It was water, though not clean water. It was cold, and we were breathing some kind of air. We began to swim for the nearest bank, the rocket disappearing in a turmoil of the waters behind us and leaving us marooned, not yet on shore, and naked as we were born. There was a strange, blue, half-lit sky above us and alien vegetation was bending in the whistling and humming breeze. It was inhospitable country that had never known the form or shape of man.

Chapter Eleven

The rocket had sunk.

We looked about us and we did not say it. We did not say that it would have been better if we had died. Elvinia was sitting, and I was crouching, among the blue fronds of an alien vegetation, seeking shelter from a bitter wind that drove little scudding waves across an endless, level marsh that stretched as far as we could see.

It was dawn, with a strange yellow sun hanging low in a sky that shaded away to a misty, milky blue. I stood up and looked about me. I saw no ending to the marsh. I turned and looked at the water where the rocket had disappeared. It was buried deep in mud, and, if it were possible to dive and reach the outside, it would still have been impossible to get inside without salvage equipment and a diving suit.

"This looks near our end," I said.

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"You mean we just stay here and wait to die?"

I tried again to see some way across the marsh, some trees or islands in the distance. I was sure I had seen something in the screen just before we landed. There had been trees or larger plants; and even if they grew in swamp, if the swamp were never-ending across the planet, they would provide a platform and maybe a means of life. Of life? Again I felt it was most unlikely. No castaway had ever been marooned with less than we had, in a more hostile place, in a more alien environment. And I could not see the trees. The horizon was flat as far as I could see. We started with a zero in everything, including knowledge.

I looked at the spot where the rocket had sunk. If we once left it, I feared we would never find it again in that featureless waste. There were not even stones to make a cairn. There was not even a rotting tree trunk that could be set on end. I could only look at the shape of our island and try to remember it, to photograph it on my mind.

"Let's go," I said.

She got up; she looked at me. "You mean we are going to make a bid for survival here?"

At that moment the second sun came up above the horizon and the day grew warmer, or at least appreciably less cold. It would not last long, I knew, for the days and nights must be very short, but it was sufficient for our minds to seize on as a kind of flickering glow of promise.

"We will live here," I said. "I am a practical mechanic, you are a biologist. Between us we can live anywhere."

Maybe, I thought. But I went to the downwind shore of our island and looked carefully out across the marsh. The planet was small, and the distance that could be seen on a level surface was less than two miles unless

we could find some rise of ground to stand on. The marsh in which we were gave the odd visual impression of standing in a hollow. But I was not concerned with the horizon. I was watching the water, disregarding the waves and the wind-driven surface drift. I looked particularly for the places where the water crossed a bank.

Elvinia was beside me.

"There's a slow flow from right to left," I said. "We must go to the right, with the wind on our right side. If we go the other way, the marsh will get worse and probably end in some kind of sea."

She walked forward to the right, and we came to a deep channel that separated us from a bank of reedlike weeds.

"Swim?" she said.

"What happens if we get this water in cuts and bruises? What happens if we drink it?"

"We've had it in cuts already. We're not going to die from that cause! It won't be as easy as that!"

She went into the water quickly. We swam across and came out gasping onto mud. It was not pretty, and it took considerable resolution to go on at all. The reeds, like the rest of the vegetation, were soft and pliable, with a faint blue tinge. Elvinia bent down and looked at them. With her hand, she made a parting in the mud, then came on again.

I watched the water in every channel. The swamp was a maze. Some of the channels were absolutely still, and in some the water was flowing appreciably. We came to an island that was bigger than the first, then another.

"How much do you want to live?" Elvinia said as we walked.

"I'm hungry, but I've not yet reached the point where I want to lie down and die."

"Are you sure of that?" she asked me. "Have you

thought that our position is the same as that of the first naked hunters who lived on Earth? We are wanderers with no tools and no security. Those men lived largely on shell fish and worms and snails."

I thought of her looking at the plants and digging in the mud. My stomach and mind revolted. I was not as hungry as that as yet.

"Anything that lives in this swamp is probably poisonous!" I said.

We were pressing on. Already the two suns were high in the sky. It was vital that we reach some kind of shelter for the night. She turned and looked at me.

"You may as well face the biological facts of life on this planet. The significant fact is that we have seen no birds and no plants of a higher evolutionary standing than a fern. There are advantages and disadvantages in such a world. Since there will be few predators or carnivores, and perhaps no grazing animals, nothing will be armored or poisonous. There are probably no bacteria or disease organisms specializing in attack on mammals. There is nothing to help you here, but nothing to harm you!"

I saw a future in which we would be sub-cave men. Not the active men who had lived on Earth in the early days and killed the mammoths and wild cattle and worn their skins; but the other kind of men who had lived then, clinging to the shores, facing no dangers but living in incredible poverty in squalid villages in kitchen-midden settlements. I would have preferred the more active role.

"At least we won't get pneumonia from the wind and cold!"

"The pneumococcus has almost certainly not evolved on this world as yet," she said. "Unless we brought him with us."

I looked down at my feet. We were lagging slightly

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because we were going up rough ground and up a slope. It was a very slight slope, it was true, leading to the low top of an almost level island; but it was the first slope of any kind we had found, and the ground was rough because it contained some kind of shale or stones, and the plants were almost waist-high instead of knee-high. At the top I put my hand on Elvinia's arm and held her.

The ground was more broken ahead of us. Instead of swamp, it had the aspect of a maze of streams and islands. And away ahead, perhaps four miles away but showing above the horizon, was a blue line of what looked like trees on a continent or a land-mass.

"We are making progress," I said. "Already, on these islands we will have more protection from the wind."

"You know it all, and accept it, and are prepared to try to live?" she said.

We looked across the land ahead, the broken islands and the blue line of what might be trees.

"Even here," she said. "With nothing, knowing that we'll never get back to Earth again, or see anyone except ourselves?"

I put my arm round her shoulders and drew her to me.

"There's one thing that man is," I said. "He's a creature that has no built-in mechanism that says he can just lie down and die."

Her body came closer to mine, and we looked at the world ahead of us. Speed of adjustment was the main thing, I thought: the cultivation of the sense that we were separated from all our past.

"If I can forgive you for not letting us die, we'll make out," she said.

"You wanted that? You'd have preferred it, to die?"

"We're here," she said. "I'm a woman with life in me; so we'll live here and I'll have children. We'll bring them

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up in a featureless, unlovely world and they will like it. That's the ghastly fate in store for us—that we won't even dare to tell them what they're missing."

Chapter Twelve

Slowly, we acquired a misleading hope.

It was early winter when we landed, with the small world not yet at the end of its travel from the suns before it turned inwards on its complicated orbit through the planetary rings towards the unknown heat of a summer season. By spring we were living in the camp on the edge of the forest beside the streams, and Elvinia was big with child.

The fire burned perpetually before the hut of woven leaves. It had taken me a long time to discover the technique of making fire by friction between dry sticks, and to let the fire out meant the work of half a day. Along the bank and towards the shore lay a patch of broken stones where I had painfully learned to chip and break the raw material to make our stone-age tools. Between the hut and the shore was the kitchen midden we had

forecast: not a mound of shells, but a gristle leathery outer parts which our prey had evolved instead of bones.

Elvinia emerged from the hut and looked gloomily at me. She came towards me along the path through the undergrowth of the forest and leaned her bulk against a fern frond as thick as a tree trunk. She watched me as I worked, chipping steadily with my stone axe.

"How long will you expect me to go on with the food-gathering, the bending and the stooping?"

I looked at the timber I was fashioning. "As long as you are able. In savage communities the women do that kind of work until the day. The important thing for us is that I should make this boat."

"A boat?" she said. "You call that a boat?"

"A raft, then. A means of transport made with no true wood, with no nails, and no stout lashing. Every one of these cross members has to have a row of sockets and a peg to fit each socket. There will be a small hut on the raft. I'm even thinking in terms of a baby's cradle."

She was physically heavy of body and of mind. Looking at her hair, which was a tangled mane around her shoulders, I thought that I must take the time, even if it were at midnight, to make a comb.

"So that is the extent of your provision for our future. You disregard the food problem. Do you realize I will have to suckle this child for the first two years?"

"I know. If your milk gives out, they die."

"They?"

"I thought you had decided you were having twins?"

"We can't rear twins. It was only the problem of complications during childbirth. I said that when I was telling you the reasons I might die."

I laid down my axe and looked at her.

"Are you threatening me with that? Making me feel that if you were to die, the child would soon die too and

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I would be left alone. You want me to feel the uselessness and helplessness and inadequacy of the male?"

"You sound scared that it might happen," she said.

"I'm not scared of it! A man can live alone. When he's adult he's not dependent on a female!"

She laughed. Despite her bulk and her hair, she had contrived to look desirable, and that was what she wanted.

"When you've made this raft, how do you propose to feed our increasing family?"

I grinned at her. "You assume we will go on having children?"

"You think you will be able not to have children?" she asked me. "I doubt it. I doubt if I would want you like that."

"You haven't had your first yet," I told her. "When you have, you may change your mind about me."

"I'm not afraid!"

I considered her, the way she stood, the way she spoke, the way she looked.

"You succeed. You succeed in giving me the impression that you're not."

She did not change her stance. "It's something that has to happen. When it has to happen, and it has to happen again, and there is no possible escape, 'afraid' is not the word. There was something we lost in civilized life: the alternative, the temptation, the finding of some way out. It's easiest for me when you tell me there is no way out."

I had left my work and come to her. "There is no way out," I said. "When I make this raft and we move about the planet, and while I build and you work, child bearing will go on."

"Because you wish it?"

"For more than that. Because if there were no child, one of us would die first and the other be left alone. That

would not be me. Men do not live longer. It would be you, and I can't have that. But we can't leave one child to live on this world alone. We can't even risk two or three children, in case there are not enough of both the sexes. In this hard life, one half of them will die. You must have children steadily from now until you die or can no longer have them."

"It seems to me that we are in a trap," she said.

I took her in my arms. Neither of us were sweet or fresh or clean, but we served our purpose.

"The trap of all primitive peoples," I said. "They must advance and multiply or they must die out. That's why you have to work and I have to build. For you the alternative to suffering and labor is your death and, therefore, *my* death and the death of all the children of ours who might populate this planet. You can forget civilized life. We'll not see that again. And here I can't allow you to remain barren after this child. If I thought of that it would be better to kill you and the unborn child and then myself."

She nodded and braced herself against me, and I wondered if she would say there was an alternative and she would rather die. But she wanted to live and take the consequences. It was not an instinct that was somehow outside her or beyond herself, as psychologists and theoretical evolutionists talk of drives and urges. Instead, it was a purpose that was expressed in the parts of her body, in her hips and breasts, in her flesh and bone. It was like the rebirth of a will we had not known man had, and that had appeared overwhelmingly in her just because our circumstances were elemental and our survival hung in the balance from day to day. It was there, on the edge of the woods by that turgid stream, on that small and lonely planet with the pale blue sky, that I learned more of the nature of man than ever before or since. More was

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to follow, and it may be said that with my mind I learned more later; but it was then, in those early days, that with my feelings I learned to understand.

It was the fact that the hope was misleading that evaded me.

Chapter Thirteen

Elvinia was seven months gone with child when we began our journey on the raft. We were performing two of the main functions of man simultaneously. Elvinia was preparing for the next generation and I was lifting us up by our boot straps, up that slope of discovery and effort which some call "standard of living" but in which some see something of deeper significance.

Elvinia grumbled when I made her leave the camp by the woods at such a time. She wished to wait where we were until the child was born, living in a hut, feeding on the boneless fish and limpets. She understood the biology of that environment, and at least she knew there was no danger in it; but I wanted to take us into the unknown. I knew, though, that when the child was born, and as our family increased, movement would become more difficult, not less so. Thus it was by the narrow mar-

gin of those two remaining months that we moved before we were compelled to stop, to remain for a whole generation, so that our children would have become the explorers of the planet.

We took our few stone tools, our fire-sharpened stakes, our crude pottery and our fire itself upon the raft. We moved slowly, desperately slowly, as I poled us up the river, the fire burning in a clay hearth before the hut on the raft, and Elvinia sitting in the stern trailing a fishing line made of twisted fibres and her own hair.

"We have time," she said as she watched my exertions as I poled us against the current in the hotter weather. "Summer is only just beginning, and already we are better equipped to stand the winter."

Sweating, I strained on the pole and walked the full length of the raft, pushing against the mud then extracting the pole and walking up the other side.

"Summer is only just beginning, but we don't know when it will end. We don't know how far this planet will move in towards the suns before it moves out to the rim of the rings again. We may have a short summer or a long one with a dangerous period of heat and drought!"

"Do what you wish," she said. "You know what you are doing. I hope you do." There was a tug on her line and she pulled a soft-boned fish from the water. It was a new species and she looked at it curiously before she tossed it into the center of the raft with the other fish. Our diet was already different from what it had been when we had been compelled to collect our food along the shore.

I did know what I was doing; I only hoped I did right. It had become necessary to think in large-scale terms of man's development if we were not to spend the rest of our lives living in the most primitive food-gathering stage of human evolution. We had been limited in what we could do by the fact that on that small and

primitive planet we had found no seed-bearing plants. With agriculture impossible, the alternative was transport, and I did not regret that we had been forced to develop in that fashion. Man's evolution through the stages of agriculture had been very slow, and I could see why. If Elvinia had been able to start a farm and kitchen garden at that first camp by the woods, she never would have left it, nor would we really have progressed. The attachment of the human peasant to his soil seemed to me to have been a *cul de sac* of evolution, keeping men in one place, making them conservative, and setting their minds against all progress. I felt we had escaped a dangerous fate when at last we started up the river.

"Why do you pole us up against the current instead of down?" asked Elvinia idly as she fished.

"We must," I said.

I thought of the swamp we had left and the delta we were still in. Lacking true wood and strain-bearing timber, I could not make us a seagoing craft. In any event even a small planet was too great for one family to explore. We were the tiniest of tiny specks on its endless surface. I must go upstream. What I would find there would depend on luck; but a current, however sluggish, indicated that there must be a rise of land that we could not yet see. There must be hills, perhaps gorges, with caves and the chance of mines. I dreamed of mines and of the possession of some metal. I was thinking in the long view. We had taken it for granted that we would never leave that planet. So therefore my children must have metals and know how to work them before I died. What could not be taught in my lifetime would perish with me, and it might be hundreds, perhaps thousands of years, before it was rediscovered.

We had traveled a long way from our original landing in the swamp. Then we had forseen no future. Now my

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plan was to take us up that slope, in a single generation, from the top of which man could once more lift up his head and see the stars. My ancestors had created me, and I poled up through that delta with an intensity of effort, a determination to prove that what I had gained was not so easily lost, and that what they had made was good.

The streams had been at the narrowest and most sluggish in the marsh, where they had spread across a level landscape. Now they narrowed and grew broader alternately, but flowed with a more steady current between steeper banks. I looked expectantly round each bend for seven days, and Elvinia caught fish of a new and different kind. Small streams joined and became a river, and we had to navigate close in, towards the bank, to avoid the current in the center.

"The fish here are larger and of a more palatable fresh-water kind," Elvinia said. "The ferns on the bank are vast with trunks like trees. You could build us a log house here, on stilts above the water, and we could live far better than in the camp beside the shore."

She was anxious because her time was drawing near, and I went on poling us up the river, wading at times and pushing the raft before me round the points where the current was almost too strong. At times I had her get off the raft to help me or at least to relieve the weight, and then we would arrive at another long reach and I would be able to pole us slowly up. At the end of each reach it was possible to see a different aspect of rising land.

We had been journeying six weeks, and must have covered a hundred miles through such a maze that we could not have found our starting point again, when I heard a sound that told me we had reached the end.

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Elvinia had lifted her head. "A sound? I thought there were no sounds at all in this silent land!"

It had been one of the most depressing features of our existence, the absence of any sound but that of the wind in a land where no bird called and nothing living moved except in water. Like the pale-blue milky sky above us, that even at night shut out the stars, it made us feel more alien, and our situation more hopeless, than they were.

But now, as we came round the next bend, the spectacle of the roaring waterfall, a hundred feet high, was ahead and barred our way. Nor was that all. Beyond and above the waterfall lay a gorge with steep sides in which I could see red-and-gold greenish rock. Above the waterfall grew stout plants like trees. I stopped poling for a moment, holding the raft against the current while I looked.

"If you know anyone to give thanks to, you can give thanks," I said.

"Because you have to stop now? Because you can't take us any farther?"

"You can give thanks for metal and wood, for material to work with, and above all for a source of power."

I poled us along the bank, out of the current that ran white and swiftly down the center from the falls. I found a clean sandy beach of water-smoothed pebbles in a little bay not far from the falls themselves, and I secured the raft there with stakes driven in around it. From time to time I looked up at the trees on the high banks above the falls and speculated how I would fell them, and how they would fall, and where I would collect them. Already in my mind's eye a great water wheel was turning and a lathe was in production. One man's hands were futile, but one man possessed of power . . .

"Oh God!" Elvinia said. "How can I give thanks for anything! Is this planet the place to bear a child?"

I glanced at her. Her form was vast. If it was not twins she was having, the child must be a large one.

It was born on that planet, but it was not destined to live on it.

Chapter Fourteen

I came down from working on the falls, but failed to see her on the raft or on the gangway I had laid out to the shore. I knew then. There was no cause for her to be anywhere except in either of those two places. There was a concentration of large fish below the falls that lived on the stunned creatures that came down over the falls from the small lake that lay above. She had no need to leave the raft to find our food supply.

The climate was hot and I was sweating before I reached the raft. I was not sweating as much as she was in the cabin. I went in and looked at her. "You'll be all right," I said, and settled down to fish where I could see her.

She had taught me what she knew of childbirth, but she was a biologist, not a doctor or a nurse. What I knew of doctoring was that it was essential to keep calm and

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inspire confidence in the patient by a lack of concern, disguised as sympathy, whatever happened. That was easy for only the first three hours. I expected something to happen, but for three hours nothing did except the pain.

Night came down and I lit a lamp. I tried altering her position to what I thought was best, but I could not keep her to it. I was still sweating though I had no cause to do so. By midnight I was wondering how long child-birth could go on without some permanent damage. I had heard of twenty-four hours, but periods longer than that were surely dependent on a supply of oxygen, drugs and stimulants, doctors and a staff of nurses.

I told myself that I must keep my head, that I must let nature take her course however cruel nature happened to be, and that I must do nothing rash. When I held her hand, she screamed at me. When I moved away from her she called out in desperate fear and agony for me to come back. By dawn I was making abortive attempts to do something to assist the birth, but I was neither ruthless enough nor brutal enough to be effective. I did not know how much you could do without killing the patient. What I did caused pain, but it was not enough.

I do not believe those stories of inexperienced men who have acted as midwives on desert islands and in storms at sea. After my own experience, I can only say that they did nothing and were fortunate spectators at births that would have happened quite naturally without them. There simply is no substitute for knowledge and detailed training when things are difficult, and I had plenty of time to realize that in the endless hours before the child was born. I tried what I could, with desperation in the end, and a child *was* born, but the mother was injured, pale and helpless and exhausted, and the child

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half dead. I was sick at heart asking myself what good it would do to say that I would know better next time.

Elvinia and our little girl, Eve, were the victims of that specialization that is the curse of our civilization, that cult of knowledge of one trade at the expense of ignorance of all the most basic facts of all the rest. We had met it several times in our existence on the planet: the difficulties civilized man encounters when he tries to survive in an environment that would present not the slightest difficulty to a savage. But this case was the worst, and worse still in that I did not realize that it amounted to actual tragedy.

The child looked ill and badly bruised. Elvinia, worn out, asleep. I went outside and sat in the sunlight, seeing the two alien suns shining through the blue haze that persisted through the summer. There was nothing I could do to feed the child. I wondered whether it would live, and, whether if it did or not, we would go through all of it again in order to survive. I thought perhaps we would in time, when the memory was less fresh; but I thought at the time that human life was not worth it. Nature had made a mistake when she had advanced higher up the evolutionary scale than the birds and fish and pigs.

I could not sleep. I sat there in the hot sunlight on the raft in the blue, alien world, hating the primitive forest round me and thinking that human life was a trap anyway. Birth was bloody and brutal and death was as bad or worse. None but a maniac of a God could conceivably have put the human intelligence inside an animal body. Maybe it was not a question of courage but of intelligence. To be human was to be sensitive and kind and knowledgable and humane. To be an animal was to be brutal, bloody, cruel and insensate. I knew what the old religions meant when they spoke of the soul on the one

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hand and the flesh on the other, but I felt far from religious while sitting there.

Suddenly I stopped thinking and became, with all my being, a seeing eye.

I had been sitting facing the falls as we usually did, facing them because in the sight and sound of falling water we found some replacement for the movements and sounds of animate life that otherwise did not exist above the surface of the water on that planet. We were quite sure that on that world life was in a state equivalent to, or before, that of the earliest carboniferous age on Earth. And yet I had seen a movement.

I had seen, at the top of the falls, on a rock overlooking the valley, what had seemed to be a human figure, a flash of white. I could not believe my senses, yet I had to believe in them. It might have been an hallucination engendered by sleeplessness after my long vigil and my midwife's work; I tried to think of it as that, but I could not do so. My eye had seen.

I looked around at the forest, at the stream, and the rocks above the fall. I could see nothing, and had seen nothing except that one vision, as though a man had mounted a rock momentarily, looked around him, and then stepped down. Stepped down? Some enemy who had seen us? I could not think so, not because I did not believe in enemies but because the hut, the raft, could only be visible as a speck against the forest edge and were of the same blue-green. Even the fire was burning low and not even smoking.

My instinct was to go ashore and stalk my quarry. I looked at the hut. I could not go ashore. I had a crisis of life and death on my hands. It had had to happen at that time when I could not possibly leave.

I sat watching for quarter of an hour and saw noth-

ing. I tried to believe that I had seen nothing, but the mental image was too clear. I got up and went into the hut.

Elvinia was asleep. There could be no hope of her feeding the child yet. I tried to remember whether it was or was not right to give a child water until the mother's milk arrived. Such a simple thing, and yet I did not know. Eve—we had said laughingly that we would have to call it Adam or Eve—looked a little better. One ear was badly injured and was going to be malformed, thanks undoubtedly to my fumbling, but thank God I had been able to avoid damage to the eyes and mouth and nose. Her body was beginning to look more natural; it was only bruised, not broken. She might live if the milk arrived in time.

I did not dare to sleep then. I went into and out of the hut. I kept dead silence and put out our fire. When night came I watched particularly for lights. I believed I saw one, some kind of glow at the top of the falls, but I could not be sure. I knew that my eyes really were capable of playing me tricks by then, after so much staring into the darkness.

When I went into the hut the next morning, Elvinia was asleep, smiling, and she had her arm around the baby. I felt deeply concerned. She was sleeping too much and too long and still looked terribly pale, while her breathing was weak. She did not even move when I took the baby from her, though she had obviously moved in the night.

Eve cried with a lusty sound as soon as I touched her. I still did not know whether to give her water, but did so, suspecting it was wrong. I had some boiled water in one of our crude pots, and I moistened some vegetable fibre with it and gave it to her to suck. She cried and was discontented, but took a little. I put her back with her

mother and went out of the hut to stand on the raft deck and look at the falls.

It was no use, I would have to know. It would only take me two hours to get up there and back, and I could keep the raft and the country beneath me under observation all the time. If there was anyone there, or had been anyone there, there would be tracks. If there were no tracks leading to the rock I had seen and marked in my mind, as surely there could not be, then I would be easier in my thoughts. Only then, would I be able to sleep.

Chapter Fifteen

Elvinia was still asleep when I left but, I thought, or hoped, that her breathing was a little better. I had left water beside her and every possible comfort I could think of. I wondered whether to pull the gangway up from the shore but decided not to do so. There was just a remote chance that something might happen to me, and if nothing happened to me then I would be able to watch not only the raft but all the country between me and the raft as I climbed upwards.

I went up the bank and climbed one of the heavy, drooping, fernlike trunks of what, for want of a better name, we still called trees. I could see over the land around, and I could swear there was nothing in it. I dropped down and at once began to move towards the falls.

The land began to climb soon, and though I could

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not see ahead up the slope, I could turn round and see the land below me. I did this at frequent intervals, looking and making sure that nothing was getting between me and the raft, wondering all the time just how needless my precautions were.

My eyes were sore and painful from lack of sleep; my body was stiff, and it was hard going up the slope. I was determined to climb quickly and yet make little sound. But apart from my own movements, the land was as silent as it had always been. Only the great booming of the fall to my left thundered on with an almost cosmic force.

I neared the lip of the land where the slope was almost vertical, but where, before long, it would give me a view into the level land ahead. There, I had to climb, holding on with both hands and feet even when I turned round to look down at the country and the raft. How desperately I wished that this was an ordinary day and that, as many times before, I would see Elvinia come out of the hut and go to the stern of the raft and sit there fishing. You never know what joy and peace and happiness you have until you lose it. Even then I knew that Elvinia would not walk again for many days.

I reached the crest and put my head above it cautiously. I saw nothing but the fronds and leaves that I had always seen. Cautiously, I drew myself up and took a last look back over the raft before I plunged into the thicket.

I had to move quickly now, for though I could see the country between me and the crest, I could not see just below the crest, and the raft itself was momentarily out of sight. I aimed at speed even at the cost of silence, and I made my way towards the rock above the falls.

I stopped before I reached it. The sound of the falls was loud now, and yet I believed I had heard a sound.

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It might have been a boulder falling from the cliffs above me as they sometimes did, but it sounded like the clank of metal.

I had to think quickly. Either I could go bursting on, or I could stalk cautiously. I decided to stalk cautiously, and moved away to my left, away from the sound, and round it, still heading for my rock. I was in the thicket now, and could see nothing.

I came up to my rock from below, the way no one would possibly go if he were walking openly towards it. I examined the neck of land above me that led to it. To see, I must reach that neck of land. I went up onto the side of it, and it was then that I saw fresh tracks leading diagonally across it.

It was a case of sheer necessity. I scrambled up to the neck of land that led towards the rock and looked out across the country towards the lake that fed the fall. If anyone had been hunting me, he would have got me then. But I had to risk a skyline view.

There was a machine beside the lake, a long low gray thing of polished metal. Two creatures were on the lake shore. I took them to be men.

Men?

They had two arms, two legs, and each one had a head. Perhaps evolution could not make intelligent, building creatures in any other form. Instantly, after seeing them, I turned round to look at the raft.

It was all right. There was no one between me and it.

What should I do? The creatures were undoubtedly intelligent and, just as surely, they were from some other planet of the solar system. The sight of them, and above all of their machine, raised almost boundless hopes in me. Yet I dared not approach them. Had I done so, I did not doubt for an instant that they would refuse to let me go until they had a full explanation of who or

what I was. And I had to get back to Elvinia; it was sheer necessity.

Beside which, it was quite possible that they would not be friendly. It was that thought which was uppermost in my mind. The planet we were on might be almost as strange to them as it was to me, and to see a large creature approaching on it might lead them to shoot first and ask questions afterwards. I could not risk Elvinia and baby Eve falling into their hands until I knew them.

I knew what I must do. I must get back to the raft and move it, moving it closer into the bank to begin with, then down stream under the cover of night. Even if I missed the creatures on this occasion, I thought, it was better than to put ourselves completely at their mercy, as we would in our weakened state. Now that I knew they existed, I could hide from them, and then there would be other chances . . .

I started off quickly, sliding down the steep land, checking my way, and trying not to make the fern fronds shake. When I was out of earshot from them, I allowed myself to walk more quickly, though trying desperately to keep to cover so that I would not be conspicuous from above.

It was a long, hot march to the raft. I was full of new fears and wild surmises but I was not unduly fearful about our immediate state. I was quite sure that no one had been to the raft while I had been away, and that was the main thing. If only Elvinia were better and able to talk. I would have to avoid worrying her, I thought. I would give her a highly censored account of what had been going on, and only tell her that I had reason to believe that we were not so desperately alone as we had always thought.

I went up the gangway, and as I did so I heard the baby crying. I heard it with relief. Elvinia would never

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have forgiven me, I knew, if I had been away and it had died while I was not near. As it was, I went straight to the cabin and saw it crying at her breast.

Her arm was around it as though she had been feeding it. I thought she was feeding it, for her eyes were open.

They were sightless eyes, and she was dead.

"Oh, God, No!" I said aloud, the words torn from me.

She had died peacefully while trying to feed the child.

I went down on my knees and wept hopeless, helpless tears. I could not move or think. I remained there, cursing God. I had been away when she had regained consciousness and died. It filled my thoughts with pity and tragedy, and I had not known that any man could love like that, and now she would never know, never know how gladly, a thousand times, I would have killed myself to save her. I had not known before what death meant.

Chapter Sixteen

All I knew, on my knees, weeping, in the cabin on the raft, was that it was the end of all that I had hoped and planned. We lived in, and are caught out by, a kind of fiction. We believe that if we have courage enough, and are bright enough, and have enough drive and determination, then things are going to turn out well for us. And God knew that I had tried and Elvinia had tried. We had faced total disaster. We had begun to build again and live again in almost impossible circumstances. Neither she nor I had flinched from the most brutal facts of life. We were not sentimentalists, and we were not fools. Yet death canceled everything. It ruined everything. It made nonsense of every human hope and dream.

To say I realized it in my mind would not be true. Death is too big. It takes a long time to realize the tenth of it. All I knew was that, in a moment of excitement

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and tension, when I was strained to the limit and going on despite the odds, I was beaten by something I had not truly expected or foreseen. Elvinia was lying there cold and dead, killed by some internal bleeding, that must have broken out when she had moved to take the child.

And my own plans had come to a full stop.

It took me minutes to realize it, looking around the hut and the raft. All the little things: the hut itself, its crudely worked timbers, the floating floor of the raft, the roof of leaves, our crude pottery, and the clay hearth, the fishlines and spears I could see outside the door—all these things had had meaning and purpose up until a few moments ago. Now they had no meaning or purpose. They had no value. It is hard to realize that about things you have acquired slowly and painfully or made with your own hands. They give you a sense of permanence, a security that is entirely false. But what was the reality now? It was a child still crying in the arms of its dead mother.

For the first time, after long minutes, I gave thought to, and looked at, the child. I got slowly and heavily to my feet and picked her up, holding her against the warmth of my body as I looked down on the dead mother—my wife, if that word had any kind of meaning. What could I do with the child? In a few hours it, too, would die, and then I, I assumed, would kill myself.

I stood there wondering how I would do it. By opening some artery would be the obvious and best way. I wondered what there was that I could do and decided that there was nothing. It was simply that I resigned from life. Life was a job that I would not accept on those terms, the terms represented by that dead body. If nature had had any purpose in bringing men like me into the world, she would have to rethink and set about that pur-

pose some other way. There were some things I could not accept. The child was crying in my arms, lustily now, with hunger, despite the warmth. When it died, so would I. I took that for granted.

The living impinge on the consciousness, the dead do not. It is one of the frightful things about death that those who are dead become quite instantly the past, a memory. And no memory can stand up to the actuality of the present. I was there, standing in the cabin, with a crying child in my arms and no way of feeding it.

It would die anyway, and for myself death was a matter of indifference, only a question of how and when. I knew life now; I knew what it ended in. And I was ruined by my knowledge. The child, who lacked the knowledge, was infinitely more valuable for just that reason. If it could live, there would be possibilities for happiness in its future that would be forever closed to me. If I could do some little thing to give it a faint chance of life before I died, it would be the least I could do for the sake of the mother who had died to give it life.

I looked around the raft and the cabin knowing I was seeing it for the last time. I did not move Elvinia. I did not close her eyes or lay her out. Lying as she was, she was her own monument more unbearably affecting than any permanent immortal work in bronze. She occupied her own area of matter in space-time still, and I wished her to occupy it as long as possible. In my mind at least she was a picture that was utterly ineffaceable, a total more grand than any work of art, a complete depiction of what life was that would last for ever, rolling through the years as an endless accusation against the universe and its maker. I looked at her dry-eyed now, hot and dry and dead in spirit, and turned away.

With the child in my arms I walked steadily across

the raft and down the gangway to the shore. I did not remove the gangway. If there was anyone to see, they were welcome to go and look so that they too would know, and, knowing, share Elvinia's fate. I walked ashore, upright, bearing the child, scorning any attempt at concealment, and walking up the hill.

It was a long march and a hard march with the child in my arms, and I did not know what lay at the end of it. Probably death, I thought. Certainly capture, unless the machine had left with the unknown creatures in it. But what happened to me was a complete irrelevance. It was not worth the thought that would be required to imagine it. All that mattered was the remote chance for the child. Even animals are kind to the very young. A cat will suckle a tiger cub, and a dog will allow an infant to poke his eyes and pull his tail.

As I climbed the slope in the hot, declining sunlight, I realized that the chances of Eve's survival were by then indeed remote. It was already overdue that she should be fed, and the chances that any substance would be available that would act as food for a human child were very few. She would die anyway, in that case, and if they received her and me with death, it did not greatly matter. I hitched her in my arms and kept my balance as I climbed deliberately upwards.

I cannot imagine what they saw when we came stalking into their camp.

It can only have been a tall, gaunt man, of unnatural thinness, long-haired and wild of face, bearing a puny sickly child. Only they cannot have thought of me even as a man. They would have seen me as an ape, say: a baboon or a gorilla on what they had thought to be a totally uninhabited planet. I would appear to them as an animal who did not chatter or flee, or turn aside when he saw

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them, but came right on in, deliberately and wearily, laying his child down at the feet of the one who was foremost of them, then standing back and waiting with folded arms for them to shoot or do whatever they wished to do.

Some of them had weapons, and some of them had raised them. I had seen that clearly. It taught me a lesson when I thought about it later. Their weapons had been useless and completely irrelevant regardless of their efficacy and power. They were useless because I was obviously harmless and non-aggressive and because I truly did not care whether they fired them or not. When you reach that state you are pretty nearly invulnerable. No one has either the reason or the emotion to find a cause to shoot you.

I do not think that relations between the races could have been established in any other way than by that scene in front of their ship before they took off to return to Kara: the crew standing and gaping, and the leader looking puzzled and astonished and uncertain, as I came straight up to him, through the ranks of those who did nothing to stop me, and laid my child at his feet before the open door of his machine. It was something like fate when it can be thought what suspicion and treachery would otherwise have been engendered by the fact that, though I speak of "races" and talk of them as men, we were of different species.

The leader turned and said something to one who was perhaps the biologist or doctor of their expedition. She came forward and glanced at me, then turned away from me and went down on her knees on the ground and touched the child. With her green skin and long head and arms she might have been an insect for all I knew; but even an intelligent insect, if he happened to be a

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biologist, would do his utmost to suckle and rear the young of any unknown species that was presented to him.

Chapter Seventeen

I sat down by their machine, on the ground with my head in my hands, and thought. The need to sleep came over me in waves. I did not think it was worth sleeping. I did not think I would live as long as that. I could not care less what they did or why.

Three of them stood round me chattering. One of them nudged me forcibly. Another spoke sharply to him and tried to lead me gently by the hand. What did it matter? I took the line of least resistance. If they wanted me to move, I would move. Two of them had weapons ready, but I was truly in a position to laugh at those. I got up, and they led me to the door of the machine. I had no curiosity about it. Eve had been taken in there, and I vaguely hoped that I would discover whether she was still alive or already dead. I let them take me in. I put up no resistance. I was living from moment to moment,

and the farthest future I could think about was five minutes away.

They took me along corridors and into a kind of metal cabin or closed room or cell. It might have been an animal stall, and probably was. I gathered I was to be transported somewhere. I did not think about it. I hardly noticed that they kept me covered with their weapons and that some of them seemed afraid I might bite or scratch. I would not have harmed them. But after I was in the cell, a delay ensued. I could hear the crew moving about the ship, and I got an indefinable sense that everyone was waiting.

Suddenly I guessed. They would have sent an expedition to trace back my tracks. The thought filled me with pity and horror. I could not bear to think of Elvinia lying there and them moving about around her in anthropologist or archaeologist-fashion, rooting among her small possessions. Them—the green-skinned creatures! It seemed an indignity to her and something I might have spared her. I now had a very powerful sense of the dignity in which she had lived and died. Had they feelings, the green things? I could not imagine that they had.

I stood motionless in the bare cell in the alien spaceship and wondered at the extent of how much it mattered to me. And yet if it were not these green, insect-like creatures, it would be the worms that would destroy the body. Highly organized organic matter is too valuable not to be fed back into the pool of life. The process is endless and cruel; and they might not do harm. If only I could regard the fact of death dispassionately. Yet I could not. It was when I thought how a certain quantity of the most organized matter the world had ever known had come together to form a unified whole, a thing that we had called a personality, that now was broken, that I groaned and caught my breath.

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The metal door of my cell opened. I looked up without interest, expecting to see a group of the creatures each carrying some kind of weapon. Instead the female or hermaphrodite came in. She was a biologist all right. She closed the door behind her and she showed no fear. In her arms she held the infant Eve. It is hard to speak of a proud expression on a creature that has two convex surfaces for a face, meeting in a vertical center line, but there was something of that kind in the way she showed me that the child was feeding from some pale fluid in a container.

"Good girl," I grimly told her. "You had a problem and you solved it. For your sake too I hope she lives. I'm sure you'll get into trouble if she doesn't."

The creature spoke to me in an excited, hissing, whispering way. It was only then that it occurred to me that I had not previously demonstrated to them that I had the power of speech. Her movements were quick and excited, almost birdlike, giving the same impression of a metabolism working at a higher rhythm than our own. It slowly became clear to me that she was handing me the child, inviting me to nurse and feed it.

I shook my head and said, "No, sorry." She was being successful and was doing what I could not do. For the good of Eve, it seemed best to establish that the foster-mother had the situation under control and was capable of looking after her. Eve too, if she was to survive at all, had better get the strange creatures among her earliest memories. All the same, I noticed with some sense of loss that the hermaphrodite, if that was what she was, did not insist or press the child on me. Instead, she called to someone outside the door.

The door opened, and at the same time there was the sound of approaching voices and feet along the corridor outside. A party grouped itself inside and outside the

open door. There was a conversation in excited voices: some of the new party paying attention to the child, and the creature who was holding it plying them with questions.

I noticed that one of the new party was bearing a pottery plate from the raft, and felt sick. They were explaining what they had seen and no doubt puzzling about it in their own way. It was hell.

A bell rang down the corridor. I cannot explain the effect on me of that common sound. It sounded so natural, and earthly, and so strikingly strange in that setting. Yet why should they not use bells? If sound had to be communicated and signal made, the beating of a hammer arm against a suspended piece of metal was simply the best way to do it, no matter who invented it. Yet it was like a shock of returning physical reality to me: a sound I had not heard since our days at Cape Canaveral.

They began to scatter like a crew called to action stations. The biologist gestured to me. She put out a hand urgently, a soft cool touch of three long four-jointed fingers and a thumb, and pressed my shoulder as though to send me to the floor. Then she went out, taking the child with her, and closed the door. I did not know if the door were locked or not. I vaguely thought it would be. If they were sane and reasonable creatures they would not let me wander about their ship at the risk of damage to everyone. I thought the gesture must have had meaning, and I lay down on the floor, finding a position in which I could wedge myself, expecting us to be taking off.

I wondered what I was doing there in that ship at all. It was very well to decide I did not mind the prospect of death, but it was another matter to associate myself with alien, inhuman creatures. I felt that they were unknown and wondered if they were physically repulsive.

They were not insects but something even more alien than that. Surely, in God's name, I did not intend to survive and live among them?

That step my mind had made, looking not five minutes ahead but away into the future, drowned me in a sea of miseries. I saw instantly that it did not matter how I lived or what I did. My future was negative. At the very best, for the rest of my life if I lived for a hundred years, it could only be the avoidance of love, of committal, of further pain. What did it matter if the "people" around me were green-skinned, insectival, and busy as ants or bees? Human society would have the same aspect to me: that of people engaged in hopes and aspirations that I could not share.

Later, I dozed and woke again as the ship lifted and I felt the well-known sensation of acceleration pressing me against the floor. I wondered for a while, as the acceleration built up, how far they would carry it, what pressures they could stand. But the power eased off. They were no better than we were at standing solid weight.

Strange creatures, I thought. They evidently had a variety of sexes or interbreeding was only possible in certain ways. I was struck by the ghastly thought that instead of having children they might lay eggs in scores. But what did it matter? Surely I did not think that they or their way of living could ever be important to me? Anyway they could not lay eggs. They were an intelligent people, and that demanded that their young be born helpless, so that a long period of training would be necessary. How did I know that? Elvinia, of course, and long conversations in the rocket. Come to think of it, among the other things Elvinia had given me was a liberal education.

The thought of her death went through me like a knife, and I turned over, face downwards on the floor,

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and clenched my fists beside my head, and beat them on the metal. I pressed my forehead against the iron and wept. It was the last time I wept for Elvinia, but it was terrible and soul-shattering and it left me completely defenseless while it happened. Even afterwards I was not the same. Something of the iron of that floor had entered my soul. Perhaps it was not I, but life that was not the same. Nothing again would ever affect me quite so much as that.

The ship was flying through space on what must have been a sophisticated voyage among the planets surrounding the baleful suns. I hardly knew it. I lost track of time. Time and space did not exist for me, and even when it was over, when I heard a deep rumble that could only be an atmosphere around the ship, I paid no attention and took no notice. Even when the cabin door opened and they came to rouse me I hardly heard the sounds, the faint whistles and rustlings of a city that came to me through air, through the open door. If it had been a foul air, an atmosphere that was impossible to breathe, I do not think I would have resented it. I knew then that, if only for Eve's sake, I must go on living. That was the hardest part.

Chapter Eighteen

When they took me out of the ship, I stopped at the top of the gangway and looked about me. Until that moment I had been thinking only of one thing: I had been wondering whether Eve was alive, whether the infant had survived the voyage. Now I saw the biologist with the child preceding me down the gangway, holding the human baby proudly in view of the crowd of sight-seers who had collected round the staging that held the ship.

Assured that Eve was alive, I had time to look slowly around and begin to consider my own position.

A city was before me, below me, covering a hillside that faced me, but it was no earthly city and like nothing that had faced human eyes before.

The city was composed of buildings in pastel shades of mauve and violet and pink and several shades of blue. But they were not buildings as we knew them. There

were no straight lines anywhere, and every construction took on the form of what I can only describe as organic shapes. The ground area was almost free for parking lots and gently curving roads, for the buildings seemed to grow on slender pillars like some swollen fruit. For an instant I almost thought they were natural growths; then, my mind slipping gears, I tried to place them as constructions in blown plastic.

Between the buildings and above the curved roads that had no right angles or difficult intersections anywhere, helicopters were flitting like a cloud of dancing butterflies among the fruit. Their movements seemed swift and free, yet there were no collisions. I was a victim of conflicting emotions. I wanted to dismiss the scene before me as the pretty but aimless life of insects. And, at the same time, I knew I had reached a center of a high civilization, a civilization probably higher than anything that had been achieved on Earth to date.

Behind me, two members of the crew of the ship were getting impatient. They evidently had instructions to take me ashore, and an unlimited stop at the top of the gangway was not part of their plan. I acceded to the wishes expressed by complaining sounds and pulls and tugs and allowed myself to be taken slowly down the gangway, deliberately moving slowly so as to have time to look about me. So this was the place to which I had brought, or condemned, the newborn Eve, I thought, as I looked back at the ship and saw a hatch open and the unloading of ore already starting. I had been tending to think that if I had saved her life, I had done enough. Now I suddenly realized that I had not begun.

Creatures of such a high civilization as I saw around me were not likely to think much of other creatures they had found living on a handmade raft on a poverty-stricken planet using stone-age tools. It was quite pos-

sible that I had done something ghastly to Eve in handing her over to these beings to bring up at all. But if they thought of our intelligence in terms of the raft and what they had seen of Elvinia and our way of life, it was impossible to guess what they might do with her.

What did civilized communities do with alien species? The answer was sickeningly obvious: they put them in a zoo!

I looked around myself more sharply and pulled myself upright. It was not a case of choice. Feel, as I might, it was incumbent on me for Eve's sake to behave as a dignified human being. I might be careless of what happened to myself, but for her I must think and act and plan.

I was in time to see the biologist get into a vehicle with Eve. The crowd around them was so dense that I could see little of the vehicle itself, but I did see them drive away. I hoped that they were taking Eve to a hospital, but I could not know.

I fixed my attention on the crowd. It was important that I should learn what I could of them. I had thought, when I had seen the crew of the spaceship on the empty planet, that they did not dress. Now I guessed that I had caught that party out at a time when they were free from formal life. At least two of the sexes of the beings around me wore clothes of a kind in the shape of tunics and ornaments. How many sexes were there? I guessed there were three: male, hermaphrodite and female, with the dressed males and hermaphrodites in the majority. Later I was to learn that I was wrong, though from the first I was right in my sense that the almost nude females were the rarest and most valued of the sexes, requiring no ornament, and thought, no doubt, most beautiful and desirable for their own sake.

We had arrived at the bottom of the gangway and

another vehicle drove up. It was not unlike a plastic bubble-roofed car suspended in a style that was just becoming common on Earth before I left, by air vents instead of wheels. Three males had got out of it and were looking at me curiously. The crew was handing me over, perhaps, I hoped, with the information that I was harmless. The new beings looked none too sure and slightly at a loss how they were to deal with me and get me into the car. I stepped forward, opened the door more than it was already opened, and got in, moving to the back, away from the control position. It was obvious that this impressed the crowd and my new guardians. If I interpreted their reactions to the crew correctly it was "Stone age, huh?" I winced.

I checked any feeling of elation that I might have felt. My relations with these people were going to be tough and long drawn out. The more I convinced them that Eve and I were inheritors of a civilization far above that represented in the circumstances in which they had found us, the more active in their minds was going to be the question of where we had come from and why. The question of what they were to be told about—that would take a great deal of thought. From what I saw of the city all around me, I decided that it would not be the best thing to have these beings bursting unexpectedly upon the Earth.

We swung away through the crowd, slowly at first, as they peered in at me with the curious interest of the intelligent being in anything new or strange. Then we went more quickly.

I saw we were sweeping through the city and up the hill in a fast, smooth glide. Already the basic facts of life were coming back to me and I saw a grim problem ahead. I had to present myself as a highly intelligent being in order to ensure the best treatment for Eve, and, if possi-

ble, their best training and education for her. Equally, I had to fence with them, sidetrack all questions, and keep our point of origin a secret. I would need to learn their language and convince them that I was the thinking, speaking being. At the same time I would have to keep from them all facts that would enable them to decide what kind of a world we came from.

I was relieved when we drew up at an unusually tall and wedge-shaped building, like a convex construction of six arcs. It looked more like a university than a zoo. I was less reassured when we took transport up and through it. There was a distinctly zoo-smell about the upper floors. We entered a biological laboratory where we were evidently expected.

It was a long, white room with windows along both curving sides. What I did not like was a line of open-topped, glass-fronted cages along each side beneath the windows. At nine feet-by-six, one of these cages would be big enough to hold me or the growing Eve, and many of them were occupied by creatures of almost our size, some of which were not far removed in appearance from Earthly apes.

A zoo, I thought. A biological, experimental zoo.

Chapter Nineteen

Keep your head, I told myself.

A small group of three males, two hermaphrodites and one female, were waiting in the middle of the long, white room between the animals cages and the scientific apparatus. The group closed round me. One of them was holding Eve and they were looking at me curiously. I was starting again from scratch.

They were desperately alien creatures. They moved in, and after looking began to touch and prod me. My instinct was to fight, to give way to horror as in a nightmare. If I fought they would overpower me and I would find myself in one of the animal cages, irrevocably classed as some species of wild creature, which indeed to them I was.

If I had not been in some way still emotionally exhausted by Elvinia's death, I think the story of the rela-

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tions of the human and Kara creatures might well have ended then. I decided, to fight was senseless; and that decision saved me. It gave me by indifference what I could not gain by patience. I allowed them to move around me, touch me. It was because of indifference that I did not flinch or fight.

Then I saw. One of the older males had writing materials in his long hands. After he had touched me, he made a note. I watched him with indifference and then reached out and took his writing materials from him. He was surprised but watched to see what I would do with them.

I was not indifferent then. Eve had begun to cry. I knew our desperate need. On the pad I drew a sketch of a human skeleton, and handed it back to him.

They looked at me, startled. They talked with hissing sounds among themselves, unbelieving.

Carefully I watched them. They ceased to look exclusively at my body, as though I were an animal, and began to pay more attention to my face, as though realizing for the first time that it might comprise the features of an intelligent being and that it had expression.

The old male stepped before me uncertainly. He was evidently going to try an experiment. I watched him intently. He raised his left arm until the back of his hand was before his face. Slowly and distinctly, he said one word:

"Thlissle."

I had to get it right and I could not afford to make mistakes. His gesture was not a gesture we used on Earth and I had to work out his intention from the logic of the situation and not what I saw. I did the one thing I could do. I took a chance on it.

I raised my hand to my face as he had raised his. I thought quickly of my name. I had not heard any "d"

or "v" sounds in their language, so "David" was out. "Spencer," I said.

He reached forward uncertainly towards me. He tried my name, and it was just possible to his vocal chords:

"Spenceh?"

"Yes, Spencer." I reached towards him: "Thistle!"

We stood there looking at one another. I felt keen and alert. We were making headway. I wished I was pleased.

He reached forward and I thought he was pointing to my arm.

"Iphsle," he said.

I pointed to his arm. But "arm" would not do; it was out of their range. "Shoulder," I said. "Shoulther."

We understood one another. We understood what we were doing. Or did we?

He pointed up towards the ceiling.

I said, "Ceiling!"

"Iphsle," he said.

I stared.

I think we both realized simultaneously that we were going wrong, and so, certainly, did the others around us. One of them said, "Lees, lees!" which I interpreted as a negative: it was a waste of time, he was saying, to try to talk to me.

I put my hand to my eye and said, "Eye." I put my hand towards his eye and said, "Eye," choosing the word because unlike "body" or "head" or "arm" it would fit into the range of their vocal chords. I slapped my leg and said "leg," and pointed to his leg and said "leg." I turned to one of the others and pointed to its leg and said "leg." I pointed down to the floor and said "floor."

I do not claim I understood their expressions. I was far yet from even understanding of what emotions they were capable. But I could understand their immobility

and silence. My attempt at language-teaching had not come off. There was some barrier, a very difficult and fatal barrier, that I could not understand.

I watched Thlissle carefully, knowing what hung in the balance. Either I was an intelligent being with a language that could be learned and with whom communication could be established, or I was an animal that made meaningless sounds. They had no evidence of my abilities except that I had been reported to use the most primitive tools and that I was capable of drawing. The same might have been said of the most primitive cavemen of our civilization, creatures whom we would certainly not regard as human or permit to live in the modern world except in cages or reservations.

He was willing to try again. He extended his arm before him with the hand up like a policeman halting traffic. "Elclethl" he said. He suddenly snatched the hand away sideways. "Oslthol" He gestured swiftly upwards. "Liphlynl"

Standing there, I began to sweat. I knew brutally and fatally that I could not make head or tail of either his words or gestures.

Around me, along the walls of the room, were the animal cages. I knew now what I had risked by handing Eve and myself over to a totally alien race. It was not merely that I might myself be imprisoned like an animal but that Eve might be reared and kept as people in our civilization might rear and keep a gorilla or a tiger cub.

It was a moment when urgent action, not words, were called for. I had looked around the room and seen the apparatus that was in it. Most of it was esoteric, crazily fanciful, and quite beyond my understanding. But the laws of physics were the same on every world, and there is only one good, sound solution to specific physical

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problems. I looked at the end wall, where most of the apparatus was stacked.

By making a sudden move, I got quickly through them and away from them. They were after me in a moment and I had to trust to their wish not to damage a valuable specimen to prevent them using weapons on me. I reached the end wall a few yards ahead. I grabbed a power lead from the nearest piece of apparatus and thrust it into a wall socket. Then I turned and faced them, keeping my hands down and not resisting them, letting them think it out, what I had done.

They stopped within a few feet of me. It was a very simple thing, to thrust a mains plug in a power socket, but it was enough to hold them, to make them think again about my being an animal that made meaningless sounds.

I looked at the piece of apparatus I had come to first and that I had connected to the power. It was foremost because, while the others had been prodding my bones before I began to draw, one of the younger of them—a student probably—had been pulling it out and preparing it. I had to use my intelligence desperately to think what they could possibly have been going to do with it.

It was a large piece of apparatus, and one part of it was enclosed in a fan-shaped cover. In front of the fan was a plate, or shield, sliding on an adjustable metal arm. I had seen something like it on Earth . . . like it only different. If only I could get over the difference and see the likeness . . .

I moved. I stepped into the apparatus, I stood between the fan and the screen, the plate. I looked round for the switching apparatus and gestured to them to switch it on. Then I leaned forward towards the old male and tapped tapped my diagram, my sketch of the human skeleton, that he was still holding in his hand.

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They did not move. I saw that with them astonishment took the form of complete immobility. They stood there, grouped around me and looking at me in statuesque positions. For they had had brought to their city an unknown creature that had been found living in a stage of stone-age culture on a primitive and uninhabited planet; and that creature had suddenly shown them its familiarity with X-ray apparatus, with its use and purpose.

And so we were saved from being treated as beasts or wild animals on the world of Kara.

Chapter Twenty

An endless space of time began.

From my room in the university building in which I was a prisoner, I looked out over the city, the strange capital city of the world of Kara. From the window I looked out at the colorful buildings with their strange, organic shapes, at the flitting helicopters, and away to where I could see a river that curled across a plain. And I wondered whether I had done better or worse for Eve to hand her over to the charge of the Kara people instead of letting her die where Elvinia had died, on the naked planet.

It was the lack of a common language that had caused the disaster. Not the lack of a language alone, for that could have been overcome in quite a little time. It was the lack of those word-bases and word-forms that made the translation of human languages possible. It had been

that which had bedeviled my meeting with the Elders of Kara, a meeting that had come about too soon after the Kara scientists had discovered what I was.

I could remember it still, my progress through the streets I looked at now from my window. I could remember the crowds that had collected to watch as a strange being—some said a being with intelligence—had been brought to Court. What should have been a sensible discourse under conditions of extreme difficulty had become a Roman holiday.

They had had to clear a way for the car carrying me through the excited, noisy, pointing crowds. Kara society, I could only guess, was divided into classes; and the class that formed the crowds was the least intelligent and the least educated. I could not understand all their movements, but some of them had clearly been those of fear and horror. The noise from the crowd outside the hall of Court had been such as to prejudice my chances of making proper intellectual contact with the rulers of Kara even before I arrived. If I had been a tiger being brought to Court, I thought, the stir and consternation could not have been greater.

I could not complain of the manner of my presentation. A space had been cleared before the Elders and I was set before them and allowed to speak. But what I saw around me was a sea of green, unlikely bodies, not men or beings. And the one among them who pretended to have learned my language was a courtier and a diplomat and not a scientist. He was one who judged on appearances and knew nothing of the difficulties he was confronting.

"I thank you for your hospitality," I said. "I thank you for saving the life of my daughter."

"It is asking for its young one," the courtier said.

I saw the scientists who had had charge of me stirring

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uneasily among the curious, interested, and completely unresponsive crowd. They knew how bad the translation was, but they were technicians of a lower rank than courtiers and statesmen and could not speak unless they were called upon to do so. And I did not know what was happening except that there was polite laughter from some of the inner circles around the Court.

"I am an alien being unlike yourselves," I said; "but I come from a great people with whom it would be to your advantage to make contact."

"It is boasting," the courtier said.

I looked about me and saw, for the first time, that it was possibly not even true, what I had said. The creatures around me were too unlike ourselves. I could see by then that it was impossible for me to convince the circles of the Court, those to whom appearances and what to them was their civilized way of doing things were most important, that I was what they would have thought of as a human being. And the feeling was reciprocal. If they had come to Earth, and they in turn had had to confront our military men, our statesmen, and the less intelligent among our common people, they would not have been thought of as things like men. They would have been treated as curious monsters, dangerous perhaps, and peculiar in that they seemed to have a language, but in no way to be treated seriously.

No, I thought. It was not true that contact between our peoples was likely to be fruitful. It was more likely to result in misunderstanding, unintentional insults, unconscious arrogance by whichever side was locally the stronger, and total war.

The self-styled interpreter was speaking to me loudly and lengthily in what he imagined was my language:

"The Elders command . . . The Elders ask . . . Strange being, you come from where?"

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Until that moment I had thought that perhaps I would tell them where I came from. But I had only to look about me to see the vast numbers of them in that circular hall. I had only to think of the spaceship that had brought me to their planet to know that Empire, peaceful and stable as it might be, must extend to many worlds. It would not be a few of them who would go to Earth if I took them there. It might be a horde of them that I would unleash on mankind, creatures whom men would regard as monsters. I saw I could not do it.

It was then that I took the most courageous decision of my life.

"I cannot tell you the location of my planet," I said.

The interpreter turned to the assembled Court.

"It does not know where it comes from," he said.

After that, there was nothing worth telling of that formal interview with the rulers of Kara except my return through the crowded streets as a show-piece, a curiosity that would be studied on being returned to the university where I had been and now was.

Only the scientists had had a good word to say for me, and they had asked to keep me in their building in their own way, and now I was there.

Now, standing at my window and looking down upon the city, the capital city of an alien planet, I thought about it.

What had I expected? That Eve and I, unlikely creatures by their ideas, should be given all that wealth and power that was represented by a spaceship? Or that we would be allowed to roam their streets and live in freedom among them as civilized members of a civilized community?

It was precisely because Kara, the Kara I saw below me, *was* civilized, that this was impossible. The greatest law of any civilization is that it exacts conformity. It

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was the same on Earth, and no Kara being could have expected better treatment on the Earth. Even savage tribes would shoot and hunt an unlikely-looking creature. Civilized communities would have to lock it up, keep it under observation, and study it.

I could not hold anything against the people of the city I could see below me. I was learning about them slowly. I was learning even to think of them as people. They had standards of morality. They had three sexes and, while it would appear that one group was hermaphroditic, by their social customs males could only join with hermaphrodites and hermaphrodites with females. There were many restrictions and sub-groups in between. Yet for everything I learned, there was something that did not fit in with Earth thought. Not all their males, nor all their hermaphrodites, nor all their females were the same. In that they were like certain sub-species of insects whose unions have been described in terms of keys and locks.

I was on the planet and could not get away from it without betraying Earth, and now it was among such creatures—"people"—that Eve had to live and grow. They were bringing her up their way. I saw the long years ahead of me, ahead into the far, far distance, until such time as I could learn their language and their customs.

They allowed me to see Eve only for a few hours each day. They were bringing her up their way. But what did I expect? What had I expected when I had handed her to them outside the spaceship on the barren planet? They were doing no more than Earth scientists and educators would do. Maybe they did not even know, I thought wryly, that they were not even human.

But I would be lucky if I succeeded in teaching Eve

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her own language and a few Earth thoughts. It seemed as bad as that.

I could not live the way I was living, I thought, and yet I would have to do so, day after day, and year after year. Already time was passing.

It went on, was going on, and I guessed Eve would be seven before I would even know which direction it was going. But I dared not think so far ahead as that.

Chapter Twenty-One

When Thasala and Iphyla had gone, I was able to prepare myself and go to pick up Eve on the floor above for our few hours together.

There were roof gardens adjoining the rooms where Eve lived, and we went up to them. We went ostensibly to talk and play and look across the city on the theory that the young of any species must have some contact with their own kind. The gardens were surrounded by a parapet, and dutifully we would go to it and I would hold her hand and we would look down and watch and wonder. Then she would run to play among the flowerbeds, by the ornamental fountain and roof-garden pond.

Somehow, she always came with food for the fish in the fountain. I saw this as a beginning of a control of her environment, her making it do what she wished it to do.

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I walked over to the pond with her and sat on the edge and watched her feed them.

"What is a fish, Eve?" I asked her.

She laughed, bending over the water and watching them swim just below the surface, trained like pets to come and take their food at a certain hour.

"A fish is just a fish, Daddy!"

I watched her and tried to say my piece, to tell her something she might not know.

"Fish are our ancestors, Eve. The seas got shallow and they had to crawl out onto the land and grow legs and become reptiles and animals and people."

"Oh I know that, Daddy. You've told me your story before about the fish!"

She went on feeding the fish, a little at a time, watching their graceful bodies sliding through the water.

"Daddy, how do our people know about fish and reptiles?"

It was just a child's question I hoped. After all, children are always asking how and why, and not only on Kara.

"They catch them and take them apart, Eve. It's called dissecting. They find all the pieces of their bodies that make them do the things they do!"

She did not even look at me. She said, "It's wrong, you know, Daddy."

"I don't tell you things that are wrong, Eve."

She must have heard a shade of significance in my voice. She turned to look at me.

"The Kara scientists put it the other way round, Daddy. They say that it is the force that's in the fish, the ways he lives and breeds and eats, and what he has to do, that makes his body what it is!"

I sat quietly looking at her for a moment. I knew what the Kara people thought. I had discovered it. The Kara

people were so mad that they denied the existence of solid objects.

"Fish are things, Eve. Things don't move and act unless there is something outside to make them do it. You should try to remember what I told you, that everything that happens has a cause."

It was as near as I could get to teaching her the laws of cause and effect, the basis of physics, chemistry, mechanics, biochemistry and all Earthly sciences.

She looked at me with the clear, calm eyes of a seven-year-old girl, a slender, golden girl in an alien world.

"Daddy, you say that fish don't choose?"

"They may seem to choose, Eve, but what they do is the result of the chemistry of their bodies!"

She turned from me and scattered her scraps on the water for a large silver fish that had come to her.

"Daddy," she said. "Watch."

The fish swam beneath the falling fragments. It took some in its mouth. Some it spat out, and some it swallowed.

"Fish choose," Eve said.

It was what the Kara people called *Ichthemen*, the discriminatory power which they insist is the basis of all life. She had their knowledge as well as mine.

"It only looks like that, Eve. Really, the fish is only doing what he has to do."

She looked at me thoughtfully, then looked down at the fish again.

"Fish had to crawl out onto the land, Daddy? And birds had to fly? And little beetles and microbes had to crawl down into the deepest rocks?"

She was seven, and she was pressing me to the absolute limits of human knowledge. She had two cultures behind her, my own and that of Kara. I summoned up everything I knew of the basis of biology.

"Some birds did fly, Eve. Those that flew were better able to escape the things that tried to catch them."

She was looking past me. I turned and saw she was looking at the strange Kara birds that had landed on the roof garden lawn.

A hen was standing between two cocks. They were birds like pigeons, and the two males bowed and bobbed and danced before the female and spread their gorgeous tails. The tails were apparently important, for the female went a little towards the one that had the most gorgeous plumage.

"Birds didn't have to fly, Daddy," Eve said thoughtfully. "You see, even if they had, they couldn't have known they had to until they'd done it. I don't believe fish had to crawl out onto the land, either. After all, lots of fish didn't and they're all right. Your beetles weren't caused to crawl down into the deepest rocks, because some of them had to do it first, before the causes could operate. The Kara people say there is an Ichthemen, but how could one Ichthemen do so many different things?"

The male bird with the brighter tail had dazzled the female and attracted her. In a moment it was obvious that they were going to mate and I tried to distract Eve's attention. "Look over there," I said.

"I think someone is going to say there is a cause that makes those birds have bigger tails and brighter feathers, Daddy," Eve said, refusing to be distracted. "I think I can see the cause. It's because the girl bird likes them! I think perhaps birds liked to fly, and fish to swim, and land creatures to crawl upon the land! There can't be one Ichthemen, Daddy. There must be as many as there are things and people."

She suddenly turned away.

Young Kara people had come out on the roof, and she went to them. I had made her a ball to play with, and as

she bounced it and rolled it, a child again, she attracted them. They clustered around her and she showed them how to play, unconsciously dominant, unaware perhaps how she was breaking the barrier between the species, or perhaps not quite unaware of it.

I looked at the older Kara beings, the females and hermaphrodites of the complex university families who had come out to guard their children, to risk their meeting with the alien child who was supposed to be good for them. I looked at them jealously since they were stealing my precious hours with my child from me, and yet I wondered.

Something was happening on Kara, something no Earth or Kara being could possibly have foreseen. To them it was just a matter of giving their regular education to an alien being and being themselves a little surprised at the speed with which she took it. To me, until then, it had just been a vague surprise that their teaching and mine, though opposite in so many ways, did not seem to be doing my daughter any harm, she whose fate had seemed to me so frightful.

I thought of how Thasala and Iphyla, two Kara scientists, and I, trying to reconcile their concept of the electron with mine, had had to work out a new theory, a theory throwing a new light on all previous ideas of matter and fundamental science. But that had been highly abstract, and we had not known what to do with it when we got it.

There was nothing abstract about Eve. It had taken a journey between the stars, the death of her mother, and the cultures of two worlds to make her, but she was physical and actual, running there on the lawn among the Kara children.

What was she, I wondered? An Earth girl or a Kara girl, or a living time-trap for two worlds? Did none of

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them know what, in all innocence, they were bringing up? To me she was like a glimpse of a living future, and I began to speculate how I could keep things going, keep Thasala and Iphyla busy and occupied for a few more years. Some day something would happen, and then . . .

But suppose nothing did happen on Kara, and things just went on, as they always had been, right from the time when I first landed on the planet? What would Eve's and my life be then, the only human beings among an alien people on an alien planet, with one of us, sooner or later, sure to die before the other?

Chapter Twenty-Two

In my study room, Thasala and Iphyla were uneasy. I could detect it by the unsteady rhythm of their insectlike movements. Nor was it our normal physical antipathy. We had learned to control that long ago. I looked at them over the low table on which we laid our papers. They were sitting crouched in their usual attitudes on their narrow stools and their arms were waving with a motion that I had come to regard as emotional or mental stress. Seven years had passed.

"What is it?" I said grimly. "Don't you want to follow our concept of an electron? I'm ready to stop if you are. It's just that there are about ten thousand other scientific concepts that we can't even approach until we get this one settled."

"It is very difficult," Iphyla said.

"It is too unspecific," Thasala said. "It does not tell us how you work your circuits."

I ignored Thasala. If he did not know by now that I was not going to draw our radio and radar circuits for him, it was time he did. There is a proverbial saying that you can take a horse to water but you cannot make it drink. That applied to me, too. I had told them that I would help them to understand Earth language and Earth concepts, but that did not include military technology or useful secrets. I preferred nice, cosy, vague principles like electrons. By then they should have known it.

"What's your difficulty, Iphyla?" I said. Iphyla was a hermaphrodite, and she was always having difficulties of various kinds; however, it was possible that this one was more professional than personal or moral, I hoped.

"An electron," Iphyla said. "An electric current, yes? A solid particle in orbit round the nucleus of an atom. Those are your words! To us, it is not conceivable."

I shrugged my shoulders. "Well, there it is. That is the way we think of it on Earth." I slapped the table. "This table, solid as it is to our eyes, is made up of atomic nuclei with electrons spinning round them. It may not be logical, but then we don't claim that."

Thasala said, "If you had our multifaceted eyes you would cease to see your table as a solid object when it does not move, but you would see electricity as a kind of pushing movement."

"You mean you can see electricity?"

"Oh no! But by theory we know what it is. Your electron is not theory. It is imagination!"

"Good," I said. "Write that down: 'Electron: Earth fiction or superstition connected with the theory of electricity!'"

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That did not satisfy them. It only made more uneasy the movements of their arms.

"We must understand!" Iphyla said. "It is our business to understand!"

I sighed. I did not care how long we took over a single word, but it got boring after the first six days.

"Look," I said. "Let's try it this way. Let's work back from those electrical phenomena we have in common. You brought me a radio the other day when we started this. You showed me a meter in the circuit. A valve lit up and the meter needle moved. Are we agreed on that?"

They considered the matter, twittering among themselves.

"We are agreed about the events you mention," Iphyla said after a time.

"You know," I said thoughtfully, "I think you've got something there. Come to think about, we always are agreed about events. It's your icleths and my electrons and solid tables we can't deal with. There may be something in that."

"It is as well if we do have something in something," Thasala said dryly. "Our superiors have told us they are very dissatisfied with our progress."

So that was it. They had had a rocket. I laughed. I almost felt sorry for them. It was not easy, but it had occurred to me more than once that it was better to keep the Kara people interested in myself and Eve than disinterested. I had no desire to have them decide I was hopeless and put me in an animal cage instead of a room with a view. There was more danger of that than I cared to think about.

"Put it this way," I said. "What do we know of anything except events? What we know of a radio circuit is that the meter moves and the valve lights up and the sound comes out of the speaker end. What I know of this

table is that light rays strike my eyes; that it makes a hollow sound if I tap it; and that it causes bruises and contusions if I forget its corners and walk into it in the dark. All the phenomena we have to go on are events. The rest are just concepts and suppositions. How about you doing an essay on that? Title: *The Discrete Particles and Solid Objects of Earth Science as Superstitious Concepts of a pre-Kara Scientific Age.*"

"But you believe in these concepts!" Iphyla objected. "I think you really think there is an electron and that there really is a table!"

I thought about that. It was hard going, but I tried it.

"You shouldn't take too much notice of that, Iphyla. On Earth we have believed in all kinds of things from time to time—gods and spirits and demons. We have superstitions called poltergeists and pixies that are most productive of events. Why, if you come to think of it, our sciences aren't much better. Open any Earth scientific textbook ten years old and all the theory and concepts, the electrons and mesons and alpha particles, are out of date. All that remains is the actual experiments, the events. I guess our scientific superstitions are no more lasting than the religious sort."

"I see," Iphyla said.

"So these names, these concepts of yours, are just symbols for supposed connections between events?" Thasala said. His tone was sceptical.

Now it was my turn to feel I was swimming in a deep, deep sea.

"Say that again, Thasala."

"I suggested that these words you trouble us with, these nouns representing what you call particles and waves and solid objects, they are just concepts denoting a connection between series of events!"

I breathed slowly and came out of my trance. I made

a note in my notebook. I copied Thasala's dictum word for word. What a pity, I thought, that I could not build a radio station and radio it back to Earth. True, it would take a couple of generations to arrive, but it would still be news, in all probability, when it did.

"This is proving most productive, this discourse on the electron," I said. "I suggest we continue it a few days more." At least it would keep us out of the animal cages.

"We will do that," Iphyla said.

"We will do that," Thasala said. "We will explain to our superiors how profound and deep your thinking is. But if only," he added grimly, "you would explain the working of your radio circuits, how much happier our authorities would really be."

It was like that most days. I believed I was making progress to understanding Kara sciences. I was certainly making progress to getting a new light on Earth sciences. I did not know what Iphyla and Thasala believed. They tried hard; I will say that for them.

My job was to keep it going. At times I believed even our lives depended on it, Eve's and mine. The whole great planet of Kara lay outside my window, but I did not see it except from the window. Instead, I spent my time walking that mental tightrope and keeping a balance between having them treat us as dumb animals with no minds, or pleasing them so well with what I gave them that I became a traitor to my country and my planet.

Chapter Twenty-Three

One evening when Eve was thirteen she came into my study room. I did not know how she did it. The restrictions on our movements seemed to have stopped applying to her. I had even heard on one occasion that she had been out of the university building and into the city, though how she did that, too, I did not know.

She was, at that age, in the most delicate and appealing stage of golden youth. I was relieved to see that her upbringing on Kara had not harmed her physically. With her fair hair long now, and around her shoulders, waiting for a wind to blow it back, she seemed to me like a sign of lively spring. It was only in one respect that she seemed to me different from an Earth girl of my time, and that was in her maturity. Like a child of the Medici she had the innocence, the desires, the feelings of a girl with the mind of a woman accustomed to

handle the complex issues and intrigues of an alien Court.

"Father," she said calmly, coming in and standing facing me, by my knee, as I sat, "Thasala has asked me to extract information from you about the exact location of the Earth."

She was straight and clear-eyed, but in her eyes I could detect a light of dancing merriment.

She had not always been so outspoken about what they said to her and how they dealt with her. I said, "Does he often make suggestions of that kind to you, Eve?"

"Oh, most frequently, David."

I wondered if I would ever understand her. "Then why don't you tell me of them? He has no right to do that, and I still have access to his university superior. And why do you call me David instead of Father?"

"Another of his suggestions." She was laughing at me. "He insists that sooner or later they will have to breed us in order to perpetuate their valuable Earth-specimens on Kara. He assures me it is the custom of any biological laboratory, any cattle dealer, and any zoo!"

I sat completely silent. I could not say I had not foreseen it and made plans for my resistance, but it shocked me beyond measure that they should put it first to her.

"You see, Father," Eve said lightly, "it isn't altogether easy to tell you the things Thasala suggests to me."

"It is quite unspeakable," I said.

"I'm sorry. You would have preferred me not to speak of it?"

"You had to speak of it," I said. "What is unspeakable is that you should have had to do so."

"Father," Eve said gently. She reached out and touched my chin. "Do you think that that or anything else is un-

speokable between us? What do you think will happen to us if we stay on Kara and grow older? Have you really thought it out, how we will live here and die here? You may think that anything else is unthinkable, but you can't blame the Kara people for wondering. They have their own social customs but you can't expect them to know ours or to know how strong they are. It isn't what you think it is, an insult to you that they should think that you would wish to leave me with children when you die so that I too would have some kind of life. They simply think you would break your social customs for such a purpose." She looked at me wistfully. "If you want to know the truth, even I have wondered." Quietly she added, "David."

I knew I had to resist my impulse to be angry with her. That, I knew, would only drive her from me. And she could not know the torture into which she put my mind. I *had* thought. God knew I had thought, and found no answer either way. What I knew was that I was going to hate myself whatever I did or did not do; and that, if she did but know it, was the source of much of my hatred for the Kara people and the Kara world, a hatred that was becoming daily more acute now that she was thirteen and thinking of herself biologically, anatomically as a woman. It was beyond anything I could teach her to make her still see herself as still a child.

"Eve, if I tell you that you are too young to know what is involved in these matters, you will not believe me."

She looked at me calmly and a shade dispassionately and coolly. "I think that that is an evasion, David. No child is ever too young to learn the facts."

I looked at her and saw she simply did not know how cruel she was, this child of mine that had been reared in

an alien world. Yet who was to blame if she had the power of mind, the language, the articulate intelligence that children of her age did not have on Earth? I had striven to give her those things for her own defense in a world in which they could be her only possible protection. She had never known the calm acceptance, the passiveness that most young girls learn directly from their mothers and other women. I wondered what I had done to her. If she found even my masculine directness obscurantist, her reaction to other women might be such that I had made her unhappy on Kara and incapable of life on Earth.

"Forget it, Eve. It wasn't this that you came to talk to me about, but something else. I will talk to you about this again when you are twenty-one. Meanwhile you came to tell me about something that sounded like dangerous treachery on Thasala's part."

She could not guess what that speech cost me. I longed to take her to me, to crush her in my arms. To say I loved her as a daughter is an understatement. She was the only human being I had known for thirteen years and now, when she was passing through girlhood, I had to cease to fondle her and touch her as I had done. In a sense I had to make a physical break with her, not taking her on my knee then as I would even six months earlier. And it was not that she did not notice.

"Very well, David," she said coolly. "But I will continue to call you David until you are prepared to discuss things sensibly, as between adults."

I looked at her, wondering how I could check that. "Was it treachery?" I said.

"It was an appeal to my sanity over your stubborn and misguided head, David." She laughed. "Do you ever think how, by being irrational, you lend more substance to

these suggestions of Thasala than he himself could ever do?"

"I'm your father, not David!" I said. "Tell me exactly what he said."

Calmly, she moved onto my knee of her own accord.

"He said that I was aware through my education of the history and ideals and aims of Kara. I was aware of the peaceful nature of their empire. I must or should be aware that there were other planets in their solar system, inhabitable and inhabited, that were not part of the Kara empire and with whom they traded. They had embarked on no aggression against those planets, though they were easily within their power to conquer. No civilization could give higher proof of its peacefulness than that; therefore, if you persisted in hiding the secret of the position of the Earth from them it could only be because you were foolish and misguided, and reasonable people should do all they could to lead you in the right direction."

"Is what he said true about the Kara empire?"

"It's true, David. He said something else. He said what did you want to come flying among the stars for, if when you found another race of intelligent beings you didn't want them to meet your own?"

I said quietly, in something near despair, "Eve, you're going to end up by believing him, aren't you?"

"I must admit, David, that although I love you dearly, your actions don't seem very logical on any count."

I thought about it as best I could. Even if I told her I doubted if I could convince her. Yet I had to try. When they succeeded in turning my daughter against me, it would be the end of everything for me on Kara.

"Eve, listen. And use your heart as well as your mind to listen. I'm going to have to tell you things about the

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Earth I never told you. I've told you a hundred thousand differences between the Earth and Kara but there are some I still haven't told you. And the main one is the way in which Earth men are unlike anything you have known on Kara."

She was looking at me with surprise and interest. Oh, I thought, if only I could arouse feeling for Earth instead of interest in those intelligent eyes!

"The Earth is a smaller, harder planet than Kara," I told her. "It is not smaller in physical size, but three-fifths of it is covered by sea, and much of the remainder by snow and ice and desert. In recent geological epochs it has been ravaged three times by ice-ages in which all but a tiny portion of the lands became all but uninhabitable. Those ice-ages are the background and genesis of man's birth. He was born on a world in which it took the utmost courage and drive and initiative in order to survive at all. It is a story of survival against the odds. It is a story you can be proud of. But it has had its effect, Eve. Earth men are not like Kara men. They are hard. They are unreasonable. They war among themselves and are often cruel."

"What are you saying?" Eve slipped off my knee and stood before me and gripped my shoulders. "Are you telling me now that it isn't the men of Kara you are afraid will break the peace, but the men of Earth—you who have always told me how wonderful the Earth was?"

It was bitter for me to have to do it. She was forcing the truth out of me by a kind of blackmail, and I had to tell her why for thirteen years I had been utterly obdurate and set myself against any attempt to make contact between the peoples.

"Oh, it isn't quite that, Eve! We have a peace on Earth now. Perhaps our men have realized the folly of their

ways and won't kill and murder any more, at least among themselves. But we are divided into races, Eve. It's white against black, and yellow against all the men they call the foreign devils. Feelings run so high on Earth that whole sections of the white race declare the black ones are not really human. And when our men made contact with those of Kara, came here perhaps, which would be far worse than that the men of Kara should go to them . . ."

"Yes? What possible harm would it be if our men came here to Kara?"

"Our men have spirit, Eve. Our men have great spirit. But they do not think very greatly before they act. I know. I was like that myself in my younger days. The men of Earth will come here, and what will they see? They will see a great solar system, with planets for the taking. And they will take, Eve. They will think it is sentimental to talk about the rights of a race that is not even human. They will kill the Kara people wherever they land, or fight with them and even try to enslave them. It is inevitable. It has happened repeatedly all through human history. And if we were to go home and warn the people of our country, it would do no good. There is no central government on the Earth. Our men are free, and banded in nations, many of whom are no more than opportunist savage tribes. Some men will come here, and some will do exactly as I say. And so it will be inevitable that there will be a war between Earth and Kara."

It pained me to see the sense of shock and fear in her young eyes.

"But Earth is a planet, and Kara is an empire! You've told me that we have only a few inefficient spaceships and they have thousands! They have regular lines of communications between their planets! If the Kara people wished, if they had more of that spirit you speak of,

they could range the universe with a thousand ships. It is only the fact that they have so many planets, that they have not absorbed their whole solar system, that prevents them doing it today!"

"I know, Eve. If there were a war between Earth and Kara with the Earth in its present state of development, the Earth would lose. We are a younger people than the Kara race, and we must have time. That is why I cannot possibly let the Kara people know where the Earth is. The war may come some day, but it must not be in our time."

Eve moved away from me. She went across the room and looked out of the window at the Kara city. I wondered what she was doing there, not knowing she was trying to make up her mind whether she dared to speak or not.

She turned back to me. "David," she said, addressing me firmly as an equal.

Her eyes had the seriousness of a mature adult.

"I was to tell you that you might as well let them know where the Earth is, David. They have continued prospecting on the planet where you and mother landed and where I was born. They have found your rocket. They are digging it from the mud. The papers inside it have been preserved. It will not be long before they know where Earth is now, no matter what you do."

I rose and went across the room and seized her by the arm, standing above her. "Evel Is this true? It's not a trick, a lie?"

"Thasala said they would be bringing you things from inside the rocket shortly. It's just a question of whether you co-operate with them now and tell them where the Earth is, or whether you leave it for them to work out for themselves, as they surely will now they have your star charts."

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She stood quietly facing me, looking up.

"Your attitude is going to make a difference now, David. If you co-operate they will send a peaceful mission. If you don't co-operate, they will know what you expect, what you think will happen, and they will prepare for war."

I looked down at her young body, at the head that was already capable of calculating and dealing with the fate of worlds. But standing close to me she was calm and clear and unafraid.

"It will make a difference to our fate, too, David. If you co-operate they will send us with the expedition. It will be a great, peaceful venture for them, returning us to Earth to introduce them to our peoples. They believe that that will be enough to ensure them a good reception. I thought so too, but what you told me makes me not so sure. But if it is war they must prepare for, then they will keep us. We will always live here as prisoners on Kara. Do you see why, in that case I will have to call you David?"

I saw. I saw what their needs would be in war, and how they would treat the only two representatives available to them of an alien race. Such a war between distant solar systems might last for centuries, and they would not let us die out, we who would be to them most valuable specimens, a breeding pair. We would have no choice. If we would not do what they wished voluntarily, they would have other means. The drugs and instruments needed would certainly not be beyond the capacity of their sciences.

"Go away and I will think about it, Eve," I said.

She went out, looking thoughtfully backwards as she went, and I thought about it. I thought about it for too long for what might have seemed such a simple choice.

In the end I called for Thasala.

"If the rumor I have heard is true," I told him. "If you have found my rocket with its papers still intact, I will save you trouble and tell you where our Earth is."

Chapter Twenty-Four

We heard that a ship was fitting out in the space wharves on Kara for an expedition to the Earth and, after thirteen years, we emerged from the prison of the university building.

Eve had slowly penetrated the social life of the Kara people, known and no longer strange to the sons and daughters of ruling families who had grown up with her. But now my status too was changed. No longer a curiosity, a specimen of an alien and unlikely species, I became of necessity a representative of the suspectedly powerful race with whom contact was to be made. I was taken again in slow procession from the university to the Kara Court of Elders. In that way, by pomp and show, I was at last properly presented to the Kara people, and they were prepared for what was to come.

I noticed that the route was well lined and guarded in

a very different fashion from my first arrival on the planet. For thirteen years I had thought I had made no progress, but now I saw that I had made progress slowly all the time. It had been known from the first, within the university, that I was the representative of an intelligent race of beings. That knowledge, however, with its political consequences, had spread only slowly along official channels, recognition becoming possible only as the translation of the languages was evolved and Eve had proved her ability to be at least equal to that of her Kara contemporaries. The finding of my rocket, with its proof of our power, had clinched the matter. Even the Kara Court of Elders had decided that it could no longer ignore us lest more of our people should come to them before they could come to us.

How long would it have taken on Earth, I wondered, had an alien expedition had been wrecked there, before an Earth government recognized strange, outlandish, nonhuman creatures as civilized and intelligent beings to be treated with as a race of equals? I thought it would have taken as long or even longer. And the staring and pointing crowds might have appeared to the aliens even less civilized and less well behaved. They might have been less well behaved on seeing government recognition and the pomp of a procession given to what they would regard as insect men.

We stopped in a circular open space in the center of the city facing the Court that was an arc along one side. If the people of Kara had displayed all the popular feelings of doubt and fear and physical revulsion, the manners of the servants of the Court were more well trained. I mounted the sloping way into the building between the lines of guards, and looked for Eve as soon as I entered the hall inside. She had not come with me on a journey of the official nature befitting an ambassador, but I knew she

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was to be present in a no less important but less formal way. What I saw was a crowded courtroom, with the Elders of Kara, the high officials, on a semicircular dais across the room before me.

As I went forward through the space that stretched between the crowds, I found Eve, with difficulty, among the crowd of young highborn people beside the Elders. She had been given Court robes, and seemed strangely at home among her companions. I was again reminded of those young girls of the Estes and Gonzagas and Medici in fifteenth-century Italy, who, as brides and Court followers, were important figures in the politics of the time despite their tender years. But in those days a girl could be a widow at the age of thirteen, and a boy was a man at fourteen, fighting wars and battles and holding high office under princes and dealing with affairs of church and state.

I advanced to the dais and stopped before it. I was conscious that I was no official ambassador of my people but only an explorer who had gone astray; but I had thought out my actions. I did not bow or kneel. I was conscious that my every action was being watched and much of the outcome of the expedition would be settled then, before we even left Kara and long before we reached the Earth.

The spokesman of the Elders of Kara had stood to greet me, and there we faced one another while Thasala, now their interpreter, moved in towards us from my left. Eve, my interpreter, came in from the spokesman's left and on my right.

There were announcements and a succession of formalities that I did not attempt to follow, and then the Elder spoke to me. He was not the ancient Kara I had again expected from his title, but one who was young and vig-

orous. His title, I gathered, was an indication of his power.

He spoke for some time, looking directly at me, and Thasala followed him, giving me his official translation from the side.

"The Elder regrets that he has not had the pleasure of meeting you before, but now he is at last able to arrange transport for you back to your own planet. He hopes you have not been dissatisfied with the hospitality you have received on our planet. You have been treated well and not molested, and your child has been educated here as an equal to any of us."

I was well aware that his fate might have been worse had he been the one to arrive on Earth, but I replied, "I have been a prisoner on your planet for thirteen years and I think relations between our planets would be better had I been treated better. But you can tell your Elder that I have no intention of complaining when I get back among my people. I shall, on the contrary, give the most glowing accounts of Kara. And the reason for that is your treatment of my daughter. In caring for her when I first came to you, naked and unknown, you did a great and good thing."

I watched the Elder's face as Thasala translated. I saw him shift his gaze from Thasala and look at me again with a shade of recognition and surprise. Despite all he had heard from his scientists, he was still surprised that I should be able to answer him cogently and with intelligence. If the situation was that on Kara, after thirteen years, I saw how difficult was the problem we were facing, that of arranging contact and communication between the peoples of the planets.

The Elder spoke. "The Elder thanks the stranger," Thasala said. "The stranger will appreciate that the hospitality of Kara extends to returning the Earth at the

first opportunity he had given us. It had crossed our minds to keep the stranger here as hostage until perhaps some other visit when normal diplomatic relations had been established."

Since the journey from Kara to Earth and back would inevitably take several generations except for those who went on it and were subject to the time-shift, I could see what that meant. This was the diplomacy of Court, however, and all I said was, "The stranger thanks the Elder."

It was Eve who entered the discussion with a light aside. With the most innocent air in the world, she said,

"I do not think it would have furthered the aims of the Kara people to let it be known on Earth that they were keeping two Earth people prisoners here. It would not have established bonds of confidence and friendship. On the other hand, if the fact that we were prisoners here was kept a secret, it is hard to see what your negotiators could have gained from something they could not speak about."

There was the odd, sighing sound of tittering Kara laughter round the court. Even the Elder's face changed slightly to what I took to be a smile. Eve's delicate frankness had done much to clear the air and put the interview on a better footing.

"I assure you no such thoughts crossed our minds," the Elder said, and I was able to follow him partly before Thasala began the official translation. "We are solely concerned with establishing our good will . . . a difficult problem. The relations between distant worlds and empires . . . We are here to listen to the suggestions of the stranger."

When Thasala translated, he paused significantly after the words "worlds" and "Empires." One thing he had got out of me, in thirteen years, was the indisputable fact that the Earth was a single planet while Kara was an

empire of many worlds. It was obvious that he had passed that information on, and an attempt was being made to make me feel my position as an alien at a far more powerful Court than any I could have known at home.

"Tell the Elder that I thank him for permitting me to offer suggestions," I told Thasala. "My most important suggestion is that he thinks what he is doing and recognizes the power and danger that my people represent to all the worlds of Kara!"

It was a bold speech, and not too badly received. There was some hissing from the public in the background in the Court, but among the courtiers and more important Kara people my forthrightness and evident sincerity evidently made some small impression.

"Almost you make us think twice," the Elder said through Thasala, "of the wisdom of sending you and one of our best spaceships to the planet Earth. If our vessel were to be captured by your people, and all its secrets discovered, and you were to spread abroad all that you have learned of Kara, our expedition would certainly have made a loss."

I looked at him with appreciation. Despite the somewhat exotic nature of his Court, he was returning frankness for frankness. On the other hand I well knew that he would not have spoken as he did if he had not been conscious of his power.

"The Elder speaks of capture," I said. "But that is inevitable in any event. The Kara vessel will not be allowed to land in any place on Earth unless it is open and subject to inspection."

I felt a stiffening around me, and knew we had reached the main business of the day. They had hoped, apparently, that they would be able to land an armed vessel on

the Earth, one that could, as a last resort, wreak havoc with our cities and then depart.

"Your people are such that they will not allow peaceful strangers to come among them without subjecting them to inspection?" the Elder said.

"I can only advise the Elder," I replied. "If he truly wishes to make peaceful contact with the planet Earth, he will be advised to halt his vessel on the outer fringes of our solar system and allow me to radio to Earth and tell them who and what we are. I cannot promise what will happen then, but I imagine vessels will come out from Earth, put men aboard the Kara ship, and escort it down to Earth. In that way, the Earth people will be certain that the Kara beings come in peace."

There was a very definite murmur from the Kara public now, and considerable comment too from within the Court. The Leader of the Elders was now looking at me with some reserve.

Eve gave me a meaning glance, indicating that I had gone too far for the pride of Kara.

"I think," said the Elder quietly after a distinct and fateful pause, "that you put our plans in jeopardy. If the situation is as you describe, and those will be the reactions of the Earth, I think it will be necessary to cancel this expedition and wait until we can send a battle fleet."

I looked around me at the sea of green bodies and no longer friendly faces. Yet what could I do? The fact that our Earth was a single planet was a fatal weakness. Any alien ship approaching, manned by Kara beings possessing, I could not doubt, enough power to render the whole planet uninhabitable, would have to be attacked. Even if the ship landed, the instant aim of all the powers on Earth, on the first sight of the Kara creatures, would be to get it in their power. Hostilities would be sure to de-

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velop. It was not an easy matter, this arranging for a peaceful meeting of the worlds.

"I still think," I repeated, "that you would be wise to send a small and peaceful ship. One that can radio its approach and throw itself open to inspection and accept escort and obey orders while it is maneuvering and landing on the Earth, with Earth guards posted through it while it remains there. It is the only possible hope you Kara people have of convincing the people of Earth that you are truly peaceful."

"And I insist that it is inconceivable that we should do that," the Elders said. "If we are to do that, then I tell you frankly that you nor your daughter will go. You will remain here, and you will write a letter such as Thasala will read to say you are well treated here and will remain until you are relieved by the diplomatic representatives of your planet, or whoever they send as hostages to replace you."

Eve looked at me and I looked at her. A journey from Kara to Earth and back would take not one but several generations for those who remained behind. Only those who actually went on the trip could expect the events of it to be finished in their lifetime, for they would have the benefit of the time-shift due to the speeds involved. It would not be we who would be relieved by diplomats from Earth. It would be our great-grandchildren, Eve's and mine!

"There must be some other solution!" I said. "Surely this is not a problem beyond all the brains of Karal!"

"The facts are the facts," the Elder said.

I looked hopelessly at Eve. She knew my opinion of the fate before us. It was because of that opinion that I had given them my co-operation in the first place.

The glance she returned to me was strange. It was as

though she had a solution to our problem but yet in a way regretted it. Then she turned to the Elder.

"I beg pardon," she said in Kara. "It is not for me to suggest or interrupt the working of your minds, but I wish to ask my father details of the solar system of which the Earth is part."

I had been able to follow her. "What is it?" I said.

She turned to me, still speaking in careful Kara words that I could understand.

"Is it not true that there are planets in our system that are very far and distant from our sun, useless and uninhabited?"

"That is certainly true," I said. "There are the planets Pluto and Neptune at extreme distances from our sun. But no man will ever use them or even go there, and they can't be any use to Kara people. I don't see how they can help us!"

Eve looked at me. To me it seemed as though, even against her will, she was making a great concession to me. Then she turned. She addressed the Elders of the Kara Court and gradually attracted the attention of the whole vast assembly to her.

"It would help us all," she said. "It would help Earth and Kara and we, your guests, if the Kara vessel did not fly direct to Earth. It should pause on its way there at Pluto or Neptune, one of the outer planets of our solar system; and there it would set down ourselves and Kara guards with habitations and supplies and radio equipment. We would then radio to Earth and tell them of the imminent arrival of the Kara ship, and that we were your guests and well treated, but also hostages. They would meet the Kara vessel as arranged and we would tell them not to harm you. Later, the Kara vessel would leave the Earth with Earth diplomatic representatives and goods for trade on board; simultaneously a vessel

from Earth would pick us up from the outer planet. In that way all possible advantages would accrue. We would give them a good account of you. You would be delivering us back to our solar system as a gesture of good will. But also you would have us as hostages during the time that mattered."

Eve made her speech modestly, but there was no denying the brilliance of the plan. Every eye in the whole great Hall of Court of Kara was turned on her, and then a murmur burst out, changing to a roar of approval as she modestly dropped her gaze and stepped back from the center of the dais to my right hand side.

The Elder looked at me squarely, "Do you approve this plan?"

I looked back as firmly at him. "It will work. Perhaps it will work well if no treachery is attempted by either side."

By exchanging glances we could see we had reached agreement. The audience watched the final act of our formal drama.

"Bring in the finds," he said.

The ranks of the courtiers to the right of him opened and two Kara men from the university came forward. They were carrying navigational instruments, charts, and log books from the rocket, papers and books I had never expected to see again.

I took them as they were given or returned to me. I looked round the hall at those unlikely creatures. What hope was there that they would be received as benign intelligences, as creatures like human beings on prejudiced, war-torn Earth? With the star charts in my hands, I was tempted to tear them up.

Instead, I opened the major star chart of the southern heavens as viewed from a major observatory from the

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Earth. I pointed to a faint star in the upper left-hand corner.

"Kara," I said.

I drew my finger down the plan to the center of the bottom edge.

"The sun," I said. "The third planet of that solar system is the Earth."

The responsibility lay heavily upon me. I could not know if I had condemned Earth and Kara to eternal peace or total war. But as Eve had said, it could only be a matter of time at that stage. They could have worked it out for themselves from the chart, and I did not doubt that before they returned it to me they had taken photostatic copies of it. I looked up at Eve.

From her place in the Court, which she had resumed preparatory to my departure through the streets, she looked at me more with sadness than with joy or pleasure. I might almost have thought that she did not wish for the expedition to Earth that she had arranged so well, but might have preferred to live with me on Kara.

Chapter Twenty-Five

In all my thirteen years on Kara, I had never known how much they had to give us until I went aboard their space expedition ship at the city space-wharves and went up on the bridge to see her take off from the middle of a crowd. I still did not think they were any more intelligent than we were, but it was what Iphyla had called their different way of seeing things that put them so far ahead in particular ways. There was no fire or explosion and no great blasting of huge rockets. We stood on a bridge like a liner's bridge, facing a wall of glass. The Kara captain gave his orders quietly. The gangways were withdrawn, the space-doors closed, and we severed our connections with the ground. The ship was then resting in a cradle of insulated contacts, and it began to hum gently from end to end. And gradually, inevitably, so

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slowly that we could wave to the Kara crowd of watchers, it began to rise..

Eve was by me, wondering, watching, witnessing her departure from the planet where, except for the first two days, she had spent her life. She watched the city as it spread below us, expanding as our horizon expanded. Neither of us had known how big it was, with open spaces and buildings stretching away into the horizon-curving distance.

"You'll be able to come back," I said. "As someone speaking the language, you'll always be able to get employment in an Earth-legation office here."

"If this voyage is successful," Eve said, somewhat shortly dismissing that attitude to departure with its hint of another future. "David, I thought you said that there would be violent accelerations and that we would have to lie down."

"We will," I said. "But not until we leave the atmosphere on this ship." I indicated the officer on the bridge who was working a control panel that set bells ringing through the ship. "It's time to get to our cabin. We are rising more quickly now."

Below us, the surface of the planet was becoming hazy. The sky above us was darkening and the twin suns of Kara were burning with a growing glare. Films of colored plastic were descending over one side of the windows of the bridge I noticed.

We moved down a short, narrow corridor from the bridge and entered the tiny cabin that had been allocated to us. Compared with the tiny rocket by which Elvinia and I had first crossed the gulf between the stars, the Kara Expedition ship was vast. Most of it was a cargo hold and, in such accommodations as there were, it carried a crew of fifty.

"We'd better get used to this cabin," I said. "At a

minimum we are going to have to spend a year in it, and a year is a long time when it's spent in idleness in a ship in space."

I thought that the sooner I got Eve to Earth and among Earth people the better. But, I thought, watching her change into the specially designed support suit, with which we had each been provided, I was going to have to catch up with some of the Earth-training part of her education first. I never had been able to make up for the lack of female Earth company in teaching her details of behavior. Either she or Earth was going to get a shock.

As soon as the acceleration period was over, I went out onto the bridge again. There was none of our old looking-out on space only by indirect vision through periscopes and screens. All the vastness of space was before us through the specially thickened and armored glass, and the myriad planets of Kara rings. From time to time a flame shot out ahead of us to swallow a micro-meteorite before it reached the glass. Like Kara eyesight, Kara instruments were at their best when dealing with high speed movement.

Eve came to join me, standing quietly beside me while I watched the Kara navigators working on the problem we had been unable to solve, Elvinia and I, with our smaller power and slower reactions. A vast planet loomed up and passed us in a manner of minutes.

"Be careful," I told Eve. "This is a tricky business. If they make one miscalculation with the speed or orbits they'll have to use maximum acceleration and flatten us to the deck. We'll be lucky if we escape with our lives."

"They don't make mistakes," Eve said. "Haven't you noticed that? I don't think it's possible for a Kara being to make mistakes in the mathematical formulae of aim-offs. Besides, if there is a risk, I'd rather be with you."

"Let's go to the engine room," I said. "I want to see how they work this thing. You might try by judicious questioning to discover what you can about the propulsion of this ship. In some respects it's bound to be ahead of anything we have on Earth."

We turned away and went along the corridor. Eve glanced at me strangely. "What makes you think they are ahead of Earth?" she asked. "How do you know what they have on Earth? It must be several generations since you went away from there."

She could not have said anything more calculated to unsettle me. Of course, I knew theoretically that the Earth must be a different planet from what I remembered of it. Our journey out to Kara alone must have covered a hundred years of Earth time, traveling at what an observer on the Earth would regard as a minor fraction of the speed of light. It had only been for us, who actually made the journey, that the constants of the universe had shrunk at that speed so that we lived at a different rate of time. But though I knew all that theoretically, I could not help feeling, when I thought how we were going back to Earth at last, that it would be at least something like the Earth I knew.

"At the rate your sciences were going ahead, Earth must be a stranger planet than Kara now," Eve said.

Her remark cast me into a black depression. We went to the engine room and looked at the atomic shield wall and the gleaming coils. Eve had no difficulty in explaining to me how it worked out of her own knowledge. The source of motion was a species of atomic power, but the actual thrust was not engendered by blasting out atomic ash, rocket-fashion, as we had done. Instead, carefully calculated quantities of protons or negative ions were discharged to give the ship an almost infinite positive or negative charge.

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"A highly charged particle behaves like a free magnetic pole," Eve said. "They both move along the electromagnetic lines of force that connect the stars and other heavenly bodies; however, a free magnetic pole is theoretically impossible, while a fully charged particle isn't. There are millions of them in the universe. You must have detected them and had a name for them even on Earth."

"Cosmic rays?" I said.

"Probably that," Eve said. "The source of power and motion of this ship is the same as that of your cosmic rays."

Whole government departments and universities had been working on cosmic rays on Earth at the time I left. It was inconceivable that they should not have solved the problem as the Kara beings had. So it was going to be a changed planet I was going back to. The methods of work, the language, and even the people must have changed.

I suddenly left Eve without telling her where I was going. I went to the radio room, the communications center of the ship.

I found two Kara operators there, handling signals at intervals but otherwise perched at ease amid their instruments of racks and panels that looked so much like Earth equipment—at least from the outside.

They had not met an Earth being before and were interested in my arrival, and a shade alarmed as though they were afraid that I might be about to sabotage their works.

"It is not important," I said in my careful Kara. "I am inquiring only when we may first expect to hear radio transmissions from the Earth." I looked at them and thought I might as well confess. "I have been away from my planet for a long time, and I am anxious to listen to

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some kind of transmission from the Earth in order that I may know what is going on."

The younger of the two shook his head. The older seemed equally pessimistic. "If it was as easy as that to hear your Earth radio transmissions between the stars, we would have done it long ago," he said. "The space between the stars is full of the static emissions of the stars. Already, in a few days, the messages from Kara that are directed to us will fall below the background level. After that, nothing. We will have to be within your solar system before we have any chance of receiving messages from the Earth."

"In any event," the younger said, "the distances are too vast. If we could hear any transmissions here, they would have taken too many years to get here for your news to be anything but out of date."

I turned away and left them. There was nowhere I could go and be welcome on that ship, where nerves were tense and where we were inevitably regarded as aliens, except to our one small cabin.

Chapter Twenty-Six

Eve sat up in her bunk after I had finished talking to her in the middle of that night.

"Father," she said, "you and mother were confined together in a spaceship, in a cabin hardly larger than this. I think you should tell me, because you've never told me, how it was that you suddenly fell in love after so long, so that when you arrived on that planet it was already decided that I would be born."

"Your mother and I were younger," I told her, "but we had Earth-trained minds, which is what you lack. I've been telling you about Earth training and how important it is, how customs and restrictions have to be observed, however illogical they may be, so that actions form a pattern that is good for the species, for the race. But there was more than that for us. Our rocket was a small one and very limited in the number of people it could

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hold. The simple fact, that even the people who sent us were sure would hold us, was that in order to save our own lives we had to avoid a birth."

"They sent you," Eve said, "knowing that, knowing that as man and woman you were bound to love and hate? What were they, these people who sent you? Were they cruel or mad?"

I looked at my daughter who was making an effort, trying to understand the shape of Earth minds, though finding it very hard.

"They were neither," I told her. "They understood perfectly what they were doing when they sent a man and a woman in that rocket. They even chose us because we were young and hot-blooded and bound to fight and argue and fall in love."

"Then they must have hated you!"

"They hardly even knew us," I told her. "To them we were cyphers, items from a psychological card index, mere scraps of paper. You do not understand. There was a job to be done. Somehow two people had to be kept alive and sane in a tiny rocket. They told me that one man would go insane, and two men would murder one another. They could not afford a greater crew. Every pound sent up in one of our primitive rockets in those days needed a ton in the second stage and a hundred tons in the first stage to lift it off the ground. And so it had to be. They had to send two people who would not murder one another, who would oppose one another but love one another. They had to keep them mentally and emotionally busy. And to do that they had to provide a situation of powerful emotions perpetually held in deadlock."

I could see that Eve was shaken by this picture of what men thought of, what things were like on Earth.

Her hand gripped and twisted the sheet that lay across her lap.

"So you were victims," she said. "You were not people to be envied as I thought you were. I don't think I'm going to like the Earth, Father."

We lay down to sleep. Around us the vessel was piercing through the planetary rings of Kara and speeding out into open space.

"Father. . . ?"

"Yes, Eve?"

"What eventually happened in that rocket, your rocket? After all, it was not completely impossible, because I was born."

"We found we were going to crash on the rings of Kara," I told her. "When we thought we were going to die, it changed the situation. It was possible for us to love and marry after that."

I expected some comment from her, but none came. I waited, but she said nothing. After a time, I decided that she must have gone to sleep. I wished I could do the same. On those nights, on far too many of those nights, I lay awake. Too often I spent them thinking of our years on Kara, the years of Eve's innocence, that I had not valued while I had had them.

Chapter Twenty-Seven

When, after one month's steady acceleration at one gravity, the blue shift became perceptible in the stars ahead and we knew that we were on the lower slopes of the exponential curve of speed that would involve the time-leap, they drew heavy shutters across the windows of the bridge. Later, as time passed and our speed grew faster, I noticed that our enclosure, the darkness and artificial light in which we lived, had a strange effect on our Kara crew. They became nervous and uncertain and distraught.

I saw the Captain of the vessel in his cabin when we were three months out. I asked him what our position and velocity was, as worked out on the basis of the doppler effect, the red shift of the stars astern. I was uneasy, and I told him. There were discrepancies between

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my own calculations and the position and velocity worked out by his navigators. To begin with they had given me facilities for working with them, but now they seemed to be adopting a more suspicious attitude, to be refusing me facilities and refusing to discuss such figures as I obtained on my own account.

It was not an easy thing to discuss with him, with a Kara being who had absolute command and who, until the trip, had had no dealings with Earth people. I suggested to him that there was a subtle change of atmosphere in his ship. Putting it as delicately as possible, we were not quite living in that feeling of mutual confidence and respect and high endeavor with which we had set out upon the voyage.

"You think that we should trust you, Earth being?" he asked, speaking to me in English, which he and his crew had been assiduously learning. "Already we are far from Kara and perhaps entering the sphere of influence of your planet. What have we, except your word, to assure us that while we are flying at velocities that entail that we must travel blind, we will not find ourselves surrounded by vessels from your Earth?"

I stood where I was and looked at him. There was nothing, in fact, to give him that assurance. Even I did not know how far Earth vessels might have begun to range through the stars during the period since I had left the planet. But that was not something new. It was something that had been inherent in the voyage from the start, and a chance that the Kara people had to take if they were ever to cross the gulfs between the stars at all. All that was new was a feeling that Eve and I detected through the ship, a sense that the Kara beings were beginning in some way to lose their nerve.

"I think you should remember, Captain," I said in Kara,

speaking his language because I did not like his new habit of using my own to me as though to isolate me and place me as a foreigner. "You should remember that you have the best guarantees that we can give you. We are here as your hostages, and our lives as much as yours depend on the outcome of this mission. We have every possible incentive to make your voyage a success whatever happens. Is not that enough? What has changed, or is changing, since we started on this voyage?"

He had not asked me to sit in his cabin, though he himself was sitting behind his table like a spider, with his every sense alert to what was happening on every strand of a web around him. If there was a new feeling of antagonism towards us among the members of the various departments of his crew, I did not doubt that the influence of it would come back to him and be reflected in his attitude.

"What is different," he said, "is that we who live by sight of movement can now see no movement except through instruments. We live in a ship that is apparently motionless in space; and so, seeing nothing, we have time to think."

He had told me the truth, I thought, though he did not know he told it. I had discovered long ago that the Kara eyes and senses and minds were such that, like our insects on the Earth, what they literally saw was movement. If their surroundings were stationary and nothing moved in their field of vision, they did not see hard, clear objects as we did, but a kind of out-of-focus darkness. To them, the long voyage was a tunnel of darkness, for the ship, as he said, gave the illusion of being stationary in space. They must have created their surroundings only when they moved about in them. They

must have seemed to be flitting round in nothingness, like ghosts.

"Captain," I said, "you should not allow this feeling of nothingness to pervade your crew. You should combat it and keep them constantly busy and in action. We feel it too, but with us it is a sense of claustrophobia; and I can tell you from experience that the only way to combat it is to keep everyone busy. You should give everyone work to do even if it is needless work. From my knowledge of long voyages, I can tell you that you must keep your crew in action."

It was true enough. He was sitting in his cabin and most of his crew, with nothing to do, were lying silently and aimlessly in their bunks.

"Are you, an alien, trying to tell me how to run my ship?" he said.

His attitude was naked then. The Kara beings had been thinking all right. They had thought too much.

"I have told you, Captain, that it is as much to my advantage as yours that this voyage should be successful. I have had experience of these things; you Kara people have not. For centuries your transport system has been such that no journey upon or between your planets would take more than days. This is a voyage of weeks and months!"

"I see that you wish us to work in needless activity to prevent us thinking!" he said.

His words were final and his attitude was such that I could only go away.

I went in search of Eve. I found her coming from the engine room towards our cabin.

"I've just had something I never had on Kara," she told me. "They closed the engine-room door against me."

"I've been on the receiving end of their antagonism

too," I told her. I described my interview with the Captain.

In our cabin we sat and tried to discover if there were anything we could do, sitting thinking.

"It seems to me that the Kara are just not cut out to be long-distance voyagers," I said. "In a way, it's maybe hopeful. It would mean that in the long run they may not be able to compete with Earth for a galaxy as a whole. But that would also imply that they couldn't finish this trip! They would have a mutiny or murder us or turn back before they got there!"

"I don't think they'll turn back. I think you were right and it's just experience they lack," Eve said. "The other things are more dangerous. There's bound to be an awkward period when we are setting up the radio station on Neptune or Pluto. And when we have to transmit to Earth and say what we want and not what they tell us to say, it's going to put their trust and nerve to the test."

"You know them and understand them better than I do," I told her. "How do you think they will face the prospect of idle waiting for things to happen? It's going to be tough on them and tough on the people of the Earth. They're both going to be facing the unknown and trying to control their fears. The meeting of alien races while trying to keep control of things is going to be the maximum test of the nature of all our beings. Frankly, I'm afraid of how the people of the Earth will react to what they will regard as foreign horrors. But how will the Kara react to an alien planet?" It was late to think about that then.

"Badly in their present suspicious frame of mind," Eve said. "And they're right in a way. Antagonism is natural in the situation we are approaching."

"The situation that will occur when they confront the

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people of Earth and our civilization, and when the people of Earth confront them?" I asked. "A moment of truth? But they don't have to interfere with each other's nature or mode of living! What have they got to do? Only exchange a few material goods, meet, and go away. We're all civilized beings, and surely that should be possible."

To my surprise, Eve seemed more gloomy about the prospect than I was myself. She spoke quietly. "I think you're restricted by this objective, Earth mind of yours. I don't think you've really absorbed what the Kara culture has to teach us. To you a man is a heat-engine, a bundle of skin and bone and muscle. He is himself a solid object, a kind of artifact that makes other artifacts and buys and sells them. Yet even by Earth sciences that isn't quite enough. Even you yourself have taught me that a man is a kind of colony, a colony of living cells, many of which, such as the corpuscles in his blood stream, are free-living individuals and not under his control. It may be true that he is a communications system with electrochemical circuits in his nerves and brain and chemical organizers and hormones that are secreted in one part of his body and send chemical messages to every other. But even when you've said all that, you've got something left. You've described man in terms of matter and mechanics; the actual matter in his body is constantly changing. It isn't as though man were an engine with pistons and cylinders that lasted until the pistons wore out and the cylinders became oversize. A man takes in new matter and rebuilds himself; so it isn't, really, the matter, the substance, that is important. It's the form, the pattern that remains though every atom and molecule of his body and is constantly changing. A man isn't just solid matter, and the Kara people know it. He's a temporal construction, a pattern of function and behavior that exists in the

four dimensions of space-time. Neither you, when you look at a man physically and spatially, or the Kara, when they look living things as movements in time, ever see the whole truth."

"You mean that we and the Kara are essentially different patterns and we are bound to come into conflict because of differences we can't see, differences in our mode of life?"

"We have different desires. Living creatures live in a world of events, and truth is only a tool they use to connect up events in different ways in order to further their desires. We don't know the real truth. All human and Kara truth is dependent on us having a desire that will enable us to see it, and if the Kara people and the Earth people don't *want* to get on well together, then it will be impossible for either side to perceive the possibility that they can."

I was looking at Eve in amazement, astonished at the distance to which she had pushed the combination of Earth and Kara thought that was her unique possession. But at that moment I heard a sound outside our cabin door.

I reached out and opened it. It was true that I had heard a sound there. An armed sentry had been posted outside our door, and when we attempted to leave, he gestured us back in again.

We were prisoners. The Kara nerve was not standing up to the unending silence and isolation of an inter-stellar voyage that was like a passage through a tunnel of endless darkness. They were afraid, and because they were afraid they looked around to see some object they could be afraid of. Inevitably, their suspicions had fallen on the aliens in their midst. The journey was only a quarter over, and it was a bad beginning for a bad voyage.

I looked at Eve and Eve looked at me. For eight more months, at the rate of progress of the Kara ship, we were to be locked in that tiny cabin.

Chapter Twenty-Eight

Flanked by armed guards, we stood on the bridge before the at-last-uncovered windows and watched the ship nosing down towards the stark, shadowy, steel-blue surface of the planet Neptune. It was true that the constellations behind the planet had ranged themselves in the night-black sky in the position of the stars as seen from Earth, but Neptune was a planet of incalculable remoteness from both Earth and Kara, a cold world, an inhospitable world. The Sun's rays reached it with the effect of palest moonlight.

As yet we could not see the nature of the surface, and it was not that we were looking for. "If there is an Earth ship here"; the Kara Captain said, "if our instruments detect any vessel, no matter where it may have come from, then we will know we are in a trap and you will die."

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"I have told you that when I left the Earth our people had not reached these outer planets, and had no wish to do so," I told him. "If they have sent an expedition here in the meantime to explore, I cannot be blamed for that."

"You will die," the Captain said. "Of that we will make sure. When spaceships meet, there is not time for thought."

We stood waiting, watching, and as we descended in a spiral to the surface of the remote and desolate planet, the instruments on the bridge showed no echoes except from the hopelessly frozen atmosphere of the world below us.

"You knew what this surface was?" the Captain said. "You knew it was difficult and near impossible?"

We could see it now, a vast curving horizon, faintly illuminated against the blackness of the sky and the myriad stars. The sun was behind us, a tiny brilliant speck of light, and we saw a surface like a frozen ocean of incredible pyramids of seas and crags and cliffs, deep-shadowed by clefts and crevices and canyons. It was as though the atmosphere had been torn and irrupted while still in the fluid state, and had then set solid.

"I did not know it," I snapped. "I said that I had not been here. If you don't like it, there are inner planets—Saturn and Jupiter—though I doubt if you will find the conditions any better."

"The radio station will be established here! We will have you secure and guarded as hostages before we advance any farther into your wretched solar system of cold and poverty and death!"

I watched him take his ship down. He did that all right, descending in a low arc and sliding, a mile above the valleys, between high peaks and crescents of frozen air.

"There!" I suggested. "That plateau at high altitude. It

will be useless to set up a radio station if you descend into a valley!"

It was the reason we were on the bridge, to agree about the siting of the station. That we should agree on anything, after the voyage had gone on so long, seemed quite incredible. And yet we had to, for it was the essence of the voyage that he and I should be totally dependent on one another.

"If you wish a site as cold and exposed as it can be!" he said, and turned his ship towards it.

"I don't wish it!" I said. "I wish nothing of this at all, but to communicate from here to Earth by radio is a major undertaking in itself!"

The upland plateau, when we neared it, could be seen to be crevassed and surrounded by high peaks. Under the black glare of the sky and the myriad stars, and illumined only by a palely slanting sunlight from our distant orb, it was as forbidding and desolate as any place could be.

The Kara's voice crackled. "If anything happens to us, nothing is more certain than that you will die here. Unless we tell your position to those on Earth, I doubt if they will find you!"

They would know what planet we were on from the radio signals, I thought, but I could see that he was right. As the ship came down, the plateau grew and grew and became a plain. The crevasses became canyons, and the peaks gigantic mountains of a lucent silver-gray against the sky. There was a drift of ice-fog across the surface.

"Don't forget that your own guards are going to have to stay here with us!" I said. "You yourselves will have to find them to take them off!"

"Our guards may have to be expendable," he grimly said.

I looked at him. If that were to be his attitude, there

was no purpose in continuing the project. He saw my glance.

"We will keep our part of the bargain!" he said. "We have our orders!"

He was fully occupied then, feeling for a surface below the ice-drift, putting the ship down through the gaps in the drifting clouds.

A soft hissing began, the sound of ice crystals drifting along the metal hull. There was a jerk and a grinding sound. The ship had come to rest half-buried in the blinding, drifting cloud of half-frozen gases. What we could see through the windows was a pale green-gray surface for a hundred yards.

"Here you will establish your radio station," he said.

I looked at Eve. God knew I would have done anything rather than take her out upon that planet. But he turned and gave an order. There was a rumble behind us. The great cargo doors of the ship were opening. The tractor they had built for the purpose was moving out and testing the surrounding surface.

"Persuade him to take you with him to Earth, Eve," I said. "This is no place for you, and surely I will be sufficient as a hostage!"

"If we are to die here," Eve said. "We die together."

I looked out on the ghastly scene of desolation. Was it this we had planned when we had suggested the plan on Kara? It was, but then we had thought to have the friendship and co-operation of our hosts. Now, in the course of the voyage, by a process that we could now see had been inevitable, we had come to be treated as enemies in a state of war.

But already the tractor, which had not dared to move away out of sight of the ship, was towing out a circular shape in metallic plastic. Leaving it to be inflated on the center of the open space within our range of visibility, it

moved a little farther, and we heard the thud of explosions through the ship as it prepared foundations for the radio masts. All of the equipment we were to use on Neptune was prefabricated and ready for instant assembly. It would be assembled within the hour so that the ship could depart into the depths of space and listen in to the results of our contact with the Earth. The Captain turned to me again.

"It is understood that you will radio to the Earth?"

"Yes."

"You will inform them that we come here on a peaceful mission?"

"I will inform them what I please. Of what use is it to tell you what I will say? The communications will necessarily be in the Morse code, which you do not understand!"

We faced one another on the bridge of the ship against the background of the drifting clouds of Neptune.

"You will use the Kara code for all transmissions!"

"Do not talk nonsense, Captain! Who on Earth will know the Kara code?"

It staggered me that they had not thought out the implications of our holding communication with the Earth. The Captain turned away and went into urgent conference with his officers. When he turned back to me, his movements were unsteady as a result of fear or fury.

"You will explain your code and all your signals to the officer and three Kara I will leave with you. They will communicate with us and obtain our permission for each of your signals before you send it!"

I waited a moment, to let his feelings cool.

"Captain," I said quietly. "Have you never thought that distrust invites distrust? When I communicate with the Earth, they will wish to know who I am and they will bombard me with a thousand questions. They will ask me

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to describe you and tell them who and what you are, and they will want a million details before they let you land. But that does not mean they will believe what I tell them. There is bound to be doubt and distrust in their minds, too, and if replies from this station are slow and disjointed, and only come after long delays during which transmissions are made to another station, they will not believe at all. I don't ask you to trust me; I tell you you *must* trust me, or we might as well abandon this expedition from this moment and return to Kara."

To say he looked haggard is an understatement. His long limbs sagged. I saw now how a Kara looked when he was in the same position as I had been when first on Kara, when I knew that my fate was in the hands of alien beings. Yet I could not bring myself to be contemptuous of him because he was afraid. It was disgrace more than physical hurt he feared, and I had to remember how people on Earth would feel and look when they saw a strange ship landing, and alien beings, whom they would regard as monsters, climbing out of it. It would only take the tiniest spark to send a wave of fear and hysteria across the Earth.

Yet he bore up under the strain. To my surprise, he spoke almost as quietly as I had myself, "I think we are attempting the impossible."

Then he turned away.

"Come," Eve said. She indicated the dome that had been inflated on the surface of the planet and the radio wires that were being hoisted on the masts, already gleaming silver from ice in that ghastly light. "They are putting the airlocks on. It's no use talking here. The plan is fixed. He knows what he has to do, and so do we."

Without guards in attendance, who were to accompany us into the radio hut, we began to leave the bridge.

The Captain turned for a parting shot. "You must know

this!" he said. "That if there is any treachery or if any harm is done to us, these men have orders to kill you and to die themselves!"

I nodded, and we went. We went through the ship to the cargo hold where the tractor waited. We went out onto the surface of the planet to man the radio station while the ship took off and left us. The history of the relations of the peoples of Earth and Kara was about to begin, and I did not know of which I felt most uncertain, the Kara temperament or the reactions of the people on the Earth.

Eve looked at me as we waited in the airlock. "Has it ever struck you, David," she asked thoughtfully, "how easy war is, and how difficult it is to make a peace?"

Chapter Twenty-Nine

Wearing phones, I tried to hear the signals above the sound of the hiss of ice-crystals across the metalized plastic surface of the Neptune dome. Outside, through the window, I could see the ice accumulating on the radio masts and nothing else but an empty plain of mist. The ship had gone, and we were alone on Neptune, Eve, and myself, and four Kara beings.

The source of the tension was that we neither of us knew, neither we nor the Kara, what messages the other sent. We each had a smattering of the other language, but over the vast distances of space messages could not be sent by voice; and to learn to read either Morse or the Kara code at anything like working speed would take a year. When one of us was transmitting we could see the valves alight, hear the hum of the transformers, and see sparks lick the ice along the aerial outside. But neither of

us knew what the other was saying to the distant ship or the planet Earth.

"MASAP to base. This Is The MASAP Expedition calling Base From Planet Neptune."

Hours later the signal came back:

"Who Is Claiming To Transmit From The Planet Neptune? We Have No Record Of An Expedition MASAP."

It was the first clear communication we had had from Earth, and it indicated that our signal must have been picked up by a giant radio telescope and a reply was being made by beamed transmission. They were alive! Alert and ready to react to the unexpected! I took Eve in my arms and kissed her. Those were our people.

Then I went to the key again:

"MASAP To Earth. Examine Early Rocket Flight Records For Expedition MASAP. This Is That Expedition Returning After Accidental Interstellar Flight. We Are Not Alone. Repeat: We Are Not Alone. Reply At Once."

The Kara beings took over the transmitter then and shifted wavelength for a transmission to their ship. I wondered if the Earth operator had been able to spot the wavelength shift. I imagined the great radio telescope swinging its giant bowl across the sky and seeking out the new source of radio transmission in empty space. With luck, they would know that we were not alone all right!

I imagined transcripts of the messages being passed quietly around among the service departments of the Allied nations. A hoax no doubt—that would be the immediate reaction of all of them. But one by one the giant radio telescopes would cease their interstellar research and turn and fix themselves on a single objective, picking up signals, turning from Neptune to the ship, from the ship to Neptune. I hoped that was the way it was. I could not know.

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The Kara transmission ceased abruptly. Doubtless they had told the ship that we had made first contact with the Earth, and the ship itself would have ceased transmission and be moving swiftly at high speed to another point in the void where it could lie undetected and wait. The time for another reply from Earth come round again, and I took over the receiver, adjusting it to the short-wave, atmosphere-penetrating frequency we were using to contact the surface of the Earth.

When the message came through it had all the shock quality to be associated with a top-line organization that knew what it was doing. Even if the Kara ship had been able to transcribe our messages, I doubted if they could have understood what was going on.

"Earth To MASAP. Your Call Signal Confirmed But State Dates Of Birth And Maiden Names Of Grandmothers Of Parties In MASAP Rocket. Query: What Are You Doing On Neptune? Query: Where And What Is Alien Vessel? Orders: Alien Vessel To Exhibit Bright Lights Minimum One Million Lumens And Transmit Long Radio Waves On Fixed Frequency One Minute In Every Ten, To Approach On Direct Line Meeting Escort And Submit To Inspection At Orbit Planet Mars, Otherwise To Remain At Radius Planet Neptune. Are You Original MASAP Or Descendants Of That Crew?"

Eve was looking over my shoulder as I wrote out the message. I pointed out the orders she was to translate into Kara for transmission to the ship, but, looking at the rest of the message, she was as puzzled as the Kara would have been.

"What's this about maternal grandmothers? David! Half of this is nonsense!"

"By no means nonsense," I told her. "They know how to establish identity, and they know how to do it quick." I took the key:

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"MASAP To Base. One Survivor Of Original MASAP Here Plus Daughter. Dates Birth 11/2/38 And 1941 Approx. Maternal Grandmothers One Johnson Other Believed Hughes Or Sikorsky. Important Repeat Important: Alien Vessel Kara Star Eclis Chart Six Reference 491/082 On Friendly Repeat Friendly Mission But Treat With Kid Gloves. Atomics. Electrostatic Forceline Drive. Shy But No Kittens. We Are Hostages Here Pending Friendly Repeat Friendly Treatment of Kara Ambassadors, But Do Not Attempt Rescue. Normal Diplomatic Usage, Trade. These Things Look Like Grasshoppers But High Civilization And Do Not Bite. Important Repeat Important: Avoid Nightmare Mentality On First Sighting And Keep Press Photographers Away."

I was pounding away at the key.

"That wasn't my date of birth!" Eve said.

"Your mother's," I told her. "I don't know whether Sikorsky or Hughes was her maternal grandfather or grandmother." I continued pounding: *"Kara Powerful Empire Resources Infinite, Weakness Social Organization, Spirit, Lack Of Democracy And Individual Drive, Strength Subtlety And Patience . . ."*

The Kara were clustering round me, looking increasingly threatening as the message went on. They must have known that I was sending all the information I could think of and had rehearsed in a compact form. I cut off the message abruptly and pointed to the orders that Eve had transcribed from the earlier pages of my pad.

"Get that through to your Captain. Tell him to obey those orders and to keep to every letter of them if he wants to live."

"It is absolutely impossible that my Captain should reveal his position. We dare not tell him!"

"Don't be crazy," I told them. "Your Captain's position is pinpointed the instant he opens his transmitter to

reply to you, and he has to reveal it anyway to get down to Earth!"

"You are sending too much. You must not send any more on the transmitter!"

"Am I not to relay messages to your Captain?"

"You are sending too much. You send too many details. Our Captain will decide what is to be told to your people until he leaves!"

They were clustered around us at the transmitter, and things were looking ugly in the Neptune dome. I had to let them take over the key to send orders to their ship, but I knew they would add a description of our behavior and the length of the messages I had been sending, and ask for orders. Outside, the ice-crystals were sliding past the dome with increasing force, and a gale seemed to be developing in the high Neptunian atmosphere. The dome began to flutter. The Kara had believed that all the atmospheric gasses on Neptune would be frozen, but some of them were not. The dome began to vibrate in the screaming wind in the thin air of that desolate planet.

The Kara operator keyed lengthily to his ship, and meanwhile an Earth communication was coming in. When the transmitter was in action, the receiver could not be used, and when the transmitter was silent we both needed the receiver simultaneously on different wavelengths. Our slender equipment was overtaxed, and while the communications could have been sorted out in time, the situation was developing quickly.

"Earth To MASAP: Military Authorities Countermand Orders To Approach To Orbit Mars Stop Alien Vessel To Halt And Be Subjected To Rigorous Inspection And Removal Of Armament At Orbit Jupiter Stop Fleet Dispositions."

It was time for a reply from the Kara ship, which,

though deep in space, was nearer than the Earth and could communicate after shorter delays. The Kara operator took over, and I imagined the Kara ship plunging away in orbit round the sun as its reply came in, while Earth fleets of a size and nature and dispositions I did not know were moving through the solar universe as though for a naval battle. It was a sham battle, a mock battle, but could the nerves of both sides be relied on not to panic? The delay between message and reply to Earth was a matter of hours, while the delay on the circuit to the Kara ship had been twenty minutes, but now might be any time. If the interchange went on, the sheer physical strain on those of us in the Neptune dome would break us down. We had had a full day's work already, and now it was growing night.

Eve passed me a message she had received from the Kara operator and translated:

"No lights will be shown or radiofix signals made until assurances received of safe conduct and free departure at any time."

"That's only a tiny fraction of the message they received," Eve said. "They wouldn't show me the rest!"

It was possible to see the tenor of the rest of the message. Three of the four Kara beings had maneuvered themselves between us and the transmitter and were pointing weapons at us. The situation was not improving but deteriorating, both in the dome and in the desperate game of hide-and-seek that was taking place in space. I remembered what Eve had said about the patterns of Earth life and Kara life, and I saw something inevitable in the misunderstandings that were developing, despite us and the good will of everyone, in the relations between two worlds. And what were we? Pawns in the game, a mere communications center that either or both sides would have to sacrifice if the game grew

hotter. The people on Earth were changing their minds, and doubtless the politicians and military men were arguing and talking in pompous fashion about "precautions," while the Kara ship was asking for assurances that would not be given and that would be valueless if they were given.

Chapter Thirty

Eve said, "What's that?" And even the Kara beings who were keeping us covered with their weapons, keeping us back now from the transmitter and receiver while their operator had full possession of the key, turned to look at the window of the dome.

It was night on Neptune, and the second night through which we had not slept. Twice they had let me communicate in short sentences on the key. Twice long messages came through from Earth, but they had changed the wavelength of the receiver and did not let us hear them. Their messages to their ship had taken longer and longer between the transmission and reply; and then, it seemed to me, as their ship dodged through space, a shorter and shorter time. For the past three hours their operator had been transmitting without intermission. And now, through the driving night of Nep-

tune, the clouds around us were illumined by a glow.

The Kara beings in the hut with us relaxed. Their features were contorted with what was to us inexplicable delight and pleasure. They put away their weapons and crowded to the window. I went at once to the transmitter. The second, contradictory orders to the Kara vessel, I was sure, had never been obeyed or even understood. What had happened, I could only guess, was a game of hide-and-seek through space, of instruments and radar echoes and false trails. The misunderstanding had grown, not eased, and the situation progressed with the inevitability that Eve had suggested that it would.

The Kara operator, yielding his place to me as he too went to the window, pulled out a fuse plug, opened a transmitter panel, and deliberately smashed a valve.

"It's their ship!" Eve called to me. "It's coming back!"

From the key desk I turned in time to see the bright lights descending through the cloudy sky. The ship came in fast in what appeared to be at first an emergency landing. It landed with a thud that sent vibrations through the planet's frozen crust, and the instant it touched its lights went out.

The Kara were hissing and talking too fast for me to follow. Eve touched my arm and took me away to the farther corner.

"I gather it's hiding here. It's doubled back!"

"If it has, our space fleet must have followed it with their radar!"

"They don't seem to think so. They must have some way of deflecting echoes. One of them said the Earth fleet is following some kind of track they laid to Pluto!"

I was stunned. That there would be difficulties in the Kara contact with Earth, I had not doubted. But in two short days the situation had deteriorated from a meeting to a chase! Why had the Kara lost their nerve? I was

sure they would have had nothing to fear if they had obeyed Earth orders to the letter. But then why had the Earth authorities been too ready, too quick, and issued orders that they had later canceled? If the Kara had been too subtle and suspicious, the Earth authorities had tried to be too sharp.

"David, why aren't you transmitting? Why don't you tell the Earth they're here?"

Silently, I showed her the open transmitter panel, the damaged valve.

"He's smashed it!" she said incredulously. "Whatever for?"

"Presumably they don't think they need it any more!"

We turned to look at the Kara by the window. They were crowded there, with their legs twitching and their arms moving in spasms of excitement and relief. Beyond them, we caught a glimpse of the dark shape of the ship, half hidden in the fog, but burning low-powered lights. One of the lights was moving. It was the tractor that was coming across towards us.

"David! They must be going to pick up their men. What are they going to do with us?"

"Take us back to Kara presumably. Do you understand their feelings? They're running high."

We were speaking in savage whispers, attempting to avoid attracting attention to ourselves; at the same time, we watched. The clouds outside cleared at intervals, and we could see the tractor crossing the frozen surface in the starlight. It had to pass the radio masts on the way, but it did not pass them. It altered course and drove straight for the nearest mast, bulldozing it out of the earth; then it turned away and came towards the dome.

The Kara left the window and began to crowd towards the airlock.

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"This base is to be abandoned!" Eve said. "Oh, David, after we've come so far! If they take us back to Kara after this!"

I knew what she meant. If the Earth mission had failed, we would no longer be treated on Kara as honored guests.

"They'll not take us back to Kara alive," I said. Yet I was conscious of the damaged transmitter, of the radio mast down. It would be quite impossible for us to repair those things, and without them we could not expect a search party to seek us over that whole, wild desolate world.

The tractor had connected with the airlock to the dome. The Kara went crowding out. Only the officer turned and looked at us.

He motioned us to come with him, imperiously but in haste.

We remained crouched in the far corner of the hemispherical dome. With the transmitter on our left and the stores on our right, it would take a fighting party to get us out.

He turned the weapon he carried on us. I had never discovered what those weapons did. They looked like a cylinder, and I suspected they shot a flame. Perhaps he considered the effect of igniting the dome while the tractor was still connected to it by the airlock. He turned and said something to someone in the tractor.

Through the window, a light was winking urgently on the Kara ship.

There was a short argument with someone in the tractor, then the officer turned away with only a single glance at us. It was a triumphant glance, I felt. He got into the tractor. I leapt across the dome and operated the controls that closed the airlock door even as they closed themselves inside the tractor.

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We were alone in the dome, and Eve crossed towards the window. I pulled her down to the floor.

"Don't let them see you! They think we've died from loss of air!"

We heard the tractor start up and grind away. It was minutes before I dared to crawl across the dome and look quickly through the window.

The tractor was entering the Kara ship, which was preparing to depart. As I watched, the doors closed in its cargo hold, its brilliant lights came on, and it began to lift.

As soon as it was above the layer of drifting cloud, its lights went out. It left us to silence and the total darkness of one of the most desolate and remote and barren planets of any solar system.

We stood in the center of the dome and looked around us. There were cylinders of air and containers of stores, a broken radio transmitter and electric battery cells that would last a limited time. That was all there was. At a guess I thought we might live for a hundred days, and not only would an expedition have to search the whole planet to find us—an area as big as Antarctica on Earth, but multiplied a thousand times and a thousand times more desolate—but all available vessels would be searching for the Kara ship for months. We would not even be able to tell them that it had probably left the solar system and was heading back for Kara.

I put my arm round Eve's shoulders.

Chapter Thirty-One

At the dinner table on the spacefleet transport that took us back to Earth, Eve was full of smiles and talk and laughter. It had been on a relief operation from the moons of Jupiter when it had been diverted to the search of Neptune. The passengers were among the first representatives of that wealthy, interplanetary, cosmopolitan society that now crowds the cabins of the spaceways. Supremely self-assured, the technicians, prospectors and their wives who conducted operations worth millions with their vast machines were as good an introduction as Eve could get to the new, rich, cultured and sophisticated dynamism of the Earth. Its effect on her was that of the warmth of spring sunshine on a flower.

"A remarkable creature, your daughter," the Captain of the ship told me when Eve left the table with one of

his younger officers. "So fresh. Behaves as though everything in life were new to her."

"But then she *is* fresh," I said. "It *is* new to her. I doubt if she really knew that the Earth existed, or other men and women, until your ship came lowering and blasting out of the clouds of Neptune, on schedule as you tell me, after we had been there, half starving, for a month."

"She is aware that there are other men now," the Captain said, watching Eve's progress towards the dance floor. "They are trying to impress the fact upon her."

We could see the dance floor from where we were sitting, and the young officer, whose name was Gresham Howes. I tried to conceal how strange and new the scene was to me, as well as Eve. I suspected that my life was going to be full of shocks like that for a little while. I had been careful to discover, by the most indirect questioning, that the date was 2262.

"Thanks to you," I told the Captain. "You have no idea what it was to us, to see your incredible ship come blasting down. We didn't expect it, you know. Lost on the surface of that planet, in cloud for most of the time, with visibility zero and the radio out of action, we didn't think you'd ever find us if the authorities used a fleet. That you should come straight to us out of space like that was like a miracle to us."

His eyes crinkled as he smiled, and he waved to the waiter-steward to bring liqueurs. "The metal detector is fairly good in cases like that, when you were perched on the top of a layer of atmosphere that's frozen two miles deep. You should see the trouble we have sometimes with some of these out-of-the-way mining stations that are actually built on a lode of metal. Then, the search for them can be the very devil."

"You make regular journeys to them?"

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"Fairly regular. Once every three years. Of course they have the Meteor Doctor service. Three days flat to any part of the solar system from the moment of the radio flash. Not bad, but we're getting strong representations that they should improve it."

It sounded to me as though the solar system was some kind of big, backward and half-tamed country that humanity was just opening up. At that time I imagined it would occupy men for the next two hundred years. None of us could then foresee the Galactic expansion of the next twenty orbits under the influence of the Kara wars. All the people on that ship, big and important though they thought themselves, were just coasting, though they did not know it. Within the next few years they were going to have to wake up and really push things.

"Your daughter's doing rather well with my young third officer," the Captain said. "Do you want me to check him and keep him busy elsewhere? They're fast workers, some of these boys of mine."

I looked down at the dance floor where Eve was dancing with her head on the young man's shoulder. To me it appeared that he was saying something into her ear, and whatever it was she was not resenting it one little bit. Should I interfere? I remembered what she had said about what man was and the strength of the pattern that his behavior made.

"Let them alone," I said. "She's had a somewhat repressed childhood as you can guess. She's bound to make up for it now that she has discovered that men are men. He looks a clean and likely boy."

"One of the best," the Captain told me. "Third officer at two years below the normal age. Career rating Three. He'll be the Commodore of a squadron before he's forty."

Watching them, I played with my liqueur glass. "It sounds as though you have reservations, Captain."

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He looked at me sharply, then laughed. "You're right. I have. He's the marrying kind. They all are, these young space officers. The girls won't have them. For husbands they want men who spend more than two weeks a year at home."

"I'm old-fashioned," I said. "I believe that if two young people are going to dance publicly like that on a dance floor, they should get married."

The Captain gave me his crinkled grin again. "You're right, you are old-fashioned," he said. "Today we spend all our time warning young people that they can do anything they like but they shouldn't get legally married until they're sure. And do they listen? Official marriage seems to be the only thing they crave for from the moment they are old enough to kiss." He got up. "Shall we go see if we've been able to raise an answer to your message yet?"

"It would help if I knew I had some pay to my credit," I said. "I'm beginning to lose count of the number of drinks I owe you."

We went along to the radio room. I had sent an official message from there some few hours earlier, backed by the Captain, requesting that I be given some information about my pay and credit. It was a considerably important point on that expensive ship. When they had taken us off Neptune we had had nothing even to wear except our Kara robes, and while everyone had been most kind, and the dance dress that Eve was wearing had been given to her along with many others, I was anxious to put things on a better footing.

"You'll be able to pay for the drinks if not much else," the Captain said. "You say you were on a Major's grade? With the cut-off rule they brought in as soon as people started to make the time-leap you'll be due for six months back pay. Eighteen thousand dollars is my guess. But

we'll cancel the drinks. At today's prices you'll need all of that to set yourself up on Earth again."

He meant it too, and I was not sure I wouldn't have to accept the gift of a free mess bill. I had Eve to think of.

We arrived at the radio cabin and found the operator just checking and asking repeats on a message that had just come through. It seemed to make heavy weather of it, with check and recheck from a relay point, and every figure was being spelled out twice. He sat and looked at the form for a moment; then he passed it across to us.

"Account David Spencer 19783240 Stop Salary Rate On Departure Prior To Cut-Off Ruling Stop Present Credit Fifteen Repeat Fifteen Million Repeat Million Six Hundred Thousand Repeat Six Hundred Thousand And Five Nine Four Three Seven Only Stop Confirm Immediate Credit This Amount."

I looked at it, read it, and put out one hand to hold up the wall that seemed to be swaying slightly. Then I did not know what to do with the form. I handed it to the Captain.

Quietly, and after thirty seconds, he said, "Would you like to buy the ship?"

"But this is crazy! Even if my salary has been running continuously for two hundred years because I left before this cut-off, or whatever you call it, it can't amount to that!"

"With interest and compound interest?" he said. "Who do you bank with? Do you know what interest they're paying? The mines are booming. Besides, it can. It does."

I had decided to lean against the bulkhead. I still felt weak about the knees. The wireless operator was looking at me owlishly as though he had never seen anyone like me before.

The Captain spoke gently, "It isn't a tremendous for-

tune these days," he said. "Probably one or two of the mining boys can match it. You know what I mean. You don't need to be careful. But don't be rash. You won't get two hundred years again."

"I feel rash," I said. "Come with me and sustain me. I'll buy you a drink in a minute, but first I have a date with someone on the dance floor."

We went back through the ship to the dining rooms and lounges. On my way, I was already thinking and picturing in my mind's eye the right kind of place. It was very like the estate where I am working now. Peaceful serenity, I thought, and all that Eve could wish. I was overage for the Services, about two hundred years over age, and the rest of my life was mine to do with as I wished.

Eve saw us at once and began to move towards us across the dance floor. I held up my telegraph form to show her through the crowd of heads and dancing bodies. She smiled and made a gesture indicating her young man: I gathered we both had news to tell one another.

"Warn her," the Captain said in my ear. "If she says he's proposed to her, warn her at once not to accept him unless she wants a husband who's going to be away nine-tenths of the time. Tell her that she'll only see him once a year when he arrives to take his first look at the last baby and start another. A fortnight's married life a year is not enough for any woman."

They were coming towards us, and now were within speaking distance.

"David! I'm going to be married on arrivall!"

The couples in the immediate vicinity quickly turned their heads and stared.

I looked into her eyes across the intervening distance. "Aren't you glad now, Eve, that we kept the pattern?"

That I didn't make the same mistake twice in my life?" I grinned.

"David . . . Father!" She was close to us now. "I always want you to live with us, Daddy. You don't need to worry about money; Gresham has enough. But this— Oh, this is so different, David!"

The young man Gresham was smiling in a kind of shy triumph, and the dancing was coming to an end as the couples came crowding round. Fortunately neither Gresham nor any of them could understand the significance of what Eve and I were saying about a pattern, a way or mode of life that almost miraculously had not been broken.

Eve turned to Gresham and said, "I forgot to tell you that. You won't mind, will you? You really won't? My father will live with us."

"I've told you," Gresham said. "I've warned you how much I'll be away. If there's a man in the house my sons can go to . . ." He was laughing too.

The dancers were crowding round. The dancing was at a standstill, and someone was bringing an ice bucket and champagne, calling for a party.

"In congratulating my Third Officer," the Captain said, "I'm pleasantly surprised that he hasn't lied to the bride about what her life will be."

"You see, my father and I have been through so much together," Eve was explaining, slightly frantic.

I took Gresham from her. "Hadn't we better talk about this a little? It's all right for Eve to say you have plenty of money; she doesn't know the world. I can see your financial status. It's visible in the uniform you're wearing. Shouldn't you inquire mine?" We turned away together.

Gresham gave me a sharp look. I was pleased to see he was no fool. "As long as you realize that my main commitment is to my children if we have any," he said. "I

stand by what I said about wanting a man about the house just so long as we can afford the room."

"A father-in-law is a nuisance."

"Not to a man who has to be away from home for most of the year he isn't!"

We turned to move back to the group. "You don't need to worry about the room," I told him as we rejoined them. "I may even be able to give you a little financial backing when we set up home. If you wouldn't mind, that is, if I bought an estate for you." I put my hand on his shoulder.

Eve heard the last remark. She suddenly saw the telegraph form in my hand, and took it from me.

She had no sense of reticence. She passed it at once to Gresham, to Gresham after whom her first son was to be named, the one who is now aiming to become an exploration scout. I saw Gresham read the wire, then glance at me, then register shock. I do not know what might have happened then, when he realized what blind chance had brought him.

What did happen was that bells rang through the room and the lights went out. It was the custom of that line to take the image from the main forward telescope of the ship at that hour and feed it to a screen so that the passengers could see for a little while just where they were in space.

The image that came on the screen in the sudden darkness of the ballroom, as the band played softly, was the round and stable image of the Earth, with its lands and continents all displayed, as we would be seeing them with the naked eye in a few days' time. A murmur of awe and wonder went through the crowd at the unexpected sight.

But I suddenly felt old. I felt old enough at last to be the father of my daughter. It should not have been Eve

who was with me to see the Earth again, I thought. It should have been Elvinia, Elvinia who had been dead these many years, by my folly, on an unnamed planet. Elvinia whose pattern had dissolved in a flash in the falls of time.

I saw Gresham and Eve with their heads together in the shadowy reflection of the screen. The pattern was reforming, I realized, and soon new shapes would appear, brilliant and ever-changing while they were descending in the fall. But I was old, old enough to prefer my memories, though I kept them to myself. In time, when the history was told, it would be known who was the heroine of the expedition MASAP.

Man had conquered three dimensions following our voyage to the worlds of Kara. Across the length and breadth of the universe he now ranged freely. But not in my lifetime would he conquer the fourth dimension, time, and enable himself to see again the ones who were long since lost, departed.

Chapter Thirty-Two

The great fleet battles that break out so frequently between the Earth and Kara are known to all historians and to that vast public that gets its news by telecast and pictures on the screen. There can be no more familiar sight in these days, in a thousand million homes, than the great silver shapes of the Kara spaceships appearing in their groups of three to confront the lone Earth scout in his slim and slighter ship on the fringes of our Empire. The stories are legion of the lone ship that meets superior numbers and then escapes by some swift and complicated maneuver at high speed, to return with his squadron, to be confronted by a phalanx, to call up a Fleet Arm, to be confronted by the major battle fleet. It has even become a saying in our language that a scout heralds a squadron, a squadron a phalanx, and a phalanx the assembling of the enemy. The tactics of this great game,

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pursued along frontier lines in the depths of space and right across the Galaxy, are the daily preoccupation and controversy of our public men.

The fact that these battles are bloodless, and that no Earth or Kara being has ever yet pulled a trigger on the enemy, can be attributed to the fact that the Galaxy as yet is big enough for both of us. When it is not, it will be cheaper to move to other Galaxies than to fight for the other half of this one. Space is endless, and to circumnavigate a tiny fraction of it will take a million million years.

But Eve and myself, and the children in our home, are not ourselves concerned with the intricacies of the Cold War, the war that is too great and vast ever to be anything except a Cold War. Our friends and loved ones take part and fight in it, but we who know most about its beginnings know least about its present or its end. Only from time to time in our secluded home in the depths of the peaceful countryside do the children hear our names on the lips of some commentator in the newscasts and look at us again with wonder, and demand that we tell them all about it, and then lose interest. We are names and a public legend, but the legend is not ourselves.

As I write this, I hear the sounds of the younger children playing. Harold and baby David are playing on the lawn, and baby Mary is crawling away, I do not doubt, and will have to be retrieved from the shrubbery when they miss her. We interfere as little as possible. After too much care of the early children, Eve has come to the conclusion that human children are natural beings, and, left alone in an environment, they will adapt to it.

Across my table, I look out through the tall window of the study to the low blue hills. We are fortunate to have been able to choose and buy so peaceful a place in which

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to live, with the cries of children, the sound' of the birds, and the rustling of the gentle wind in trees the only sounds. In the garage behind the house the helicopter stands, but we use it less and less. Why should we go somewhere? It is not that there is anywhere better on the surface of our planet. Those who wish to find the best should come to us.

Yesterday Eve and I discussed the choice of career of Gresham, the eldest boy. We find it odd that he, who has no need of any career at all, who has already been given an allowance to last him all his life and who could, therefore, be anything, should have chosen, of all things, the hard life of the spaceways. We would not have interfered with his choice of course, but we felt there were some things we should point out to him.

"The Exploration Division," Eve said, looking up at me from his letter. "In that, he will never become famous as a colonizing General. He will never get the public fame that comes to a Fleet Commander or an Admiral."

"I must write to him. Is he still at his University address or has he left it? I must warn him of the arduous years spent doing nothing in a spaceship, the poor and old and isolated planets, the rarity of great discoveries among the suns of the Galactic fringes."

"Don't you think he knows?" she said.

We talked of Gresham and David and Mary, and Eve, the doctor, the eldest girl. We did not talk of the subject that was most on our minds. We had seen the telecast of the latest great fleet action at the farther limits of the frontier, and of how orders had been given to trace out the frontiers farther. The news had been years on its way, though it had travelled on radio waves at the speed of light.

Tomorrow, I will try to walk around the whole circumference of the garden. I am older than I was, and it is

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not so easy as it was when we bought the land and gave orders for the planting of the orchard, the diverting of the stream, and the building of the house. Twenty years have passed since then. Since we retired here, the public has not seen us, but the legend about us has grown until it has seemed the time to set out the simple facts. I work in my study daily, but by tomorrow, with luck, the story will be finished. It is time that the truth was told, the truth that we were people, doing always what we could and must, and not legendary heroes or arbiters of the fate of worlds.

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