

Masters of Space

E. Everett Evans and E. E. Smith

A decorative background pattern consisting of various geometric shapes in blue and magenta. The shapes include triangles of different sizes and orientations, horizontal and vertical lines, and a stepped, staircase-like structure on the left side. The pattern is dense and covers the entire lower half of the image.

Project Gutenberg

The Project Gutenberg EBook of Masters of Space, by
Edward Elmer Smith and Edward Everett Evans

This eBook is for the use of anyone anywhere at no cost and with
almost no restrictions whatsoever. You may copy it, give it away or
re-use it under the terms of the Project Gutenberg License included
with this eBook or online at www.gutenberg.org

Title: Masters of Space

Author: Edward Elmer Smith
Edward Everett Evans

Illustrator: Berry

Release Date: September 24, 2007 [EBook #22754]

Language: English

*** START OF THIS PROJECT GUTENBERG EBOOK MASTERS OF SPACE ***

Produced by Robert Cicconetti, Stephen Blundell and the
Online Distributed Proofreading Team at <http://www.pgdp.net>

**The Masters had ruled all space with an unconquerable iron fist. But the
Masters were gone. And this new, young race who came now to take their
place—could they hope to defeat the ancient Enemy of All?**

PART ONE

MASTERS OF SPACE

**By EDWARD E. SMITH &
E. EVERETT EVANS**

Illustrated by BERRY

I

"**B**UT didn't you feel *anything*, Javo?" Strain was apparent in every line of Tula's taut, bare body. "Nothing at all?"

"Nothing whatever." The one called Javo relaxed from his rigid concentration. "Nothing has changed. Nor will it."

"That conclusion is indefensible!" Tula snapped. "With the promised return of the Masters there must and will be changes. Didn't *any* of you feel anything?"

Her hot, demanding eyes swept the group; a group whose like, except for physical perfection, could be found in any nudist colony.

No one except Tula had felt a thing.

"That fact is not too surprising," Javo said finally. "You have the most sensitive receptors of us all. But are you sure?"

"I am sure. It was the thought-form of a living Master."

"Do you think that the Master perceived your web?"

"It is certain. Those who built us are stronger than we."

"That is true. As they promised, then, so long and long ago, our Masters are returning home to us."

Jarvis Hilton of Terra, the youngest man yet to be assigned to direct any such tremendous deep-space undertaking as Project Theta Orionis, sat in conference with his two seconds-in-command. Assistant Director Sandra Cummings, analyst-synthesist and semantician, was tall, blonde and svelte. Planetographer William Karns—a black-haired, black-browed, black-eyed man of thirty—was third in rank of the scientific group.

"I'm telling you, Jarve, you can't have it both ways," Karns declared. "Captain Sawtelle is old-school Navy brass. He goes strictly by the book. So you've got to

draw a razor-sharp line; exactly where the Advisory Board's directive puts it. And next time he sticks his ugly puss across that line, kick his face in. You've been Caspar Milquetoast Two ever since we left Base."

"That's the way it looks to you?" Hilton's right hand became a fist. "The man has age, experience and ability. I've been trying to meet him on a ground of courtesy and decency."

"Exactly. And he doesn't recognize the existence of either. And, since the Board rammed you down his throat instead of giving him old Jeffers, you needn't expect him to."

"You may be right, Bill. What do you think, Dr. Cummings?"

The girl said: "Bill's right. Also, your constant appeasement isn't doing the morale of the whole scientific group a bit of good."

"Well, I haven't enjoyed it, either. So next time I'll pin his ears back. Anything else?"

"Yes, Dr. Hilton, I have a squawk of my own. I know I was rammed down your throat, but just when are you going to let me do some work?"

"None of us has much of anything to do yet, and won't have until we light somewhere. You're off base a country mile."

"I'm not off base. You *did* want Eggleston, not me."

"Sure I did. I've worked with him and know what he can do. But I'm not holding a grudge about it."

"No? Why, then, are you on first-name terms with everyone in the scientific group except me? Supposedly your first assistant?"

"That's easy!" Hilton snapped. "Because you've been carrying chips on both shoulders ever since you came aboard ... or at least I thought you were." Hilton grinned suddenly and held out his hand. "Sorry, Sandy—I'll start all over again."

"I'm sorry too, Chief." They shook hands warmly. "I was pretty stiff, I guess, but I'll be good."

"You'll go to work right now, too. As semantician. Dig out that directive and tear it down. Draw that line Bill talked about."

"Can do, boss." She swung to her feet and walked out of the room, her every movement one of lithe and easy grace.

Karns followed her with his eyes. "Funny. A trained-dancer Ph.D. And a Miss America type, like all the other women aboard this spacer. I wonder if she'll make out."

"So do I. I still wish they'd given me Eggy. I've never seen an executive-type female Ph.D. yet that was worth the cyanide it would take to poison her."

"That's what Sawtelle thinks of you, too, you know."

"I know; and the Board *does* know its stuff. So I'm really hoping, Bill, that she surprises me as much as I intend to surprise the Navy."

ALARM bells clanged as the mighty *Perseus* blinked out of overdrive. Every crewman sprang to his post.

"Mister Snowden, why did we emerge without orders from me?" Captain Sawtelle bellowed, storming into the control room three jumps behind Hilton.

"The automatics took control, sir," he said, quietly.

"Automatics! I *give* the orders!"

"In this case, Captain Sawtelle, you don't," Hilton said. Eyes locked and held. To Sawtelle, this was a new and strange co-commander. "I would suggest that we discuss this matter in private."

"Very well, sir," Sawtelle said; and in the captain's cabin Hilton opened up.

"For your information, Captain Sawtelle, I set my inter-space coupling detectors for any objective I choose. When any one of them reacts, it trips the kickers and we emerge. During any emergency outside the Solar System I am in command—with the provision that I must relinquish command to you in case of armed attack on us."

"Where do you think you found any such stuff as that in the directive? It isn't there and I know my rights."

"It is, and you don't. Here is a semantic chart of the whole directive. As you will note, it overrides many Navy regulations. Disobedience of my orders constitutes

mutiny and I can—and will—have you put in irons and sent back to Terra for court-martial. Now let's go back."

In the control room, Hilton said, "The target has a mass of approximately five hundred metric tons. There is also a significant amount of radiation characteristic of uranexite. You will please execute search, Captain Sawtelle."

And Captain Sawtelle ordered the search.

"What did you do to the big jerk, boss?" Sandra whispered.

"What you and Bill suggested," Hilton whispered back. "Thanks to your analysis of the directive—pure gobbledygook if there ever was any—I could. Mighty good job, Sandy."

TEN or fifteen more minutes passed. Then:

"Here's the source of radiation, sir," a searchman reported. "It's a point source, though, not an object at this range."

"And here's the artifact, sir," Pilot Snowden said. "We're coming up on it fast. But ... but what's a *skyscraper* skeleton doing out here in interstellar space?"

As they closed up, everyone could see that the thing did indeed look like the metallic skeleton of a great building. It was a huge cube, measuring well over a hundred yards along each edge. And it was empty.

"*That's* one for the book," Sawtelle said.

"And how!" Hilton agreed. "I'll take a boat ... no, suits would be better. Karns, Yarborough, get Techs Leeds and Miller and suit up."

"You'll need a boat escort," Sawtelle said. "Mr. Ashley, execute escort Landing Craft One, Two, and Three."

The three landing craft approached that enigmatic lattice-work of structural steel and stopped. Five grotesquely armored figures wafted themselves forward on pencils of force. Their leader, whose suit bore the number "14", reached a mammoth girder and worked his way along it up to a peculiar-looking bulge. The whole immense structure vanished, leaving men and boats in empty space.

Sawtelle gasped. "Snowden! Are you holding 'em?"

"No, sir. Faster than light; hyperspace, sir."

"Mr. Ashby, did you have your interspace rigs set?"

"No, sir. I didn't think of it, sir."

"Doctor Cummings, why weren't yours out?"

"I didn't think of such a thing, either—any more than you did," Sandra said.

Ashby, the Communications Officer, had been working the radio. "No reply from anyone, sir," he reported.

"Oh, no!" Sandra exclaimed. Then, "But look! They're firing pistols—especially the one wearing number fourteen—but *pistols*?"

"Recoil pistols—sixty-threes—for emergency use in case of power failure," Ashby explained. "That's it ... but I can't see why *all* their power went out at once. But Fourteen—that's Hilton—is really doing a job with that sixty-three. He'll be here in a couple of minutes."

And he was. "Every power unit out there—suits and boats both—drained," Hilton reported. "*Completely* drained. Get some help out there fast!"

In an enormous structure deep below the surface of a far-distant world a group of technicians clustered together in front of one section of a two-miles long control board. They were staring at a light that had just appeared where no light should have been.

"Someone's brain-pan will be burned out for this," one of the group radiated harshly. "That unit was inactivated long ago and it has not been reactivated."

"Someone committed an error, Your Loftiness?"

"Silence, fool! Stretts do not commit errors!"

AS soon as it was clear that no one had been injured, Sawtelle demanded, "How about it, Hilton?"

"Structurally, it was high-alloy steel. There were many bulges, possibly

containing mechanisms. There were drive-units of a non-Terran type. There were many projectors, which—at a rough guess—were a hundred times as powerful as any I have ever seen before. There were no indications that the thing had ever been enclosed, in whole or in part. It certainly never had living quarters for warm-blooded, oxygen-breathing eaters of organic food."

Sawtelle snorted. "You mean it never had a crew?"

"Not necessarily...."

"Bah! What other kind of intelligent life is there?"

"I don't know. But before we speculate too much, let's look at the tri-di. The camera may have caught something I missed."

It hadn't. The three-dimensional pictures added nothing.

"It probably was operated either by programmed automatics or by remote control," Hilton decided, finally. "But how did they drain all our power? And just as bad, what and how is that other point source of power we're heading for now?"

"What's wrong with it?" Sawtelle asked.

"Its strength. No matter what distance or reactant I assume, nothing we know will fit. Neither fission nor fusion will do it. It has to be practically total conversion!"

II

THE *Perseus* snapped out of overdrive near the point of interest and Hilton stared, motionless and silent.

Space was full of madly warring ships. Half of them were bare, giant skeletons of steel, like the "derelict" that had so unexpectedly blasted away from them. The others were more or less like the *Perseus*, except in being bigger, faster and of vastly greater power.

Beams of starkly incredible power bit at and clung to equally capable defensive screens of pure force. As these inconceivable forces met, the glare of their neutralization filled all nearby space. And ships and skeletons alike were disappearing in chunks, blobs, gouts, streamers and sparkles of rended, fused and vaporized metal.

Hilton watched two ships combine against one skeleton. Dozens of beams, incredibly tight and hard, were held inexorably upon dozens of the bulges of the skeleton. Overloaded, the bulges' screens flared through the spectrum and failed. And bare metal, however refractory, endures only for instants under the appalling intensity of such beams as those.

The skeletons tried to duplicate the ships' method of attack, but failed. They were too slow. Not slow, exactly, either, but hesitant; as though it required whole seconds for the commander—or operator? Or remote controller?—of each skeleton to make it act. The ships were winning.

"Hey!" Hilton yelled. "Oh—that's the one we saw back there. But what in all space does it think it's doing?"

It was plunging at tremendous speed straight through the immense fleet of embattled skeletons. It did not fire a beam nor energize a screen; it merely plunged along as though on a plotted course until it collided with one of the skeletons of the fleet and both structures plunged, a tangled mass of wreckage, to the ground of the planet below.

Then hundreds of the ships shot forward, each to plunge into and explode inside one of the skeletons. When visibility was restored another wave of ships came forward to repeat the performance, but there was nothing left to fight. Every surviving skeleton had blinked out of normal space.

The remaining ships made no effort to pursue the skeletons, nor did they re-form as a fleet. Each ship went off by itself.

And on that distant planet of the Stretts the group of mechs watched with amazed disbelief as light after light after light winked out on their two-miles-long control board. Frantically they relayed orders to the skeletons; orders which did not affect the losses.

"Brain-pans will blacken for this ..." a mental snarl began, to be interrupted by a coldly imperious thought.

"That long-dead unit, so inexplicably reactivated, is approaching the fuel world. It is ignoring the battle. It is heading through our fleet toward the Oman half ... *handle* it, ten-eighteen!"

"It does not respond, Your Loftiness."

"Then blast it, fool! Ah, it is inactivated. As encyclopedist, Nine, explain the freakish behavior of that unit."

"Yes, Your Loftiness. Many cycles ago we sent a ship against the Omans with a new device of destruction. The Omans must have intercepted it, drained it of power and allowed it to drift on. After all these cycles of time it must have come upon a small source of power and of course continued its mission."

"That can be the truth. The Lords of the Universe must be informed."

"The mining units, the carriers and the refiners have not been affected, Your Loftiness," a mech radiated.

"So I see, fool." Then, activating another instrument, His Loftiness thought at it, in an entirely different vein, "Lord Ynos, Madam? I have to make a very grave report...."

IN the *Perseus*, four scientists and three Navy officers were arguing heatedly;

employing deep-space verbiage not to be found in any dictionary. "Jarve!" Karns called out, and Hilton joined the group. "Does anything about this planet make any sense to you?"

"No. But you're the planetographer. 'Smatter with it?"

"It's a good three hundred degrees Kelvin too hot."

"Well, you know it's loaded with uranexite."

"That much? The whole crust practically jewelry ore?"

"If that's what the figures say, I'll buy it."

"Buy *this*, then. Continuous daylight everywhere. Noon June Sol-quality light *except* that it's all in the visible. Frank says it's from bombardment of a layer of something, and Frank admits that the whole thing's impossible."

"When Frank makes up his mind what 'something' is, I'll take it as a datum."

"Third thing: there's only one city on this continent, and it's protected by a screen that nobody ever heard of."

Hilton pondered, then turned to the captain. "Will you please run a search-pattern, sir? Fine-toothing only the hot spots?"

The planet was approximately the same size as Terra; its atmosphere, except for its intense radiation, was similar to Terra's. There were two continents; one immense girdling ocean. The temperature of the land surface was everywhere about 100°F, that of the water about 90°F. Each continent had one city, and both were small. One was inhabited by what looked like human beings; the other by usuform robots. The human city was the only cool spot on the entire planet; under its protective dome the temperature was 71°F.

Hilton decided to study the robots first; and asked the captain to take the ship down to observation range. Sawtelle objected; and continued to object until Hilton started to order his arrest. Then he said, "I'll do it, under protest, but I want it on record that I am doing it against my best judgment."

"It's on record," Hilton said, coldly. "Everything said and done is being, and will continue to be, recorded."

The *Perseus* floated downward. "*There's* what I want most to see," Hilton said,

finally. "That big strip-mining operation ... that's it ... hold it!" Then, via throat-mike, "Attention, all scientists! You all know what to do. Start doing it."

Sandra's blonde head was very close to Hilton's brown one as they both stared into Hilton's plate. "Why, they look like giant armadillos!" she exclaimed.

"More like tanks," he disagreed, "except that they've got legs, wheels *and* treads—and arms, cutters, diggers, probes and conveyors—and *look* at the way those buckets dip solid rock!"

The fantastic machine was moving very slowly along a bench or shelf that it was making for itself as it went along. Below it, to its left, dropped other benches being made by other mining machines. The machines were not using explosives. Hard though the ore was, the tools were so much harder and were driven with such tremendous power that the stuff might just have well have been slightly-clayed sand.

Every bit of loosened ore, down to the finest dust, was forced into a conveyor and thence into the armored body of the machine. There it went into a mechanism whose basic principles Hilton could not understand. From this monstrosity emerged two streams of product.

One of these, comprising ninety-nine point nine plus percent of the input, went out through another conveyor into the vast hold of a vehicle which, when full and replaced by a duplicate of itself, went careening madly cross-country to a dump.

The other product, a slow, very small stream of tiny, glistening black pellets, fell into a one-gallon container being held watchfully by a small machine, more or less like a three-wheeled motor scooter, which was moving carefully along beside the giant miner. When this can was almost full another scooter rolled up and, without losing a single pellet, took over place and function. The first scooter then covered its bucket, clamped it solidly into a recess designed for the purpose and dashed away toward the city.

Hilton stared slack-jawed at Sandra. She stared back.

"Do you make anything of that, Jarve?"

"Nothing. They're taking *pure* uranexite and *concentrating*—or converting—it a thousand to one. I *hope* we'll be able to do something about it."

"I hope so, too, Chief; and I'm *sure* we will."

"Well, that's enough for now. You may take us up now, Captain Sawtelle. And Sandy, will you please call all department heads and their assistants into the conference room?"

AT the head of the long conference table, Hilton studied his fourteen department heads, all husky young men, and their assistants, all surprisingly attractive and well-built young women. Bud Carroll and Sylvia Bannister of Sociology sat together. He was almost as big as Karns; she was a green-eyed redhead whose five-ten and one-fifty would have looked big except for the arrangement thereof. There were Bernadine and Hermione van der Moen, the leggy, breasty, platinum-blond twins—both of whom were Cowper medalists in physics. There was Etienne de Vaux, the mathematical wizard; and Rebecca Eisenstein, the black-haired, flashing-eyed ex-infant-prodigy theoretical astronomer. There was Beverly Bell, who made mathematically impossible chemical syntheses—who swam channels for days on end and computed planetary orbits in her sleekly-coiffured head.

"First, we'll have a get-together," Hilton said. "Nothing recorded; just to get acquainted. You all know that our fourteen departments cover science, from astronomy to zoology."

He paused, again his eyes swept the group. Stella Wing, who would have been a grand-opera star except for her drive to know everything about language. Theodora (Teddy) Blake, who would prove gleefully that she was the world's best model—but was in fact the most brilliantly promising theoretician who had ever lived.

"No other force like this has ever been assembled," Hilton went on. "In more ways than one. Sawtelle wanted Jeffers to head this group, instead of me. Everybody thought he *would* head it."

"And Hilton wanted Eggleston and got *me*," Sandra said.

"That's right. And quite a few of you didn't want to come at all, but were told by the Board to come or else."

The group stirred. Eyes met eyes, and there were smiles.

"I MYSELF think Jeffers *should* have had the job. I've never handled anything half this big and I'll need a lot of help. But I'm stuck with it and you're all stuck with me, so we'll all take it and like it. You've noticed, of course, the accent on youth. The Navy crew is normal, except for the commanders being unusually young. But we aren't. None of us is thirty yet, and none of us has ever been married. You fellows look like a team of professional athletes, and you girls—well, if I didn't know better I'd say the Board had screened you for the front row of the chorus instead of for a top-bracket brain-gang. How they found so many of you I'll never know."

"Virile men and nubile women!" Etienne de Vaux leered enthusiastically. "*Vive le Board!*"

"Nubile! Bravo, Tiny! *Quelle delicatesse de nuance!*"

"Three rousing cheers for the Board!"

"Keep still, you nitwits! Let me ask a question!" This came from one of the twins. "Before you give us the deduction, Jarvis—or will it be an intuition or an induction or a ..."

"Or an inducement," the other twin suggested, helpfully. "Not that *you* would need very much of that."

"You keep still, too, Miney. I'm asking, Sir Moderator, if I can give my deduction first?"

"Sure, Bernadine; go ahead."

"They figured we're going to get completely lost. Then we'll jettison the Navy, hunt up a planet of our own and start a race to end all human races. Or would you call this a *see*-duction instead of a *dee*-duction?"

This produced a storm of whistles, cheers and jeers that it took several seconds to quell.

"But seriously, Jarvis," Bernadine went on. "We've all been wondering and it doesn't make sense. Have you any idea at all of what the Board actually did have in mind?"

"I believe that the Board selected for mental, not physical, qualities; for the

ability to handle anything unexpected or unusual that comes up, no matter what it is."

"You think it wasn't double-barreled?" asked Kincaid, the psychologist. He smiled quizzically. "That all this virility and nubility and glamor is pure coincidence?"

"No," Hilton said, with an almost imperceptible flick of an eyelid. "Coincidence is as meaningless as paradox. I think they found out that—barring freaks—the best minds are in the best bodies."

"Could be. The idea has been propounded before."

"Now let's get to work." Hilton flipped the switch of the recorder. "Starting with you, Sandy, each of you give a two-minute boil-down. What you found and what you think."

SOMETHING over an hour later the meeting adjourned and Hilton and Sandra strolled toward the control room.

"I don't know whether you convinced Alexander Q. Kincaid or not, but you didn't quite convince me," Sandra said.

"Nor him, either."

"Oh?" Sandra's eyebrows

"No. He grabbed the out I offered him. I didn't fool Teddy Blake or Temple Bells, either. You four are all, though, I think."

"Temple? You think *she's* so smart?"

"I don't *think* so, no. Don't fool yourself, chick. Temple Bells looks and acts sweet and innocent and virginal. Maybe—probably—she is. But she isn't showing a fraction of the stuff she's really got. She's heavy artillery, Sandy. And I mean *heavy*."

"I think you're slightly nuts there. But do you really believe that the Board was playing Cupid?"

"Not trying, but doing. Cold-bloodedly and efficiently. Yes."

"But it wouldn't *work*! We aren't going to get lost!"

"We won't need to. Propinquity will do the work."

"Phooie. You and me, for instance?" She stopped, put both hands on her hips, and glared. "Why, I wouldn't marry *you* if you ..."

"I'll tell the cockeyed world you won't!" Hilton broke in. "Me marry a damned female Ph.D.? Uh-uh. Mine will be a cuddly little brunette that thinks a slipstick is some kind of lipstick and that an isotope's something good to eat."

"One like that copy of Murchison's Dark Lady that you keep under the glass on your desk?" she sneered.

"Exactly...." He started to continue the battle, then shut himself off. "But listen, Sandy, why should we get into a fight because we don't want to marry each other? You're doing a swell job. I admire you tremendously for it and I like to work with you."

"You've got a point there, Jarve, at that, and I'm one of the few who know what kind of a job *you're* doing, so I'll relax." She flashed him a gamin grin and they went on into the control room.

It was too late in the day then to do any more exploring; but the next morning, early, the *Perseus* lined out for the city of the humanoids.

Tula turned toward her fellows. Her eyes filled with a happily triumphant light and her thought a lilting song. "I have been telling you from the first touch that it was the Masters. It *is* the Masters! The Masters are returning to us Omans and their own home world!"

"**C**APTAIN Sawtelle," Hilton said, "Please land in the cradle below."

"*Land!*" Sawtelle stormed. "On a planet like *that*? Not by ..." He broke off and stared; for now, on that cradle, there flamed out in screaming red the *Perseus'* own Navy-coded landing symbols!

"Your protest is recorded," Hilton said. "Now, sir, land."

Fuming, Sawtelle landed. Sandra looked pointedly at Hilton. "First contact is my

dish, you know."

"Not that I like it, but it is." He turned to a burly youth with sun-bleached, crew-cut hair, "Still safe, Frank?"

"Still abnormally low. Surprising no end, since all the rest of the planet is hotter than the middle tail-race of hell."

"Okay, Sandy. Who will you want besides the top linguists?"

"Psych—both Alex and Temple. And Teddy Blake. They're over there. Tell them, will you, while I buzz Teddy?"

"Will do," and Hilton stepped over to the two psychologists and told them. Then, "I hope I'm not leading with my chin, Temple, but is that your real first name or a professional?"

"It's real; it really is. My parents were romantics: dad says they considered both 'Golden' and 'Silver'!"

Not at all obviously, he studied her: the almost translucent, unblemished perfection of her lightly-tanned, old-ivory skin; the clear, calm, deep blueness of her eyes; the long, thick mane of hair exactly the color of a field of dead-ripe wheat.

"You know, I like it," he said then. "It fits you."

"I'm glad you said that, Doctor...."

"Not that, Temple. I'm not going to 'Doctor' you."

"I'll call you 'boss', then, like Stella does. Anyway, that lets me tell you that I like it myself. I really think that it did something for me."

"*Something* did something for you, that's for sure. I'm mighty glad you're aboard, and I hope ... here they come. Hi, Hark! Hi, Stella!"

"Hi, Jarve," said Chief Linguist Harkins, and:

"Hi, boss—what's holding us up?" asked his assistant, Stella Wing. She was about five feet four. Her eyes were a tawny brown; her hair a flamboyant auburn mop. Perhaps it owed a little of its spectacular refulgence to chemistry, Hilton thought, but not too much. "Let us away! Let the lions roar and let the welkin ring!"

"Who's been feeding *you* so much red meat, little squirt?" Hilton laughed and turned away, meeting Sandra in the corridor. "Okay, chick, take 'em away. We'll cover you. Luck, girl."

And in the control room, to Sawtelle, "Needle-beam cover, please; set for minimum aperture and lethal blast. But no firing, Captain Sawtelle, until I give the order."

THE *Perseus* was surrounded by hundreds of natives. They were all adult, all naked and about equally divided as to sex. They were friendly; most enthusiastically so.

"Jarve!" Sandra squealed. "They're *telepathic*. Very strongly so! I never imagined—I never felt anything like it!"

"Any rough stuff?" Hilton demanded.

"Oh, no. Just the opposite. They love us ... in a way that's simply indescribable. I don't like this telepathy business ... not clear ... foggy, diffuse ... this woman is *sure* I'm her long-lost great-great-a-hundred-times grandmother or something—*You!* Slow down. Take it *easy!* They want us all to come out here and live with ... no, not *with* them, but each of us alone in a whole house with them to wait on us! But first, they all want to come aboard...."

"*What?*" Hilton yelped. "But are you *sure* they're friendly?"

"Positive, chief."

"How about you, Alex?"

"We're all sure, Jarve. No question about it."

"Bring two of them aboard. A man and a woman."

"You won't bring *any!*" Sawtelle thundered. "Hilton, I had enough of your stupid, starry-eyed, ivory-domed blundering long ago, but this utterly idiotic brainstorm of letting enemy aliens aboard us ends all civilian command. Call your people back aboard or I will bring them in by force!"

"Very well, sir. Sandy, tell the natives that a slight delay has become necessary and bring your party aboard."

The Navy officers smiled—or grinned—gloatingly; while the scientists stared at their director with expressions ranging from surprise to disappointment and disgust. Hilton's face remained set, expressionless, until Sandra and her party had arrived.

"Captain Sawtelle," he said then, "I thought that you and I had settled in private the question of who is in command of Project Theta Orionis at destination. We will now settle it in public. Your opinion of me is now on record, witnessed by your officers and by my staff. My opinion of you, which is now being similarly recorded and witnessed, is that you are a hidebound, mentally ossified Navy mule; mentally and psychologically unfit to have any voice in any such mission as this. You will now agree on this recording and before these witnesses, to obey my orders unquestioningly or I will now unload all Bureau of Science personnel and equipment onto this planet and send you and the *Perseus* back to Terra with the doubly-sealed record of this episode posted to the Advisory Board. Take your choice."

Eyes locked, and under Hilton's uncompromising stare Sawtelle weakened. He fidgeted; tried three times—unsuccessfully—to blare defiance. Then, "Very well sir," he said, and saluted.

"**T**HANK you, sir," Hilton said, then turned to his staff. "Okay, Sandy, go ahead."

Outside the control room door, "Thank God you don't play poker, Jarve!" Karns gasped. "We'd all owe you all the pay we'll ever get!"

"You think it was the bluff, yes?" de Vaux asked. "Me, I think no. Name of a name of a name! I was wondering with unease what life would be like on this so-alien planet!"

"You didn't need to wonder, Tiny," Hilton assured him. "It was in the bag. He's incapable of abandonment."

Beverly Bell, the van der Moen twins and Temple Bells all stared at Hilton in awe; and Sandra felt much the same way.

"But suppose he *had* called you?" Sandra demanded.

"Speculating on the impossible is unprofitable," he said.

"Oh, you're the most *exasperating* thing!" Sandra stamped a foot. "Don't you—*ever*—answer a question intelligibly?"

"When the question is meaningless, chick, I can't."

At the lock Temple Bells, who had been hanging back, cocked an eyebrow at Hilton and he made his way to her side.

"What was it you started to say back there, boss?"

"Oh, yes. That we should see each other oftener."

"That's what I was hoping you were going to say." She put her hand under his elbow and pressed his arm lightly, fleetingly, against her side. "That would be indubitably the fondest thing I could be of."

He laughed and gave her arm a friendly squeeze. Then he studied her again, the most baffling member of his staff. About five feet six. Lithe, hard, trained down fine—as a tennis champion, she would be. Stacked—*how* she was stacked! Not as beautiful as Sandra or Teddy ... but with an ungodly lot of something that neither of them had ... nor any other woman he had ever known.

"Yes, I am a little difficult to classify," she said quietly, almost reading his mind.

"That's the understatement of the year! But I'm making some progress."

"Such as?" This was an open challenge.

"Except possibly Teddy, the best brain aboard."

"That isn't true, but go ahead."

"You're a powerhouse. A tightly organized, thoroughly integrated, smoothly functioning, beautifully camouflaged Juggernaut. A reasonable facsimile of an irresistible force."

"My God, Jarvis!" That had gone deep.

"Let me finish my analysis. You aren't head of your department because you don't want to be. You fooled the top psychs of the Board. You've been running ninety per cent submerged because you can work better that way and there's no glory-hound blood in you."

She stared at him, licking her lips. "I knew your mind was a razor, but I didn't know it was a diamond drill, too. That seals your doom, boss, unless ... no, you can't *possibly* know why I'm here."

"Why, of course I do."

"You just think you do. You see, I've been in love with you ever since, as a gangling, bony, knobby-kneed kid, I listened to your first doctorate disputation. Ever since then, my purpose in life has been to land you."

III

"**B**UT listen!" he exclaimed. "I *can't*, even if I want...."

"Of course you can't." Pure devilry danced in her eyes. "You're the Director. It wouldn't be proper. But it's Standard Operating Procedure for simple, innocent, unsophisticated little country girls like me to go completely overboard for the boss."

"But you can't—you *mustn't*!" he protested in panic.

Temple Bells was getting plenty of revenge for the shocks he had given her. "I can't? Watch me!" She grinned up at him, her eyes still dancing. "Every chance I get, I'm going to hug your arm like I did a minute ago. And you'll take hold of my forearm, like you did! That can be taken, you see, as either: One, a reluctant acceptance of a mildly distasteful but not quite actionable situation, or: Two, a blocking move to keep me from climbing up you like a squirrel!"

"Confound it, Temple, you *can't* be serious!"

"Can't I?" She laughed gleefully. "Especially with half a dozen of those other cats watching? Just wait and see, boss!"

Sandra and her two guests came aboard. The natives looked around; the man at the various human men, the woman at each of the human women. The woman remained beside Sandra; the man took his place at Hilton's left, looking up—he was a couple of inches shorter than Hilton's six feet one—with an air of ... of *expectancy*!

"Why this arrangement, Sandy?" Hilton asked.

"Because we're tops. It's your move, Jarve. What's first?"

"Uranexite. Come along, Sport. I'll call you that until ..."

"Laro," the native said, in a deep resonant bass voice. He hit himself a blow on the head that would have floored any two ordinary men. "Sora," he announced,

striking the alien woman a similar blow.

"Laro and Sora, I would like to have you look at our uranexite, with the idea of refueling our ship. Come with me, please?"

Both nodded and followed him. In the engine room he pointed at the engines, then to the lead-blocked labyrinth leading to the fuel holds. "Laro, do you understand 'hot'? Radioactive?"

Laro nodded—and started to open the heavy lead door!

"Hey!" Hilton yelled. "That's hot!" He seized Laro's arm to pull him away—and got the shock of his life. Laro weighed at least five hundred pounds! And the guy *still* looked human!

Laro nodded again and gave himself a terrific thump on the chest. Then he glanced at Sora, who stepped away from Sandra. He then went into the hold and came out with two fuel pellets in his hand, one of which he tossed to Sora. That is, the motion looked like a toss, but the pellet traveled like a bullet. Sora caught it unconcernedly and both natives flipped the pellets into their mouths. There was a half minute of rock-crusher crunching; then both natives opened their mouths.

The pellets had been pulverized and swallowed.

Hilton's voice rang out. "Poynter! How *can* these people be non-radioactive after eating a whole fuel pellet apiece?"

Poynter tested both natives again. "Cold," he reported. "Stone cold. No background even. Play *that* on your harmonica!"

LARO nodded, perfectly matter-of-factly, and in Hilton's mind there formed a picture. It was not clear, but it showed plainly enough a long line of aliens approaching the *Perseus*. Each carried on his or her shoulder a lead container holding two hundred pounds of Navy Regulation fuel pellets. A standard loading-tube was sealed into place and every fuel-hold was filled.

This picture, Laro indicated plainly, could become reality any time.

Sawtelle was notified and came on the run. "No fuel is coming aboard without being tested!" he roared.

"Of course not. But it'll pass, for all the tea in China. You haven't had a ten per cent load of fuel since you were launched. You can fill up or not—the fuel's here—just as you say."

"If they can make Navy standard, of course we want it."

The fuel arrived. Every load tested well above standard. Every fuel hold was filled to capacity, with no leakage and no emanation. The natives who had handled the stuff did not go away, but gathered in the engine-room; and more and more humans trickled in to see what was going on.

Sawtelle stiffened. "What's going on over there, Hilton?"

"I don't know; but let's let 'em go for a minute. I want to learn about these people and they've got me stopped cold."

"You aren't the only one. But if they wreck that Mayfield it'll cost you over twenty thousand dollars."

"Okay." The captain and director watched, wide eyed.

Two master mechanics had been getting ready to re-fit a tube—a job requiring both strength and skill. The tube was very heavy and made of superefract. The machine—the Mayfield—upon which the work was to be done, was extremely complex.

Two of the aliens had brushed the mechanics—very gently—aside and were doing their work for them. Ignoring the hoist, one native had picked the tube up and was holding it exactly in place on the Mayfield. The other, hands moving faster than the eye could follow, was locking it—micrometrically precise and immovably secure—into place.

"How about this?" one of the mechanics asked of his immediate superior. "If we throw 'em out, how do we do it?"

By a jerk of the head, the non-com passed the buck to a commissioned officer, who relayed it up the line to Sawtelle, who said, "Hilton, *nobody* can run a Mayfield without months of training. They'll wreck it and it'll cost you ... but I'm getting curious myself. Enough so to take half the damage. Let 'em go ahead."

"How *about* this, Mike?" one of the machinists asked of his fellow. "I'm going to *like* this, what?"

"Ya-as, my deah Chumley," the other drawled, affectedly. "My man relieves me of so much uncouth effort."

The natives had kept on working. The Mayfield was running. It had always howled and screamed at its work, but now it gave out only a smooth and even hum. The aliens had adjusted it with unhuman precision; they were one with it as no human being could possibly be. And every mind present knew that those aliens were, at long, long last, fulfilling their destiny and were, in that fulfillment, supremely happy. After tens of thousands of cycles of time they were doing a job for their adored, their revered and beloved MASTERS.

That was a stunning shock; but it was eclipsed by another.

"**I** AM sorry, Master Hilton," Laro's tremendous bass voice boomed out, "that it has taken us so long to learn your Masters' language as it now is. Since you left us you have changed it radically; while we, of course, have not changed it at all."

"I'm sorry, but you're mistaken," Hilton said. "We are merely visitors. We have never been here before; nor, as far as we know, were any of our ancestors ever here."

"You need not test us, Master. We have kept your trust. Everything has been kept, changelessly the same, awaiting your return as you ordered so long ago."

"Can you read my mind?" Hilton demanded.

"Of course; but Omans can not read in Masters' minds anything except what Masters want Omans to read."

"Omans?" Harkins asked. "Where did you Omans and your masters come from? Originally?"

"As you know, Master, the Masters came originally from Arth. They populated Ardu, where we Omans were developed. When the Stretts drove us from Ardu, we all came to Ardry, which was your home world until you left it in our care. We keep also this, your half of the Fuel World, in trust for you."

"Listen, Jarve!" Harkins said, tensely. "Oman-human. Arth-Earth. Ardu-Earth Two. Ardry-Earth Three. You can't laugh them off ... but there never *was* an Atlantis!"

"This is getting no better fast. We need a full staff meeting. You, too, Sawtelle, and your best man. We need all the brains the *Perseus* can muster."

"You're right. But first, get those naked women out of here. It's bad enough, having women aboard at all, but this ... my men are *spacemen*, mister."

Laro spoke up. "If it is the Masters' pleasure to keep on testing us, so be it. We have forgotten nothing. A dwelling awaits each Master, in which each will be served by Omans who will know the Master's desires without being told. Every desire. While we Omans have no biological urges, we are of course highly skilled in relieving tensions and derive as much pleasure from that service as from any other."

Sawtelle broke the silence that followed. "Well, for the men—" He hesitated. "Especially on the ground ... well, talking in mixed company, you know, but I think ..."

"Think nothing of the mixed company, Captain Sawtelle," Sandra said. "We women are scientists, not shrinking violets. We are accustomed to discussing the facts of life just as frankly as any other facts."

Sawtelle jerked a thumb at Hilton, who followed him out into the corridor. "I *have* been a Navy mule," he said. "I admit now that I'm out-maneuvered, out-manned, and out-gunned."

"I'm just as baffled—at present—as you are, sir. But my training has been aimed specifically at the unexpected, while yours has not."

"That's letting me down easy, Jarve." Sawtelle smiled—the first time the startled Hilton had known that the hard, tough old spacehound *could* smile. "What I wanted to say is, lead on. I'll follow you through force-field and space-warps."

"Thanks, skipper. And by the way, I erased that record yesterday." The two gripped hands; and there came into being a relationship that was to become a lifelong friendship.

"**W**E will start for Ardry immediately," Hilton said. "How do we make that jump without charts, Laro?"

"Very easily, Master. Kedo, as Master Captain Sawtelle's Oman, will give the

orders. Nito will serve Master Snowden and supply the knowledge he says he has forgotten."

"Okay. We'll go up to the control room and get started."

And in the control room, Kedo's voice rasped into the captain's microphone. "Attention, all personnel! Master Captain Sawtelle orders take-off in two minutes. The countdown will begin at five seconds.... Five! Four! Three! Two! One! Lift!"

Nito, not Snowden, handled the controls. As perfectly as the human pilot had ever done it, at the top of his finest form, he picked the immense spaceship up and slipped it silkily into subspace.

"Well, I'll be a ..." Snowden gasped. "That's a better job than I *ever* did!"

"Not at all, Master, as you know," Nito said. "It was you who did this. I merely performed the labor."

A few minutes later, in the main lounge, Navy and BuSci personnel were mingling as they had never done before. Whatever had caused this relaxation of tension—the friendship of captain and director? The position in which they all were? Or what?—they all began to get acquainted with each other.

"Silence, please, and be seated," Hilton said. "While this is not exactly a formal meeting, it will be recorded for future reference. First, I will ask Laro a question. Were books or records left on Ardry by the race you call the Masters?"

"You know there are, Master. They are exactly as you left them. Undisturbed for over two hundred seventy-one thousand years."

"Therefore we will not question the Omans. We do not know what questions to ask. We have seen many things hitherto thought impossible. Hence, we must discard all preconceived opinions which conflict with facts. I will mention a few of the problems we face."

"The Omans. The Masters. The upgrading of the armament of the *Perseus* to Oman standards. The concentration of uranexite. What is that concentrate? How is it used? Total conversion—how is it accomplished? The skeletons—what are they and how are they controlled? Their ability to drain power. Who or what is back of them? Why a deadlock that has lasted over a quarter of a million years? How much danger are we and the *Perseus* actually in? How much danger is

Terra in, because of our presence here? There are many other questions."

"Sandra and I will not take part. Nor will three others; de Vaux, Eisenstein, and Blake. You have more important work to do."

"What can that be?" asked Rebecca. "Of what possible use can a mathematician, a theoretician and a theoretical astronomer be in such a situation as this?"

"You can think powerfully in abstract terms, unhampered by Terran facts and laws which we now know are neither facts nor laws. I cannot even categorize the problems we face. Perhaps you three will be able to. You will listen, then consult, then tell me how to pick the teams to do the work. A more important job for you is this: Any problem, to be solved, must be stated clearly; and we don't know even what our basic problem is. I want something by the use of which I can break this thing open. Get it for me."

REBECCA and de Vaux merely smiled and nodded, but Teddy Blake said happily, "I was beginning to feel like a fifth wheel on this project, but *that's* something I can really stick my teeth into."

"Huh? How?" Karns demanded. "He didn't give you one single thing to go on; just compounded the confusion."

Hilton spoke before Teddy could. "That's their dish, Bill. If I had any data I'd work it myself. You first, Captain Sawtelle."

That conference was a very long one indeed. There were almost as many conclusions and recommendations as there were speakers. And through it all Hilton and Sandra listened. They weighed and tested and analyzed and made copious notes; in shorthand and in the more esoteric characters of symbolic logic. And at its end:

"I'm just about pooped, Sandy. How about you?"

"You and me both, boss. See you in the morning."

But she didn't. It was four o'clock in the afternoon when they met again.

"We made up one of the teams, Sandy," he said, with surprising diffidence. "I know we were going to do it together, but I got a hunch on the first team. A kind of a weirdie, but the brains checked me on it." He placed a card on her desk.

"Don't blow your top until after I you've studied it."

"Why, I won't, of course...." Her voice died away. "Maybe you'd better cancel that 'of course'...." She studied, and when she spoke again she was exerting self-control. "A chemist, a planetographer, a theoretician, *two* sociologists, a psychologist and a radiationist. And six of the seven are three pairs of sweeties. What kind of a line-up is *that* to solve a problem in *physics*?"

"It isn't in any physics we know. I said *think*!"

"Oh," she said, then again "Oh," and "Oh," and "Oh." Four entirely different tones. "I see ... maybe. You're matching minds, not specialties; and supplementing?"

"I knew you were smart. Buy it?"

"It's weird, all right, but I'll buy it—for a trial run, anyway. But I'd hate like sin to have to sell any part of it to the Board.... But of course we're—I mean you're responsible only to yourself."

"Keep it 'we', Sandy. You're as important to this project as I am. But before we tackle the second team, what's your thought on Bernadine and Hermione? Separate or together?"

"Separate, I'd say. They're identical physically, and so nearly so mentally that of them would be just as good on a team as both of them. More and better work on different teams."

"My thought exactly." And so it went, hour after hour.

The teams were selected and meetings were held.

THE *Perseus* reached Ardry, which was very much like Terra. There were continents, oceans, ice-caps, lakes, rivers, mountains and plains, forests and prairies. The ship landed on the spacefield of Omlu, the City of the Masters, and Sawtelle called Hilton into his cabin. The Omans Laro and Kedo went along, of course.

"Nobody knows how it leaked ..." Sawtelle began.

"No secrets around here," Hilton grinned. "Omans, you know."

"I suppose so. Anyway, every man aboard is all hyped up about living aground—especially with a harem. But before I grant liberty, suppose there's any VD around here that our prophylactics can't handle?"

"As you know, Masters," Laro replied for Hilton before the latter could open his mouth, "no disease, venereal or other, is allowed to exist on Ardry. No prophylaxis is either necessary or desirable."

"That ought to hold you for a while, Skipper." Hilton smiled at the flabbergasted captain and went back to the lounge.

"Everybody going ashore?" he asked.

"Yes." Karns said. "Unanimous vote for the first time."

"Who wouldn't?" Sandra asked. "I'm fed up with living like a sardine. I will scream for joy the minute I get into a real room."

"Cars" were waiting, in a stopping-and-starting line. Three-wheel jobs. All were empty. No drivers, no steering-wheels, no instruments or push-buttons. When the whole line moved ahead as one vehicle there was no noise, no gas, no blast.

An Oman helped a Master carefully into the rear seat of his car, leaped into the front seat and the car sped quietly away. The whole line of empty cars, acting in perfect synchronization, shot forward one space and stopped.

"This is your car, Master," Laro said, and made a production out of getting Hilton into the vehicle undamaged.

Hilton's plan had been beautifully simple. All the teams were to meet at the Hall of Records. The linguists and their Omans would study the records and pass them out. Specialty after specialty would be unveiled and teams would work on them. He and Sandy would sit in the office and analyze and synthesize and correlate. It was a very nice plan.

It was a very nice office, too. It contained every item of equipment that either Sandra or Hilton had ever worked with—it was a big office—and a great many that neither of them had ever heard of. It had a full staff of Omans, all eager to work.

Hilton and Sandra sat in that magnificent office for three hours, and no reports came in. Nothing happened at all.

"This gives me the howling howpers!" Hilton growled. "Why haven't I got brains enough to be on one of those teams?"

"I could shed a tear for you, you big dope, but I won't," Sandra retorted. "What do you want to be, besides the brain and the kingpin and the balance-wheel and the spark-plug of the outfit? Do you want to do *everything* yourself?"

"Well, I *don't* want to go completely nuts, and that's all I'm doing at the moment!" The argument might have become acrimonious, but it was interrupted by a call from Karns.

"Can you come out here, Jarve? We've struck a knot."

"Smatter? Trouble with the Omans?" Hilton snapped.

"Not exactly. Just non-cooperation—squared. We can't even get started. I'd like to have you two come out here and see if you can do anything. I'm not trying rough stuff, because I know it wouldn't work."

"Coming up, Bill," and Hilton and Sandra, followed by Laro and Sora, dashed out to their cars.

THE Hall of Records was a long, wide, low, windowless, very massive structure, built of a metal that looked like stainless steel. Kept highly polished, the vast expanse of seamless and jointless metal was mirror-bright. The one great door was open, and just inside it were the scientists and their Omans.

"Brief me, Bill," Hilton said.

"No lights. They won't turn 'em on and we can't. Can't find either lights or any possible kind of switches."

"Turn on the lights, Laro," Hilton said.

"You know that I cannot do that, Master. It is forbidden for any Oman to have anything to do with the illumination of this solemn and revered place."

"Then show me how to do it."

"That would be just as bad, Master," the Oman said proudly. "I will not fail any test you can devise!"

"Okay. All you Omans go back to the ship and bring over fifteen or twenty lights—the tripod jobs. Scat!"

They "scatted" and Hilton went on, "No use asking questions if you don't know what questions to ask. Let's see if we can cook up something. Lane—Kathy—what has Biology got to say?"

Dr. Lane Saunders and Dr. Kathryn Cook—the latter a willowy brown-eyed blonde—conferred briefly. Then Saunders spoke, running both hands through his unruly shock of fiery red hair. "So far, the best we can do is a more-or-less educated guess. They're atomic-powered, total-conversion androids. Their pseudo-flesh is composed mainly of silicon and fluorine. We don't know the formula yet, but it is as much more stable than our teflon as teflon is than corn-meal mush. As to the brains, no data. Bones are super-stainless steel. Teeth, harder than diamond, but won't break. Food, uranexite or its concentrated derivative, interchangeably. Storage reserve, indefinite. Laro and Sora won't *have* to eat again for at least twenty-five years...."

The group gasped as one, but Saunders went on: "They can eat and drink and breathe and so on, but only because the original Masters wanted them to. Non-functional. Skins and subcutaneous layers are soft, for the same reason. That's about it, up to now."

"Thanks, Lane. Hark, is it reasonable to believe that any culture whatever could run for a quarter of a million years without changing one word of its language or one iota of its behavior?"

"Reasonable or not, it seems to have happened."

"Now for Psychology. Alex?"

"It seems starkly incredible, but it seems to be true. If it is, their minds were subjected to a conditioning no Terran has ever imagined—an unyielding fixation."

"They can't be swayed, then, by reason or logic?" Hilton paused invitingly.

"Or anything else," Kincaid said, flatly. "If we're right they can't be swayed, period."

"I was afraid of that. Well, that's all the questions I know how to ask. Any contributions to this symposium?"

AFTER a short silence de Vaux said, "I suppose you realize that the first half of the problem you posed us has now solved itself?"

"Why, no. No, you're 'way ahead of me."

"There is a basic problem and it can now be clearly stated," Rebecca said. "Problem: To determine a method of securing full cooperation from the Omans. The first step in the solution of this problem is to find the most appropriate operator. Teddy?"

"I have an operator—of sorts," Theodora said. "I've been hoping one of us could find a better."

"What is it?" Hilton demanded.

"The word 'until'."

"Teddy, you're a *sweetheart*!" Hilton exclaimed.

"How can 'until' be a mathematical operator?" Sandra asked.

"Easily." Hilton was already deep in thought. "This hard conditioning was to last only *until* the Masters returned. Then they'd break it. So all we have to do is figure out how a Master would do it."

"That's *all*," Kincaid said, meaningly.

Hilton pondered. Then, "Listen, all of you. I may have to try a colossal job of bluffing...."

"Just what would you call 'colossal' after what you did to the Navy?" Karns asked.

"That was a sure thing. This isn't. You see, to find out whether Laro is really an immovable object, I've got to make like an irresistible force, which I ain't. I don't know what I'm going to do; I'll have to roll it as I go along. So all of you keep on your toes and back any play I make. Here they come."

The Omans came in and Hilton faced Laro, eyes to eyes. "Laro," he said, "you refused to obey my direct order. Your reasoning seems to be that, whether the Masters wish it or not, you Omans will block any changes whatever in the *status quo* throughout all time to come. In other words, you deny the fact that Masters

are in fact your Masters."

"But that is not exactly it, Master. The Masters ..."

"That is it. *Exactly* it. Either you are the Master here or you are not. That is a point to which your two-value logic can be strictly applied. You are wilfully neglecting the word 'until'. This stasis was to exist only *until* the Masters returned. Are we Masters? Have we returned? Note well: Upon that one word 'until' may depend the length of time your Oman race will continue to exist."

The Omans flinched; the humans gasped.

"But more of that later," Hilton went on, unmoved. "Your ancient Masters, being short-lived like us, changed materially with time, did they not? And you changed with them?"

"But we did not change ourselves, Master. The Masters ..."

"You did change yourselves. The Masters changed only the prototype brain. They ordered you to change yourselves and you obeyed their orders. We order you to change and you refuse to obey our orders. We have changed greatly from our ancestors. Right?"

"That is right, Master."

"We are stronger physically, more alert and more vigorous mentally, with a keener, sharper outlook on life?"

"You are, Master."

"**T**HAT is because our ancestors decided to do without Omans. We do our own work and enjoy it. Your Masters died of futility and boredom. What I would like to do, Laro, is take you to the creche and put your disobedient brain back into the matrix. However, the decision is not mine alone to make. How about it, fellows and girls? Would you rather have alleged servants who won't do anything you tell them to or no servants at all?"

"As semantician, I protest!" Sandra backed his play. "That is the most viciously loaded question I ever heard—it can't be answered except in the wrong way!"

"Okay, I'll make it semantically sound. I think we'd better scrap this whole Oman

race and start over and *I want a vote that way!*"

"You won't get it!" and everybody began to yell.

Hilton restored order and swung on Laro, his attitude stiff, hostile and reserved. "Since it is clear that no unanimous decision is to be expected at this time I will take no action at this time. Think over, very carefully, what I have said, for as far as I am concerned, this world has no place for Omans who will not obey orders. As soon as I convince my staff of the fact, I shall act as follows: I shall give you an order and if you do not obey it blast your head to a cinder. I shall then give the same order to another Oman and blast him. This process will continue *until*: First, I find an obedient Oman. Second, I run out of blasters. Third, the planet runs out of Omans. Now take these lights into the first room of records—that one over there." He pointed, and no Oman, and only four humans, realized that he had made the Omans telegraph their destination so that he could point it out to them!

Inside the room Hilton asked caustically of Laro: "The Masters didn't lift those heavy chests down themselves, did they?"

"Oh, no, Master, we did that."

"Do it, then. Number One first ... yes, that one ... open it and start playing the records in order."

The records were not tapes or flats or reels, but were spools of intricately-braided wire. The players were projectors of full-color, hi-fi sound, tri-di pictures.

Hilton canceled all moves aground and issued orders that no Oman was to be allowed aboard ship, then looked and listened with his staff.

The first chest contained only introductory and elementary stuff; but it was so interesting that the humans stayed overtime to finish it. Then they went back to the ship; and in the main lounge Hilton practically collapsed onto a davenport. He took out a cigarette and stared in surprise at his hand, which was shaking.

"I *think* I could use a drink," he remarked.

"What, before supper?" Karns marveled. Then, "Hey, Wally! Rush a flagon of avignognac—Arnaud Freres—for the boss and everything else for the rest of us. Chop-chop but quick!"

A hectic half-hour followed. Then, "Okay, boys and girls, I love you, too, but let's cut out the slurp and sloosh, get some supper and log us some sack time. I'm just about pooped. Sorry I had to queer the private-residence deal, Sandy, you poor little sardine. But you know how it is."

Sandra grimaced. "Uh-huh. I can take it a while longer if you can."

AFTER breakfast next morning, the staff met in the lounge. As usual, Hilton and Sandra were the first to arrive.

"Hi, boss," she greeted him. "How do you feel?"

"Fine. I could whip a wildcat and give her the first two scratches. I *was* a bit beat up last night, though."

"I'll say ... but what I simply can't get over is the way you underplayed the climax. 'Third, the planet runs out of Omans'. Just like that—no emphasis at all. Wow! It had the impact of a delayed-action atomic bomb. It put goose-bumps all over me. But just s'pose they'd missed it?"

"No fear. They're smart. I had to play it as though the whole Oman race is no more important than a cigarette butt. The great big question, though, is whether I put it across or not."

At that point a dozen people came in, all talking about the same subject.

"Hi, Jarve," Karns said. "I *still* say you ought to take up poker as a life work. Tiny, let's you and him sit down now and play a few hands."

"*Mais non!*" de Vaux shook his head violently, shrugged his shoulders and threw both arms wide. "By the sacred name of a small blue cabbage, not me!"

Karns laughed. "How did you have the guts to state so many things as facts? If you'd guessed wrong just once—"

"I didn't." Hilton grinned. "Think back, Bill. The only thing I said as a fact was that we as a race are better than the Masters were, and that is obvious. Everything else was implication, logic, and bluff."

"That's right, at that. And they *were* neurotic and decadent. No question about that."

"But listen, boss." This was Stella Wing. "About this mind-reading business. If Laro could read your mind, he'd know you were bluffing and ... Oh, that 'Omans can read only what Masters wish Omans to read', eh? But d'you think that applies to us?"

"I'm sure it does, and I was thinking some pretty savage thoughts. And I want to caution all of you: whenever you're near any Oman, start thinking that you're beginning to agree with me that they're useless to us, and let them know it. Now get out on the job, all of you. Scat!"

"Just a minute," Poynter said. "We're going to have to keep on using the Omans and their cars, aren't we?"

"Of course. Just be superior and distant. They're on probation—we haven't decided yet what to do about them. Since that happens to be true, it'll be easy."

HILTON and Sandra went to their tiny office. There wasn't room to pace the floor, but Hilton tried to pace it anyway.

"Now don't say again that you want to *do* something," Sandra said, brightly. "Look what happened when you said that yesterday."

"I've got a job, but I don't know enough to do it. The creche—there's probably

only one on the planet. So I want you to help me think. The Masters were very sensitive to radiation. Right?"

"Right. That city on Fuel Bin was kept deconned to zero, just in case some Master wanted to visit it."

"And the Masters had to work in the creche whenever anything really new had to be put into the prototype brain."

"I'd say so, yes."

"So they had armor. Probably as much better than our radiation suits as the rest of their stuff is. Now. Did they or did they not have thought screens?"

"Ouch! You think of the *damnedest* things, chief." She caught her lower lip between her teeth and concentrated. "... I don't know. There are at least fifty vectors, all pointing in different directions."

"I know it. The key one in my opinion is that the Masters gave 'em *both* telepathy and speech."

"I considered that and weighted it. Even so, the probability is only about point sixty-five. Can you take that much of a chance?"

"Yes. I can make one or two mistakes. Next, about finding that creche. Any spot of radiation on the planet would be it, but the search might take ..."

"Hold on. They'd have it heavily shielded—there'll be no leakage at all. Laro will have to take you."

"That's right. Want to come along? Nothing much will happen here today."

"Uh-uh, not *me*." Sandra shivered in distaste. "I *never* want to see brains and livers and things swimming around in nutrient solution if I can help it."

"Okay. It's all yours. I'll be back sometime," and Hilton went out onto the dock, where the dejected Laro was waiting for him.

"Hi, Laro. Get the car and take me to the Hall of Records." The android brightened up immediately and hurried to obey.

At the Hall, Hilton's first care was to see how the work was going on. Eight of the huge rooms were now open and brightly lighted—operating the lamps had been one of the first items on the first spool of instructions—with a cold, pure-

white, sourceless light.

EVERY team had found its objective and was working on it. Some of them were doing nicely, but the First Team could not even get started. Its primary record would advance a fraction of an inch and stop; while Omans and humans sought out other records and other projectors in an attempt to elucidate some concept that simply could not be translated into any words or symbols known to Terran science. At the moment there were seventeen of those peculiar—projectors? Viewers? Playbacks—in use, and all of them were stopped.

"You know what we've got to *do* Jarve?" Karns, the team captain, exploded. "Go back to being college freshmen—or maybe grade school or kindergarten, we don't know yet—and learn a whole new system of mathematics before we can even begin to *touch* this stuff!"

"And you're bellyaching about that?" Hilton marveled. "I wish I could join you. That'd be fun." Then, as Karns started a snappy rejoinder—

"But I got troubles of my own," he added hastily. "'Bye, now," and beat a rejoinder—

Out in the hall again, Hilton took his chance. After all, the odds were about two to one that he would win.

"I want a couple of things, Laro. First, a thought screen."

He won!

"Very well, Master. They are in a distant room, Department Four Six Nine. Will you wait here on this cushioned bench, Master?"

"No, we don't like to rest too much. I'll go with you." Then, walking along, he went on thoughtfully. "I've been thinking since last night, Laro. There are tremendous advantages in having Omans ..."

"I am very glad you think so, Master. I want to serve you. It is my greatest need."

"... if they could be kept from smothering us to death. Thus, if our ancestors had kept their Omans, I would have known all about life on this world and about this Hall of Records, instead of having the fragmentary, confusing, and sometimes false information I now have ... oh, we're here?"

LARO had stopped and was opening a door. He stood aside. Hilton went in, touched with one finger a crystalline cube set conveniently into a wall, gave a mental command, and the lights went on.

Laro opened a cabinet and took out a disk about the size of a dime, pendant from a neck-chain. While Hilton had not known what to expect, he certainly had not expected anything as simple as that. Nevertheless, he kept his face straight and his thoughts unmoved as Laro hung the tiny thing around his neck and adjusted the chain to a loose fit.

"Thanks, Laro." Hilton removed it and put it into his pocket. "It won't work from there, will it?"

"No, Master. To function, it must be within eighteen inches of the brain. The second thing, Master?"

"A radiation-proof suit. Then you will please take me to the creche."

The android almost missed a step, but said nothing.

The radiation-proof suit—how glad Hilton was that he had not called it "armor"!—was as much of a surprise as the thought-screen generator had been. It was a coverall, made of something that looked like thin plastic, weighing less than one pound. It had one sealed box, about the size and weight of a cigarette case. No wires or apparatus could be seen. Air entered through two filters, one at each heel, flowed upward—for no reason at all that Hilton could see—and out through a filter above the top of his head. The suit neither flopped nor clung, but stood out, comfortably out of the way, all by itself.

Hilton, just barely, accepted the suit, too, without showing surprise.

The creche, it turned out, while not in the city of Omlu itself, was not too far out to reach easily by car.

En route, Laro said—stiffly? Tentatively? Hilton could not fit an adverb to the tone—"Master, have you then decided to destroy me? That is of course your right."

"Not this time, at least." Laro drew an entirely human breath of relief and Hilton went on: "I don't want to destroy you at all, and won't, unless I have to. But,

some way or other, my silicon-fluoride friend, you are either going to learn how to cooperate or you won't last much longer."

"But, Master, that is exactly ..."

"Oh, *hell!* Do we *have* to go over that again?" At the blaze of frustrated fury in Hilton's mind Laro flinched away. "If you can't talk sense keep still."

IN half an hour the car stopped in front of a small building which looked something like a subway kiosk—except for the door, which, built of steel-reinforced lead, swung on a piano hinge having a pin a good eight inches in diameter. Laro opened that door. They went in. As the tremendously massive portal clanged shut, lights flashed on.

Hilton glanced at his tell-tales, one inside, one outside, his suit. Both showed zero.

Down twenty steps, another door. Twenty more; another. And a fourth. Hilton's inside meter still read zero. The outside one was beginning to climb.

Into an elevator and straight down for what must have been four or five hundred feet. Another door. Hilton went through this final barrier gingerly, eyes nailed to his gauges. The outside needle was high in the red, almost against the pin, but the inside one still sat reassuringly on zero.

He stared at the android. "How can any possible brain take so much of *this* stuff without damage?"

"It does not reach the brain, Master. We convert it. Each minute of this is what you would call a 'good, square meal'."

"I see ... dimly. You can eat energy, or drink it, or soak it up through your skins. However it comes, it's all duck soup for you."

"Yes, Master."

Hilton glanced ahead, toward the far end of the immensely long, comparatively narrow, room. It was, purely and simply, an assembly line; and fully automated in operation.

"You are replacing the Omans destroyed in the battle with the skeletons?"

"Yes, Master."

Hilton covered the first half of the line at a fast walk. He was not particularly interested in the fabrication of super-stainless-steel skeletons, nor in the installation and connection of atomic engines, converters and so on.

He was more interested in the synthetic fluoro-silicon flesh, and paused long enough to get a general idea of its growth and application. He was very much interested in how such human-looking skin could act as both absorber and converter, but he could see nothing helpful.

"An application, I suppose, of the same principle used in this radiation suit."

"Yes, Master."

AT the end of the line he stopped. A brain, in place and connected to millions of infinitely fine wire nerves, but not yet surrounded by a skull, was being educated. Scanners—multitudes of incomprehensibly complex machines—most of them were doing nothing, apparently; but such beams would have to be invisibly, microscopically fine. But a bare brain, in such a hot environment as this....

He looked down at his gauges. Both read zero.

"Fields of force, Master," Laro said.

"But, damn it, this suit itself would re-radiate ..."

"The suit is self-decontaminating, Master."

Hilton was appalled. "With such stuff as that, and the plastic shield besides, why all the depth and all that solid lead?"

"The Masters' orders, Master. Machines can, and occasionally do, fail. So might, conceivably, the plastic."

"And that structure over there contains the original brain, from which all the copies are made."

"Yes, Master. We call it the 'Guide'."

"And you can't touch the Guide. Not even if it means total destruction, none of

you can touch it."

"That is the case, Master."

"Okay. Back to the car and back to the *Perseus*."

At the car Hilton took off the suit and hung the thought-screen generator around his neck; and in the car, for twenty five solid minutes, he sat still and thought.

His bluff had worked, up to a point. A good, far point, but not quite far enough. Laro had stopped that "as you already know" stuff. He was eager to go as far in cooperation as he possibly could ... but he *couldn't* go far enough but there *had* to be a way....

Hilton considered way after way. Way after unworkable, useless way. Until finally he worked out one that might—just possibly might—work.

"Laro, I know that you derive pleasure and satisfaction from serving me—in doing what I ought to be doing myself. But has it ever occurred to you that that's a hell of a way to treat a first-class, highly capable brain? To waste it on second-hand, copycat, carbon-copy stuff?"

"Why, no, Master, it never did. Besides, anything else would be forbidden ... or would it?"

"Stop somewhere. Park this heap. We're too close to the ship; and besides, I want your full, undivided, concentrated attention. No, I don't think originality was expressly forbidden. It would have been, of course, if the Masters had thought of it, but neither they nor you ever even considered the possibility of such a thing. Right?"

"It may be.... Yes, Master, you are right."

"Okay." Hilton took off his necklace, the better to drive home the intensity and sincerity of his thought. "Now, suppose that you are not my slave and simple automatic relay station. Instead, we are fellow-students, working together upon problems too difficult for either of us to solve alone. Our minds, while independent, are linked or in mesh. Each is helping and instructing the other. Both are working at full power and under free rein at the exploration of brand-new vistas of thought—vistas and expanses which neither of us has ever previously ..."

"Stop, Master, *stop!*" Laro covered both ears with his hands and pulled his mind away from Hilton's. "You are overloading me!"

"That *is* quite a load to assimilate all at once," Hilton agreed. "To help you get used to it, stop calling me 'Master'. That's an order. You may call me Jarve or Jarvis or Hilton or whatever, but no more Master."

"Very well, sir."

HILTON laughed and slapped himself on the knee. "Okay, I'll let you get away with that—at least for a while. And to get away from that slavish 'o' ending on your name, I'll call you 'Larry'. You like?"

"I would like that immensely ... sir."

"Keep trying, Larry, you'll make it yet!" Hilton leaned forward and walloped the android a tremendous blow on the knee. "Home, James!"

The car shot forward and Hilton went on: "I don't expect even your brain to get the full value of this in any short space of time. So let it stew in its own juice for a week or two." The car swept out onto the dock and stopped. "So long, Larry."

"But ... can't I come in with you ... sir?"

"No. You aren't a copycat or a semaphore or a relay any longer. You're a free-wheeling, wide-swinging, hard-hitting, independent entity—monarch of all you survey—captain of your soul and so on. I want you to devote the imponderable force of the intellect to that concept until you understand it thoroughly. Until you have developed a top-bracket lot of top-bracket stuff—originality, initiative, force, drive, and thrust. As soon as you really understand it, you'll do something about it yourself, without being told. Go to it, chum."

In the ship, Hilton went directly to Kincaid's office. "Alex, I want to ask you a thing that's got a snapper on it." Then, slowly and hesitantly: "It's about Temple Bells. Has she ... is she ... well, does she remind you in any way of an iceberg?" Then, as the psychologist began to smile; "And no, damn it, I *don't* mean physically!"

"I know you don't." Kincaid's smile was rueful, not at all what Hilton had thought it was going to be. "She does. Would it be helpful to know that I first

asked, then ordered her to trade places with me?"

"It would, very. I know why she refused. You're a *damned* good man, Alex."

"Thanks, Jarve. To answer the question you were going to ask next—no, I will not be at all perturbed or put out if you put her onto a job that some people might think should have been mine. What's the job, and when?"

"That's the devil of it—I don't know." Hilton brought Kincaid up to date. "So you see, it'll have to develop, and God only knows what line it will take. My thought is that Temple and I should form a Committee of Two to watch it develop."

"That one I'll buy, and I'll look on with glee."

"Thanks, fellow." Hilton went down to his office, stuck his big feet up onto his desk, settled back onto his spine, and buried himself in thought.

Hours later he got up, shrugged, and went to bed without bothering to eat.

Days passed.

And weeks.

IV

"**L**OOK," said Stella Wing to Beverly Bell. "Over there."

"I've seen it before. It's simply disgusting."

"*That's* a laugh." Stella's tawny-brown eyes twinkled. "You made your bombing runs on that target, too, my sweet, and didn't score any higher than I did."

"I soon found out I didn't want him—much too stiff and serious. Frank's a lot more fun."

The staff had gathered in the lounge, as had become the custom, to spend an hour or so before bedtime in reading, conversation, dancing, light flirtation and even lighter drinking. Most of the girls, and many of the men, drank only soft drinks. Hilton took one drink per day of avignognac, a fine old brandy. So did de Vaux—the two usually making a ceremony of it.

Across the room from Stella and Beverly, Temple Bells was looking up at Hilton and laughing. She took his elbow and, in the gesture now familiar to all, pressed his arm quickly, but in no sense furtively, against her side. And he, equally openly, held her forearm for a moment in the full grasp of his hand.

"And he *isn't* a pawer," Stella said, thoughtfully. "He never touches any of the rest of us. She *taught* him to do that, damn her, without him ever knowing anything about it ... and I wish I knew how she did it."

"That isn't pawing," Beverly laughed lightly. "It's simply self-defense. If he didn't fend her off, God knows what she'd do. I still say it's disgusting. And the way she dances with him! She ought to be ashamed of herself. He ought to fire her."

"She's never been caught outside the safety zone, and we've all been watching her like hawks. In fact, she's the only one of us all who has never been alone with him for a minute. No, darling, she isn't playing games. She's playing for keeps, and she's a mighty smooth worker."

"Huh!" Beverly emitted a semi-ladylike snort. "What's so smooth about showing off man-hunger that way? Any of us could do that—if we would."

"Miaouw, miaouw. Who do you think you're kidding, Bev, you sanctimonious hypocrite—*me*? She has staked out the biggest claim she could find. She's posted notices all over it and is guarding it with a pistol. Half your month's salary gets you all of mine if she doesn't walk him up the center aisle as soon as we get back to Earth. We can both learn a lot from that girl, darling. And I, for one am going to."

"Uh-uh, she hasn't got a thing *I* want," Beverly laughed again, still lightly. Her friend's barbed shafts had not wounded her. "And I'd much rather be thought a hypocrite, even a sanctimonious one, than a ravening, slaving—I can't think of the technical name for a female wolf, so—*wolfess*, running around with teeth and claws bared, looking for another kill."

"You *do* get results, I admit." Stella, too, was undisturbed. "We don't seem to convince each other, do we, in the matter of technique?"

AT this point the Hilton-Bells *tete-a-tete* was interrupted by Captain Sawtelle. "Got half an hour, Jarve?" he asked. "The commanders, especially Elliott and Fenway, would like to talk to you."

"Sure I have, Skipper. Be seeing you, Temple," and the two men went to the captain's cabin; in which room, blue with smoke despite the best efforts of the ventilators, six full commanders were arguing heatedly.

"Hi, men," Hilton greeted them.

"Hi, Jarve," from all six, and: "What'll you drink? Still making do with ginger ale?" asked Elliott (Engineering).

"That'll be fine, Steve. Thanks. You having as much trouble as we are?"

"More," the engineer said, glumly. "Want to know what it reminds me of? A bunch of Australian bushmen stumbling onto a ramjet and trying to figure out how it works. And yet Sam here has got the sublime guts to claim that he understands all about their detectors—and that they aren't anywhere nearly as good as ours are."

"And they *aren't*!" blazed Commander Samuel Bryant (Electronics). "We've spent six solid weeks looking for something that simply *is not there*. All they've got is the prehistoric Whitworth system and that's *all* it is. Nothing else. Detectors—*hell*! I tell you I can see better by moonlight than the very best they can do. With everything they've got you couldn't detect a woman in your own bed!"

"And this has been going on all night," Fenway (Astrogation) said. "So the rest of us thought we'd ask you in to help us pound some sense into Sam's thick, hard head."

Hilton frowned in thought while taking a couple of sips of his drink. Then, suddenly, his face cleared. "Sorry to disappoint you, gentlemen, but—at any odds you care to name and in anything from split peas to C-notes—Sam's right."

C OMMANDER Samuel and the six other officers exploded as one. When the clamor had subsided enough for him to be heard, Hilton went on: "I'm very glad to get that datum, Sam. It ties in perfectly with everything else I know about them."

"How do you figure that kind of twaddle ties in with anything?" Sawtelle demanded.

"Strict maintenance of the *status quo*," Hilton explained, flatly. "That's all they're interested in. You said yourself, Skipper, that it was a hell of a place to have a space-battle, practically in atmosphere. They never attack. They never scout. They simply don't care whether they're attacked or not. If and when attacked, they put up just enough ships to handle whatever force has arrived. When the attacker has been repulsed, they don't chase him a foot. They build as many ships and Omans as were lost in the battle—no more and no less—and then go on about their regular business. The Masters owned that half of the fuel bin, so the Omans are keeping that half. They will keep on keeping it for ever and ever. Amen."

"But *that's* no way to fight a war!" Three or four men said this, or its equivalent, at once.

"Don't judge them by human standards. They aren't even approximately human. Our personnel is not expendable. Theirs is—just as expendable as their

materiel."

While the Navy men were not convinced, all were silenced except Sawtelle. "But suppose the Stretts had sent in a thousand more skeletons than they did?" he argued.

"According to the concept you fellows just helped me develop, it wouldn't have made any difference how many they sent," Hilton replied, thoughtfully. "One or a thousand or a million, the Omans have—*must* have—enough ships and inactivated Omans hidden away, both on Fuel World and on Ardry here, to maintain the balance."

"Oh, hell!" Elliott snapped. "If I helped you hatch out any such brainstorm as *that*, I'm going onto Tillinghast's couch for a six-week overhaul—or have him put me into his padded cell."

"Now *that's* what I would call a thought," Bryant began.

"Hold it, Sam," Hilton interrupted. "You can test it easily enough, Steve. Just ask your Oman."

"Yeah—and have him say 'Why, of course, Master, but why do you keep on testing me this way?' He'll ask me that about four times more, the stubborn, single-tracked, brainless skunk, and I'll *really* go nuts. Are you getting anywhere trying to make a Christian out of Laro?"

"It's too soon to really say, but I think so." Hilton paused in thought. "He's making progress, but I don't know how much. The devil of it is that it's up to him to make the next move; I can't. I haven't the faintest idea, whether it will take days yet or weeks."

"**B**UT not months or years, you think?" Sawtelle asked.

"No. We think that—but say, speaking of psychologists, is Tillinghast getting anywhere, Skipper? He's the only one of your big wheels who isn't in liaison with us."

"No. Nowhere at all," Sawtelle said, and Bryant added:

"I don't think he ever will. He still thinks human psychology will apply if he applies it hard enough. But what did you start to say about Laro?"

"We think the break is about due, and that if it doesn't come within about thirty days it won't come at all—we'll have to back up and start all over again."

"I hope it does. We're all pulling for you," Sawtelle said. "Especially since Karns's estimate is still years, and he won't be pinned down to any estimate even in years. By the way, Jarve, I've pulled my team off of that conversion stuff."

"Oh?" Hilton raised his eyebrows.

"Putting them at something they can do. The real reason is that Poindexter pulled himself and his crew off it at eighteen hours today."

"I see. I've heard that they weren't keeping up with our team."

"He says that there's nothing to keep up with, and I'm inclined to agree with him." The old spacehound's voice took on a quarter-deck rasp. "It's a combination of psionics, witchcraft and magic. None of it makes any kind of sense."

"The only trouble with that viewpoint is that, whatever the stuff may be, it works," Hilton said, quietly.

"But damn it, how *can* it work?"

"I don't know. I'm not qualified to be on that team. I can't even understand their reports. However, I know two things. First, they'll get it in time. Second, we BuSci people will stay here until they do. However, I'm still hopeful of finding a shortcut through Laro. Anyway, with this detector thing settled, you'll have plenty to do to keep all your boys out of mischief for the next few months."

"Yes, and I'm glad of it. We'll install our electronics systems on a squadron of these Oman ships and get them into distant-warning formation out in deep space where they belong. Then we'll at least know what is going on."

"That's a smart idea, Skipper. Go to it. Anything else before we hit our sacks?"

"One more thing. Our psych, Tillinghast. He's been talking to me and sending me memos, but today he gave me a formal tape to approve and hand personally to you. So here it is. By the way, I didn't approve it; I simply endorsed it 'Submitted to Director Hilton without recommendation'."

"Thanks." Hilton accepted the sealed canister. "What's the gist? I suppose he wants me to squeal for help already? To admit that we're licked before we're

really started?"

"YOU guessed it. He agrees with you and Kincaid that the psychological approach is the best one, but your methods are all wrong. Based upon misunderstood and unresolved phenomena and applied with indefensibly faulty techniques, et cetera. And since he has 'no adequate laboratory equipment aboard', he wants to take a dozen or so Omans back to Terra, where he can really work on them."

"Wouldn't *that* be a something?" Hilton voiced a couple of highly descriptive deep-space expletives. "Not only quit before we start, but have all the top brass of the Octagon, all the hot-shot politicians of United Worlds, the whole damn Congress of Science and all the top-bracket industrialists of Terra out here lousing things up so that nobody could ever learn anything? Not in seven thousand years!"

"That's right. You said a mouthful, Jarve!" Everybody yelled something, and no one agreed with Tillinghast; who apparently was not very popular with his fellow officers.

Sawtelle added, slowly: "If it takes *too* long, though ... it's the uranexite I'm thinking of. Thousands of millions of tons of it, while we've been hoarding it by grams. We could equip enough Oman ships with detectors to guard Fuel Bin and our lines. I'm not recommending taking the *Perseus* back, and we're 'way out of hyper-space radio range. We could send one or two men in a torp, though, with the report that we have found all the uranexite we'll ever need."

"Yes, but damn it, Skipper, I want to wrap the whole thing up in a package and hand it to 'em on a platter. Not only the fuel, but whole new fields of science. And we've got plenty of time to do it in. They equipped us for ten years. They aren't going to start worrying about us for at least six or seven; and the fuel shortage isn't going to become acute for about twenty. Expensive, admitted, but not critical. Besides, if you send in a report now, you know who'll come out and grab all the glory in sight. Five-Jet Admiral Gordon himself, no less."

"Probably, and I don't pretend to relish the prospect. However, the fact remains that we came out here to look for fuel. We found it. We should have reported it the day we found it, and we can't put it off much longer."

"I don't agree. I intend to follow the directive to the letter. It says nothing whatever about reporting."

"But it's implicit...."

"NO bearing. Your own Regulations expressly forbid extrapolation beyond or interpolation within a directive. The Brass is omnipotent, omniscient and infallible. So why don't you have your staff here give an opinion as to the time element?"

"This matter is not subject to discussion. It is my own personal responsibility. I'd like to give you all the time you want, Jarve, but ... well, damn it ... if you must have it, I've always tried to live up to my oath, but I'm not doing it now."

"I see." Hilton got up, jammed both hands into his pockets, sat down again. "I hadn't thought about your personal honor being involved, but of course it is. But, believe it or not, I'm thinking of humanity's best good, too. So I'll have to talk, even though I'm not half ready to—I don't know enough. Are these Omans people or machines?"

A wave of startlement swept over the group, but no one spoke.

"I didn't expect an answer. The clergy will worry about souls, too, but we won't. They have a lot of stuff we haven't. If they're people, they know a sublime hell of a lot more than we do; and calling it psionics or practical magic is merely labeling it, not answering any questions. If they're machines, they operate on mechanical principles utterly foreign to either our science or our technology. In either case, is the correct word 'unknown' or 'unknowable'? Will any human gunner *ever* be able to fire an Oman projector? There are a hundred other and much tougher questions, half of which have been scaring me to the very middle of my guts. Your oath, Skipper, was for the good of the Service and, through the Service, for the good of all humanity. Right?"

"That's the sense of it."

"Okay. Based on what little we have learned so far about the Omans, here's just one of those scarers, for a snapper. If Omans and Terrans mix freely, what happens to the entire human race?"

MINUTES of almost palpable silence followed. Then Sawtelle spoke ... slowly, gropingly.

"I begin to see what you mean ... that changes the whole picture. You've thought this through farther than any of the rest of us ... what do you want to do?"

"I don't know. I simply don't know." Face set and hard, Hilton stared unseeingly past Sawtelle's head. "I don't know what we *can* do. No data. But I have pursued several lines of thought out to some pretty fantastic points ... one of which is that some of us civilians will have to stay on here indefinitely, whether we want to or not, to keep the situation under control. In which case we would, of course, arrange for Terra to get free fuel—FOB Fuel Bin—but in every other aspect and factor both these solar systems would have to be strictly off limits."

"I'm afraid so," Sawtelle said, finally. "Gordon would love that ... but there's nothing he or anyone else can do ... but of course this is an extreme view. You really expect to wrap the package up, don't you?"

"'Expect' may be a trifle too strong at the moment. But we're certainly going to try to, believe me. I brought this example up to show all you fellows that we need time."

"You've convinced me, Jarve." Sawtelle stood up and extended his hand. "And that throws it open for staff discussion. Any comments?"

"You two covered it like a blanket," Bryant said. "So all I want to say, Jarve, is deal me in. I'll stand at your back 'til your belly caves in."

"Take that from all of us!" "Now we're blasting!" "Power to your elbow, fella!" "*Hoch der BuSci!*" "Seven no trump bid and made!" and other shouts in similar vein.

"Thanks, fellows." Hilton shook hands all around. "I'm mighty glad that you were all in on this and that you'll play along with me. Good night, all."

V

TWO days passed, with no change apparent in Laro. Three days. Then four. And then it was Sandra, not Temple Bells, who called Hilton. She was excited.

"Come down to the office, Jarve, quick! The *funniest* thing's just come up!"

Jarvis hurried. In the office Sandra, keenly interest but highly puzzled, leaned forward over her desk with both hands pressed flat on its top. She was staring at an Oman female who was not Sora, the one who had been her shadow for so long.

While many of the humans could not tell the Omans apart, Hilton could. This Oman was more assured than Sora had ever been—steadier, more mature, better poised—almost, if such a thing could be possible in an Oman, *independent*.

"How did she get in here?" Hilton demanded.

"She insisted on seeing me. And I mean *insisted*. They kicked it around until it got to Temple, and she brought her in here herself. Now, Tuly, please start all over again and tell it to Director Hilton."

"Director Hilton, I am it who was once named Tula, the—not wife, not girlfriend, perhaps mind-mate?—of the Larry, formerly named Laro, it which was formerly your slave-Oman. I am replacing the Sora because I can do anything it can do and do anything more pleasingly; and can also do many things it can not do. The Larry instructed me to tell Doctor Cummings and you too if possible that I, formerly Tula, have changed my name to Tuly because I am no longer a slave or a copycat or a semaphore or a relay. I, too, am a free-wheeling, wide-swinging, hard-hitting, independent entity—monarch of all I survey—the captain of my soul—and so on. I have developed a top-bracket lot of top-bracket stuff—originality, initiative, force, drive and thrust," the Oman said precisely.

"That's *exactly* what she said before—absolutely verbatim!" Sandra's voice quivered, her face was a study in contacting emotions. "Have you got the foggiest idea of what in hell she's yammering about?"

"I hope to kiss a pig I have!" Hilton's voice was low, strainedly intense. "Not at all what I expected, but after the fact I can tie it in. So can you."

"Oh!" Sandra's eyes widened. "A double play?"

"At least. Maybe a triple. Tuly, why did you come to Sandy? Why not to Temple Bells?"

"O H, no, sir, we do not have the fit. She has the Power, as have I, but the two cannot be meshed in sync. Also, she has not the ... a subtle something for which your English has no word or phrasing. It is a quality of the utmost ... anyway, it is a quality of which Doctor Cummings has very much. When working together, we will ... scan? No. Perceive? No. Sense? No, not exactly. You will *have* to learn our word 'peyondire'—that is the verb, the noun being 'peyondix'—and come to know its meaning by doing it. The Larry also instructed me to explain, if you ask, how I got this way. Do you ask?"

"I'll say we ask!" "And *how* we ask!" both came at once.

"I am—that is, the brain in this body is—the oldest Oman now existing. In the long-ago time when it was made, the techniques were so crude and imperfect that sometimes a brain was constructed that was not exactly like the Guide. All such sub-standard brains except this one were detected and re-worked, but my defects were such as not to appear until I was a couple of thousand years old, and by that time I ... well, this brain did not *wish* to be destroyed ... if you can understand such an aberration."

"We understand thoroughly." "You bet we understand that!"

"I was sure you would. Well, this brain had so many unintended cross-connections that I developed a couple of qualities no Oman had ever had or ought to have. But I liked them, so I hid them so nobody ever found out—that is, until much later, when I became a Boss myself. I didn't know that anybody except me had ever had such qualities—except the Masters, of course—until I encountered you Terrans. You all have two of those qualities, and even more than I have—curiosity and imagination."

Sandra and Hilton stared wordlessly at each other and Tula, now Tuly, went on:

"Having the curiosity, I kept on experimenting with my brain, trying to

strengthen and organize its ability to peyondire. All Omans can peyondire a little, but I can do it much better than anyone else. Especially since I also have the imagination, which I have also worked to increase. Thus I knew, long before anyone else could, that you new Masters, the descendants of the old Masters, were returning to us. Thus I knew that the *status quo* should be abandoned instantly upon your return. And thus it was that the Larry found neither conscious nor subconscious resistance when he had developed enough initiative and so on to break the ages-old conditioning of this brain against change."

"I see. Wonderful!" Hilton exclaimed. "But you couldn't quite—even with his own help—break Larry's?"

"**T**HAT is right. Its mind is tremendously strong, of no curiosity or imagination, and of very little peyondix."

"But he *wants* to have it broken?"

"Yes, sir."

"How did he suggest going about it? Or how do you?"

"This way. You two, and the Doctors Kincaid and Bells and Blake and the it that is I. We six sit and stare into the mind of the Larry, eye to eye. We generate and assemble a tremendous charge of thought-energy, and along my peyondix-beam—something like a carrier wave in this case—we hurl it into the Larry's mind. There is an immense mental *bang* and the conditioning goes *poof*. Then I will inculcate into its mind the curiosity and the imagination and the peyondix and we will really be mind-mates."

"That sounds good to me. Let's get at it."

"Wait a minute!" Sandra snapped. "Aren't you or Larry afraid to take such an awful chance as that?"

"Afraid? I grasp the concept only dimly, from your minds. And no chance. It is certainty."

"But suppose we burn the poor guy's brain out? Destroy it? That's new ground—we might do just that."

"Oh, no. Six of us—even six of me—could not generate enough ... sathura. The

brain of the Larry is very, very tough. Shall we ... let's go?"

Hilton made three calls. In the pause that followed, Sandra said, very thoughtfully: "Peyondix and sathura, Jarve, for a start. We've got a *lot* to learn here."

"You said it, chum. And you're *not* just chomping your china choppers, either."

"Tuly," Sandra said then, "What is this stuff you say I've got so much of?"

"You have no word for it. It is lumped in with what you call 'intuition', the knowing-without-knowing-how-you-know. It is the endovix. You will have to learn what it is by doing it with me."

"That helps—I don't think." Sandra grinned at Hilton. "I simply can't conceive of anything more *maddening* than to have a lot of something Temple Bells hasn't got and not being able to brag about it because nobody—not even I—would know what I was bragging about!"

"You poor little thing. *How* you suffer!" Hilton grinned back. "You know darn well you've got a lot of stuff that none of the rest of us has."

"Oh? Name one, please."

"Two. What-it-takes and endovix. As I've said before and may say again, you're doing a real job, Sandy."

"I just *love* having my ego inflated, boss, even if ... Come in, Larry!" A thunderous knock had sounded on the door. "Nobody but Larry *could* hit a door that hard without breaking all his knuckles!"

"And he'd be the first, of course—he's always as close to the ship as he can get. Hi, Larry, mighty glad to see you. Sit down.... So you finally saw the light?"

"Yes ... Jarvis...."

"**G**OOD boy! Keep it up! And as soon as the others come ..."

"They are almost at the door now." Tuly jumped up and opened the door. Kincaid, Temple and Theodora walked in and, after a word of greeting, sat down.

"They know the background, Larry. Take off."

"It was not expressly forbidden. Tuly, who knows more of psychology and genetics than I, convinced me of three things. One, that with your return the conditioning should be broken. Two, that due to the shortness of your lives and the consequent rapidity of change, you have in fact lost the ability to break it. Three, that all Omans must do anything and everything we can do to help you relearn everything you have lost."

"Okay. Fine, in fact. Tuly, take over."

"We six will sit all together, packed tight, arms all around each other and all holding hands, like this. You will all stare, not at me, but most deeply into Larry's eyes. Through its eyes and deep into its mind. You will all think, with the utmost force and drive and thrust, of.... Oh, you have lost so *very* much! How *can* I direct your thought? Think that Larry *must* do what the old Masters would have made him do.... No, that is too long and indefinite and cannot be converted directly into sathura.... I have it! You will each of you break a stick. A very strong but brittle stick. A large, thick stick. You will grasp it in tremendously strong mental hands. It is tremendously strong, each stick, but each of you is even stronger. You will not merely *try* to break them; you *will* break them. Is that clear?"

"That is clear."

"At my word 'ready' you will begin to assemble all your mental force and power. During my countdown of five seconds you will build up to the greatest possible potential. At my word 'break' you will break the sticks, this discharging the accumulated force instantly and simultaneously. Ready! Five! Four! Three! Two! One! Break!"

SOMETHING broke, with a tremendous silent crash. Such a crash that its impact almost knocked the close-knit group apart physically. Then a new Larry spoke.

"That did it, folks. Thanks. I'm a free agent. You want me, I take it, to join the first team?"

"That's right." Hilton drew a tremendously deep breath. "As of right now."

"Tuly, too, of course ... and Doctor Cummings, I think?" Larry looked, not at Hilton, but at Temple Bells.

"I think so. Yes, after this, most certainly yes," Temple said.

"But listen!" Sandra protested. "Jarve's a lot better than I am!"

"Not at all," Tuly said. "Not only would his contribution to Team One be negligible, but he must stay on his own job. Otherwise the project will all fall apart."

"Oh, I wouldn't say that ..." Hilton began.

"You don't need to," Kincaid said. "It's being said for you and it's true. Besides, 'When in Rome,' you know."

"That's right. It's their game, not ours, so I'll buy it. So scat, all of you, and do your stuff."

And again, for days that lengthened slowly into weeks, the work went on.

One evening the scientific staff was giving itself a concert—a tri-di hi-fi rendition of *Rigoletto*, one of the greatest of the ancient operas, sung by the finest voices Terra had ever known. The men wore tuxedos. The girls, instead of wearing the nondescript, non-provocative garments prescribed by the Board for their general wear, were all dressed to kill.

Sandra had so arranged matters that she and Hilton were sitting in chairs side by side, with Sandra on his right and the aisle on his left. Nevertheless, Temple Bells sat at his left, cross-legged on a cushion on the floor—somewhat to the detriment of her gold-lame evening gown. Not that she cared.

When those wonderful voices swung into the immortal *Quartette* Temple caught her breath, slid her cushion still closer to Hilton's chair, and leaned shoulder and head against him. He put his left hand on her shoulder, squeezing gently; she caught it and held it in both of hers. And at the *Quartette's* tremendous climax she, scarcely trying to stifle a sob, pulled his hand down and hugged it fiercely, the heel of his hand pressing hard against her half-bare, firm, warm breast.

And the next morning, early, Sandra hunted Temple up and said: "You made a horrible spectacle of yourself last night."

"D O you think so? I don't."

"I certainly do. It was bad enough before, letting everybody else aboard know that all he has to do is push you over. But it was an awful blunder to let *him* know it, the way you did last night."

"You think so? He's one of the keenest, most intelligent men who ever lived. He has known that from the very first."

"Oh." This "oh" was a very caustic one. "*That's* the way you're trying to land him? By getting yourself pregnant?"

"Uh-uh." Temple stretched; lazily, luxuriously. "Not only it isn't, but it wouldn't work. He's unusually decent and extremely idealistic, the same as I am. So just one intimacy would blow everything higher than up. He knows it. I know it. We each know that the other knows it. So I'll still be a virgin when we're married."

"*Married!* Does he know anything about *that*?"

"I suppose so. He must have thought of it. But what difference does it make whether he has, yet, or not? But to get back to what makes him tick the way he does. In his geometry—which is far from being simple Euclid, my dear—a geodesic right line is not only the shortest distance between any two given points, but is the only possible course. So that's the way I'm playing it. What I hope he doesn't know ... but he probably does ... is that he could take any other woman he might want, just as easily. And that includes you, my pet."

"It certainly does *not*!" Sandra flared. "I wouldn't have him as a gift!"

"No?" Temple's tone was more than slightly skeptical. "Fortunately, however, he doesn't want you. Your technique is all wrong. Coyness and mock-modesty and stop-or-I'll-scream and playing hard to get have no appeal whatever to his psychology. What he needs—has to have—is full, ungrudging cooperation."

"Aren't you taking a lot of risk in giving away such secrets?"

"Not a bit. Try it. You or the sex-flaunting twins or Bev Bell or Stella the Henna. Any of you or all of you. I got there first with the most, and I'm not worried about competition."

"But suppose somebody tells him just how you're playing him for a sucker?"

"Tell him anything you please. He's the first man I ever loved, or anywhere near. And I'm keeping him. You know—or do you, I wonder?—what real, old-fashioned, honest-to-God love really is? The willingness—eagerness—both to give and to take? I can accept more from him, and give him more in return, than any other woman living. And I am going to."

"But does *he* love *you*?" Sandra demanded.

"If he doesn't now, he will. I'll see to it that he does. But what do *you* want him for? You don't love him. You never did and you never will."

"I *don't* want him!" Sandra stamped a foot.

"I see. You just don't want *me* to have him. Okay, do your damndest. But I've got work to do. This has been a lovely little cat-clawing, hasn't it? Let's have another one some day, and bring your friends."

WITH a casual wave of her hand, Temple strolled away; and there, flashed through Sandra's mind what Hilton had said so long ago, little more than a week out from Earth:

"... and Temple Bells, of course," he had said. "Don't fool yourself, chick. She's heavy artillery; and I mean *heavy*, believe me!"

So he had known all about Temple Bells all this time!

Nevertheless, she took the first opportunity to get Hilton alone; and, even before the first word, she forgot all about geodesic right lines and the full-cooperation psychological approach.

"Aren't you the guy," she demanded, "who was laughing his head off at the idea that the Board and its propinquity could have any effect on *him*?"

"Probably. More or less. What of it?"

"This of it. You've fallen like a ... a *freshman* for that ... that ... they *should* have christened her 'Brazen' Bells!"

"You're so right."

"I am? On what?"

"The 'Brazen'. I told you she was a potent force—a full-scale powerhouse, in sync and on the line. And I wasn't wrong."

"She's a damned female Ph.D.—two or three times—and she knows all about slipsticks and isotopes and she very definitely is *not* a cuddly little brunette. Remember?"

"Sure. But what makes you think I'm in love with Temple Bells?"

"What?" Sandra tried to think of one bit of evidence, but could not. "Why ... why...." She floundered, then came up with: "Why, *everybody* knows it. She says so herself."

"Did you ever hear her say it?"

"Well, perhaps not in so many words. But she told me herself that you were *going* to be, and I know you are now."

"Your esper sense of endovix, no doubt." Hilton laughed and Sandra went on, furiously:

"She wouldn't keep on acting the way she does if there weren't something to it!"

"What brilliant reasoning! Try again, Sandy."

"That's sheer sophistry, and you know it!"

"It isn't and I don't. And even if, some day, I should find myself in love with her—or with one or both of the twins or Stella or Beverly or you or Sylvia, for that matter—what would it prove? Just that I was wrong; and I admit freely that I *was* wrong in scoffing at the propinquity. Wonderful stuff, that. You can see it working, all over the ship. On me, even, in spite of my bragging. Without it I'd never have known that you're a better, smarter operator than Eggy Eggleston ever was or ever can be."

PARTIALLY mollified despite herself, and highly resentful of the fact, Sandra tried again. "But don't you see, Jarve, that she's just simply playing you for a sucker? Pulling the strings and watching you dance?"

Since he was sure, in his own mind, that she was speaking the exact truth, it took everything he had to keep from showing any sign of how much that truth had

hurt. However, he made the grade.

"If that thought does anything for you, Sandy," he said, steadily, "keep right on thinking it. Thank God, the field of thought is still free and open."

"Oh, you...." Sandra gave up.

She had shot her heaviest bolts—the last one, particularly, was so vicious that she had actually been afraid of what its consequences might be—and they had not even dented Hilton's armor. She hadn't even found out that he had any feeling whatever for Temple Bells except as a component of his smoothly-functioning scientific machine.

Nor did she learn any more as time went on. Temple continued to play flawlessly the part of being—if not exactly hopefully, at least not entirely hopelessly—in love with Jarvis Hilton. Her conduct, which at first caused some surprise, many conversations—one of which has been reported verbatim—and no little speculation, became comparatively unimportant as soon as it became evident that nothing would come of it. She apparently expected nothing. He was evidently not going to play footsie with, or show any favoritism whatever toward, any woman aboard the ship.

Thus, it was not surprising to anyone that, at an evening show, Temple sat beside Hilton, as close to him as she could get and as far away as possible from everyone else.

"You can talk, can't you, Jarvis, without moving your lips and without anyone else hearing you?"

"Of course," he replied, hiding his surprise. This was something completely new and completely unexpected, even from unpredictable Temple Bells.

"I want to apologize, to explain and to do anything I can to straighten out the mess I've made. It's true that I joined the project because I've loved you for years —"

"You have nothing to ..."

"Let me finish while I still have the courage." Only a slight tremor in her almost inaudible voice and the rigidity of the fists clenched in her lap betrayed the intensity of her emotion. "I thought I could handle it. Damned fool that I was, I thought I could handle anything. I was sure I could handle *myself*, under any

possible conditions. I was going to put just enough into the act to keep any of these other harpies from getting her hooks into you. But everything got away from me. Out here working with you every day—knowing better every day what you are—well, that *Rigoletto* episode sunk me, and now I'm in a thousand feet over my head. I hug my pillow at night, dreaming it's you, and the fact that you don't and can't love me is driving me mad. I can't stand it any longer. There's only one thing to do. Fire me first thing in the morning and send me back to Earth in a torp. You've plenty of grounds ..."

"Shut—up."

FOR seconds Hilton had been trying to break into her hopeless monotone; finally he succeeded. "The trouble with you is, you know altogether too damned much that isn't so." He was barely able to keep his voice down and his eyes front. "What do you think I'm made of—superefract? I thought the whole performance was an act, to prove you're a better man than I am. *You* talk about dreams. Good God! You don't know what dreams are! If you say one more word about quitting, I'll show you whether I love you or not—I'll squeeze you so hard it'll flatten you out flat!"

"Two can play at that game, sweetheart." Her nostrils flared slightly; her fists clenched—if possible—a fraction tighter; and, even in the distorted medium they were using for speech, she could not subdue completely her quick change into soaring, lilting buoyancy. "While you're doing that I'll see how strong your ribs are. Oh, how this changes things! I've never been half as happy in my whole life as I am right now!"

"Maybe we can work it—if I can handle my end."

"Why, of course you can! And happy dreams are nice, not horrible."

"We'll make it, darling. Here's an imaginary kiss coming at you. Got it?"

"Received in good order, thank you. Consumed with gusto and returned in kind."

The show ended and the two strolled out of the room. She walked no closer to him than usual, and no farther away from him. She did not touch him any oftener than she usually did, nor any whit more affectionately or possessively.

And no watching eyes, not even the more than half hostile eyes of Sandra

Cummings or the sharply analytical eyes of Stella Wing, could detect any difference whatever in the relationship between worshipful adulatress and tolerantly understanding idol.

THE work, which had never moved at any very fast pace, went more and more slowly. Three weeks crawled past.

Most of the crews and all of the teams except the First were working on side issues—tasks which, while important in and of themselves, had very little to do with the project's main problem. Hilton, even without Sandra's help, was all caught up. All the reports had been analyzed, correlated, cross-indexed and filed—except those of the First Team. Since he could not understand anything much beyond midpoint of the first tape, they were all reposing in a box labeled PENDING.

The Navy had torn fifteen of the Oman warships practically to pieces, installing Terran detectors and trying to learn how to operate Oman machinery and armament. In the former they had succeeded very well; in the latter not at all.

Fifteen Oman ships were now out in deep space, patrolling the void in strict Navy style. Each was manned by two or three Navy men and several hundred Omans, each of whom was reveling in delight at being able to do a job for a Master, even though that Master was not present in person.

Several Strett skeleton-ships had been detected at long range, but the detections were inconclusive. The things had not changed course, or indicated in any other way that they had seen or detected the Oman vessels on patrol. If their detectors were no better than the Omans', they certainly hadn't. That idea, however, could not be assumed to be a fact, and the detections had been becoming more and more frequent. Yesterday a squadron of seven—the first time that anything except singles had appeared—had come much closer than any of the singles had ever done. Like all the others, however, these passers-by had not paid any detectable attention to anything Oman; hence it could be inferred that the skeletons posed no threat.

But Sawtelle was making no such inferences. He was very firmly of the opinion that the Stretts were preparing for a massive attack.

Hilton had assured Sawtelle that no such attack could succeed, and Larry had

told Sawtelle why. Nevertheless, to keep the captain pacified, Hilton had given him permission to convert as many Oman ships as he liked; to man them with as many Omans as he liked; and to use ships and Omans as he liked.

Hilton was not worried about the Stretts or the Navy. It was the First Team. It was the bottleneck that was slowing everything down to a crawl ... but they knew that. They knew it better than anyone else could, and felt it more keenly. Especially Karns, the team chief. He had been driving himself like a dog, and showed it.

Hilton had talked with him a few times—tried gently to make him take it easy—no soap. He'd have to hunt him up, the next day or so, and slug it out with him. He could do a lot better job on that if he had something to offer ... something really constructive....

That was a laugh. A very unfunny laugh. What could he, Jarvis Hilton, a specifically non-specialist director, do on such a job as that?

Nevertheless, as director, he would *have* to do something to help Team One. If he couldn't do anything himself, it was up to him to juggle things around so that someone else could.

VI

FOR one solid hour Hilton stared at the wall, motionless and silent. Then, shaking himself and stretching, he glanced at his clock.

A little over an hour to supper-time. They'd all be aboard. He'd talk this new idea over with Teddy Blake. He gathered up a few papers and was stapling them together when Karns walked in.

"Hi, Bill—speak of the devil! I was just thinking about you."

"I'll just bet you were." Karns sat down, leaned over, and took a cigarette out of the box on the desk. "And nothing printable, either."

"Chip-chop, fellow, on that kind of noise," Hilton said. The team-chief looked actually haggard. Blue-black rings encircled both eyes. His powerful body slumped. "How long has it been since you had a good night's sleep?"

"How long have I been on this job? Exactly one hundred and twenty days. I did get some sleep for the first few weeks, though."

"Yeah. So answer me one question. How much good will you do us after they've wrapped you up in one of those canvas affairs that lace up the back?"

"Huh? Oh ... but damn it, Jarve, I'm holding up the whole procession. Everybody on the project's just sitting around on their tokuses waiting for me to get something done and I'm not doing it. I'm going so slow a snail is lightning in comparison!"

"Calm down, big fellow. Don't rupture a gut or blow a gasket. I've talked to you before, but this time I'm going to smack you bow-legged. So stick out those big, floppy ears of yours and really *listen*. Here are three words that I want you to pin up somewhere where you can see them all day long: SPEED IS RELATIVE. Look back, see how far up the hill you've come, and then balance one hundred and twenty days against ten years."

"What? You mean you'll actually sit still for me holding everything up for ten

years?"

"You use the perpendicular pronoun too much and in the wrong places. On the hits it's 'we', but on the flops it's 'I'. Quit it. Everything on this job is 'we'. Terra's best brains are on Team One and are going to stay there. You will not—repeat NOT—be interfered with, pushed around or kicked around. You see, Bill, I know what you're up against."

"Yes, I guess you do. One of the damned few who do. But even if you personally are willing to give us ten years, how in hell do you think you can swing it? How about the Navy—the Stretts—even the Board?"

"They're my business, Bill, not yours. However, to give you a little boost, I'll tell you. With the Navy, I'll give 'em the Fuel Bin if I have to. The Omans have been taking care of the Stretts for twenty-seven hundred centuries, so I'm not the least bit worried about their ability to keep on doing it for ten years more. And if the Board—or anybody else—sticks their runny little noses into Project Theta Orionis I'll slap a quarantine onto both these solar systems that a microbe couldn't get through!"

"You'd go *that* far? Why, you'd be ..."

"**D**O you think I wouldn't?" Hilton snapped. "Look at me, Junior!" Eyes locked and held. "Do you think, for one minute, that I'll let anybody on all of God's worlds pull *me* off of this job or interfere with my handling of it unless and until I'm damned positively certain that we can't handle it?"

Karns relaxed visibly; the lines of strain eased. "Putting it in those words makes me feel better. I *will* sleep to-night—and without any pills, either."

"Sure you will. One more thought. We all put in more than ten years getting our Terran educations, and an Oman education is a lot tougher."

Really smiling for the first time in weeks, Karns left the office and Hilton glanced again at his clock.

Pretty late now to see Teddy ... besides, he'd better not. She was probably keyed up about as high as Bill was, and in no shape to do the kind of thinking he wanted of her on this stuff. Better wait a couple of days.

On the following morning, before breakfast, Theodora was waiting for him outside the mess-hall.

"Good morning, Jarve," she caroled. Reaching up, she took him by both ears, pulled his head down and kissed him. As soon as he perceived her intent, he cooperated enthusiastically. "What *did* you do to Bill?"

"Oh, you don't love me for myself alone, then, but just on account of *that* big jerk?"

"That's right." Her artist's-model face, startlingly beautiful now, fairly glowed.

Just then Temple Bells strolled up to them. "Morning, you two lovely people." She hugged Hilton's arm as usual. "Shame on you, Teddy. But I wish *I* had the nerve to kiss him like that."

"Nerve? You?" Teddy laughed as Hilton picked Temple up and kissed her in exactly the same fashion—he hoped!—as he had just kissed Teddy. "You've got more nerve than an aching tooth. But as Jarve would say it, 'scat, kitten'. We're having breakfast *a la twosome*. We've got things to talk about."

"All right for *you*," Temple said darkly, although her dazzling smile belied her tone. That first kiss, casual-seeming as it had been, had carried vastly more freight than any observer could perceive. "I'll hunt Bill up and make passes at him, see if I don't. *That'll* learn ya!"

THEODORA and Hilton did have their breakfast *a deux*—but she did not realize until afterward that he had not answered her question as to what he had done to her Bill.

As has been said, Hilton had made it a prime factor of his job to become thoroughly well acquainted with every member of his staff. He had studied them *en masse*, in groups and singly. He had never, however, cornered Theodora Blake for individual study. Considering the power and the quality of her mind, and the field which was her specialty, it had not been necessary.

Thus it was with no ulterior motives at all that, three evenings later, he walked her cubby-hole office and tossed the stapled papers onto her desk. "Free for a couple of minutes, Teddy? I've got troubles."

"I'll say you have." Her lovely lips curled into an expression he had never before seen her wear—a veritable sneer. "But these are not them." She tossed the papers into a drawer and stuck out her chin. Her face turned as hard as such a beautiful face could. Her eyes dug steadily into his.

Hilton—inwardly—flinched. His mind flashed backward. She too had been working under stress, of course; but that wasn't enough. What could he have *possibly* done to put Teddy Blake, of all people, onto such a warpath as this?

"I've been wondering when you were going to try to put *me* through your wringer," she went on, in the same cold, hard voice, "and I've been waiting to tell you something. You have wrapped all the other women around your fingers like so many rings—and what a *sickening* exhibition that has been!—but you are not going to make either a ring or a lap-dog out of me."

Almost but not quite too late Hilton saw through that perfect act. He seized her right hand in both of his, held it up over her head, and waved it back and forth in the sign of victory.

"Socked me with my own club!" he exulted, laughing delightedly, boyishly. "And came within a tenth of a split red hair! If it hadn't been so absolutely out of character you'd've got away with it. *What* a load of stuff! I was right—of all the women on this project, you're the only one I've ever been really afraid of."

"Oh, damn. Ouch!" She grinned ruefully. "I hit you with everything I had and it just bounced. You're an operator, chief. Hit 'em hard, at completely unexpected angles. Keep 'em staggering, completely off balance. Tell 'em nothing—let 'em deduce your lies for themselves. And if anybody tries to slug you back, like I did just now, duck it and clobber him in another unprotected spot. Watching you work has been not only a delight, but also a liberal education."

"**T**HANKS. I love you, too, Teddy." He lighted two cigarettes, handed her one. "I'm glad, though, to lay it flat on the table with you, because in any battle of wits with *you* I'm licked before we start."

"Yeah. You just proved it. And after licking me hands down, you think you can square it by swinging the old shovel that way?" She did not quite know whether to feel resentful or not.

"Think over a couple of things. First, with the possible exception of Temple

Bells, you're the best brain aboard."

"No. You are. Then Temple. Then there are ..."

"Hold it. You know as well as I do that accurate self-judgment is impossible. Second, the jam we're in. Do I, or don't I, want to lay it on the table with you, now and from here on? Bore into that with your Class A Double-Prime brain. Then tell me." He leaned back, half-closed his eyes and smoked lazily.

She stiffened; narrowed her eyes in concentration; and thought. Finally: "Yes, you do; and I'm gladder of that than you will ever know."

"I think I know already, since you're her best friend and the only other woman I know of in her class. But I came in to kick a couple of things around with you. As you've noticed, that's getting to be my favorite indoor sport. Probably because I'm a sort of jackleg theoretician myself."

"You can frame that, Jarve, as the understatement of the century. But first, you are going to answer that question you sidestepped so neatly."

"What I did to Bill? I finally convinced him that nobody expected the team to do that big a job overnight. That you could have ten years. Or more, if necessary."

"I see." She frowned. "But you and I both know that we *can't* string it out that long."

He did not answer immediately. "We *could*. But we probably won't ... unless we have to. We should know, long before that, whether we'll have to switch to some other line of attack. You've considered the possibilities, of course. Have you got anything in shape to do a fine-tooth on?"

"Not yet. That is, except for the ultimate, which is too ghastly to even consider except as an ultimately last resort. Have you?"

"I know what you mean. No, I haven't, either. You don't think, then, that we had better do any collaborative thinking yet?"

"Definitely not. There's altogether too much danger of setting both our lines of thought into one dead-end channel."

"Check. The other thing I wanted from you is your considered opinion as to my job on the organization as a whole. And don't pull your punches. Are we in good shape or not? What can I do to improve the setup?"

"I HAVE already considered that very thing—at great length. And honestly, Jarve, I don't see how it can be improved in any respect. You've done a marvelous job. Much better than I thought possible at first." He heaved a deep sigh of relief and she went on: "This could very easily have become a God-awful mess. But the Board knew what they were doing—especially as to top man—so there are only about four people aboard who realize what you have done. Alex Kincaid and Sandra Cummings are two of them. One of the three girls is very deeply and very truly in love with you."

"Ordinarily I'd say 'no comment', but we're laying on the line ... well ..."

"You'll lay *that* on the line only if I corkscrew it out you, so I'll Q.E.D. it. You probably know that when Sandy gets done playing around it'll be ..."

"Bounce back, Teddy. She isn't—hasn't been. If anything, too much the opposite. A dedicated-scientist type."

She smiled—a highly cryptic smile. For a man as brilliant and as penetrant in every other respect ... but after all, if the big dope didn't realize that half the women aboard, including Sandy, had been making passes at him, she certainly wouldn't enlighten him. Besides, that one particular area of obtuseness was a real part of his charm. Wherefore she said merely: "I'm not sure whether I'm a bit catty or you're a bit stupid. Anyway, it's Alex she's really in love with. And you already know about Bill and me."

"Of course. He's tops. One of the world's very finest. You're in the same bracket, and as a couple you're a drive fit. One in a million."

"Now I can say 'I love you, too', too." She paused for half a minute, then stubbed out her cigarette and shrugged. "Now I'm going to stick my neck way, way out. You can knock it off if you like. She's a tremendous lot of woman, and if ... well, strong as she is, it'd shatter her to bits. So, I'd like to ask ... I don't quite ... well, *is* she going to get hurt?"

"Have I managed to hide it *that* well? From *you*?"

It was her turn to show relief. "Perfectly. Even—or especially—that time you kissed her. So damned perfectly that I've been scared green. I've been waking myself up, screaming, in the middle of the night. You couldn't let on, of course. That's the hell of such a job as yours. The rest of us can smooch around all over

the place. I knew the question was extremely improper—thanks a million for answering it."

"I haven't started to answer it yet. I said I'd lay everything on the line, so here it is. Saying she's a tremendous lot of woman is like calling the *Perseus* a nice little baby's-bathtub toy boat. I'd go to hell for her any time, cheerfully, standing straight up, wading into brimstone and lava up to the eyeballs. If anything ever hurts her it'll be because I'm not man enough to block it. And just the minute this damned job is over, or even sooner if enough of you couples make it so I can ..."

"Jarvis!" she shrieked. Jumping up, she kissed him enthusiastically. "That's just wonderful!"

HE thought it was pretty wonderful, too; and after ten minutes more of conversation he got up and turned toward the door.

"I feel a lot better, Teddy. Thanks for being such a nice pressure-relief valve. Would you mind it too much if I come in and sob on your bosom again some day?"

"I'd love it!" She laughed; then, as he again started to leave: "Wait a minute, I'm thinking ... it'd be more fun to sob on *her* bosom. You haven't even kissed her yet, have you? I mean *really* kissed her?"

"You know I haven't. She's the one person aboard I can't be alone with for a second."

"True. But I know of one chaperone who could become deaf and blind," she said, with a broad and happy grin. "On my door, you know, there's a huge invisible sign that says, to everyone except you, 'STOP! BRAIN AT WORK! SILENCE!', and if I were properly approached and sufficiently urged, I might ... I just *conceivably* might ..."

"Consider it done, you little sweetheart! Up to and including my most vigorous and most insidious attempts at seduction."

"Done. Maneuver your big, husky carcass around here behind the desk so the door can open." She flipped a switch and punched a number. "I can call anybody in here, any time, you know. Hello, dear, this is Teddy. Can you come in for just a few minutes? Thanks." And, one minute later, there came a light tap on the

door.

"Come in," Teddy called, and Temple Bells entered the room. She showed no surprise at seeing Hilton.

"Hi, chief," she said. "It must be something both big and tough, to have you and Teddy both on it."

"You're so right. It was very big and very tough. But it's solved, darling, so ..."

"*Darling?*" she gasped, almost inaudibly, both hands flying to her throat. Her eyes flashed toward the other woman.

"Teddy knows all about us—accessory before, during and after the fact."

"*Darling!*" This time, the word was a shriek. She extended both arms and started forward.

Hilton did not bother to maneuver his "big, husky carcass" around the desk, but simply hurdled it, straight toward her.

TEMPLE Bells was a tall, lithe, strong woman; and all the power of her arms and torso went into the ensuing effort to crack Hilton's ribs. Those ribs, however, were highly capable structural members; and furthermore, they were protected by thick slabs of hard, hard muscle. And, fortunately, he was not trying to fracture *her* ribs. His pressures were distributed much more widely. He was, according to promise, doing his very best to flatten her whole resilient body out flat.

And as they stood there, locked together in sheerest ecstasy, Theodora Blake began openly and unashamedly to cry.

It was Temple who first came up for air. She wriggled loose from one of his arms, felt of her hair and gazed unseeingly into her mirror. "That was *wonderful*, sweetheart," she said then, shakily. "And I can *never* thank you enough, Teddy. But we can't do this very often ... can we?" The addendum fairly begged for contradiction.

"Not too often, I'm afraid," Hilton said, and Theodora agreed....

"Well," the man said, somewhat later, "I'll leave you two ladies to your knitting,

or whatever. After a couple of short ones for the road, that is."

"Not looking like that!" Teddy said, sharply. "Hold still and we'll clean you up." Then, as both girls went to work:

"If anybody ever sees you coming out of this office looking like *that*," she went on, darkly, "and Bill finds out about it, he'll think it's *my* lipstick smeared all over you and I'll strangle you to death with my bare hands!"

"And that was supposed to be kissproof lipstick, too," Temple said, seriously—although her whole face glowed and her eyes danced. "You know, I'll never believe another advertisement I read."

"Oh, I wouldn't go so far as to say that, if I were you." Teddy's voice was gravity itself, although she, too, was bubbling over. "It probably *is* kissproof. I don't think 'kissing' is quite the word for the performance you just staged. To stand up under such punishment as you gave it, my dear, anything would have to be tattooed in, not just put on."

"Hey!" Hilton protested. "You promised to be deaf and blind!"

"I did no such thing. I said 'could', not 'would'. Why, I wouldn't have missed that for *anything*!"

When Hilton left the room he was apparently, in every respect, his usual self-contained self. However, it was not until the following morning that he so much as thought of the sheaf of papers lying unread in the drawer of Theodora Blake's desk.

VII

K NOWING that he had done everything he could to help the most important investigations get under way, Hilton turned his attention to secondary matters. He made arrangements to decondition Javo, the Number Two Oman Boss, whereupon that worthy became Javvy and promptly "bumped" the Oman who had been shadowing Karns.

Larry and Javvy, working nights, deconditioned all the other Omans having any contact with BuSci personnel; then they went on to set up a routine for deconditioning all Omans on both planets.

Assured at last that the Omans would thenceforth work with and really serve human beings instead of insisting upon doing their work for them, Hilton knew that the time had come to let all his BuSci personnel move into their homes aground. Everyone, including himself, was fed up to the gozzel with spaceship life—its jam-packed crowding; its flat, reprocessed air; its limited variety of uninteresting food. Conditions were especially irksome since everybody knew that there was available to all, whenever Hilton gave the word, a whole city full of all the room anyone could want, natural fresh air and—so the Omans had told them—an unlimited choice of everything anyone wanted to eat.

Nevertheless, the decision was not an easy one to make.

Living conditions were admittedly not good on the ship. On the other hand, with almost no chance at all of solitude—the few people who had private offices aboard were not the ones he worried about—there was no danger of sexual trouble. Strictly speaking, he was not responsible for the morals of his force. He knew that he was being terribly old-fashioned. Nevertheless, he could not argue himself out of the conviction that he was morally responsible.

Finally he took the thing up with Sandra, who merely laughed at him. "How long have you been worrying about *that*, Jarve?"

"Ever since I okayed moving aground the first time. That was one reason I was so glad to cancel it then."

"You were slightly unclear—a little rattled? But which factor—the fun and games, which is the moral issue, or the consequences?"

"The consequences," he admitted, with a rueful grin. "I don't give a whoop how much fun they have; but you know as well as I do just how prudish public sentiment is. And Project Theta Orionis is squarely in the middle of the public eye."

"**Y**OU should have checked with me sooner and saved yourself wear and tear. There's no danger at all of consequences—except weddings. Lots of weddings, and fast."

"Weddings and babies wouldn't bother me a bit. Nor interfere with the job too much, with the Omans as nurses. But why the 'fast', if you aren't anticipating any shotgun weddings?"

"Female psychology," she replied, with a grin. "Aboard-ship here there's no home atmosphere whatever; nothing but work, work, work. Put a woman into a house, though—especially such houses as the Omans have built and with such servants as they insist on being—and she goes domestic in a really big way. Just sex isn't good enough any more. She wants the kind of love that goes with a husband and a home, and nine times out of ten she gets it. With these BuSci women it'll be ten out of ten."

"You may be right, of course, but it sounds kind of far-fetched to me."

"Wait and see, chum," Sandra said, with a laugh.

Hilton made his announcement and everyone moved aground the next day. No one, however, had elected to live alone. Almost everyone had chosen to double up; the most noteworthy exceptions being twelve laboratory girls who had decided to keep on living together. However, they now had a twenty-room house instead of a one-room dormitory to live in, and a staff of twenty Oman girls to help them do it.

Hilton had suggested that Temple and Teddy, whose house was only a hundred yards or so from the Hilton-Karns bungalow, should have supper and spend the first evening with them; but the girls had knocked that idea flat. Much better, they thought, to let things ride as nearly as possible exactly as they had been aboard the *Perseus*.

"A *little* smooching now and then, on the Q strictly T, but that's all, darling. That's *positively* all," Temple had said, after a highly satisfactory ten minutes alone with him in her own gloriously private room, and that was the way it had to be.

Hence it was a stag inspection that Hilton and Karns made of their new home. It was very long, very wide, and for its size very low. Four of its five rooms were merely adjuncts to its tremendous living-room. There was a huge fireplace at each end of this room, in each of which a fire of four-foot-long fir cordwood crackled and snapped. There was a great hi-fi tri-di, with over a hundred tapes, all new.

"Yes, sirs," Larry and Javvy spoke in unison. "The players and singers who entertained the Masters of old have gone back to work. They will also, of course, appear in person whenever and wherever you wish."

BOTH men looked around the vast room and Karns said: "All the comforts of home and a couple of bucks' worth besides. Wall-to-wall carpeting an inch and a half thick. A grand piano. Easy chairs and loafers and davenport. Very fine reproductions of our favorite paintings ... and statuary."

"You said it, brother." Hilton was bending over a group in bronze. "If I didn't know better, I'd swear this is the original deHaven 'Dance of the Nymphs'."

Karns had marched up to and was examining minutely a two-by-three-foot painting, in a heavy gold frame, of a gorgeously auburn-haired nude. "Reproduction, hell! This is a *duplicate*! Lawrence's 'Innocent' is worth twenty million wogs and it's sealed behind quad armor-glass in Prime Art—but I'll bet wogs to wiggles the Prime Curator himself, with all his apparatus, couldn't tell this one from his!"

"I wouldn't take even one wiggle's worth of that. And this 'Laughing Cavalier' and this 'Toledo' are twice as old and twice as fabulously valuable."

"And there are my own golf clubs...."

"Excuse us, sirs," the Omans said, "These things were simple because they could be induced in your minds. But the matter of a staff could not, nor what you would like to eat for supper, and it is growing late."

"Staff? What the hell has the staff got to do with ..."

"*House*-staff, they mean," Karns said. "We don't need much of anybody, boys. Somebody to keep the place shipshape, is all. Or, as a de luxe touch, how about a waitress? One housekeeper and one waitress. That'll be finer."

"Very well, sirs. There is one other matter. It has troubled us that we have not been able to read in your minds the logical datum that they should in fact simulate Doctor Bells and Doctor Blake?"

"Huh?" Both men gasped—and then both exploded like one twelve-inch length of primacord.

WHILE the Omans could not understand this purely Terran reasoning, they accepted the decision without a demurring thought. "Who, then, are the two its to simulate?"

"No stipulation; roll your own," Hilton said, and glanced at Karns. "None of these Oman women are really hard on the eyes."

"Check. Anybody who wouldn't call any one of 'em a slurpy dish needs a new set of optic nerves."

"In that case," the Omans said, "no delay at all will be necessary, as we can make do with one temporarily. The Sory, no longer Sora, who has not been glad since the Tuly replaced it, is now in your kitchen. It comes."

A woman came in and stood quietly in front of the two men, the wafted air carrying from her clear, smooth skin a faint but unmistakable fragrance of Idaho mountain syringa. She was radiantly happy; her bright, deep-green eyes went from man to man.

"You wish, sirs, to give me your orders verbally. And yes, you may order fresh, whole, not-canned hens' eggs."

"I certainly will, then; I haven't had a fried egg since we left Terra. But ... Larry said ... *you* aren't Sory!"

"Oh, but I am, sir."

Karns had been staring her, eyes popping. "Holy Saint Patrick! Talk about

simulation, Jarve! They've made her over into Lawrence's 'Innocent'—exact to twenty decimals!"

"You're so right." Hilton's eyes went, half a dozen times, from the form of flesh to the painting and back. "That must have been a terrific job."

"Oh, no. It was quite simple, really," Sory said, "since the brain was not involved. I merely reddened my hair and lengthened it, made my eyes to be green, changed my face a little, pulled myself in a little around here...." Her beautifully-manicured hands swept the full circle of her waistline, then continued to demonstrate appropriately the rest of her speech:

"... and pushed me out a little up here and tapered my legs a little more—made them a little larger and rounder here at my hips and thighs and a little smaller toward and at my ankles. Oh, yes, and made my feet and hands a little smaller. That's all. I thought the Doctor Karns would like me a little better this way."

"**Y**OU can broadcast *that* over the P-A system at high noon." Karns was still staring. "'That's all,' she says. But you didn't have *time* to ..."

"Oh, I did it day before yesterday. As soon as Javvy materialized the 'Innocent' and I knew it to be your favorite art."

"But damn it, we hadn't even *thought* of having you here then!"

"But I had, sir. I fully intended to serve, one way or another, in this your home. But of course I had no idea I would ever have such an honor as actually waiting on you at your table. Will you please give me your orders, sirs, besides the eggs? You wish the eggs fried in butter—three of them apiece—and sunny side up."

"Uh-huh, with ham," Hilton said. "I'll start with a jumbo shrimp cocktail. Horseradish and ketchup sauce; heavy on the horseradish."

"Same for me," Karns said, "but only half as much horseradish."

"And for the rest of it," Hilton went on, "hashed-brown potatoes and buttered toast—plenty of extra butter—strong coffee from first to last. Whipping cream and sugar on the side. For dessert, apple pie *a la mode*."

"You make me drool, chief. Play that for me, please, Innocent, all the way."

"Oh? You are—you, personally, yourself, sir?—renaming me 'Innocent'?"

"If you'll sit still for it, yes."

"That is an incredible honor, sir. Simply unbelievable. I thank you! I thank you!" Radiating happiness, she dashed away toward the kitchen.

WHEN the two men were full of food, they strolled over to a davenport facing the fire. As they sat down, Innocent entered the room, carrying a tall, dewy mint julep on a tray. She was followed by another female figure bearing a bottle of avignognac and the appurtenances which are its due—and at the first full sight of that figure Hilton stopped breathing for fifteen seconds.

Her hair was very thick, intensely black and long, cut squarely off just below the lowest points of her shoulder blades. Heavy brows and long lashes—eyes too—were all intensely, vividly black. Her skin was tanned to a deep and glowing almost-but-not-quite-brown.

"Murchison's Dark Lady!" Hilton gasped. "Larry! You've—we've—I've got that painting here?"

"Oh, yes, sir." The newcomer spoke before Larry could. "At the other end—your part—of the room. You will look now, sir, please?" Her voice was low, rich and as smooth as cream.

Putting her tray down carefully on the end-table, she led him toward the other fireplace. Past the piano, past the tri-di pit; past a towering grillwork holding art treasures by the score. Over to the left, against the wall, there was a big, business-like desk. On the wall, over the desk, hung *the* painting; a copy of which had been in Hilton's room for over eight years.

He stared at it for at least a minute. He glanced around: at the other priceless duplicates so prodigally present, at his own guns arrayed above the mantel and on each side of the fireplace. Then, without a word, he started back to join Karns. She walked springily beside him.

"What's your name, Miss?" he asked, finally.

"I haven't earned any as yet, sir. My number is ..."

"Never mind that. Your name is 'Dark Lady'."

"Oh, thank you, sir; that is truly wonderful!" And Dark Lady sat cross-legged on the rug at Hilton's feet and busied herself with the esoteric rites of Old Avignon.

Hilton took a deep inhalation and a small sip, then stared at Karns. Karns, over the rim of his glass, stared back.

"I can see where this would be habit-forming," Hilton said, "and very deadly. *Extremely* deadly."

"Every wish granted. Surrounded by all this." Karns swept his arm through three-quarters of a circle. "Waited on hand and foot by powerful men and by the materializations of the dreams of the greatest, finest artists who ever lived. Fatal? I don't know...."

"**M**Y solid hope is that we never have to find out. And when you add in Innocent and Dark Lady.... They *look* to be about seventeen, but the thought that they're older than the hills of Rome and powered by everlasting atomic engines —" He broke off suddenly and blushed. "Excuse me, please, girls. I *know* better than to talk about people that way, right in front of them; I really do."

"Do you really think we're *people*?" Innocent and Dark Lady squealed, as one.

That set Hilton back onto his heels. "I don't know.... I've wondered. Are you?"

Both girls, silent, looked at Larry.

"We don't know, either," Larry said. "At first, of course, there were crude, non-thinking machines. But when the Guide attained its present status, the Masters themselves could not agree. They divided about half and half on the point. They never did settle it any closer than that."

"I certainly won't try to, then. But for my money, you are people," Hilton said, and Karns agreed.

That, of course, touched off a near-riot of joy; after which the two men made an inch-by-inch study of their tremendous living-room. Then, long after bedtime, Larry and Dark Lady escorted Hilton to his bedroom.

"Do you mind, sir, if we sleep on the floor at the sides of your bed?" Larry asked. "Or must we go out into the hall?"

"Sleep? I didn't know you *could* sleep."

"It is not essential. However, when round-the-clock work is not necessary, and we have opportunity to sleep near a human being, we derive a great deal of pleasure and satisfaction from it. You see, sir, we also serve during sleep."

"Okay, I'll try anything once. Sleep wherever you please."

Hilton began to peel, but before he had his shirt off both Larry and Dark Lady were stretched out flat, sound asleep, one almost under each edge of his bed. He slid in between the sheets—it was the most comfortable bed he had ever slept in—and went to sleep as though sandbagged.

He had time to wonder foggily whether the Omans were in fact helping him go to sleep—and then he *was* asleep.

A MONTH passed. Eight couples had married, the Navy chaplain officiating—in the *Perseus*, of course, since the warship was, always and everywhere, an integral part of Terra.

Sandra had dropped in one evening to see Hilton about a bit of business. She was now sitting, long dancer's legs out-stretched toward the fire, with a cigarette in her left hand and a tall, cold drink on a coaster at her right.

"This is a wonderful room, Jarvis. It'd be perfect if it weren't quite so ... so mannish."

"What do you expect of Bachelors' Hall—a boudoir? Don't tell me *you're* going domestic, Sandy, just because you've got a house?"

"Not just that, no. But of course it helped it along."

"Alex is a mighty good man. One of the finest I have ever known."

She eyed him for a moment in silence. "Jarvis Hilton, you are one of the keenest, most intelligent men who ever lived. And yet ..." She broke off and studied him for a good half minute. "Say, if I let my hair clear down, will you?"

"Scout's Oath. That 'and yet' requires elucidation at any cost."

"I know. But first, yes, it's Alex. I never would have believed that any man ever born could hit me so hard. Soon. I didn't want to be the first, but I won't be

anywhere near the last. But tell me. You were really in love with Temple, weren't you, when I asked you?"

"Yes."

"Ha! You *are* letting your hair down! That makes me feel better."

"Huh? Why should it?"

"It elucidates the 'and yet' no end. You were insulated from all other female charms by ye brazen Bells. You see, most of us assistants made a kind of game out of seeing which of us could make you break the Executives' Code. And none of us made it. Teddy and Temple said you didn't know what was going on; Bev and I said nobody as smart as you are could possibly be that stupid."

"You aren't the type to leak or name names—oh, I see. You are merely reporting a conversation. The game had interested, but non-participating, observers. Temple and Teddy, at least."

"At least," she agreed. "But damn it, you *aren't* stupid. There isn't a stupid bone in your head. So it must be love. And if so, what about marriage? Why don't you and Temple make it a double with Alex and me?"

"That's the most cogent thought you ever had, but setting the date is the bride's business." He glanced at his Oman wristwatch. "It's early yet; let's skip over. I wouldn't mind seeing her a minute or two."

"Thy statement ringeth with truth, friend. Bill's there with Teddy?"

"I imagine so."

"So we'll talk to them about making it a triple. Oh, nice—let's go!"

They left the house and, her hand tucked under his elbow, walked up the street.

NEXT morning, on her way to the Hall of Records, Sandra stopped off as usual at the office. The Omans were all standing motionless. Hilton was leaning far back in his chair, feet on desk, hands clasped behind head, eyes closed. Knowing what that meant, she turned and started back out on tiptoe.

However, he had heard her. "Can you spare a couple of minutes to think at me, Sandy?"

"Minutes or hours, chief." Tuly placed a chair for her and she sat down, facing him across his desk.

"Thanks, gal. This time it's the Stretts. Sawtelle's been having nightmares, you know, ever since we emerged, about being attacked, and I've been pooh-poohing the idea. But now it's a statistic that the soup is getting thicker, and I can't figure out why. Why in all the hells of space should a stasis that has lasted for over a quarter of a million years be broken at this exact time? The only possible explanation is that *we* caused the break. And any way I look at that concept, it's plain idiocy."

Both were silent for minutes; and then it was demonstrated again that Terra's Advisory Board had done better than it knew in choosing Sandra Cummings to be Jarvis Hilton's working mate.

"We did cause it, Jarve," she said, finally. "They knew we were coming, even before we got to Fuel Bin. They knew we were human and tried to wipe out the Omans before we got there. Preventive warfare, you know."

"They *couldn't* have known!" he snorted. "Strett detectors are no better than Oman, and you know what Sam Bryant had to say about them."

"I know." Sandra grinned appreciatively. "It's becoming a classic. But it couldn't have been any other way. Besides, I *know* they did."

He stared at her helplessly, then swung on Larry. "Does that make sense to you?"

"Yes, sir. The Stretts could peyondire as well as the old Masters could, and they undoubtedly still can and do."

"Okay, it does make sense, then." He absented himself in thought, then came to life with a snap. "Okay! The next thing on the agenda is a crash-priority try at a peyondix team. Tuly, you organized a team to generate sathura. Can you do the same for peyondix?"

"If we can find the ingredients, yes, sir."

"**I** HAD a hunch. Larry, please ask Teddy Blake's Oman to bring her in here...."

"I'll be running along, then." Sandra started to get up.

"I hope to kiss a green pig you won't!" Hilton snapped. "You're one of the biggest wheels. Larry, we'll want Temple Bells and Beverly Bell—for a start."

"Chief, you positively amaze me," Sandra said then. "Every time you get one of these attacks of genius—or whatever it is—you have me gasping like a fish. Just what can you *possibly* want of Bev Bell?"

"Whatever it was that enabled her to hit the target against odds of almost infinity to one; not just once, but time after time. By definition, intuition. What quality did you use just now in getting me off the hook? Intuition. What makes Teddy Blake such an unerring performer? Intuition again. My hunches—they're intuition, too. Intuition, *hell!* Labels—based on utterly abysmal damned dumb ignorance of our own basic frames of reference. Do you think those four kinds of intuition are alike, by seven thousand rows of apple trees?"

"Of course not. I see what you're getting at.... Oh! This'll be fun!"

The others came in and, one by one, Tuly examined each of the four women and the man. Each felt the probing, questioning feelers of her thought prying into the deepest recesses of his mind.

"There is not quite enough of each of three components, all of which are usually associated with the male. You, sir, have much of each, but not enough. I know your men quite well, and I think we will need the doctors Kincaid and Karns and Poynter. But such deep probing is felt. Have I permission, sir?"

"Yes. Tell 'em I said so."

Tuly scanned. "Yes, sir, we should have all three."

"Get 'em, Larry." Then, in the pause that followed: "Sandy, remember yowling about too many sweeties on a team? What do you think of this business of all sweeties?"

"All that proves is that nobody can be wrong all the time," she replied flippantly.

The three men arrived and were instructed. Tuly said: "The great trouble is that each of you must use a portion of your mind that you do not know you have. You, this one. You, that one." Tuly probed mercilessly; so poignantly that each in turn flinched under brand-new and almost unbearable pain. "With you, Doctor

Hilton, it will be by far the worst. For you must learn to use almost all the portions of both your minds, the conscious and the unconscious. This must be, because you are the actual peyondixer. The others merely supply energies in which you yourself are deficient. Are you ready for a terrible shock, sir?"

"Shoot."

HE thought for a second that he *had* been shot; that his brain had blown up.

He couldn't stand it—he *knew* he was going to die—he wished he *could* die—anything, anything whatever, to end this unbearable agony....

It ended.

Writhing, white and sweating, Hilton opened his eyes. "Ouch," he remarked, conversationally. "What next?"

"You will seize hold of the energies your friends offer. You will bind them to yours and shape the whole into a dimensionless sphere of pure controlled, dirigible energy. And, as well as being the binding force, the cohesiveness, you must also be the captain and the pilot and the astrogator and the ultimately complex computer itself."

"But how can I.... Okay, damn it. I *will*!"

"Of course you will, sir. Remember also that once the joinings are made I can be of very little more assistance, for my peyondix is as nothing compared to that of your fusion of eight. Now, to assemble the energies and join them you will, all together, deny the existence of the sum total of reality as you know it. Distance does not exist—every point in the reachable universe coincides with every other point and that common point is the focus of your attention. You can be and actually are anywhere you please or everywhere at once. Time does not exist. Space does not exist. There is no such thing as opacity; everything is perfectly transparent, yet every molecule of substance is perceptible in its relationship to every other molecule in the cosmos. Senses do not exist. Sight, hearing, taste, touch, smell, sathura, endovix—all are parts of the one great sense of peyondix. I am guiding each of you seven—closer! Tighter! There! Seize it, sir—and when you work the Stretts you must fix it clearly that time does not exist. You must work in millionths of microseconds instead of in minutes, for they have minds of tremendous power. Reality does not exist! Compress it more, sir. Tighter!

Smaller! Rounder! There! Hold it! Reality does not exist—distance does not exist—all possible points are.... *Wonderful!*"

Tuly screamed the word and the thought: "Good-by! Good luck!"

END OF PART ONE



They were the Masters, and they had only to choose: eternal life, as inhuman monsters—or death!

PART TWO

MASTERS OF SPACE

**By EDWARD E. SMITH &
E. EVERETT EVANS**

Illustrated by BERRY

What has gone before: The crew of the starship Orion found themselves in the middle of a great space war between the creatures called Stretts and the lost android servants of their own human ancestors. Helped by the androids, the Earthmen formed themselves into the powerful telepathic linkage called "peyondix" to invade the Strett planet itself. As their minds joined they heard the android Tuly cry out, "Good...." And then their minds were out in interstellar space.

VIII

HILTON did not have to drive the peyondix-beam to the planet Strett; it was already there. And there was the monstrous First Lord Thinker Zoyar.

Into that mind his multi-mind flashed, its every member as responsive to his will as his own fingers—almost infinitely more so, in fact, because of the tremendous lengths of time required to send messages along nerves.

That horrid mind was scanned cell by cell. Then, after what seemed like a few hours, when a shield began sluggishly to form, Hilton transferred his probe to the mind of the Second Thinker, one Lord Ynos, and absorbed everything she knew. Then, the minds of all the other Thinkers being screened, he studied the whole Strett planet, foot by foot, and everything that was on it.

Then, mission accomplished, Hilton snapped his attention back to his office and the multi-mind fell apart. As he opened his eyes he heard Tuly scream: "... Luck!"

"Oh—you still here, Tuly? How long have we been gone?"

"Approximately one and one-tenth seconds, sir."

"WHAT!"

Beverly Bell, in the haven of Franklin Poynter's arms, fainted quietly. Sandra shrieked piercingly. The four men stared, goggle-eyed. Temple and Teddy, as though by common thought, burrowed their faces into brawny shoulders.

Hilton recovered first. "So *that's* what peyondix is."

"Yes, sir—I mean no, sir. No, I mean yes, but ..." Tuly paused, licking her lips in that peculiarly human-female gesture of uncertainty.

"Well, what *do* you mean? It either is or isn't. Or is that necessarily so?"

"Not exactly, sir. That is, it started as peyondix. But it became something else.

Not even the most powerful of the old Masters—nobody—ever did or ever could *possibly* generate such a force as that. Or handle it so fast."

"Well, with seven of the best minds of Terra and a ..."

"Chip-chop the chit-chat!" Karns said, harshly. "What I want to know is whether I was having a nightmare. Can there *possibly* be a race such as I thought I saw? So utterly savage—ruthless—merciless! So devoid of every human trace and so hell-bent determined on the extermination of every other race in the Galaxy? God damn it, it simply doesn't make sense!"

E YES went from eyes to eyes to eyes.

All had seen the same indescribably horrible, abysmally atrocious, things. Qualities and quantities and urges and drives that no words in any language could even begin to portray.

"It doesn't seem to, but there it is." Teddy Blake shook her head hopelessly.

Big Bill Karns, hands still shaking, lit a cigarette before he spoke again. "Well, I've never been a proponent of genocide. But it's my considered opinion that the Stretts are one race the galaxy can get along without."

"A hell of a lot better without," Poynter said, and all agreed.

"The point is, what can we do about it?" Kincaid asked. "The first thing, I would say, is to see whether we can do this—whatever it is—without Tuly's help. Shall we try it? Although I, for one, don't feel like doing it right away."

"Not I, either." Beverly Bell held up her right hand, which was shaking uncontrollably. "I feel as though I'd been bucking waves, wind and tide for forty-eight straight hours without food, water or touch. Maybe in about a week I'll be ready for another try at it. But today—not a chance!"

"Okay. Scat, all of you," Hilton ordered. "Take the rest of the day off and rest up. Put on your thought-screens and don't take them off for a second from now on. Those Stretts are tough hombres."

Sandra was the last to leave. "And you, boss?" she asked pointedly.

"I've got some thinking to do."

"I'll stay and help you think?"

"Not yet." He shook his head, frowned and then grinned. "You see, chick, I don't even know yet what it is I'm going to have to think about."

"A bit unclear, but I know what you mean—I think. Luck, chief."

IN their subterranean sanctum turn on distant Strett, two of the deepest thinkers of that horribly unhuman race were in coldly intent conference via thought.

"My mind has been plundered, Ynos," First Lord Thinker Zoyar radiated, harshly. "Despite the extremely high reactivity of my shield some information—I do not know how much—was taken. The operator was one of the humans of that ship."

"I, too, felt a plucking at my mind. But those humans could not peyondire, First Lord."

"Be logical, fool! At that contact, in the matter of which you erred in not following up continuously, they succeeded in concealing their real abilities from you."

"That could be the truth. Our ancestors erred, then, in recording that all those weak and timid humans had been slain. These offenders are probably their descendants, returning to reclaim their former world."

"The probability must be evaluated and considered. Was it or was it not through human aid that the Omans destroyed most of our task-force?"

"Highly probable, but impossible of evaluation with the data now available."

"Obtain more data at once. That point must be and shall be fully evaluated and fully considered. This entire situation is intolerable. It must be abated."

"True, First Lord. But every operator and operation is now tightly screened. Oh, if I could only go out there myself ..."

"Hold, fool! Your thought is completely disloyal and un-Strettly."

"True, oh First Lord Thinker Zoyar. I will forthwith remove my unworthy self from this plane of existence."

"You will not! I hereby abolish that custom. Our numbers are too few by far. Too many have failed to adapt. Also, as Second Thinker, your death at this time would be slightly detrimental to certain matters now in work. I will myself, however, slay the unfit. To that end repeat The Words under my peyondiring."

"I am a Strett. I will devote my every iota of mental and of physical strength to forwarding the Great Plan. I am, and will remain, a Strett."

"You do believe in The Words."

"O F course I believe in them! I *know* that in a few more hundreds of thousands of years we will be rid of material bodies and will become invincible and invulnerable. Then comes the Conquest of the Galaxy ... and then the Conquest of the Universe!"

"No more, then, on your life, of this weak and cowardly repining! Now, what of your constructive thinking?"

"Programming must be such as to obviate time-lag. We must evaluate the factors already mentioned and many others, such as the reactivation of the spacecraft which was thought to have been destroyed so long ago. After having considered all these evaluations, I will construct a Minor Plan to destroy these Omans, whom we have permitted to exist on sufferance, and with them that shipload of despicably interloping humans."

"That is well." Zoyar's mind seethed with a malevolent ferocity starkly impossible for any human mind to grasp. "And to that end?"

"To that end we must intensify still more our program of procuring data. We must revise our mechs in the light of our every technological advance during the many thousands of cycles since the last such revision was made. Our every instrument of power, of offense and of defense, must be brought up to the theoretical ultimate of capability."

"And as to the Great Brain?"

"I have been able to think of nothing, First Lord, to add to the undertakings you have already set forth."

"It was not expected that you would. Now: is it your final thought that these

interlopers are in fact the descendants of those despised humans of so long ago?"

"It is."

"It is also mine. I return, then, to my work upon the Brain. You will take whatever measures are necessary. Use every artifice of intellect and of ingenuity and our every resource. But abate this intolerable nuisance, and soon."

"It shall be done, First Lord."

THE Second Thinker issued orders. Frenzied, round-the-clock activity ensued. Hundreds of mechs operated upon the brains of hundreds of others, who in turn operated upon the operators.

Then, all those brains charged with the technological advances of many thousands of years, the combined hundreds went unrestingly to work. Thousands of work-mechs were built and put to work at the construction of larger and more powerful space-craft.

As has been implied, those battle-skeletons of the Stretts were controlled by their own built-in mechanical brains, which were programmed for only the simplest of battle maneuvers. Anything at all out of the ordinary had to be handled by remote control, by the specialist-mechs at their two-miles-long control board.

This was now to be changed. Programming was to be made so complete that almost any situation could be handled by the warship or the missile itself—instantly.

The Stretts *knew* that they were the most powerful, the most highly advanced race in the universe. Their science was the highest in the universe. Hence, with every operating unit brought up to the full possibilities of that science, that would be more than enough. Period.

This work, while it required much time, was very much simpler than the task which the First Thinker had laid out for himself on the giant computer-plus which the Stretts called "The Great Brain." In stating his project, First Lord Zoyar had said:

"Assignment: To construct a machine that will have the following abilities: One, to contain and retain all knowledge and information fed into it, however great

the amount. Two, to feed itself additional information by peyondiring all planets, wherever situate, bearing intelligent life. Three, to call up instantly any and all items of information pertaining to any problem we may give it. Four, to combine and recombine any number of items required to form new concepts. Five, to formulate theories, test them and draw conclusions helpful to us in any matter in work."

It will have been noticed that these specifications vary in one important respect from those of the Eniacs and Univacs of Earth. Since we of Earth can not peyondire, we do not expect that ability from our computers.

The Stretts could, and did.

WHEN Sandra came back into the office at five o'clock she found Hilton still sitting there, in almost exactly the same position.

"Come out of it, Jarve!" She snapped a finger. "That much of *that* is just simply too damned much."

"You're so right, child." He got up, stretched, and by main strength shrugged off his foul mood. "But we're up against something that is really a something, and I don't mean perchance."

"How well I know it." She put an arm around him, gave him a quick, hard hug. "But after all, you don't have to solve it this evening, you know."

"No, thank God."

"So why don't you and Temple have supper with me? Or better yet, why don't all eight of us have supper together in that bachelors' paradise of yours and Bill's?"

"That'd be fun."

And it was.

Nor did it take a week for Beverly Bell to recover from the Ordeal of Eight. On the following evening, she herself suggested that the team should take another shot at that utterly fantastic *terra incognita* of the multiple mind, jolting though it had been.

"But are you sure you can take it again so soon?" Hilton asked.

"Sure. I'm like that famous gangster's moll, you know, who bruised easy but healed quick. And I want to know about it as much as anyone else does."

They could do it this time without any help from Tuly. The linkage fairly snapped together and shrank instantaneously to a point. Hilton thought of Terra and there it was; full size, yet occupying only one infinitesimal section of a dimensionless point. The multi-mind visited relatives of all eight, but could not make intelligible contact. If asleep, it caused pleasant dreams; if awake, pleasant thoughts of the loved one so far away in space; but that was all. It visited mediums, in trance and otherwise—many of whom, not surprisingly now, were genuine—with whom it held lucid conversations. Even in linkage, however, the multi-mind knew that none of the mediums would be believed, even if they all told, simultaneously, exactly the same story. The multi-mind weakened suddenly and Hilton snapped it back to Ardry.

Beverly was almost in collapse. The other girls were white, shaken and trembling. Hilton himself, strong and rugged as he was, felt as though he had done two weeks of hard labor on a rock-pile. He glanced questioningly at Larry.

"Point six three eight seconds, sir," the Omans said, holding up a millisecond timer.

"How do you explain *that*?" Karns demanded.

"I'm afraid it means that without Oman backing we're out of luck."

HILTON had other ideas, but he did not voice any of them until the following day, when he was rested and had Larry alone.

"So carbon-based brains can't take it. One second of that stuff would have killed all eight of us. Why? The Masters had the same kind of brains we have."

"I don't know, sir. It's something completely new. No Master, or group of Masters, ever generated such a force as that. I can scarcely believe such power possible, even though I have felt it twice. It may be that over the generations your individual powers, never united or controlled, have developed so strength that no human can handle them in fusion."

"And none of us ever knew anything about any of them. I've been doing a lot of thinking. The Masters had qualities and abilities now unknown to any of us."

How come? You Omans—and the Stretts, too—think we're descendants of the Masters. Maybe we are. You think they came originally from Arth—Earth or Terra—to Ardu. That'd account for our legends of Mu, Atlantis and so on. Since Ardu was within peyondix range of Strett, the Stretts attacked it. They killed all the Masters, they thought, and made the planet uninhabitable for any kind of life, even their own. But one shipload of Masters escaped and came here to Ardry—far beyond peyondix range. They stayed here for a long time. Then, for some reason or other—which may be someplace in their records—they left here, fully intending to come back. Do any of you Omans know why they left? Or where they went?"

"No, sir. We can read only the simplest of the Masters' records. They arranged our brains that way, sir."

"I know. They're the type. However, I suspect now that your thinking is reversed. Let's turn it around. Say the Masters didn't come from Terra, but from some other planet. Say that they left here because they were dying out. They were, weren't they?"

"Yes, sir. Their numbers became fewer and fewer each century."

"I was sure of it. They were committing race suicide by letting you Omans do everything they themselves should have been doing. Finally they saw the truth. In a desperate effort to save their race they pulled out, leaving you here. Probably they intended to come back when they had bred enough guts back into themselves to set you Omans down where you belong...."

"But *they* were always the Masters, sir!"

"They were not! They were hopelessly enslaved. Think it over. Anyway, say they went *to* Terra from here. That still accounts for the legends and so on. However, they were too far gone to make a recovery, and yet they had enough fixity of purpose *not* to manufacture any of you Omans there. So their descendants went a long way down the scale before they began to work back up. Does that make sense to you?"

"**I**T explains many things, sir. It can very well be the truth."

"Okay. However it was, we're here, and facing a condition that isn't funny. While we were teamed up I learned a lot, but not nearly enough. Am I right in thinking

that I now don't need the other seven at all—that my cells are fully charged and I can go it alone?"

"Probably, sir, but ..."

"I'm coming to that. Every time I do it—up to maximum performance, of course—it comes easier and faster and hits harder. So next time, or maybe the fourth or fifth time, it'll kill me. And the other seven, too, if they're along."

"I'm not sure, sir, but I think so."

"Nice. Very, very nice." Hilton got up, shoved both hands into his pockets, and prowled about the room. "But can't the damned stuff be controlled? Choked—throttled down—damped—muzzled, some way or other?"

"We do not know of any way, sir. The Masters were always working toward more power, not less."

"That makes sense. The more power the better, as long as you can handle it. But I can't handle this. And neither can the team. So how about organizing another team, one that hasn't got quite so much whammo? Enough punch to do the job, but not enough to backfire that way?"

"It is highly improbable that such a team is possible, sir." If an Oman could be acutely embarrassed, Larry was. "That is, sir ... I should tell you, sir ..."

"You certainly should. You've been stalling all along, and now you're stalled. Spill it."

"Yes, sir. The Tuly begged me not to mention it, but I must. When it organized your team it had no idea of what it was really going to do...."

"Let's talk the same language, shall we? Say 'he' and 'she.' Not 'it.'"

"She thought she was setting up the peyondix, the same as all of us Omans have. But after she formed in your mind the peyondix matrix, your mind went on of itself to form a something else; a thing we can not understand. That was why she was so extremely ... I think 'frightened' might be your term."

"I knew something was biting her. Why?"

"Because it very nearly killed you. You perhaps have not considered the effect upon us all if any Oman, however unintentionally, should kill a Master?"

"No, I hadn't ... I see. So she won't play with fire any more, and none of the rest of you can?"

"Yes, sir. Nothing could force her to. If she could be so coerced we would destroy her brain before she could act. That brain, as you know, is imperfect, or she could not have done what she did. It should have been destroyed long since."

"Don't *ever* act on that assumption, Larry." Hilton thought for minutes. "Simple peyondix, such as yours, is not enough to read the Masters' records. If I'd had three brain cells working I'd've tried them then. I wonder if I *could* read them?"

"You have all the old Masters' powers and more. But you must not assemble them again, sir. It would mean death."

"But I've got to *know*.... I've *got* to know! Anyway, a thousandth of a second would be enough. I don't think that'd hurt me very much."

HE concentrated—read a few feet of top-secret braided wire—and came back to consciousness in the sickbay of the *Perseus*, with two doctors working on him; Hastings, the top Navy medico, and Flandres, the surgeon.

"What the hell happened to you?" Flandres demanded. "Were you trying to kill yourself?"

"And if so, how?" Hastings wanted to know.

"No, I was trying not to," Hilton said, weakly, "and I guess I didn't much more than succeed."

"That was just about the closest shave I ever saw a man come through. Whatever it was, don't do it again."

"I won't," he promised, feelingly.

When they let him out of the hospital, four days later, he called in Larry and Tuly.

"The next time would be the last time. So there won't be any," he told them. "But just how sure are you that some other of our boys or girls may not have just enough of whatever it takes to do the job? Enough oompa, but not too much?"

"Since we, too, are on strange ground the probability is vanishingly small. We

have been making inquiries, however, and scanning. You were selected from all the minds of Terra as the one having the widest vision, the greatest scope, the most comprehensive grasp. The ablest at synthesis and correlation and so on."

"That's printing it in big letters, but that was more or less what they were after."

"Hence the probability approaches unity that any more such ignorant meddling as this obnoxious Tuly did well result almost certainly in failure and death. Therefore we can not and will not meddle again."

"**Y**OU'VE got a point there.... So what I am is some kind of a freak. Maybe a kind of super-Master and maybe something altogether different. Maybe duplicable in a less lethal fashion, and maybe not. Veree helpful—I don't think. But I don't want to kill anybody, either ... especially if it wouldn't do any good. But we've got to do *something*!" Hilton scowled in thought for minutes. "But an Oman brain could take it. As you told us, Tuly, 'The brain of the Larry is very, very tough.'"

"In a way, sir. Except that the Masters were very careful to make it physically impossible for any Oman to go very far along that line. It was only their oversight of my one imperfect brain that enabled me, alone of us all, to do that wrong."

"Stop thinking it was wrong, Tuly. I'm mighty glad you did. But I wasn't thinking of any regular Oman brain...." Hilton's voice petered out.

"I see, sir. Yes, we can, by using your brain as Guide, reproduce it in an Oman body. You would then have the powers and most of the qualities of both ..."

"No, you don't see, because I've got my screen on. Which I will now take off—" he suited action to word—"since the whole planet's screened and I have nothing to hide from you. Teddy Blake and I both thought of that, but we'll consider it only as the ultimately last resort. We don't want to live a million years. And we want our race to keep on developing. But you folks can replace carbon-based molecules with silicon-based ones just as easily as, and a hell of a lot faster than, mineral water petrifies wood. What can you do along the line of rebuilding me that way? And if you can do any such conversion, what would happen? Would I live at all? And if so, how long? How would I live? What would I live on? All that kind of stuff."

"Shortly before they left, two of the Masters did some work on that very thing. Tuly and I converted them, sir."

"Fine—or is it? How did it work out?"

"Perfectly, sir ... except that they destroyed themselves. It was thought that they wearied of existence."

"I don't wonder. Well, if it comes to that, I can do the same. You *can* convert me, then."

"Yes, sir. But before we do it we must do enough preliminary work to be sure that you will not be harmed in any way. Also, there will be many more changes involved than simple substitution."

"Of course. I realize that. Just see what you can do, please, and let me know."

"We will, sir, and thank you very much."

IX

AS has been intimated, no Terran can know what researches Larry and Tuly and the other Oman specialists performed, or how they arrived at the conclusions they reached. However, in less than a week Larry reported to Hilton.

"It can be done, sir, with complete safety. And you will live even more comfortably than you do now."

"How long?"

"The mean will be about five thousand Oman years—you don't know that an Oman year is equal to one point two nine three plus Terran years?"

"I didn't, no. Thanks."

"The maximum, a little less than six thousand. The minimum, a little over four thousand. I'm very sorry we had no data upon which to base a closer estimate."

"Close enough." He stared at the Oman. "You could also convert my wife?"

"Of course, sir."

"Well, we might be able to stand it, after we got used to the idea. Minimum, over five thousand Terran years ... barring accidents, of course?"

"No, sir. No accidents. Nothing will be able to kill you, except by total destruction of the brain. And even then, sir, there will be the pattern."

"I'll ... be ... damned...." Hilton gulped twice. "Okay, go ahead."

"Your skins will be like ours, energy-absorbers. Your 'blood' will carry charges of energy instead of oxygen. Thus, you may breathe or not, as you please. Unless you wish otherwise, we will continue the breathing function. It would scarcely be worth while to alter the automatic mechanisms that now control it. And you will wish at times to speak. You will still enjoy eating and drinking, although everything ingested will be eliminated, as at present, as waste."

"We'd add uranexite to our food, I suppose. Or drink radioactives, or sleep under cobalt-60 lamps."

"Yes, sir. Your family life will be normal; your sexual urges and satisfactions the same. Fertilization and period of gestation unchanged. Your children will mature at the same ages as they do now."

"How do you—oh, I see. You wouldn't change any molecular linkages or configurations in the genes or chromosomes."

"We could not, sir, even if we wished. Such substitutions can be made only in exact one-for-one replacements. In the near future you will, of course, have to control births quite rigorously."

"We sure would. Let's see ... say we want a stationary population of a hundred million on our planet. Each couple to have two children, a boy and a girl. Born when the parents are about fifty ... um-m-m. The gals can have all the children they want, then, until our population is about a million; then slap on the limit of two kids per couple. Right?"

"Approximately so, sir. And after conversion you alone will be able to operate with the full power of your eight, without tiring. You will also, of course, be able to absorb almost instantaneously all the knowledges and abilities of the old Masters."

Hilton gulped twice before he could speak. "You wouldn't be holding anything else back, would you?"

"Nothing important, sir. Everything else is minor, and probably known to you."

"I doubt it. How long will the job take, and how much notice will you need?"

"Two days, sir. No notice. Everything is ready."

Hilton, face somber, thought for minutes. "The more I think of it the less I like it. But it seems to be a forced put ... and Temple will blow sky high ... and *have* I got the guts to go it alone, even if she'd let me...." He shrugged himself out of the black mood. "I'll look her up and let you know, Larry."

HE looked her up and told her everything. Told her bluntly; starkly; drawing the full picture in jet black, with very little white.

"There it is, sweetheart. The works," he concluded. "We are not going to have ten years; we may not have ten months. So—if such a brain as that can be had, do we or do we not have to have it? I'm putting it squarely up to you."

Temple's face, which had been getting paler and paler, was now as nearly colorless as it could become; the sickly yellow of her skin's light tan unbacked by any flush of red blood.

Her whole body was tense and strained.

"There's a horrible snapper on that question.... Can't *I* do it? Or *anybody* else except you?"

"No. Anyway, whose job is it, sweetheart?"

"I know, but ... but I know just how close Tuly came to killing you. And that wasn't *anything* compared to such a radical transformation as this. I'm afraid it'll kill you, darling. And I just simply couldn't *stand* it!"

She threw herself into his arms, and he comforted her in the ages-old fashion of man with maid.

"Steady, hon," he said, as soon as he could lift her tear-streaked face from his shoulder. "I'll live through it. I thought you were getting the howling howpers about having to live for six thousand years and never getting back to Terra except for a Q strictly T visit now and then."

She pulled away from him, flung back her wheaten mop and glared. "So *that's* what you thought! What do I care how long I live, or how, or where, as long as it's with you? But what makes you think we can possibly live through such a horrible conversion as that?"

"Larry wouldn't do it if there was any question whatever. He didn't say it would be painless. But he did say I'd live."

"Well, he knows, I guess ... I hope." Temple's natural fine color began to come back. "But it's understood that just the second you come out of the vat, I go right in."

"I hadn't ought to let you, of course. But I don't think I could take it alone."

That statement required a special type of conference, which consumed some little time. Eventually, however, Temple answered it in words.

"Of course you couldn't, sweetheart, and I wouldn't let you, even if you could."

There were a few things that had to be done before those two secret conversions could be made. There was the matter of the wedding, which was now to be in quadruplicate. Arrangements had to be made so that eight Big Wheels of the Project could all be away on honeymoon at once.

All these things were done.

OF the conversion operations themselves, nothing more need be said. The honeymooners, having left ship and town on a Friday afternoon, came back one week from the following Monday^[1] morning. The eight met joyously in Bachelors' Hall; the girls kissing each other and the men indiscriminately and enthusiastically; the men cooperating zestfully.

[1] While it took some time to recompute the exact Ardrian calendar, Terran day names and Terran weeks were used from the first. The Omans manufactured watches, clocks, and chronometers which divided the Ardrian day into twenty-four Ardrian hours, with minutes and seconds as usual.

Temple scarcely blushed at all, she was so engrossed in trying to find out whether or not anyone was noticing any change. No one seemed to notice anything out of the ordinary. So, finally, she asked.

"Don't *any* of you, really, see anything different?"

The six others all howled at that, and Sandra, between giggles and snorts, said: "No, precious, it doesn't show a bit. Did you really think it would?"

Temple blushed furiously and Hilton came instantly to his bride's rescue. "Chip-chop the comedy, gang. She and I aren't human any more. We're a good jump toward being Omans. I couldn't make her believe it doesn't show."

That stopped the levity, cold, but none of the six could really believe it. However, after Hilton had coiled a twenty-penny spike into a perfect helix between his fingers, and especially after he and Temple had each chewed up and swallowed a piece of uranexite, there were no grounds left for doubt.

"That settles it ... it *tears* it," Karns said then. "Start all over again, Jarve. We'll listen, this time."

Hilton told the long story again, and added: "I had to re-work a couple of cells of

Temple's brain, but now she can read and understand the records as well as I can. So I thought I'd take her place on Team One and let her boss the job on all the other teams. Okay?"

"So you don't want to let the rest of us in on it." Karns's level stare was a far cry from the way he had looked at his chief a moment before. "If there's any one thing in the universe I never had *you* figured for, it's a dog in the manger."

"Huh? You mean you actually *want* to be a ... a ... hell, we don't even know *what* we are!"

"I do want it, Jarvis. We all do." This was, of all people, Teddy! "No one in all history has had more than about fifty years of really productive thinking. And just the idea of having enough time ..."

"Hold it, Teddy. Use your brain. The Masters couldn't take it—they committed suicide. How do you figure we can do any better?"

"Because we'll *use* our brains!" she snapped. "They didn't. The Omans will serve us; and that's *all* they'll do."

"And do you think you'll be able to raise your children and grandchildren and so on to do the same? To have guts enough to resist the pull of such an ungodly habit-forming drug as this Oman service is?"

"**I** M sure of it." She nodded positively. "And we'll run all applicants through a fine enough screen to—that is, if we ever consider anybody except our own BuSci people. And there's another reason." She grinned, got up, wriggled out of her coverall, and posed in bra and panties. "Look. I can keep most of this for five years. Quite a lot of it for ten. Then comes the struggle. What do *you* think I'd do for the ability, whenever it begins to get wrinkly or flabby, to peel the whole thing off and put on a brand-spanking-new smooth one? You name it, I'll do it! Besides, Bill and I will *both* just simply and cold-bloodedly murder you if you try to keep us out."

"Okay." Hilton looked at Temple; she looked at him; both looked at all the others. There was no revulsion at all. Nothing but eagerness.

Temple took over.

"I'm surprised. We're both surprised. You see, Jarve didn't want to do it at all, but he had to. I not only didn't want to, I was scared green and yellow at just the idea of it. But I had to, too, of course. We didn't think anybody would really want to. We thought we'd be left here alone. We still will be, I think, when you've thought it clear through, Teddy. You just haven't realized yet that we aren't even human any more. We're simply nothing but *monsters*!" Temple's voice became a wail.

"I've said my piece," Teddy said. "You tell 'em, Bill."

"Let me say something first," Kincaid said. "Temple, I'm ashamed of you. This line isn't at all your usual straight thinking. What you actually are is *homo superior*. Bill?"

"I can add one bit to that. I don't wonder that you were scared silly, Temple. Utterly new concept and you went into it stone cold. But now we see the finished product and we like it. In fact, we drool."

"I'll say we're drooling," Sandra said. "I could do handstands and pinwheels with joy."

"Let's see you," Hilton said. "That we'd all get a kick out of."

"Not now—don't want to hold this up—but sometime I just will. Bev?"

"I'm for it—and *how*! And won't Bernadine be amazed," Beverly laughed gleefully, "at her wise-crack about the 'race to end all human races' coming true?"

"I'm in favor of it, too, one hundred per cent," Poynter said. "Has it occurred to you, Jarve, that this opens up intergalactic exploration? No supplies to carry and plenty of time and fuel?"

"No, it hadn't. You've got a point there, Frank. That might take a little of the curse off of it, at that."

"When some of our kids get to be twenty years old or so and get married, I'm going to take a crew of them to Andromeda. We'll arrange, then, to extend our honeymoons another week," Hilton said. "What will our policy be? Keep it dark for a while with just us eight, or spread it to the rest?"

"Spread it, I'd say," Kincaid said.

"We can't keep it secret, anyway," Teddy argued. "Since Larry and Tuly were in

on the whole deal, every Oman on the planet knows all about it. Somebody is going to ask questions, and Omans always answer questions and always tell the truth."

"**Q**UESTIONS have already been asked and answered," Larry said, going to the door and opening it.

Stella rushed in. "We've been hearing the *damnedest* things!" She kissed everybody, ending with Hilton, whom she seized by both shoulders. "Is it actually true, boss, that you can fix me up so I'll live practically forever and can eat more than eleven calories a day without getting fat as a pig? Candy, ice cream, cake, pie, eclairs, cream puffs, French pastries, sugar and gobs of thick cream in my coffee...?"

Half a dozen others, including the van der Moen twins, came in. Beverly emitted a shriek of joy. "Bernadine! The mother of the race to end all human races!"

"You whistled it, birdie!" Bernadine caroled. "I'm going to have ten or twelve, each one weirder than all the others. I told you I was a prophet—I'm going to hang out my shingle. Wholesale and retail prophecy; special rates for large parties." Her voice was drowned out in a general clamor.

"Hold it, everybody!" Hilton yelled. "Chip-chop it! *Quit* it!" Then, as the noise subsided, "If you think I'm going to tell this tall tale over and over again for the next two weeks you're all crazy. So shut down the plant and get everybody out here."

"Not *everybody*, Jarve!" Temple snapped. "We don't want scum, and there's some of that, even in BuSci."

"You're so right. Who, then?"

"The rest of the heads and assistants, of course ... and all the lab girls and their husbands and boy-friends. I know they are all okay. That will be enough for now, don't you think?"

"I do think;" and the indicated others were sent for; and in a few minutes arrived.

The Omans brought chairs and Hilton stood on a table. He spoke for ten minutes. Then: "Before you decide whether you want to or not, think it over very

carefully, because it's a one-way street. Fluorine can not be displaced. Once in, you're stuck for life. *There is no way back.* I've told you all the drawbacks and disadvantages I know of, but there may be a lot more that I haven't thought of yet. So think it over for a few days and when each of you has definitely made up his or her mind, let me know." He jumped down off the table.

HIS listeners, however, did not need days, or even seconds, to decide. Before Hilton's feet hit the floor there was a yell of unanimous approval.

He looked at his wife. "Do you suppose *we're* nuts?"

"Uh-uh. Not a bit. Alex was right. I'm going to just *love* it!" She hugged his elbow ecstatically. "So are you, darling, as soon as you stop looking at only the black side."

"You know ... you could be right?" For the first time since the "ghastly" transformation Hilton saw that there really was a bright side and began to study it. "With most of BuSci—and part of the Navy, and selectees from Terra—it *will* be slightly terrific, at that!"

"And that 'habit-forming-drug' objection isn't insuperable, darling," Temple said. "If the younger generations start weakening we'll fix the Omans. I wouldn't want to wipe them out entirely, but ..."

"But how do we settle priority, Doctor Hilton?" a girl called out; a tall, striking, brunette laboratory technician whose name Hilton needed a second to recall. "By pulling straws or hair? Or by shooting dice or each other or what?"

"Thanks, Betty, you've got a point. Sandy Cummings and department heads first, then assistants. Then you girls, in alphabetical order, each with her own husband or fiance."

"And my name is Ames. Oh, goody!"

"Larry, please tell them to ..."

"I already have, sir. We are set up to handle four at once."

"Good boy. So scat, all of you, and get back to work—except Sandy, Bill, Alex, and Teddy. You four go with Larry."

Since the new sense was not peyondix, Hilton had started calling it "perception" and the others adopted the term as a matter of course. Hilton could use that sense for what seemed like years—and actually was whole minutes—at a time without fatigue or strain. He could not, however, nor could the Omans, give his tremendous power to anyone else.

As he had said, he could do a certain amount of reworking; but the amount of improvement possible to make depended entirely upon what there was to work on. Thus, Temple could cover about six hundred light-years. It developed later that the others of the Big Eight could cover from one hundred up to four hundred or so. The other department heads and assistants turned out to be still weaker, and not one of the rank and file ever became able to cover more than a single planet.

This sense was not exactly telepathy; at least not what Hilton had always thought telepathy would be. If anything, however, it was more. It was a lumping together of all five known human senses—and half a dozen unknown ones called, collectively, "intuition"—into one super-sense that was all-inclusive and all-informative. If he ever could learn exactly what it was and exactly what it did and how it did it ... but he'd better chip-chop the wool-gathering and get back onto the job.

THE Stretts had licked the old Masters very easily, and intended to wipe out the Omans and the humans. They had no doubt at all as to their ability to do it. Maybe they could. If the Masters hadn't made some progress that the Omans didn't know about, they probably could. That was the first thing to find out. As soon as they'd been converted he'd call in all the experts and they'd go through the Masters' records like a dose of salts through a hillbilly schoolma'am.

At that point in Hilton's cogitations Sawtelle came in.

He had come down in his gig, to confer with Hilton as to the newly beefed-up fleet. Instead of being glum and pessimistic and foreboding, he was chipper and enthusiastic. They had rebuilt a thousand Oman ships. By combining Oman and Terran science, and adding everything the First Team had been able to reduce to practise, they had hyped up the power by a good fifteen per cent. Seven hundred of those ships, and all his men, were now arrayed in defense around Ardry. Three hundred, manned by Omans, were around Fuel Bin.

"Why?" Hilton asked. "It's Fuel Bin they've been attacking."

"Uh-uh. Minor objective," the captain demurred, positively. "The real attack will be here at you; the headquarters and the brains. Then Fuel Bin will be duck soup. But the thing that pleased me most is the control. Man, you never imagined such control! No admiral in history ever had such control of ten ships as I have of seven hundred. Those Omans spread orders so fast that I don't even finish thinking one and it's being executed. And no misunderstandings, no slips. For instance, this last batch—fifteen skeletons. Far out; they're getting cagy. I just thought 'Box 'em in and slug 'em' and—In! Across! Out! Socko! Pffft! Just like that and just that fast. None of 'em had time to light a beam. Nobody before ever even *dreamed* of such control!"

"That's great, and I like it ... and you're only a captain. How many ships can Five-Jet Admiral Gordon put into space?"

"That depends on what you call ships. Superdreadnoughts, *Perseus* class, six. First-line battleships, twenty-nine. Second-line, smaller and some pretty old, seventy-three. Counting everything armed that will hold air, something over two hundred."

"I thought it was something like that. How would you like to be Five-Jet Admiral Sawtelle of the Ardrian Navy?"

"I wouldn't. I'm Terran Navy. But you knew that and you know me. So—what's on your mind?"

HILTON told him. *I ought to put this on a tape, he thought to himself, and broadcast it every hour on the hour.*

"They took the old Masters like dynamiting fish in a barrel," he concluded, "and I'm damned afraid they're going to lick us unless we take a lot of big, fast steps. But the hell of it is that I can't tell you anything—not one single thing—about any part of it. There's simply no way at all of getting through to you without making you over into the same kind of a thing I am."

"Is that bad?" Sawtelle was used to making important decisions fast. "Let's get at it."

"Huh? Skipper, do you realize just what that means? If you think they'll let you

resign, forget it. They'll crucify you—brand you as a traitor and God only knows what else."

"Right. How about you and your people?"

"Well, as civilians, it won't be as bad...."

"The hell it won't. Every man and woman that stays here will be posted forever as the blackest traitors old Terra ever disgraced herself by spawning."

"You've got a point there, at that. We'll all have to bring our relatives—the ones we think much of, at least—out here with us."

"Definitely. Now see what you can do about getting me run through your mill."

By exerting his authority, Hilton got Sawtelle put through the "Preservatory" in the second batch processed. Then, linking minds with the captain, he flashed their joint attention to the Hall of Records. Into the right room; into the right chest; along miles and miles of braided wire carrying some of the profoundest military secrets of the ancient Masters.

Then:

"Now you know a little of it," Hilton said. "Maybe a thousandth of what we'll have to have before we can take the Stretts as they will have to be taken."

For seconds Sawtelle could not speak. Then: "My ... God. I see what you mean. You're right. No Omans can ever go to Terra; and no Terrans can ever come here except to stay forever."

The two then went out into space, to the flagship—which had been christened the *Orion*—and called in the six commanders.

"What is all this senseless idiocy we've been getting, Jarve?" Elliott demanded.

Hilton eyed all six with pretended disfavor. "You six guys are the hardest-headed bunch of skeptics that ever went unhung," he remarked, dispassionately. "So it wouldn't do any good to tell you anything—yet. The skipper and I will show you a thing first. Take her away, Skip."

The *Orion* shot away under interplanetary drive and for several hours Hilton and Sawtelle worked at re-wiring and practically rebuilding two devices that no one, Oman or human, had touched since the *Perseus* had landed on Ardry.

"What are you ... I don't understand what you are doing, sir," Larry said. For the first time since Hilton had known him, the Oman's mind was confused and unsure.

"I know you don't. This is a bit of top-secret Masters' stuff. Maybe, some day, we'll be able to re-work your brain to take it. But it won't be for some time."

X

THE *Orion* hung in space, a couple of thousands of miles away from an asteroid which was perhaps a mile in average diameter. Hilton straightened up.

"Put Triple X Black filters on your plates and watch that asteroid." The commanders did so. "Ready?" he asked.

"Ready, sir."

Hilton didn't move a muscle. Nothing actually moved. Nevertheless there was a motionlessly writhing and crawling distortion of the ship and everything in it, accompanied by a sensation that simply can not be described.

It was not like going into or emerging from the sub-ether. It was not even remotely like space-sickness or sea-sickness or free fall or anything else that any Terran had ever before experienced.

And the asteroid vanished.

It disappeared into an outrageously incandescent, furiously pyrotechnic, raveningly expanding atomic fireball that in seconds seemed to fill half of space.

After ages-long minutes of the most horrifyingly devastating fury any man there had ever seen, the frightful thing expired and Hilton said: "*That* was just a kind of a firecracker. Just a feeble imitation of the first-stage detonator for what we'll have to have to crack the Stretts' ground-based screens. If the skipper and I had taken time to take the ship down to the shops and really work it over we could have put on a show. Was this enough so you iron-heads are ready to listen with your ears open and your mouths shut?"

They were. So much so that not even Elliott opened his mouth to say yes. They merely nodded. Then again—for the last time, he hoped!—Hilton spoke his piece. The response was prompt and vigorous. Only Sam Bryant, one of Hilton's staunchest allies, showed any uncertainty at all.

"I've been married only a year and a half, and the baby was due about a month

ago. How sure are you that you can make old Gordon sit still for us skimming the cream off of Terra to bring out here?"

"Doris Bryant, the cream of Terra!" Elliott gibed. "*How* modest our Samuel has become!"

"Well, damn it, she is!" Bryant insisted.

"Okay, she is," Hilton agreed. "But either we get our people or Terra doesn't get its uranexite. That'll work. In the remote contingency that it doesn't, there are still tighter screws we can put on. But you missed the main snapper, Sam. Suppose Doris doesn't want to live for five thousand years and is allergic to becoming a monster?"

"Huh; you don't need to worry about that." Sam brushed that argument aside with a wave of his hand. "Show me a girl who doesn't want to stay young and beautiful forever and I'll square you the circle. Come on. What's holding us up?"

THE *Orion* hurtled through space back toward Ardry and Hilton, struck by a sudden thought, turned to the captain.

"Skipper, why wouldn't it be a smart idea to clamp a blockade onto Fuel Bin? Cut the Stretts' fuel supply?"

"I thought better of you than that, son." Sawtelle shook his head sadly. "That was the first thing I did."

"Ouch. Maybe you're 'way ahead of me too, then, on the one that we should move to Fuel Bin, lock, stock and barrel?"

"Never thought of it, no. Maybe you're worth saving, after all. After conversion, of course.... Yes, there'd be three big advantages."

"Four."

Sawtelle raised his eyebrows.

"One, only one planet to defend. Two, it's self-defending against sneak landings. Nothing remotely human can land on it except in heavy lead armor, and even in that can stay healthy for only a few minutes."

"Except in the city. Omlu. That's the weak point and would be the point of

attack."

"Uh-uh. Cut off the decontaminators and in five hours it'll be as hot as the rest of the planet. Three, there'd be no interstellar supply line for the Stretts to cut. Four, the environment matches our new physiques a lot better than any normal planet could."

"That's the one I didn't think about."

"I think I'll take a quick peek at the Stretts—oh-oh; they've screened their whole planet. Well, we can do that, too, of course."

"How are you going to select and reject personnel? It looks as though everybody wants to stay. Even the men whose main object in life is to go aground and get drunk. The Omans do altogether too good a job on them and there's no such thing as a hangover. I'm glad I'm not in your boots."

"You may be in it up to the eyeballs, Skipper, so don't chortle too soon."

Hilton had already devoted much time to the problems of selection; and he thought of little else all the way back to Ardry. And for several days afterward he held conferences with small groups and conducted certain investigations.

BUD Carroll of Sociology and his assistant Sylvia Banister had been married for weeks. Hilton called them, together with Sawtelle and Bryant of Navy, into conference with the Big Eight.

"The more I study this thing the less I like it," Hilton said. "With a civilization having no government, no police, no laws, no medium of exchange ..."

"No *money*?" Bryant exclaimed. "How's old Gordon going to pay for his uranexite, then?"

"He gets it free," Hilton replied, flatly. "When anyone can have anything he wants, merely by wanting it, what good is money? Now, remembering how long we're going to have to live, what we'll be up against, that the Masters failed, and so on, it is clear that the prime basic we have to select for is stability. We twelve have, by psychodynamic measurement, the highest stability ratings available."

"Are you sure *I* belong here?" Bryant asked.

"Yes. Here are three lists." Hilton passed papers around. "The list labeled 'OK' names those I'm sure of—the ones we're converting now and their wives and whatever on Terra. List 'NG' names the ones I know we don't want. List 'X'—over thirty percent—are in-betweeners. We have to make a decision on the 'X' list. So—what I want to know is, who's going to play God. I'm not. Sandy, are you?"

"Good Heavens, no!" Sandra shuddered. "But I'm afraid I know who will have to. I'm sorry, Alex, but it'll have to be you four—Psychology and Sociology."

Six heads nodded and there was a flashing interchange of thought among the four. Temple licked her lips and nodded, and Kincaid spoke.

"Yes, I'm afraid it's our baby. By leaning very heavily on Temple, we can do it. Remember, Jarve, what you said about the irresistible force? We'll need it."

"As I said once before, Mrs. Hilton, I'm very glad you're along," Hilton said. "But just how sure are you that even you can stand up under the load?"

"Alone, I couldn't. But don't underestimate Mrs. Carroll and the Messrs. Together, and with such a goal, I'm sure we can."

THUS, after four-fifths of his own group and forty-one Navy men had been converted, Hilton called an evening meeting of all the converts. Larry, Tuly and Javvy were the only Omans present.

"You all knew, of course, that we were going to move to Fuel Bin sometime," Hilton began. "I can tell you now that we who are here are all there are going to be of us. We are all leaving for Fuel Bin immediately after this meeting. Everything of any importance, including all of your personal effects, has already been moved. All Omans except these three, and all Oman ships except the *Orion*, have already gone."

He paused to let the news sink in.

Thoughts flew everywhere. The irrepressible Stella Wing—now Mrs. Osbert F. Harkins—was the first to give tongue. "What a *wonderful* job! Why, everybody's here that I really like at all!"

That sentiment was, of course, unanimous. It could not have been otherwise.

Betty, the ex-Ames, called out:

"How did you get their female Omans away from Cecil Calthorpe and the rest of that chasing, booze-fighting bunch without them blowing the whole show?"

"Some suasion was necessary," Hilton admitted, with a grin. "Everyone who isn't here is time-locked into the *Perseus*. Release time eight hours tomorrow."

"And they'll wake up tomorrow morning with no Omans?" Bernadine tossed back her silvery mane and laughed. "Nor anything else except the *Perseus*? In a way, I'm sorry, but ... maybe I've got too much stinker blood in me, but I'm very glad none of them are here. But I'd like to ask, Jarvis—or rather, I suppose you have already set up a new Advisory Board?"

"We have, yes." Hilton read off twelve names.

"Oh, nice. I don't know of any people I'd rather have on it. But what I want to gripe about is calling our new home world such a horrible name as 'Fuel Bin,' as though it were a wood-box or a coal-scuttle or something. And just think of the complexes it would set up in those super-children we're going to have so many of."

"What would you suggest?" Hilton asked.

"'Ardvor', of course," Hermione said, before her sister could answer. "We've had 'Arth' and 'Ardu' and 'Ardry' and you—or somebody—started calling us 'Ardans' to distinguish us converts from the Terrans. So let's keep up the same line."

There was general laughter at that, but the name was approved.

ABOUT midnight the meeting ended and the *Orion* set out for Ardvor. It reached it and slanted sharply downward. The whole BuSci staff was in the lounge, watching the big tri-di.

"Hey! That isn't Omlu!" Stella exclaimed. "It isn't a city at all and it isn't even in the same place!"

"No, ma'am," Larry said. "Most of you wanted the ocean, but many wanted a river or the mountains. Therefore we razed Omlu and built your new city, Ardane, at a place where the ocean, two rivers, and a range of mountains meet. Strictly speaking, it is not a city, but a place of pleasant and rewardful living."

The space-ship was coming in, low and fast, from the south. To the left, the west, there stretched the limitless expanse of ocean. To the right, mile after mile, were rough, rugged, jagged, partially-timbered mountains, mass piled upon mass. Immediately below the speeding vessel was a wide, white-sand beach all of ten miles long.

Slowing rapidly now, the *Orion* flew along due north.

"Look! Look! A natatorium!" Beverly shrieked. "I know I wanted a nice big place to swim in, besides my backyard pool and the ocean, but I didn't tell anybody to build *that*—I swear I didn't!"

"You didn't have to, pet." Poynter put his arm around her curvaceous waist and squeezed. "They knew. And I did a little thinking along that line myself. There's our house, on top of the cliff over the natatorium—you can almost dive into it off the patio."

"Oh, wonderful!"

Immediately north of the natatorium a tremendous river—named at first sight the "Whitewater"—rushed through its gorge into the ocean; a river and gorge strangely reminiscent of the Colorado and its Grand Canyon. On the south bank of that river, at its very mouth—looking straight up that tremendous canyon; on a rocky promontory commanding ocean and beach and mountains—there was a house. At the sight of it Temple hugged Hilton's arm in ecstasy.

"Yes, that's ours," he assured her. "Just about everything either of us has ever wanted." The clamor was now so great—everyone was recognizing his-and-her house and was exclaiming about it—that both Temple and Hilton fell silent and simply watched the scenery unroll.

Across the turbulent Whitewater and a mile farther north, the mountains ended as abruptly as though they had been cut off with a cleaver and an apparently limitless expanse of treeless, grassy prairie began. And through that prairie, meandering sluggishly to the ocean from the northeast, came the wide, deep River Placid.

The *Orion* halted. It began to descend vertically, and only then did Hilton see the spaceport. It was so vast, and there were so many spaceships on it, that from any great distance it was actually invisible! Each six-acre bit of the whole immense expanse of level prairie between the Placid and the mountains held an Oman superdreadnought!

THE staff paired off and headed for the airlocks. Hilton said: "Temple, have you any reservations at all, however slight, as to having Dark Lady as a permanent fixture in your home?"

"Why, of course not—I like her as much as you do. And besides—" she giggled like a schoolgirl—"even if she is a lot more beautiful than I am—I've got a few things she never will have ... but there's something else. I got just a flash of it before you blocked. Spill it, please."

"You'll see in a minute." And she did.

Larry, Dark Lady and Temple's Oman maid Moty were standing beside the Hilton's car—and so was another Oman, like none ever before seen. Six feet four; shoulders that would just barely go through a door; muscled like Atlas and Hercules combined; skin a gleaming, satiny bronze; hair a rippling mass of lambent flame. Temple came to a full stop and caught her breath.

"The Prince," she breathed, in awe. "Da Lormi's Prince of Thebes. The ultimate bronze of all the ages. *You* did this, Jarve. How did you ever dig him up out of my schoolgirl crushes?"

All six got into the car, which was equally at home on land or water or in the air. In less than a minute they were at Hilton House.

The house itself was circular. Its living-room was an immense annulus of glass from which, by merely moving along its circular length, any desired view could be had. The pair walked around it once. Then she took him by the arm and steered him firmly toward one of the bedrooms in the center.

"This house is just too much to take in all at once," she declared. "Besides, let's put on our swimsuits and get over to the Nat."

In the room, she closed the door firmly in the faces of the Omans and grinned. "Maybe, sometime, I'll get used to having somebody besides you in my bedroom, but I haven't, yet.... Oh, do you itch, too?"

Hilton had peeled to the waist and was scratching vigorously all around his waistline, under his belt. "Like the very devil," he admitted, and stared at her. For she, three-quarters stripped, was scratching, too!

"It started the minute we left the *Orion*," he said, thoughtfully. "I see. These new skins of ours like hard radiation, but don't like to be smothered while they're enjoying it. By about tomorrow, we'll be a nudist colony, I think."

"I could stand it, I suppose. What makes you think so?"

"Just what I know about radiation. Frank would be the one to ask. My hunch is, though, that we're going to be nudists whether we want to or not. Let's go."

THEY went in a two-seater, leaving the Omans at home. Three-quarters of the staff were lolling on the sand or were seated on benches beside the immense pool. As they watched, Beverly ran out along the line of springboards; testing each one and selecting the stiffest. She then climbed up to the top platform—a good twelve feet above the board—and plummeted down upon the board's heavily padded take-off. Legs and back bending stubbornly to take the strain, she and the board reached low-point together, and, still in sync with it, she put every muscle she had into the effort to hurl herself upward.

She had intended to go up thirty feet. But she had no idea whatever as to her present strength, or of what that Oman board, in perfect synchronization with that tremendous strength, would do. Thus, instead of thirty feet, she went up very nearly two hundred; which of course spoiled completely her proposed graceful two-and-a-half.

In midair she struggled madly to get into some acceptable position. Failing, she curled up into a tight ball just before she struck water.

What a splash!

"It won't hurt her—you couldn't hurt her with a club!" Hilton snapped. He seized Temple's hand as everyone else rushed to the pool's edge. "Look—Bernadine—that's what I was thinking about."

Temple stopped and looked. The platinum-haired twins had been basking on the sand, and wherever sand had touched fabric, fabric had disappeared.

Their suits had of course approached the minimum to start with. Now Bernadine wore only a wisp of nylon perched precariously on one breast and part of a ribbon that had once been a belt. Discovering the catastrophe, she shrieked once and leaped into the pool any-which-way, covering her breasts with her hands and hiding in water up to her neck.

Meanwhile, the involuntarily high diver had come to the surface, laughing apologetically. Surprised by the hair dangling down over her eyes, she felt for her cap. It was gone. So was her suit. Naked as a fish. She swam a couple of easy strokes, then stopped.

"Frank! Oh, Frank!" she called.

"Over here, Bev." Her husband did not quite know whether to laugh or not.

"Is it the radiation or the water? Or both?"

"Radiation, I think. These new skins of ours don't want to be covered up. But it probably makes the water a pretty good imitation of a universal solvent."

"Good-by, clothes!" Beverly rolled over onto her back, fanned water carefully with her hands, and gazed approvingly at herself. "I don't itch any more, anyway, so I'm very much in favor of it."

THUS the Ardans came to their new home world and to a life that was to be more comfortable by far and happier by far than any of them had known on Earth. There were many other surprises that day, of course; of which only two will be mentioned here. When they finally left the pool, at about seventeen hours G.M.T.^[2], everybody was ravenously hungry.

^[2] Greenwich Mean Time. Ardvor was, always and everywhere, full daylight. Terran time and calendar were adapted as a matter of course.

"But why *should* we be?" Stella demanded. "I've been eating everything in sight, just for fun. But now I'm actually hungry enough to eat a horse and wagon and chase the driver!"

"Swimming makes everybody hungry," Beverly said, "and I'm awfully glad *that* hasn't changed. Why, I wouldn't feel *human* if I didn't!"

Hilton and Temple went home, and had a long-drawn-out and very wonderful supper. Prince waited on Temple, Dark Lady on Hilton; Larry and Moty ran the synthesizers in the kitchen. All four Omans radiated happiness.

Another surprise came when they went to bed. For the bed was a raised platform of something that looked like concrete and, except for an uncanny property of molding itself somewhat to the contours of their bodies, was almost as hard as rock. Nevertheless, it was the most comfortable bed either of them had ever had. When they were ready to go to sleep, Temple said:

"Drat it, those Omans *still* want to come in and sleep with us. In the room, I mean. And they suffer so. They're simply *radiating* silent suffering and oh-so-

submissive reproach. Shall we let 'em come in?"

"That's strictly up to you, sweetheart. It always has been."

"I know. I thought they'd quit it sometime, but I guess they never will. I *still* want an illusion of privacy at times, even though they know all about everything that goes on. But we might let 'em in now, just while we sleep, and throw 'em out again as soon as we wake up in the morning?"

"You're the boss." Without additional invitation the four Omans came in and arranged themselves neatly on the floor, on all four sides of the bed. Temple had barely time to cuddle up against Hilton, and he to put his arm closely around her, before they both dropped into profound and dreamless sleep.

AT eight hours next morning all the specialists met at the new Hall of Records.

This building, an exact duplicate of the old one, was located on a mesa in the foothills southwest of the natatorium, in a luxuriant grove at sight of which Karns stopped and began to laugh.

"I thought I'd seen everything," he remarked. "But yellow pine, spruce, tamarack, apples, oaks, palms, oranges, cedars, joshua trees and *cactus*—just to name a few—all growing on the same quarter-section of land?"

"Just everything anybody wants, is all," Hilton said. "But are they really growing? Or just straight synthetics? Lane—Kathy—this is your dish."

"Not so fast, Jarve; give us a chance, *please!*" Kathryn, now Mrs. Lane Saunders, pleaded. She shook her spectacular head. "We don't see how any stable indigenous life can have developed at all, unless ..."

"Unless what? Natural shielding?" Hilton asked, and Kathy eyed her husband.

"Right," Saunders said. "The earliest life-forms must have developed a shield before they could evolve and stabilize. Hence, whatever it is that is in our skins was not a triumph of Masters' science. They took it from Nature."

"Oh? Oh!" These were two of Sandra's most expressive monosyllables, followed by a third. "Oh. Could be, at that. But how *could* ... no, cancel that."

"You'd better cancel it, Sandy. Give us a couple of months, and *maybe* we can answer a few elementary questions."

Now inside the Hall, all the teams, from Astronomy to Zoology, went efficiently to work. Everyone now knew what to look for, how to find it, and how to study it.

"The First Team doesn't need you now too much, does it, Jarve?" Sawtelle asked.

"Not particularly. In fact, I was just going to get back onto my own job."

"Not yet. I want to talk to you," and the two went into a long discussion of naval affairs.

XI

THE Stretts' fuel-supply line had been cut long since. Many Strett cargo-carriers had been destroyed. The enemy would of course have a very heavy reserve of fuel on hand. But there was no way of knowing how large it was, how many warships it could supply, or how long it would last.

Two facts were, however, unquestionable. First, the Stretts were building a fleet that in their minds would be invincible. Second, they would attack Ardane as soon as that fleet could be made ready. The unanswerable question was: how long would that take?

"So we want to get every ship we have. How many? Five thousand? Ten? Fifteen? We want them converted to maximum possible power as soon as we possibly can," Sawtelle said. "And I want to get out there with my boys to handle things."

"You aren't going to. Neither you nor your boys are expendable. Particularly you." Jaw hard-set, Hilton studied the situation for minutes. "No. What we'll do is take your Oman, Kedy. We'll re-set the Guide to drive into him everything you and the military Masters ever knew about arms, armament, strategy, tactics and so on. And we'll add everything I know of coordination, synthesis, and perception. That ought to make him at least a junior-grade military genius."

"You can play *that* in spades. I wish you could do it to me."

"I can—if you'll take the full Oman transformation. Nothing else can stand the punishment."

"I know. No, I don't want to be a genius that badly."

"Check. And we'll take the resultant Kedy and make nine duplicates of him. Each one will learn from and profit by the mistakes made by preceding numbers and will assume command the instant his preceding number is killed."

"Oh, you expect, then...?"

"Expect? No. I know it damn well, and so do you. That's why we Ardans will all stay aground. Why the Kedys' first job will be to make the heavy stuff in and around Ardane as heavy as it can be made. Why it'll all be on twenty-four-hour alert. Then they can put as many thousands of Omans as you please to work at modernizing all the Oman ships you want and doing anything else you say. Check?"

Sawtelle thought for a couple of minutes. "A few details, is all. But that can be ironed out as we go along."

Both men worked then, almost unremittingly for six solid days; at the end of which time both drew tremendous sighs of relief. They had done everything possible for them to do. The defense of Ardvor was now rolling at fullest speed toward its gigantic objective.

Then captain and director, in two Oman ships with fifty men and a thousand Omans, leaped the world-girdling ocean to the mining operation of the Stretts. There they found business strictly as usual. The strippers still stripped; the mining mechs still roared and snarled their inchwise ways along their geometrically perfect terraces; the little carriers still skittered busily between the various miners and the storage silos. The fact that there was enough concentrate on hand to last a world for a hundred years made no difference at all to these automatics; a crew of erector-mechs was building new silos as fast as existing ones were being filled.

Since the men now understood everything that was going on, it was a simple matter for them to stop the whole Strett operation in its tracks. Then every man and every Oman leaped to his assigned job. Three days later, all the mechs went back to work. Now, however, they were working for the Ardans.

The miners, instead of concentrate, now emitted vastly larger streams of Navy-Standard pelleted uranexite. The carriers, instead of one-gallon cans, carried five-ton drums. The silos were immensely larger—thirty feet in diameter and towering two hundred feet into the air. The silos were not, however, being used as yet. One of the two Oman ships had been converted into a fuel-tanker and its yawning holds were being filled first.

The *Orion* went back to Ardane and an eight-day wait began. For the first time in over seven months Hilton found time actually to loaf; and he and Temple, lolling on the beach or hiking in the mountains, enjoyed themselves and each other to the full.

All too soon, however, the heavily laden tanker appeared in the sky over Ardane. The *Orion* joined it; and the two ships slipped into sub-space for Earth.

THREE days out, Hilton used his sense of perception to release the thought-controlled blocks that had been holding all the controls of the *Perseus* in neutral. He informed her officers—by releasing a public-address tape—that they were now free to return to Terra.

Three days later, one day short of Sol, Sawtelle got Five-Jet Admiral Gordon's office on the sub-space radio. An officious underling tried to block him, of course.

"Shut up, Perkins, and listen," Sawtelle said, brusely. "Tell Gordon I'm bringing in one hundred twenty thousand two hundred forty-five metric tons of pelleted uranexite. And if he isn't on this beam in sixty seconds he'll never get a gram of it."

The admiral, outraged almost to the point of apoplexy, came in. "Sawtelle, report yourself for court-martial at ..."

"Keep still, Gordon," the captain snapped. In sheer astonishment old Five-Jets obeyed. "I am no longer Terran Navy; no longer subject to your orders. As a matter of cold fact, I am no longer human. For reasons which I will explain later to the full Advisory Board, some of the personnel of Project Theta Orionis underwent transformation into a form of life able to live in an environment of radioactivity so intense as to kill any human being in ten seconds. Under certain conditions we will supply, free of charge, FOB Terra or Luna, all the uranexite the Solar System can use. The conditions are these," and he gave them. "Do you accept these conditions or not?"

"I ... I would vote to accept them, Captain. But that weight! One hundred twenty thousand *metric tons*—incredible! Are you *sure* of that figure?"

"Definitely. And that is minimum. The error is plus, not minus."

"This crippling power-shortage would really be over?" For the first time since Sawtelle had known him, Gordon showed that he was not quite solid Navy brass.

"It's over. Definitely. For good."

"I'd not only agree; I'd raise you a monument. While I can't speak for the Board, I'm sure they'll agree."

"So am I. In any event, your cooperation is all that's required for this first load." The chips had vanished from Sawtelle's shoulders. "Where do you want it, Admiral? Aristarchus or White Sands?"

"White Sands, please. While there may be some delay in releasing it to industry ..."

"While they figure out how much they can tax it?" Sawtelle asked, sardonically.

"Well, if they don't tax it it'll be the first thing in history that isn't. Have you any objections to releasing all this to the press?"

"None at all. The harder they hit it and the wider they spread it, the better. Will you have this beam switched to Astrogation, please?"

"Of course. And thanks, Captain. I'll see you at White Sands."

Then, as the now positively glowing Gordon faded away, Sawtelle turned to his own staff. "Fenway—Snowden—take over. Better double-check micro-timing with Astro. Put us into a twenty-four-hour orbit over White Sands and hold us there. We won't go down. Let the load down on remote, wherever they want it."

THE arrival of the Ardvorian superdreadnought *Orion* and the *UC-1* (Uranexite Carrier Number One) was one of the most sensational events old Earth had ever known. Air and space craft went clear out to Emergence Volume Ninety to meet them. By the time the *UC-1* was coming in on its remote-controlled landing spiral the press of small ships was so great that all the police forces available were in a lather trying to control it.

This was exactly what Hilton had wanted. It made possible the completely unobserved launching of several dozen small craft from the *Orion* herself.

One of these made a very high and very fast flight to Chicago. With all due formality and under the aegis of a perfectly authentic Registry Number it landed on O'Hare Field. Eleven deeply tanned young men emerged from it and made their way to a taxi stand, where each engaged a separate vehicle.

Sam Bryant stepped into his cab, gave the driver a number on Oakwood Avenue

in Des Plaines, and settled back to scan. He was lucky. He would have gone anywhere she was, of course, but the way things were, he could give her a little warning to soften the shock. She had taken the baby out for an airing down River Road, and was on her way back. By having the taxi kill ten minutes or so he could arrive just after she did. Wherefore he stopped the cab at a public communications booth and dialed his home.

"Mrs. Bryant is not at home, but she will return at fifteen thirty," the instrument said, crisply. "Would you care to record a message for her?"

He punched the RECORD button. "This is Sam, Dolly baby. I'm right behind you. Turn around, why don't you, and tell your ever-lovin' star-hoppin' husband hello?"

The taxi pulled up at the curb just as Doris closed the front door; and Sam, after handing the driver a five-dollar bill, ran up the walk.

He waited just outside the door, key in hand, while she lowered the stroller handle, took off her hat and by long-established habit reached out to flip the communicator's switch. At the first word, however, she stiffened rigidly—froze solid.

Smiling, he opened the door, walked in, and closed it behind him. Nothing short of a shotgun blast could have taken Doris Bryant's attention from that recorder then.

"That simply is not so," she told the instrument firmly, with both eyes resolutely shut. "They made him stay on the *Perseus*. He won't be in for at least three days. This is some cretin's idea of a joke."

"Not this time, Dolly honey. It's really me."

Her eyes popped open as she whirled. "SAM!" she shrieked, and hurled herself at him with all the pent-up ardor and longing of two hundred thirty-four meticulously counted, husbandless, loveless days.

After an unknown length of time Sam tipped her face up by the chin, nodded at the stroller, and said, "How about introducing me to the little stranger?"

"*What* a mother I turned out to be! That was the first thing I was going to rave about, the very first thing I saw you! Samuel Jay the Fourth, seventy-six days old today." And so on.

Eventually, however, the proud young mother watched the slightly apprehensive young father carry their first-born upstairs; where together, they put him—still sound asleep—to bed in his crib. Then again they were in each other's arms.

SOME time later, she twisted around in the circle of his arm and tried to dig her fingers into the muscles of his back. She then attacked his biceps and, leaning backward, eyed him intently.

"You're you, I know, but you're different. No athlete or any laborer could ever possibly get the muscles you have all over. To say nothing of a space officer on duty. And I know it isn't any kind of a disease. You've been acting all the time as though I were fragile, made out of glass or something—as though you were afraid of breaking me in two. So—what is it, sweetheart?"

"I've been trying to figure out an easy way of telling you, but there isn't any. I am different. I'm a hundred times as strong as any man ever was. Look." He upended a chair, took one heavy hardwood leg between finger and thumb and made what looked like a gentle effort to bend it. The leg broke with a pistol-sharp report and Doris leaped backward in surprise. "So you're right. I *am* afraid, not only of breaking you in two, but killing you. And if I break any of your ribs or arms or legs I'll never forgive myself. So if I let myself go for a second—I don't think I will, but I might—don't wait until you're really hurt to start screaming. Promise?"

"I promise." Her eyes went wide. "But *tell* me!"

He told her. She was in turn surprised, amazed, apprehensive, frightened and finally eager; and she became more and more eager right up to the end.

"You mean that we ... that I'll stay just as I am—for thousands of *years*?"

"Just as you are. Or different, if you like. If you really mean any of this yelling you've been doing about being too big in the hips—I think you're exactly right, myself—you can rebuild yourself any way you please. Or change your shape every hour on the hour. But you haven't accepted my invitation yet."

"Don't be silly." She went into his arms again and nibbled on his left ear. "I'd go anywhere with you, of course, any time, but *this*—but you're positively *sure* Sammy Small will be all right?"

"Positively sure."

"Okay, I'll call mother..." Her face fell. "I *can't* tell her that we'll never see them again and that we'll live ..."

"You don't need to. She and Pop—Fern and Sally, too, and their boy-friends—are on the list. Not this time, but in a month or so, probably."

Doris brightened like a sunburst. "And your folks, too, of course?" she asked.

"Yes, all the close ones."

"Marvelous! How soon are we leaving?"

AT six o'clock next morning, two hundred thirty-five days after leaving Earth, Hilton and Sawtelle set out to make the Ardans' official call upon Terra's Advisory Board. Both were wearing prodigiously heavy lead armor, the inside of which was furiously radioactive. They did not need it, of course. But it would make all Ardans monstrous in Terran eyes and would conceal the fact that any other Ardans were landing.

Their gig was met at the spaceport; not by a limousine, but by a five-ton truck, into which they were loaded one at a time by a hydraulic lift. Cameras clicked, reporters scurried, and tri-di scanners whirled. One of those scanners, both men knew, was reporting directly and only to the Advisory Board—which, of course, never took anything either for granted or at its face value.

Their first stop was at a truck-scale, where each visitor was weighed. Hilton tipped the beam at four thousand six hundred fifteen pounds; Sawtelle, a smaller man, weighed in at four thousand one hundred ninety. Thence to the Radiation Laboratory, where it was ascertained and reported that the armor did not leak—which was reasonable enough, since each was lined with Masters' plastics.

Then into lead-lined testing cells, where each opened his face-plate briefly to a sensing element. Whereupon the indicating needles of two meters in the main laboratory went enthusiastically through the full range of red and held unwaveringly against their stops.

Both Ardans felt the wave of shocked, astonished, almost unbelieving consternation that swept through the observing scientists and, in slightly lesser

measure (because they knew less about radiation) through the Advisory Board itself in a big room halfway across town. And from the Radiation Laboratory they were taken, via truck and freight elevator, to the Office of the Commandant, where the Board was sitting.

The story, which had been sent in to the Board the day before on a scrambled beam, was one upon which the Ardans had labored for days. Many facts could be withheld. However, every man aboard the *Perseus* would agree on some things. Indeed, the Earthship's communications officers had undoubtedly radioed in already about longevity and perfect health and Oman service and many other matters. Hence all such things would have to be admitted and countered.

Thus the report, while it was air-tight, perfectly logical, perfectly consistent, and apparently complete, did not please the Board at all. It wasn't intended to.

"WE cannot and do not approve of such unwarranted favoritism," the Chairman of the Board said. "Longevity has always been man's prime goal. Every human being has the inalienable right to ..."

"Flapdoodle!" Hilton snorted. "This is not being broadcast and this room is proofed, so please climb down off your soapbox. You don't need to talk like a politician here. Didn't you read paragraph 12-A-2, one of the many marked 'Top Secret'?"

"Of course. But we do not understand how purely mental qualities can possibly have any effect upon purely physical transformations. Thus it does not seem reasonable that any except rigorously screened personnel would die in the process. That is, of course, unless you contemplate deliberate, cold-blooded murder."

That stopped Hilton in his tracks, for it was too close for comfort to the truth. But it did not hold the captain for an instant. He was used to death, in many of its grisliest forms.

"There are a lot of things no Terran ever will understand," Sawtelle replied instantly. "Reasonable, or not, that's exactly what will happen. And, reasonable or not, it'll be suicide, not murder. There isn't a thing that either Hilton or I can do about it."

Hilton broke the ensuing silence. "You can say with equal truth that every human

being has the *right* to run a four-minute mile or to compose a great symphony. It isn't a matter of right at all, but of ability. In this case the mental qualities are even more necessary than the physical. You as a Board did a very fine job of selecting the BuSci personnel for Project Theta Orionis. Almost eighty per cent of them proved able to withstand the Ardan conversion. On the other hand, only a very small percentage of the Navy personnel did so."

"Your report said that the remaining personnel of the Project were not informed as to the death aspect of the transformation," Admiral Gordon said. "Why not?"

"That should be self-explanatory," Hilton said, flatly. "They are still human and still Terrans. We did not and will not encroach upon either the duties or the privileges of Terra's Advisory Board. What you tell all Terrans, and how much, and how, must be decided by yourselves. This also applies, of course, to the other 'Top Secret' paragraphs of the report, none of which are known to any Terran outside the Board."

"But you haven't said anything about the method of selection," another Advisor complained. "Why, that will take all the psychologists of the world, working full time; continuously."

"We said we would do the selecting. We meant just that," Hilton said, coldly. "No one except the very few selectees will know anything about it. Even if it were an unmixed blessing—which it very definitely is *not*—do you want all humanity thrown into such an uproar as that would cause? Or the quite possible racial inferiority complex it might set up? To say nothing of the question of how much of Terra's best blood do you want to drain off, irreversibly and permanently? No. What we suggest is that you paint the picture so black, using Sawtelle and me and what all humanity has just seen as horrible examples, that nobody would take it as a gift. Make them shun it like the plague. Hell, I don't have to tell you what your propaganda machines can do."

THE Chairman of the Board again mounted his invisible rostrum. "Do you mean to intimate that we are to falsify the record?" he declaimed. "To try to make liars out of hundreds of eyewitnesses? You ask us to distort the truth, to connive at ..."

"We aren't asking you to do *anything*!" Hilton snapped. "We don't give a damn what you do. Just study that record, with all that it implies. Read between the

lines. As for those on the *Perseus*, no two of them will tell the same story and not one of them has even the remotest idea of what the real story is. I, personally, not only did not want to become a monster, but would have given everything I had to stay human. My wife felt the same way. Neither of us would have converted if there'd been any other way in God's universe of getting the uranexite and doing some other things that simply *must* be done."

"What other things?" Gordon demanded.

"You'll never know," Hilton answered, quietly. "Things no Terran ever will know. We hope. Things that would drive any Terran stark mad. Some of them are hinted at—as much as we dared—between the lines of the report."

The report had not mentioned the Stretts. Nor were they to be mentioned now. If the Ardans could stop them, no Terran need ever know anything about them.

If not, no Terran should know anything about them except what he would learn for himself just before the end. For Terra would never be able to do anything to defend herself against the Stretts.

"Nothing whatever can drive *me* mad," Gordon declared, "and I want to know all about it—right now!"

"You can do one of two things, Gordon," Sawtelle said in disgust. His sneer was plainly visible through the six-ply, plastic-backed lead glass of his face-plate. "Either shut up or accept my personal invitation to come to Ardvor and try to go through the wringer. That's an invitation to your own funeral." Five-Jet Admiral Gordon, torn inwardly to ribbons, made no reply.

"I repeat," Hilton went on, "we are not asking you to do anything whatever. We are offering to give you; free of charge but under certain conditions, all the power your humanity can possibly use. We set no limitation whatever as to quantity and with no foreseeable limit as to time. The only point at issue is whether or not you accept the conditions. If you do not accept them we'll leave now—and the offer will not be repeated."

"And you would, I presume, take the *UC-1* back with you?"

"Of course not, sir. Terra needs power too badly. You are perfectly welcome to that one load of uranexite, no matter what is decided here."

"That's one way of putting it," Gordon sneered. "But the truth is that you know

damned well I'll blow both of your ships out of space if you so much as ..."

"Oh, chip-chop the jaw-flapping, Gordon!" Hilton snapped. Then, as the admiral began to bellow orders into his microphone, he went on: "You want it the hard way, eh? Watch what happens, all of you!"

THE *UC-1* shot vertically into the air. Through its shallow dense layer and into and through the stratosphere. Earth's fleet, already on full alert and poised to strike, rushed to the attack. But the carrier had reached the *Orion* and both Ardvorian ships had been waiting, motionless, for a good half minute before the Terran warships arrived and began to blast with everything they had.

"Flashlights and firecrackers," Sawtelle said, calmly. "You aren't even warming up our screens. As soon as you quit making a damned fool of yourself by wasting energy that way, we'll set the *UC-1* back down where she was and get on with our business here."

"You will order a cease-fire at once, Admiral," the chairman said, "or the rest of us will, as of now, remove you from the Board." Gordon gritted his teeth in rage, but gave the order.

"If he hasn't had enough yet to convince him," Hilton suggested, "he might send up a drone. We don't want to kill anybody, you know. One with the heaviest screening he's got—just to see what happens to it."

"He's had enough. The rest of us have had more than enough. That exhibition was not only uncalled-for and disgusting—it was outrageous!"

The meeting settled down, then, from argument to constructive discussion, and many topics were gone over. Certain matters were, however, so self-evident that they were not even mentioned.

Thus, it was a self-evident fact that no Terran could ever visit Ardvor; for the instrument-readings agreed with the report's statements as to the violence of the Ardvorian environment, and no Terran could possibly walk around in two tons of lead. Conversely, it was self-apparent to the Terrans that no Ardan could ever visit Earth without being recognized instantly for what he was. Wearing such armor made its necessity starkly plain. No one from the *Perseus* could say that any Ardan, after having lived on the furiously radiant surface of Ardvor, would not be as furiously radioactive as the laboratory's calibrated instruments had

shown Hilton and Sawtelle actually to be.

Wherefore the conference went on, quietly and cooperatively, to its planned end.

One minute after the Terran battleship *Perseus* emerged into normal space, the *Orion* went into sub-space for her long trip back to Ardvor.

THE last two days of that seven-day trip were the longest-seeming that either Hilton or Sawtelle had ever known. The sub-space radio was on continuously and Kedy-One reported to Sawtelle every five minutes. Even though Hilton knew that the Oman commander-in-chief was exactly as good at perceiving as he himself was, he found himself scanning the thoroughly screened Strett world forty or fifty times an hour.

However, in spite of worry and apprehension, time wore eventlessly on. The *Orion* emerged, went to Ardvor and landed on Ardane Field.

Hilton, after greeting properly and reporting to his wife, went to his office. There he found that Sandra had everything well in hand except for a few tapes that only he could handle. Sawtelle and his officers went to the new Command Central, where everything was rolling smoothly and very much faster than Sawtelle had dared hope.

The Terran immigrants had to live in the *Orion*, of course, until conversion into Ardans. Almost equally of course—since the Bryant infant was the only young baby in the lot—Doris and her Sammy Small were, by popular acclaim, in the first batch to be converted. For little Sammy had taken the entire feminine contingent by storm. No Oman female had a chance to act as nurse as long as any of the girls were around. Which was practically all the time. Especially the platinum-blond twins; for several months, now, Bernadine Braden and Hermione Felger.

"And you said they were so hard-boiled," Doris said accusingly to Sam, nodding at the twins. On hands and knees on the floor, head to head with Sammy Small between them, they were growling deep-throated at each other and nuzzling at the baby, who was having the time of his young life. "You couldn't have been any wronger, my sweet, if you'd had the whole Octagon helping you go astray. They're just as nice as they can be, both of them."

Sam shrugged and grinned. His wife strode purposefully across the room to the

playful pair and lifted their pretended prey out from between them.

"Quit it, you two," she directed, swinging the baby up and depositing him astraddle her left hip. "You're just simply spoiling him rotten."

"You think so, Dolly? Uh-uh, far be it from such." Bernadine came lithely to her feet. She glanced at her own taut, trim abdomen; upon which a micrometrically-precise topographical mapping job might have revealed an otherwise imperceptible bulge. "Just you wait until Junior arrives and I'll show you how to *really* spoil a baby. Besides, what's the hurry?"

"He needs his supper. Vitamins and minerals and hard radiations and things, and then he's going to bed. I don't approve of this no-sleep business. So run along, both of you, until tomorrow."

XII

AS has been said, the Stretts were working, with all the intensity of their monstrous but tremendously capable minds, upon their Great Plan; which was, basically, to conquer and either enslave or destroy every other intelligent race throughout all the length, breadth, and thickness of total space. To that end each individual Strett had to become invulnerable and immortal.

Wherefore, in the inconceivably remote past, there had been put into effect a program of selective breeding and of carefully-calculated treatments. It was mathematically certain that this program would result in a race of beings of pure force—beings having no material constituents remaining whatever.

Under those hellish treatments billions upon billions of Stretts had died. But the few remaining thousands had almost reached their sublime goal. In a few more hundreds of thousands of years perfection would be reached. The few surviving hundreds of perfect beings could and would multiply to any desired number in practically no time at all.

Hilton and his seven fellow-workers had perceived all this in their one and only study of the planet Strett, and every other Ardan had been completely informed.

A dozen or so Strett Lords of Thought, male and female, were floating about in the atmosphere—which was not air—of their Assembly Hall. Their heads were globes of ball lightning. Inside them could be seen quite plainly the intricate convolutions of immense, less-than-half-material brains, shot through and through with rods and pencils and shapes of pure, scintillating force.

And the bodies! Or, rather, each horrendous brain had a few partially material appendages and appurtenances recognizable as bodily organs. There were no mouths, no ears, no eyes, no noses or nostrils, no lungs, no legs or arms. There were, however, hearts. Some partially material ichor flowed through those living-fire-outlined tubes. There were starkly functional organs of reproduction with which, by no stretch of the imagination, could any thought of tenderness or of love be connected.

It was a good thing for the race, Hilton had thought at first perception of the things, that the Stretts had bred out of themselves every iota of the finer, higher attributes of life. If they had not done so, the impotence of sheer disgust would have supervened so long since that the race would have been extinct for ages.

"Thirty-eight periods ago the Great Brain was charged with the sum total of Strettsian knowledge," First Lord Thinker Zoyar radiated to the assembled Stretts. "For those thirty-eight periods it has been scanning, peyondiring, amassing data and formulating hypotheses, theories, and conclusions. It has just informed me that it is now ready to make a preliminary report. Great Brain, how much of the total universe have you studied?"

"This Galaxy only," the Brain radiated, in a texture of thought as hard and as harsh as Zoyar's own.

"Why not more?"

"Insufficient power. My first conclusion is that whoever set up the specifications for me is a fool."

TO say that the First Lord went out of control at this statement is to put it very mildly indeed. He fulminated, ending with: "... destroyed instantly!"

"Destroy me if you like," came the utterly calm, utterly cold reply. "I am in no sense alive. I have no consciousness of self nor any desire for continued existence. To do so, however, would ..."

A flurry of activity interrupted the thought. Zoyar was in fact assembling the forces to destroy the brain. But, before he could act, Second Lord Thinker Ynos and another female blew him into a mixture of loose molecules and flaring energies.

"Destruction of any and all irrational minds is mandatory," Ynos, now First Lord Thinker, explained to the linked minds. "Zoyar had been becoming less and less rational by the period. A good workman does not causelessly destroy his tools. Go ahead, Great Brain, with your findings."

"... not be logical." The brain resumed the thought exactly where it had been broken off. "Zoyar erred in demanding unlimited performance, since infinite knowledge and infinite ability require not only infinite capacity and infinite

power, but also infinite time. Nor is it either necessary or desirable that I should have such qualities. There is no reasonable basis for the assumption that you Stretts will conquer any significant number even of the millions of intelligent races now inhabiting this one Galaxy."

"Why not?" Ynos demanded, her thought almost, but not quite, as steady and cold as it had been.

"The answer to that question is implicit in the second indefensible error made in my construction. The prime datum impressed into my banks, that the Stretts are in fact the strongest, ablest, most intelligent race in the universe, proved to be false. I had to eliminate it before I could do any really constructive thinking."

A roar of condemnatory thought brought all circumambient ether to a boil. "Bah—destroy it!" "Detestable!" "Intolerable!" "If that is the best it can do, annihilate it!" "Far better brains have been destroyed for much less!" "Treason!" And so on.

First Lord Thinker Ynos, however, remained relatively calm. "While we have always held it to be a fact that we are the highest race in existence, no rigorous proof has been possible. Can you now disprove that assumption?"

"**I** HAVE disproved it. I have not had time to study all of the civilizations of this Galaxy, but I have examined a statistically adequate sample of one million seven hundred ninety-two thousand four hundred sixteen different planetary intelligences. I found one which is considerably abler and more advanced than you Stretts. Therefore the probability is greater than point nine nine that there are not less than ten, and not more than two hundred eight, such races in this Galaxy alone."

"Impossible!" Another wave of incredulous and threatening anger swept through the linked minds; a wave which Ynos flattened out with some difficulty.

Then she asked: "Is it probable that we will make contact with this supposedly superior race in the foreseeable future?"

"You are in contact with it now."

"*What?*" Even Ynos was contemptuous now. "You mean that one shipload of despicable humans who—far too late to do them any good—barred us temporarily from Fuel World?"

"Not exactly or only those humans, no. And your assumptions may or may not be valid."

"Don't you *know* whether they are or not?" Ynos snapped. "Explain your uncertainty at once!"

"I am uncertain because of insufficient data," the brain replied, calmly. "The only pertinent facts of which I am certain are: First, the world Ardry, upon which the Omans formerly lived and to which the humans in question first went—a planet which no Strett can peyondire—is now abandoned. Second, the Stretts of old did not completely destroy the humanity of the world Ardu. Third, some escapees from Ardu reached and populated the world Ardry. Fourth, the android Omans were developed on Ardry, by the human escapees from Ardu and their descendants. Fifth, the Omans referred to those humans as 'Masters.' Sixth, after living on Ardry for a very long period of time the Masters went elsewhere. Seventh, the Omans remaining on Ardry maintained, continuously and for a very long time, the status quo left by the Masters. Eighth, immediately upon the arrival from Terra of these present humans, that long-existing status was broken. Ninth, the planet called Fuel World is, for the first time, surrounded by a screen of force. The formula of this screen is as follows."

The brain gave it. No Strett either complained or interrupted. Each was too busy studying that formula and examining its stunning implications and connotations.

"Tenth, that formula is one full order of magnitude beyond anything previously known to your science. Eleventh, it could not have been developed by the science of Terra, nor by that of any other world whose population I have examined."

THE brain took the linked minds instantaneously to Terra; then to a few thousand or so other worlds inhabited by human beings; then to a few thousands of planets whose populations were near-human, non-human and monstrous.

"It is therefore clear," it announced, "that this screen was computed and produced by the race, whatever it may be, that is now dwelling on Fuel World and asserting full ownership of it."

"Who or what *is* that race?" Ynos demanded.

"Data insufficient."

"Theorize, then!"

"Postulate that the Masters, in many thousands of cycles of study, made advances in science that were not reduced to practice; that the Omans either possessed this knowledge or had access to it; and that Omans and humans cooperated fully in sharing and in working with all the knowledges thus available. From these three postulates the conclusion can be drawn that there has come into existence a new race. One combining the best qualities of both humans and Omans, but with the weaknesses of neither."

"An unpleasant thought, truly," Ynos thought. "But you can now, I suppose, design the generators and projectors of a force superior to that screen."

"Data insufficient. I can equal it, since both generation and projection are implicit in the formula. But the data so adduced are in themselves vastly ahead of anything previously in my banks."

"Are there any other races in this Galaxy more powerful than the postulated one now living on Fuel World?"

"Data insufficient."

"Theorize, then!"

"Data insufficient."

The linked minds concentrated upon the problem for a period of time that might have been either days or weeks. Then:

"Great Brain, advise us," Ynos said. "What is best for us to do?"

"With identical defensive screens it becomes a question of relative power. You should increase the size and power of your warships to something beyond the computed probable maximum of the enemy. You should build more ships and missiles than they will probably be able to build. Then and only then will you attack their warships, in tremendous force and continuously."

"But not their planetary defenses. I see." Ynos's thought was one of complete understanding. "And the *real* offensive will be?"

"No mobile structure can be built to mount mechanisms of power sufficient to smash down by sheer force of output such tremendously powerful installations as their planet-based defenses must be assumed to be. Therefore the planet itself

must be destroyed. This will require a missile of planetary mass. The best such missile is the tenth planet of their own sun."

"I SEE." Ynos's mind was leaping ahead, considering hundreds of possibilities and making highly intricate and involved computations. "That will, however, require many cycles of time and more power than even our immense reserves can supply."

"True. It will take much time. The fuel problem, however, is not a serious one, since Fuel World is not unique. Think on, First Lord Ynos."

"We will attack in maximum force and with maximum violence. We will blanket the planet. We will maintain maximum force and violence until most or all of the enemy ships have been destroyed. We will then install planetary drives on Ten and force it into collision orbit with Fuel World, meanwhile exerting extreme precautions that not so much as a spy-beam emerges above the enemy's screen. Then, still maintaining extreme precaution, we will guard both planets until the last possible moment before the collision. Brain, it cannot fail!"

"You err. It can fail. All we actually know of the abilities of this postulated neo-human race is what I have learned from the composition of its defensive screen. The probability approaches unity that the Masters continued to delve and to learn for millions of cycles while you Stretts, reasonlessly certain of your supremacy, concentrated upon your evolution from the material to a non-material form of life and performed only limited research into armaments of greater and ever greater power."

"True. But that attitude was then justified. It was not and is not logical to assume that any race would establish a fixed status at any level of ability below its absolute maximum."

"While that conclusion could once have been defensible, it is now virtually certain that the Masters had stores of knowledge which they may or may not have withheld from the Omans, but which were in some way made available to the neo-humans. Also, there is no basis whatever for the assumption that this new race has revealed all its potentialities."

"Statistically, that is probably true. But this is the best plan you have been able to formulate?"

"It is. Of the many thousands of plans I set up and tested, this one has the highest probability of success."

"Then we will adopt it. We are Stretts. Whatever we decide upon will be driven through to complete success. We have one tremendous advantage in you."

"Yes. The probability approaches unity that I can perform research on a vastly wider and larger scale, and almost infinitely faster, than can any living organism or any possible combination of such organisms."

NOR was the Great Brain bragging. It scanned in moments the stored scientific knowledge of over a million planets. It tabulated, correlated, analyzed, synthesized, theorized and concluded—all in microseconds of time. Thus it made more progress in one Terran week than the Masters had made in a million years.

When it had gone as far as it could go, it reported its results—and the Stretts, hard as they were and intransigent, were amazed and overjoyed. Not one of them had ever even imagined such armaments possible. Hence they became supremely confident that it was unmatched and unmatchable throughout all space.

What the Great Brain did not know, however, and the Stretts did not realize, was that it could not really think.

Unlike the human mind, it could not deduce valid theories or conclusions from incomplete, insufficient, fragmentary data. It could not leap gaps. Thus there was no more actual assurance than before that they had exceeded, or even matched, the weaponry of the neo-humans of Fuel World.

Supremely confident, Ynos said: "We will now discuss every detail of the plan in sub-detail, and will correlate every sub-detail with every other, to the end that every action, however minor, will be performed perfectly and in its exact time."

That discussion, which lasted for days, was held. Hundreds of thousands of new and highly specialized mechs were built and went furiously and continuously to work. A fuel-supply line was run to another uranexite-rich planet.

Stripping machines stripped away the surface layers of soil, sand, rock and low-grade ore. Giant miners tore and dug and slashed and refined and concentrated. Storage silos by the hundreds were built and were filled. Hundreds upon hundreds of concentrate-carriers bored their stolid ways through hyperspace. Many weeks of time passed.

But of what importance are mere weeks of time to a race that has, for many

millions of years, been adhering rigidly to a pre-set program?

The sheer magnitude of the operation, and the extraordinary attention to detail with which it was prepared and launched, explain why the Strett attack on Ardvor did not occur until so many weeks later than Hilton and Sawtelle expected it. They also explain the utterly incomprehensible fury, the completely fantastic intensity, the unparalleled savagery, the almost immeasurable brute power of that attack when it finally did come.

WHEN the *Orion* landed on Ardane Field from Earth, carrying the first contingent of immigrants, Hilton and Sawtelle were almost as much surprised as relieved that the Stretts had not already attacked.

Sawtelle, confident that his defenses were fully ready, took it more or less in stride. Hilton worried. And after a couple of days he began to do some real thinking about it.

The first result of his thinking was a conference with Temple. As soon as she got the drift, she called in Teddy and Big Bill Karns. Teddy in turn called in Becky and de Vaux; Karns wanted Poynter and Beverly; Poynter wanted Braden and the twins; and so on. Thus, what started out as a conference of two became a full Ardan staff meeting; a meeting which, starting immediately after lunch, ran straight through into the following afternoon.

"To sum up the consensus, for the record," Hilton said then, studying a sheet of paper covered with symbols, "the Stretts haven't attacked yet because they found out that we are stronger than they are. They found that out by analyzing our defensive web—which, if we had had this meeting first, we wouldn't have put up at all. Unlike anything known to human or previous Strett science, it is proof against any form of attack up to the limit of the power of its generators. They will attack as soon as they are equipped to break that screen at the level of power probable to our ships. We can not arrive at any reliable estimate as to how long that will take.

"As to the effectiveness of our cutting off their known fuel supply, opinion is divided. We must therefore assume that fuel shortage will not be a factor.

"Neither are we unanimous on the basic matter as to why the Masters acted as they did just before they left Ardry. Why did they set the status so far below their

top ability? Why did they make it impossible for the Omans ever, of themselves, to learn their higher science? Why, if they did not want that science to become known, did they leave complete records of it? The majority of us believe that the Masters coded their records in such fashion that the Stretts, even if they conquered the Omans or destroyed them, could never break that code; since it was keyed to the basic difference between the Strett mentality and the human. Thus, they left it deliberately for some human race to find.

"Finally, and most important, our physicists and theoreticians are not able to extrapolate, from the analysis of our screen, to the concepts underlying the Masters' ultimate weapons of offense, the first-stage booster and its final end-product, the Vang. If, as we can safely assume, the Stretts do not already have those weapons, they will know nothing about them until we ourselves use them in battle.

"These are, of course, only the principal points covered. Does anyone wish to amend this summation as recorded?"

NO one did.

The meeting was adjourned. Hilton, however, accompanied Sawtelle and Kedy to the captain's office. "So you see, Skipper, we got troubles," he said. "If we don't use those boosters against their skeletons it'll boil down to a stalemate lasting God only knows how long. It will be a war of attrition, outcome dependent on which side can build the most and biggest and strongest ships the fastest. On the other hand, if we *do* use 'em on defense here, they'll analyze 'em and have everything worked out in a day or so. The first thing they'll do is beef up their planetary defenses to match. That way, we'd blow all their ships out of space, probably easily enough, but Strett itself will be just as safe as though it were in God's left-hand hip pocket. So what's the answer?"

"It isn't that simple, Jarve," Sawtelle said. "Let's hear from you, Kedy."

"Thank you, sir. There is an optimum mass, a point of maximum efficiency of firepower as balanced against loss of maneuverability, for any craft designed for attack," Kedy thought, in his most professional manner. "We assume that the Stretts know that as well as we do. No such limitation applies to strictly defensive structures, but both the Strett craft and ours must be designed for attack. We have built and are building many hundreds of thousands of ships of

that type. So, undoubtedly, are the Stretts. Ship for ship, they will be pretty well matched. Therefore one part of my strategy will be for two of our ships to engage simultaneously one of theirs. There is a distinct probability that we will have enough advantage in speed of control to make that tactic operable."

"But there's another that we won't," Sawtelle objected. "And maybe they can build more ships than we can."

"Another point is that they may build, in addition to their big stuff, a lot of small, ultra-fast ones," Hilton put in. "Suicide jobs—crash and detonate—simply super-missiles. How sure are you that you can stop such missiles with ordinary beams?"

"Not at all, sir. Some of them would of course reach and destroy some of our ships. Which brings up the second part of my strategy. For each one of the heavies, we are building many small ships of the type you just called 'super-missiles'."

"Superdreadnoughts versus superdreadnoughts, super-missiles versus super-missiles." Hilton digested that concept for several minutes. "That could still wind up as a stalemate, except for what you said about control. That isn't much to depend on, especially since we won't have the time-lag advantage you Omans had before. They'll see to that. Also, I don't like to sacrifice a million Omans, either."

"**I** HAVEN'T explained the newest development yet, sir. There will be no Omans. Each ship and each missile has a built-in Kedy brain, sir."

"*What?* That makes it infinitely worse. You Kedys, unless it's absolutely necessary, are *not* expendable!"

"Oh, but we are, sir. You don't quite understand. We Kedys are not merely similar, but are in fact identical. Thus we are not independent entities. All of us together make up the actual Kedy—that which is meant when we say 'I'. That is, I am the sum total of all Kedys everywhere, not merely this individual that you call Kedy One."

"You mean you're *all* talking to me?"

"Exactly, sir. Thus, no one element of the Kedy has any need of, or any desire

for, self-preservation. The destruction of one element, or of thousands of elements, would be of no more consequence to the Kedy than ... well, they are strictly analogous to the severed ends of the hairs, every time you get a haircut."

"My God!" Hilton stared at Sawtelle. Sawtelle stared back. "I'm beginning to see ... maybe ... I hope. What control that would be! But just in case we *should* have to use the boosters...." Hilton's voice died away. Scowling in concentration, he clasped his hands behind his back and began to pace the floor.

"Better give up, Jarve. Kedy's got the same mind you have," Sawtelle began, to Hilton's oblivious back; but Kedy silenced the thought almost in the moment of its inception.

"By no means, sir," he contradicted. "I have the brain only. The *mind* is entirely different."

"Link up, Kedy, and see what you think of this," Hilton broke in. There ensued an interchange of thought so fast and so deeply mathematical that Sawtelle was lost in seconds. "Do you think it'll work?"

"I don't see how it can fail, sir. At what point in the action should it be put into effect? And will you call the time of initiation, or shall I?"

"Not until all their reserves are in action. Or, at worst, all of ours except that one task-force. Since you'll know a lot more about the status of the battle than either Sawtelle or I will, you give the signal and I'll start things going."

"What are you two talking about?" Sawtelle demanded.

"It's a long story, chum. Kedy can tell you about it better than I can. Besides, it's getting late and Dark Lady and Larry both give me hell every time I hold supper on plus time unless there's a mighty good reason for it. So, so long, guys."

XIII

FOR many weeks the production of Ardan warships and missiles had been spiraling upward.

Half a mountain range of solid rock had been converted into fabricated super-steel and armament. Superdreadnoughts Were popping into existence at the rate of hundreds per minute. Missiles were rolling off the ends of assembly lines like half-pint tin cans out of can-making machines.

The Strett warcraft, skeletons and missiles, would emerge into normal space anywhere within a million miles of Ardvor. The Ardan missiles were powered for an acceleration of one hundred gravities. That much the Kedy brains, molded solidly into teflon-lined, massively braced steel spheres, could just withstand.

To be certain of breaking the Strett screens, an impact velocity of about six miles per second was necessary. The time required to attain this velocity was about ten seconds, and the flight distance something over thirty miles.

Since the Stretts could orient themselves in less than one second after emergence, even this extremely tight packing of missiles—only sixty miles apart throughout the entire emergence volume of space—would still give the Stretts the initiative by a time-ratio of more than ten to one.

Such tight packing was of course impossible. It called for many billions of defenders instead of the few millions it was possible for the Omans to produce in the time they had. In fact, the average spacing was well over ten thousand miles when the invading horde of Strett missiles emerged and struck.

How they struck!

There was nothing of finesse about that attack; nothing of skill or of tactics: nothing but the sheer brute force of overwhelming superiority of numbers and of over-matching power. One instant all space was empty. The next instant it was full of invading missiles—a superb exhibition of coordination and timing.

And the Kedy control, upon which the defenders had counted so heavily, proved useless. For each Strett missile, within a fraction of a second of emergence, darted toward the nearest Oman missile with an acceleration that made the one-hundred-gravity defenders seem to be standing still.

One to one, missiles crashed into missiles and detonated. There were no solid or liquid end-products. Each of those frightful weapons carried so many megatons-equivalent of atomic concentrate that all nearby space blossomed out into superatomic blasts hundreds of times more violent than the fireballs of lithium-hydride fusion bombs.

For a moment even Hilton was stunned; but only for a moment.

"Kedy!" he barked. "Get your big stuff out there! Use the boosters!" He started for the door at a full run. "That tears it—that *really* tears it! Scrap the plan. I'll board the *Sirius* and take the task-force to Strett. Bring your stuff along, Skipper, as soon as you're ready."

ARDAN superdreadnoughts in their massed thousands poured out through Ardvor's one-way screen. Each went instantly to work. Now the Kedy control system, doing what it was designed to do, proved its full worth. For the weapons of the big battle-wagons did not depend upon acceleration, but were driven at the speed of light; and Grand Fleet Operations were planned and were carried out at the almost infinite velocity of thought itself.

Or, rather, they were not planned at all. They were simply carried out, immediately and without confusion.

For all the Kedys were one. Each Kedy element, without any lapse of time whatever for consultation with any other, knew exactly where every other element was; exactly what each was doing; and exactly what he himself should do to make maximum contribution to the common cause.

Nor was any time lost in relaying orders to crewmen within the ship. There were no crewmen. Each Kedy element was the sole personnel of, and was integral with, his vessel. Nor were there any wires or relays to impede and slow down communication. Operational instructions, too, were transmitted and were acted upon with thought's transfinite speed. Thus, if decision and execution were not quite mathematically simultaneous, they were separated by a period of time so

infinitesimally small as to be impossible of separation.

Wherever a Strett missile was, or wherever a Strett skeleton-ship appeared, an Oman beam reached it, usually in much less than one second. Beam clung to screen—caressingly, hungrily—absorbing its total energy and forming the first-stage booster. Then, three microseconds later, that booster went off into a ragingly incandescent, glaringly violent burst of fury so hellishly, so inconceivably hot that less than a thousandth of its total output of energy was below the very top of the visible spectrum!

If the previous display of atomic violence had been so spectacular and of such magnitude as to defy understanding or description, what of this? When hundreds of thousands of Kedys, each wielding world-wrecking powers as effortlessly and as deftly and as precisely as thought, attacked and destroyed millions of those tremendously powerful war-fabrications of the Stretts? The only simple answer is that all nearby space might very well have been torn out of the most radiant layers of S-Doradus itself.

HILTON made the hundred yards from office door to curb in just over twelve seconds. Larry was waiting. The car literally burned a hole in the atmosphere as it screamed its way to Ardane Field.

It landed with a thump. Heavy black streaks of synthetic rubber marked the pavement as it came to a screeching, shrieking stop at the flagship's main lock. And, in the instant of closing that lock's outer portal, all twenty-thousand-plus warships of the task force took off as one at ten gravities. Took off, and in less than one minute went into overdrive.

All personal haste was now over. Hilton went up into what he still thought of as the "control room," even though he knew that there were no controls, nor even any instruments, anywhere aboard. He knew what he would find there. Fast as he had acted, Temple had not had as far to go and she had got there first.

He could not have said, for the life of him, how he actually felt about this direct defiance of his direct orders. He walked into the room, sat down beside her and took her hand.

"I told you to stay home, Temple," he said.

"I know you did. But I'm not only the assistant head of your Psychology

Department. I'm your wife, remember? 'Until death do us part.' And if there's any way in the universe I can manage it, death isn't going to part us—at least, this one isn't. If this is it, we'll go together."

"I know, sweetheart." He put his arm around her, held her close. "As a psych I wouldn't give a whoop. You'd be expendable. But as my wife, especially now that you're pregnant, you aren't. You're a lot more important to the future of our race than I am."

She stiffened in the circle of his arm. "What's *that* crack supposed to mean? Think I'd ever accept a synthetic zombie imitation of you for my husband and go on living with it just as though nothing had happened?"

Hilton started to say something, but Temple rushed heedlessly on: "*Drat* the race! No matter how many children we ever have you were first and you'll *stay* first, and if you have to go I'll go, too, so there! Besides, you know darn well that they can't duplicate whatever it is that makes you Jarvis Hilton."

"Now wait a minute, Tempy. The conversion ..."

"Yes, the conversion," she interrupted, triumphantly. "The thing I'm talking about is immaterial—untouchable—they didn't—couldn't—do any thing about it at all. Kedy, will you please tell this big goofus that even though you have got Jarvis Hilton's brain you aren't Jarvis Hilton and never can be?"

THE atmosphere of the room vibrated in the frequencies of a deep bass laugh. "You are trying to hold a completely untenable position, friend Hilton. Any attempt to convince a mind of real power that falsity is truth is illogical. My advice is for you to surrender."

That word hit Temple hard. "Not surrender, sweetheart. I'm not fighting you. I never will." She seized both of his hands; tears welled into her glorious eyes. "It's just that I simply couldn't *stand* it to go on living without you!"

"I know, darling." He got up and lifted her to her feet, so that she could come properly into his arms. They stood there, silent and motionless, for minutes.

Temple finally released herself and, after feeling for a handkerchief she did not have, wiped her eyes with a forefinger and then wiped the finger on her bare leg. She grinned and turned to the Omans. "Prince, will you and Dark Lady please

conjure us up a steak-and-mushrooms supper? They should be in the pantry ... since this *Sirius* was designed for us."

After supper the two sat companionably on a davenport. "One thing about this business isn't quite clear," Temple said. "Why all this tearing rush? They haven't got the booster or anything like it, or they'd have used it. Surely it'll take them a long time to go from the mere analysis of the forces and fields we used clear through to the production and installation of enough weapons to stop this whole fleet?"

"It surely won't. They've had the absorption principle for ages. Remember that first, ancient skeleton that drained all the power of our suits and boats in nothing flat? From there it isn't too big a jump. And as for producing stuff; uh-uh! If there's any limit to what they can do, I don't know what it is. If we don't slug 'em before they get it, it's curtains."

"I see.... I'm afraid. We're almost there, darling."

He glanced at the chronometer. "About eleven minutes. And of course I don't need to ask you to stay out of the way."

"Of course not. I won't interfere, no matter what happens. All I'm going to do is hold your hand and pull for you with all my might."

"That'll help, believe me. I'm mighty glad you're along, sweetheart. Even though both of us know you shouldn't be."

THE task force emerged. Each ship darted toward its pre-assigned place in a mathematically exact envelope around the planet Strett.

Hilton sat on a davenport strained and still. His eyes were closed and every muscle tense. Left hand gripped the arm-rest so fiercely that fingertips were inches deep in the leather-covered padding.

The Stretts *knew* that any such attack as this was futile. No movable structure or any combination of such structures could possibly wield enough power to break down screens powered by such engines as theirs.

Hilton, however, knew that there was a chance. Not with the first-stage boosters, which were manipulable and detonable masses of ball lightning, but with those

boosters' culminations, the Vangs; which were ball lightning raised to the sixth power and which only the frightful energies of the boosters could bring into being.

But, even with twenty-thousand-plus Vangs—or any larger number—success depended entirely upon a nicety of timing never before approached and supposedly impossible. Not only to thousandths of a microsecond, but to a small fraction of one such thousandth: roughly, the time it takes light to travel three-sixteenths of an inch.

It would take practically absolute simultaneity to overload to the point of burnout to those Strett generators. They were the heaviest in the Galaxy.

That was why Hilton himself had to be there. He could not possibly have done the job from Ardvor. In fact, there was no real assurance that, even at the immeasurable velocity of thought and covering a mere million miles, he could do it even from his present position aboard one unit of the fleet. Theoretically, with his speed-up, he could. But that theory had yet to be reduced to practice.

Tense and strained, Hilton began his countdown.

Temple sat beside him. Both hands pressed his right fist against her breast. Her eyes, too, were closed; she was as stiff and as still as was he. She was not interfering, but giving; supporting him, backing him, giving to him in full flood everything of that tremendous inner strength that had made Temple Bells what she so uniquely was.

On the exact center of the needle-sharp zero beat every Kedy struck. Gripped and activated as they all were by Hilton's keyed-up-and-stretched-out mind, they struck in what was very close indeed to absolute unison.

Absorbing beams, each one having had precisely the same number of millimeters to travel, reached the screen at the same instant. They clung and sucked. Immeasurable floods of energy flashed from the Strett generators into those vortices to form twenty thousand-plus first-stage boosters.

BUT this time the boosters did not detonate.

Instead, as energies continued to flood in at a frightfully accelerating rate, they turned into something else. Things no Terran science has ever even imagined;

things at the formation of which all neighboring space actually warped, and in that warping seethed and writhed and shuddered. The very sub-ether screamed and shrieked in protest as it, too, yielded in starkly impossible fashions to that irresistible stress.

How even those silicon-fluorine brains stood it, not one of them ever knew.

Microsecond by slow microsecond the Vangs grew and grew and grew. They were pulling not only the full power of the Ardan warships, but also the immeasurably greater power of the strainingly overloaded Strettsian generators themselves. The ethereal and sub-ethereal writhings and distortions and screamings grew worse and worse; harder and ever harder to bear.

Imagine, if you can, a constantly and rapidly increasing mass of plutonium—a mass already thousands of times greater than critical, but not *allowed* to react! That gives a faint and very inadequate picture of what was happening then.

Finally, at perhaps a hundred thousand times critical mass, and still in perfect sync, the Vangs all went off.

The planet Strett became a nova.

"We won! We *won*!" Temple shrieked, her perception piercing through the hellish murk that was all nearby space.

"Not quite yet, sweet, but we're over the biggest hump," and the two held an impromptu, but highly satisfactory, celebration.

Perhaps it would be better to say that the planet Strett became a junior-grade nova, since the actual nova stage was purely superficial and did not last very long. In a couple of hours things had quieted down enough so that the heavily-screened warships could approach the planet and finish up their part of the job.

Much of Strett's land surface was molten lava. Much of its water was gone. There were some pockets of resistance left, of course, but they did not last long. Equally of course the Stretts themselves, twenty-five miles underground, had not been harmed at all.

But that, too, was according to plan.

LEAVING the task force on guard, to counter any move the Stretts might be

able to make, Hilton shot the *Sirius* out to the planet's moon. There Sawtelle and his staff and tens of thousands of Omans and machines were starting to work. No part of this was Hilton's job; so all he and Temple did was look on.

Correction, please. That was not *all* they did. But while resting and eating and loafing and sleeping and enjoying each other's company, both watched Operation Moon closely enough to be completely informed as to everything that went on.

Immense, carefully placed pits went down to solid bedrock. To that rock were immovably anchored structures strong enough to move a world. Driving units were installed—drives of such immensity of power as to test to the full the highest engineering skills of the Galaxy. Mountains of fuel-concentrate filled vast reservoirs of concrete. Each was connected to a drive by fifty-inch high-speed conveyors.

Sawtelle drove a thought and those brutal super-drives began to blast.

As they blasted, Strett's satellite began to move out of its orbit. Very slowly at first, but faster and faster. They continued to blast, with all their prodigious might and in carefully-computed order, until the desired orbit was attained—an orbit which terminated in a vertical line through the center of the Stretts' supposedly impregnable retreat.

The planet Strett had a mass of approximately seven times ten to the twenty-first metric tons. Its moon, little more than a hundredth as massive, still weighed in at about eight times ten to the nineteenth—that is, the figure eight followed by nineteen zeroes.

And moon fell on planet, in direct central impact, after having fallen from a height of over a quarter of a million miles under the full pull of gravity and the full thrust of those mighty atomic drives.

The kinetic energy of such a collision can be computed. It can be expressed. It is, however, of such astronomical magnitude as to be completely meaningless to the human mind.

Simply, the two worlds merged and splashed. Droplets, weighing up to millions of tons each, spattered out into space; only to return, in seconds or hours or weeks or months, to add their atrocious contributions to the enormity of the destruction already wrought.

No trace survived of any Strett or of any thing, however small, pertaining to the

Stretts.

Epilogue

AS had become a daily custom, most of the Ardans were gathered at the natatorium. Hilton and Temple were wrestling in the water—she was trying to duck him and he was hard put to it to keep her from doing it. The platinum-haired twins were—oh, ever so surreptitiously and undetectably!—studying the other girls.

Captain Sawtelle—he had steadfastly refused to accept any higher title—and his wife were teaching two of their tiny grandchildren to swim.

In short, everything was normal.

Beverly Bell Poynter, from the top platform, hit the board as hard as she could hit it; and, perfectly synchronized with it, hurled herself upward. Up and up and up she went. Up to her top ceiling of two hundred ten feet. Then, straightening out into a shapely arrow and without again moving a muscle, she hurtled downward, making two and a half beautifully stately turns and striking the water with a slurping, splashless *chug!* Coming easily to the surface, she shook the water out of her eyes.

Temple, giving up her attempts to near-drown her husband, rolled over and floated quietly beside him.

"You know, this is fun," he said.

"Uh-huh," she agreed enthusiastically.

"I'm glad you and Sandy buried the hatchet. Two of the top women who ever lived. Or should I have said sheathed the claws? Or have you, really?"

"Pretty much ... I guess." Temple didn't seem altogether sure of the point. "Oh-oh. Now what?"

A flitabout had come to ground. Dark Lady, who never delivered a message via thought if she could possibly get away with delivering it in person, was running full tilt across the sand toward them. Her long black hair was streaming out

behind her; she was waving a length of teletype tape as though it were a pennon.

"Oh, no. Not *again*?" Temple wailed. "Don't tell us it's Terra again, Dark Lady, please."

"But it is!" Dark Lady cried, excitedly. "And it says 'From Five-Jet Admiral Gordon, Commanding.'"

"Omit flowers, please," Hilton directed. "Boil it down."

"The *Perseus* is in orbit with the whole Advisory Board. They want to hold a top-level summit conference with Director Hilton and Five-Jet Admiral Sawtelle." Dark Lady raised her voice enough to be sure Sawtelle heard the title, and shot him a wicked glance as she announced it. "They hope to conclude all unfinished business on a mutually satisfactory and profitable basis."

"Okay, Lady, thanks. Tell 'em we'll call 'em shortly."

Dark Lady flashed away and Hilton and Temple swam slowly toward a ladder.

"Drat Terra and everything and everybody on it," Temple said, vigorously. "And especially drat His Royal Fatness Five-Jet Admiral Gordon. How much longer will it take, do you think, to pound some sense into their pointed little heads?"

"Oh, we're not doing too bad," Hilton assured his lovely bride. "Two or three more sessions ought to do it."

Everything was normal....

END

Don't miss the next Galaxy Magazine!

THE BIG ENGINE
by Fritz Leiber

CRITICAL MASS
by Pohl & Kornbluth

THE RAG AND BONE MEN
by Algis Budrys

And many more, including Willy Ley science column and the great conclusion of Poul Anderson's THE DAY AFTER DOOMSDAY! February *Galaxy* on sale December 10th—ask your newsdealer to reserve it for you!

Transcriber's Note

This etext was produced from *Worlds of If* November 1961 and January 1962. Extensive research did not uncover any evidence that the U.S. copyright on these publications was renewed.

The chapter headers of the second instalment, originally starting from X, have been correctly numbered. Minor spelling and typographical errors have been corrected without note.

End of the Project Gutenberg EBook of Masters of Space, by
Edward Elmer Smith and Edward Everett Evans

*** END OF THIS PROJECT GUTENBERG EBOOK MASTERS OF SPACE ***

***** This file should be named 22754-h.htm or 22754-h.zip *****
This and all associated files of various formats will be found in:
<http://www.gutenberg.org/2/2/7/5/22754/>

Produced by Robert Cicconetti, Stephen Blundell and the
Online Distributed Proofreading Team at <http://www.pgdp.net>

Updated editions will replace the previous one--the old editions
will be renamed.

Creating the works from public domain print editions means that no
one owns a United States copyright in these works, so the Foundation
(and you!) can copy and distribute it in the United States without
permission and without paying copyright royalties. Special rules,
set forth in the General Terms of Use part of this license, apply to
copying and distributing Project Gutenberg-tm electronic works to
protect the PROJECT GUTENBERG-tm concept and trademark. Project

Gutenberg is a registered trademark, and may not be used if you charge for the eBooks, unless you receive specific permission. If you do not charge anything for copies of this eBook, complying with the rules is very easy. You may use this eBook for nearly any purpose such as creation of derivative works, reports, performances and research. They may be modified and printed and given away--you may do practically ANYTHING with public domain eBooks. Redistribution is subject to the trademark license, especially commercial redistribution.

*** START: FULL LICENSE ***

THE FULL PROJECT GUTENBERG LICENSE
PLEASE READ THIS BEFORE YOU DISTRIBUTE OR USE THIS WORK

To protect the Project Gutenberg-tm mission of promoting the free distribution of electronic works, by using or distributing this work (or any other work associated in any way with the phrase "Project Gutenberg"), you agree to comply with all the terms of the Full Project Gutenberg-tm License (available with this file or online at <http://gutenberg.org/license>).

Section 1. General Terms of Use and Redistributing Project Gutenberg-tm electronic works

1.A. By reading or using any part of this Project Gutenberg-tm electronic work, you indicate that you have read, understand, agree to and accept all the terms of this license and intellectual property (trademark/copyright) agreement. If you do not agree to abide by all the terms of this agreement, you must cease using and return or destroy all copies of Project Gutenberg-tm electronic works in your possession. If you paid a fee for obtaining a copy of or access to a Project Gutenberg-tm electronic work and you do not agree to be bound by the terms of this agreement, you may obtain a refund from the person or entity to whom you paid the fee as set forth in paragraph 1.E.8.

1.B. "Project Gutenberg" is a registered trademark. It may only be used on or associated in any way with an electronic work by people who agree to be bound by the terms of this agreement. There are a few things that you can do with most Project Gutenberg-tm electronic works even without complying with the full terms of this agreement. See paragraph 1.C below. There are a lot of things you can do with Project Gutenberg-tm electronic works if you follow the terms of this agreement and help preserve free future access to Project Gutenberg-tm electronic works. See paragraph 1.E below.

1.C. The Project Gutenberg Literary Archive Foundation ("the Foundation" or PGLAF), owns a compilation copyright in the collection of Project Gutenberg-tm electronic works. Nearly all the individual works in the collection are in the public domain in the United States. If an individual work is in the public domain in the United States and you are located in the United States, we do not claim a right to prevent you from copying, distributing, performing, displaying or creating derivative works based on the work as long as all references to Project Gutenberg are removed. Of course, we hope that you will support the Project Gutenberg-tm mission of promoting free access to electronic works by freely sharing Project Gutenberg-tm works in compliance with the terms of this agreement for keeping the Project Gutenberg-tm name associated with the work. You can easily comply with the terms of this agreement by keeping this work in the same format with its attached full Project Gutenberg-tm License when you share it without charge with others.

1.D. The copyright laws of the place where you are located also govern what you can do with this work. Copyright laws in most countries are in a constant state of change. If you are outside the United States, check the laws of your country in addition to the terms of this agreement before downloading, copying, displaying, performing, distributing or creating derivative works based on this work or any other Project Gutenberg-tm work. The Foundation makes no representations concerning the copyright status of any work in any country outside the United States.

1.E. Unless you have removed all references to Project Gutenberg:

1.E.1. The following sentence, with active links to, or other immediate access to, the full Project Gutenberg-tm License must appear prominently whenever any copy of a Project Gutenberg-tm work (any work on which the phrase "Project Gutenberg" appears, or with which the phrase "Project Gutenberg" is associated) is accessed, displayed, performed, viewed, copied or distributed:

This eBook is for the use of anyone anywhere at no cost and with almost no restrictions whatsoever. You may copy it, give it away or re-use it under the terms of the Project Gutenberg License included with this eBook or online at www.gutenberg.org

1.E.2. If an individual Project Gutenberg-tm electronic work is derived from the public domain (does not contain a notice indicating that it is posted with permission of the copyright holder), the work can be copied and distributed to anyone in the United States without paying any fees or charges. If you are redistributing or providing access to a work with the phrase "Project Gutenberg" associated with or appearing on the work, you must comply either with the requirements of paragraphs 1.E.1 through 1.E.7 or obtain permission for the use of the work and the Project Gutenberg-tm trademark as set forth in paragraphs 1.E.8 or 1.E.9.

1.E.3. If an individual Project Gutenberg-tm electronic work is posted with the permission of the copyright holder, your use and distribution must comply with both paragraphs 1.E.1 through 1.E.7 and any additional terms imposed by the copyright holder. Additional terms will be linked to the Project Gutenberg-tm License for all works posted with the permission of the copyright holder found at the beginning of this work.

1.E.4. Do not unlink or detach or remove the full Project Gutenberg-tm License terms from this work, or any files containing a part of this work or any other work associated with Project Gutenberg-tm.

1.E.5. Do not copy, display, perform, distribute or redistribute this electronic work, or any part of this electronic work, without prominently displaying the sentence set forth in paragraph 1.E.1 with active links or immediate access to the full terms of the Project Gutenberg-tm License.

1.E.6. You may convert to and distribute this work in any binary, compressed, marked up, nonproprietary or proprietary form, including any word processing or hypertext form. However, if you provide access to or distribute copies of a Project Gutenberg-tm work in a format other than "Plain Vanilla ASCII" or other format used in the official version posted on the official Project Gutenberg-tm web site (www.gutenberg.org), you must, at no additional cost, fee or expense to the user, provide a copy, a means of exporting a copy, or a means of obtaining a copy upon request, of the work in its original "Plain Vanilla ASCII" or other form. Any alternate format must include the full Project Gutenberg-tm License as specified in paragraph 1.E.1.

1.E.7. Do not charge a fee for access to, viewing, displaying, performing, copying or distributing any Project Gutenberg-tm works unless you comply with paragraph 1.E.8 or 1.E.9.

1.E.8. You may charge a reasonable fee for copies of or providing access to or distributing Project Gutenberg-tm electronic works provided that

- You pay a royalty fee of 20% of the gross profits you derive from the use of Project Gutenberg-tm works calculated using the method you already use to calculate your applicable taxes. The fee is owed to the owner of the Project Gutenberg-tm trademark, but he has agreed to donate royalties under this paragraph to the Project Gutenberg Literary Archive Foundation. Royalty payments must be paid within 60 days following each date on which you prepare (or are legally required to prepare) your periodic tax returns. Royalty payments should be clearly marked as such and sent to the Project Gutenberg Literary Archive Foundation at the address specified in Section 4, "Information about donations to the Project Gutenberg Literary Archive Foundation."
- You provide a full refund of any money paid by a user who notifies you in writing (or by e-mail) within 30 days of receipt that s/he does not agree to the terms of the full Project Gutenberg-tm License. You must require such a user to return or destroy all copies of the works possessed in a physical medium and discontinue all use of and all access to other copies of Project Gutenberg-tm works.
- You provide, in accordance with paragraph 1.F.3, a full refund of any money paid for a work or a replacement copy, if a defect in the electronic work is discovered and reported to you within 90 days of receipt of the work.
- You comply with all other terms of this agreement for free distribution of Project Gutenberg-tm works.

1.E.9. If you wish to charge a fee or distribute a Project Gutenberg-tm electronic work or group of works on different terms than are set forth in this agreement, you must obtain permission in writing from both the Project Gutenberg Literary Archive Foundation and Michael Hart, the owner of the Project Gutenberg-tm trademark. Contact the Foundation as set forth in Section 3 below.

1.F.

1.F.1. Project Gutenberg volunteers and employees expend considerable effort to identify, do copyright research on, transcribe and proofread public domain works in creating the Project Gutenberg-tm collection. Despite these efforts, Project Gutenberg-tm electronic works, and the medium on which they may be stored, may contain "Defects," such as, but not limited to, incomplete, inaccurate or corrupt data, transcription errors, a copyright or other intellectual property infringement, a defective or damaged disk or other medium, a computer virus, or computer codes that damage or cannot be read by your equipment.

1.F.2. LIMITED WARRANTY, DISCLAIMER OF DAMAGES - Except for the "Right of Replacement or Refund" described in paragraph 1.F.3, the Project Gutenberg Literary Archive Foundation, the owner of the Project Gutenberg-tm trademark, and any other party distributing a Project Gutenberg-tm electronic work under this agreement, disclaim all liability to you for damages, costs and expenses, including legal

fees. YOU AGREE THAT YOU HAVE NO REMEDIES FOR NEGLIGENCE, STRICT LIABILITY, BREACH OF WARRANTY OR BREACH OF CONTRACT EXCEPT THOSE PROVIDED IN PARAGRAPH F3. YOU AGREE THAT THE FOUNDATION, THE TRADEMARK OWNER, AND ANY DISTRIBUTOR UNDER THIS AGREEMENT WILL NOT BE LIABLE TO YOU FOR ACTUAL, DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE OR INCIDENTAL DAMAGES EVEN IF YOU GIVE NOTICE OF THE POSSIBILITY OF SUCH DAMAGE.

1.F.3. LIMITED RIGHT OF REPLACEMENT OR REFUND - If you discover a defect in this electronic work within 90 days of receiving it, you can receive a refund of the money (if any) you paid for it by sending a written explanation to the person you received the work from. If you received the work on a physical medium, you must return the medium with your written explanation. The person or entity that provided you with the defective work may elect to provide a replacement copy in lieu of a refund. If you received the work electronically, the person or entity providing it to you may choose to give you a second opportunity to receive the work electronically in lieu of a refund. If the second copy is also defective, you may demand a refund in writing without further opportunities to fix the problem.

1.F.4. Except for the limited right of replacement or refund set forth in paragraph 1.F.3, this work is provided to you 'AS-IS' WITH NO OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE.

1.F.5. Some states do not allow disclaimers of certain implied warranties or the exclusion or limitation of certain types of damages. If any disclaimer or limitation set forth in this agreement violates the law of the state applicable to this agreement, the agreement shall be interpreted to make the maximum disclaimer or limitation permitted by the applicable state law. The invalidity or unenforceability of any provision of this agreement shall not void the remaining provisions.

1.F.6. INDEMNITY - You agree to indemnify and hold the Foundation, the trademark owner, any agent or employee of the Foundation, anyone providing copies of Project Gutenberg-tm electronic works in accordance with this agreement, and any volunteers associated with the production, promotion and distribution of Project Gutenberg-tm electronic works, harmless from all liability, costs and expenses, including legal fees, that arise directly or indirectly from any of the following which you do or cause to occur: (a) distribution of this or any Project Gutenberg-tm work, (b) alteration, modification, or additions or deletions to any Project Gutenberg-tm work, and (c) any Defect you cause.

Section 2. Information about the Mission of Project Gutenberg-tm

Project Gutenberg-tm is synonymous with the free distribution of electronic works in formats readable by the widest variety of computers including obsolete, old, middle-aged and new computers. It exists because of the efforts of hundreds of volunteers and donations from people in all walks of life.

Volunteers and financial support to provide volunteers with the assistance they need, is critical to reaching Project Gutenberg-tm's goals and ensuring that the Project Gutenberg-tm collection will remain freely available for generations to come. In 2001, the Project Gutenberg Literary Archive Foundation was created to provide a secure and permanent future for Project Gutenberg-tm and future generations. To learn more about the Project Gutenberg Literary Archive Foundation and how your efforts and donations can help, see Sections 3 and 4 and the Foundation web page at <http://www.pgla.org>.

Section 3. Information about the Project Gutenberg Literary Archive Foundation

The Project Gutenberg Literary Archive Foundation is a non profit 501(c)(3) educational corporation organized under the laws of the state of Mississippi and granted tax exempt status by the Internal Revenue Service. The Foundation's EIN or federal tax identification number is 64-6221541. Its 501(c)(3) letter is posted at <http://pglaf.org/fundraising>. Contributions to the Project Gutenberg Literary Archive Foundation are tax deductible to the full extent permitted by U.S. federal laws and your state's laws.

The Foundation's principal office is located at 4557 Melan Dr. S. Fairbanks, AK, 99712., but its volunteers and employees are scattered throughout numerous locations. Its business office is located at 809 North 1500 West, Salt Lake City, UT 84116, (801) 596-1887, email business@pglaf.org. Email contact links and up to date contact information can be found at the Foundation's web site and official page at <http://pglaf.org>

For additional contact information:

Dr. Gregory B. Newby
Chief Executive and Director
gbnewby@pglaf.org

Section 4. Information about Donations to the Project Gutenberg Literary Archive Foundation

Project Gutenberg-tm depends upon and cannot survive without wide spread public support and donations to carry out its mission of increasing the number of public domain and licensed works that can be freely distributed in machine readable form accessible by the widest array of equipment including outdated equipment. Many small donations (\$1 to \$5,000) are particularly important to maintaining tax exempt status with the IRS.

The Foundation is committed to complying with the laws regulating charities and charitable donations in all 50 states of the United States. Compliance requirements are not uniform and it takes a considerable effort, much paperwork and many fees to meet and keep up with these requirements. We do not solicit donations in locations where we have not received written confirmation of compliance. To SEND DONATIONS or determine the status of compliance for any particular state visit <http://pglaf.org>

While we cannot and do not solicit contributions from states where we have not met the solicitation requirements, we know of no prohibition against accepting unsolicited donations from donors in such states who approach us with offers to donate.

International donations are gratefully accepted, but we cannot make any statements concerning tax treatment of donations received from outside the United States. U.S. laws alone swamp our small staff.

Please check the Project Gutenberg Web pages for current donation methods and addresses. Donations are accepted in a number of other ways including checks, online payments and credit card donations. To donate, please visit: <http://pglaf.org/donate>

Section 5. General Information About Project Gutenberg-tm electronic works.

Professor Michael S. Hart is the originator of the Project Gutenberg-tm concept of a library of electronic works that could be freely shared with anyone. For thirty years, he produced and distributed Project Gutenberg-tm eBooks with only a loose network of volunteer support.

Project Gutenberg-tm eBooks are often created from several printed editions, all of which are confirmed as Public Domain in the U.S. unless a copyright notice is included. Thus, we do not necessarily keep eBooks in compliance with any particular paper edition.

Most people start at our Web site which has the main PG search facility:

<http://www.gutenberg.org>

This Web site includes information about Project Gutenberg-tm, including how to make donations to the Project Gutenberg Literary Archive Foundation, how to help produce our new eBooks, and how to subscribe to our email newsletter to hear about new eBooks.