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WORLDS OF IF SCIENCE FICTION

Sept.-Oct. 1974
Vol. 22, No. 7
Issue No. 174

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Cover by Wendi Pini from A KNIGHT OF GHOSTS AND SHADOWS

Interior illustrations by Fabian, Freff, Gaughan, Pini

Worlds of IF is published bimonthly by UPD Publishing Corporation, a subsidiary of Universal Publishing & Distributing Corporation. Arnold E. Abramson, President. Main Offices: 235 East 45 Street, New York, N.Y. 10017. Single Copy: 75c. 12-issue subscription: $9.00 in U.S., $10.00 elsewhere.

Worlds of IF is published in the United Kingdom by Universal-Tandem Publishing Company, Ltd., 14 Gloucester Road, London SW7 4RD. Arnold E. Abramson, Chairman of the Board, Ralph Stokes, Managing Director. Single copy: 30p. 12-issue subscription in the United Kingdom: 4.20p.

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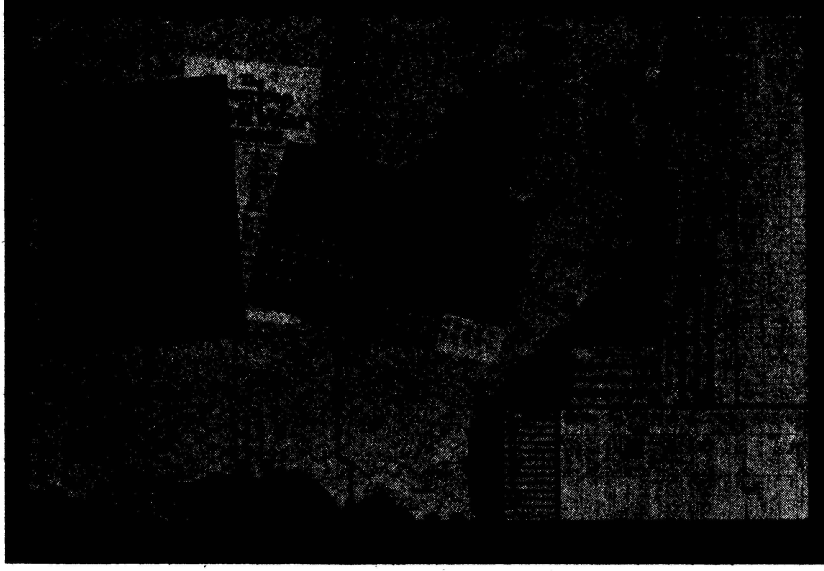

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A Knight of Ghosts and Shadows

Barbarians without, decadence within; the Empire of Terra is crumbling—and only Flandry seems to really care!

POUL ANDERSON

HOW SHALL *we tell it, brothers, the tale of Bodin's raid? Whence can we draw the words of wrath and sorrow, the words of valor and vengeance? Who today is a poet such as Andrei Simich, singer of heroes?*

For Andrei, words ran to command, baying and belling like a pack of hounds in pursuit through mountains where echoes fly. The words of Andrei thundered like tundra beneath a herd of gromatz, shrieked like wind around the wings of the orlik as it stoops upon its prey, roared like a dyavo hunting—then sounded low and sweet, whether deadly as the call of a vilya or innocent as the song of a guslar.

Human and zmay together thrilled at the lays of Andrei when he celebrated the olden heroes, Yovan Matavuly who led the Founders the long lightless way to this our Morning Star, Toman Obilich who slew wild Vladimir on the crown of the Glacier, Gwyth who dared the storms of the Black Ocean, Stefan Miyatovich—great ancestor of Gospodar Bodin—who in the depths of the Night Years cast back the reavers from our very homes. Ah, well could Andrei Simich have sung the deeds of Bodin!

But his voice is departed. That the glory of Bodin Miyatovich go not from the memory, let us find what poor plain words we may.

Every planet in the story is cold—even Terra, though Flandry came home on a warm evening of northern summer. There the chill was in the spirit.

He felt its breath as he neared. Somehow, talk between him and his son had drifted to matters Imperial. They had avoided all such during their holiday.

Terra itself had not likely reminded them. The globe hung

beautiful in starry darkness, revealed by a viewscreen in the cabin where they sat. It was almost full, because they were accelerating with the sun behind them and were not yet close enough to start on an approach curve. At this remove it shone white-swirled blue, unutterably pure, near dewdrop Luna. Nothing was visible of the scars that man had made upon it.

And the saloon was good to be in, bulkheads nacreous gray, benches padded in maroon velvyl, table of authentic teak whereon stood Scotch whisky and everything needed for the use thereof, warm and flawlessly recycled air through which gamboled a dance tune and drifted an odor of lilacs. The *Hooligan*, private speedster of Captain Sir Dominic Flandry, was faster, better armed, and generally more versatile than any vessel of her class had a moral right to be; but her living quarters reflected her owner's philosophy that, if one is born into an era of decadence, one may as well enjoy it—while it lasts.

He leaned back, inhaled deeply of his cigarette, took more smokiness in a sip from his glass, and regarded Dominic Hazeltine with some concern. If the frontier was truly that close to exploding—and the boy must go there again—"Are you sure?" he asked. "What proven facts have you got . . . proven by yourself, not somebody else? Why wouldn't I have heard more?"

His companion returned a steady look. "I don't want to make you feel old," he said; and the knowledge passed through Flandry that a lieutenant commander of Naval intelligence, twenty-seven standard years of age, wasn't really a boy, nor was his father any longer the boy who had begotten him. Then Hazeltine smiled and took the curse off: "Well, I might want to, just so I can hope that at your age I'll have acquired, let alone kept, your capacity for the three basic things in life."

"Three?"

"Feasting, fighting, and—Wait; of course I haven't been along when you were in a fight. But I've no doubt you perform as well as ever in that department too. Still, you told me for the last three years you've stayed in the Solar System, taking life easy. If the whole word about Dennitza hasn't reached the Emperor—and apparently it's barely starting to—why should it have come to a pampered pet of his?"

"Hm. I'm not really. He pampers with a heavy hand. So I avoid the court as much as politeness allows. This indefinite furlough I'm on—nobody but him would dare call me back to duty, unless I grow bored and request assignment—that's the only important privilege I've taken. Aside from the outrageous amount of talent, capability, and charm with which I was born; and I do my best to share those chromosomes."

Flandry had spoke lightly in half a hope of getting a similar response. They had bantered throughout their month-long jaunt, whether on a breakneck hike in the Great Rift of Mars or gambling in a miners' dive in Low Venusberg, running the rings of Saturn or dining in elegance beneath its loveliness on Iapetus with two ladies ex-

pert and expensive. Must they already return to realities?

They'd been more friends than father and son. The difference in age hardly showed. They bore well-muscled height in common, supple movement, gray eyes, baritone voice. Flandry's face stood out in a perhaps overly handsome combination of straight nose, high cheekbones, cleft chin—the result of a biosculp job many years past, which he had never bothered to change again—and trim mustache. His sleek seal-brown hair was frosted at the temples; when Hazeltine accused him of bringing this about by artifice, he had grinned and not denied it. Though both wore civilian garb, Flandry's iridescent puff-sleeved blouse, scarlet cummerbund, flared blue trousers, and curly-toed beefleather slippers opposed the other's plain coverall.

Broader features, curved nose, full mouth, crow's-wing locks recalled Persis d'Io as she had been when she and Flandry said farewell on a planet now destroyed, he not knowing she bore his child. The tan of strange suns, the lines creased by squinting into strange weathers, had not altogether gone from Hazeltine in the six weeks since he reached Terra. But his unsophisticated ways meant only that he had spent his life on the fringes of the Empire. He had caroused with a gusto to match his father's. He had shown the same taste in speech—

("—an itchy position for me, my own admiral looking for a nice lethal job he could order me to do," Flandry reminisced. "Fenross hated my guts. He didn't like the rest of me very much, either. I saw I'd better produce a stratagem, and fast."

("Did you?" Hazeltine inquired.

("Of course. You see me here, don't you? It's practically a *sine qua non* of a field agent staying alive, that he be able to outthink not just the opposition, but his superiors."

("No doubt you were inspired by the fact that 'stratagem' spelled backwards is 'megatarts.' The prospect of counting your loose women by millions should give plenty of incentive."

Flandry stared. "Now I'm certain you're my bairn! Though to be frank, that awesomely pleasant notion escaped me. Instead, having developed my scheme, I confronted a rather ghastly idea which has haunted me ever afterward: that maybe there's no one alive more intelligent than me.")

—and yet, and yet, an underlying earnestness always remained with him.

Perhaps he had that from his mother: that, and pride. She'd let the infant beneath her heart live, abandoned her titled official lover, resumed her birthname, gone from Terra to Sassania and started anew as a dancer, at last married reasonably well, but kept young Dominic by her till he enlisted. Never had she sent word back from her frontier home, not when Flandry well-nigh single-handed put down the barbarians of Scotha and was knighted for it, not when Flandry well-nigh single-handed rescued the new Emperor's favorite granddaughter and headed off a provincial rebellion and was summoned Home to be rewarded. Nor had her

son, who always knew his father's name, called on him until lately, when far enough along in his own career that nepotism could not be thought necessary.

Thus Dominic Hazeltine refused the offer of merry chitchat and said in his burred un-Terran version of Anglic, "Well, if you've been taking what amounts to a long vacation, the more reason why you wouldn't have kept track of developments. Maybe his Majesty simply hasn't been bothering you about them, and has been quite concerned himself for quite some while. Regardless, I've been yonder and *I* know."

Flandry dropped the remnant of his cigarette in an ashtaker. "You wound my vanity, which is no mean accomplishment," he replied. "Remember, for three or four years earlier—between the time I came to his notice and the time we could figure he was planted on the throne too firmly to have a great chance of being uprooted—I was one of his several right hands. Field and staff work both, specializing in the problem of making the marches decide they'd really rather keep Hans for their Emperor than revolt all over again. Do you think, if he sees fresh trouble where I can help, he won't consult me? Or do you think, because I've been utilizing a little of the hedonism I fought so hard to preserve, I've lost interest in my old circuits? No, I've followed the news, and an occasional secret report."

He stirred, tossed off his drink, and added, "Besides, you claim the Gospodar of Dennitza is our latest problem child. But you've also said you were working Sector Arcturus: almost diametrically opposite, and well inside those vaguenesses we are pleased to call the borders of the Empire. Tell me, then—you've been almighty unspecific about your operations, and I supposed that was because you were under security, and didn't pry—tell me, as far as you're allowed, what does the space around Arcturus have to do with Dennitza? With anything in the Taurian Sector?"

"I stayed mum because I didn't want to spoil this occasion," Hazeltine said. "From what Mother told me, I expected fun, when I could get a leave long enough to justify the trip to join you; but you've opened whole universes to me that I never guessed existed." He flushed. "If I ever gave any thought to such things, I self-righteously labeled them 'vice.'"

"Which they are," Flandry put in. "What you bucolic types don't realize is that worthwhile vice does not mean lolling around on cushions eating drugged custard. How dismal! I'd rather be virtuous. Decadence requires application. But go on."

"We'll land now, and I'll report back," Hazeltine said. "I don't know where they'll send me next, and doubtless won't be free to tell you. While the chance remains, I'll be honest. I came here wanting to know you as a man, but also wanting to, oh, alert you if nothing else, because I think your brains will be sorely needed, and it's damn hard to communicate through channels."

Indeed, Flandry admitted.

His gaze went to the stars in the viewscreen. Without amplification,

few that he could see lay in the more or less 200-light-year radius of that rough and blurry-edged spheroid named the Terran Empire. Those were giants, visible by virtue of shining across distances we can traverse, under hyperdrive, but will never truly comprehend; and they filled the merest, tiniest fragment of the galaxy, far out in a spiral arm where their numbers were beginning to thin toward cosmic hollowness. Yet this insignificant Imperial bit of space held an estimated four million suns. Maybe half of those had been visited at least once. About a hundred thousand of their worlds might be considered to belong to the Empire, though for most the connection was ghostly tenuous . . . It was too much. There were too many environments, races, cultures, lives, messages. No mind, no government could know the whole, let alone cope.

Nevertheless that sprawl of planets, peoples, provinces, and protectorates must somehow cope, or see the Long Night fall. Barbarians, who had gotten spaceships and nuclear weapons too early in their history, prowled the borders; the civilized Roidhunate of Merseia probed, withdrew a little—seldom the whole way—waited, probed again . . . Rigel caught Flandry's eye, a beacon amidst the great enemy's dominions. The Taurian Sector lay in that direction, fronting the Wilderness beyond which dwelt the Merseians.

"You must know something I don't, if you claim the Dennitzans are brewing trouble," he said. "However, are you sure what you know is true?"

"What can you tell me about them?" Hazeltine gave back.

"Hm? Why—um, yes, that's sensible, first making clear to you what information and ideas I have."

"Especially since they must reflect what the higher-ups believe, which I'm not certain about."

"Neither am I, really. My attention's been directed elsewhere, Tauria seeming as reliably under control as any division of the Empire."

"After your experience there?"

"Precisely on account of it. Very well. We'll save time if I run barefoot through the obvious. Then you needn't interrogate me, groping around for what you may not have suspected hitherto."

Hazeltine nodded. "Besides," he said, "I've never been in those parts myself."

"Oh? You mentioned assignments which concerned the Merseia-ward frontier and our large green playmates."

"Tauria isn't the only sector at that end of the Empire," Hazeltine pointed out.

Too big, this handful of stars we suppose we know . . . "Ahem." Flandry took the crystal decanter. A refill gurgled into his glass. "You've heard how I happened to be in the neighborhood when the governor, Duke Alfred of Varrak, kidnapped Princess Megan while she was touring, as part of a scheme to detach the Taurian systems from the Empire and bring them under Merseian protection—which means possession. Chives and I thwarted him, or is 'foiled' a more dramatic word?

"Well, then the question arose, what to do next? Let me remind you, Hans had assumed, which means grabbed, the crown less than two years earlier. Everything was still in upheaval. Three avowed rivals were out to replace him by force of arms, and nobody could guess how many more would take any opportunity that came along, whether to try for supreme power or for piratical autonomy. Alfred wouldn't have made his attempt without considerable support among his own people. Therefore, not only must the governorship change, but the sector capital.

"Now Dennitza may not be the most populous, wealthy, or up-to-date human-colonized planet in Tauria. However, it has a noticeable sphere of influence. And it has strength out of proportion, thanks to traditionally maintaining its own military, under the original treaty of annexation. And the Dennitzans always despised Josip. His tribute assessors and other agents he sent them, through Duke Alfred, developed a tendency to get killed in brawls, and somehow nobody afterward could identify the brawlers. When Josip died, and the Policy Board split on accepting his successor, and suddenly all hell let out for noon, the Gospodar declared for Hans Molitor. He didn't actually dispatch troops to help, but he kept order in his part of space, gave the Merseians no opening—doubtless the best service he could have rendered.

"Wasn't he the logical choice to take change of Tauria? Isn't he still?"

"In spite of Merseians on his home planet?" Hazeltine challenged.

"Citizens of Merseian descent," Flandry corrected. "Rather remote descent, I've heard. There are humans who serve the Roidhunate, too, and not every one has been bought or brainscrubbed; some families have lived on Merseian worlds for generations."

"Nevertheless," Hazeltine said, "the Dennitzan culture isn't Terran—isn't entirely human. Remember how hard the colonists of Avalon fought to stay in the Domain of Ythri, way back when the Empire waged a war to adjust that frontier? Why should Dennitzans feel brotherly toward Terrans?"

"I don't suppose they do." Flandry shrugged. "I've never visited them either. But I've met other odd human societies, not to speak of nonhuman. They stay in the Empire because it gives them the Pax and often a fair amount of commercial benefit, without usually charging too high a price for the service. From what little I saw and heard in the way of reports on the Gospodar and his associates, they aren't such fools as to imagine they can stay at peace independently. Their history includes the Troubles, and their ancestors freely joined the Empire when it appeared."

"Nowadays Merseia might offer them a better deal."

"Uh-uh. They've been marchmen up against Merseia far too long. Too many inherited grudges."

"Such things can change. I've known marchmen myself. They take on the traits of their enemies, and eventually—" Hazeltine leaned across the table. His voice harsh-

ened. "Why are the Dennitzans resisting the Emperor's decree?"

"About disbanding their militia?" Flandry sipped. "Yes, I know, the Gospodar's representatives here have been appealing, arguing, logrolling, probably bribing, and certainly making nuisances of themselves on governmental levels as high as the Policy Board. Meanwhile he drags his feet. If the Emperor didn't have more urgent matters on deck, we might have seen fireworks by now."

"Nuclear?"

"Oh, no, no. Haven't we had our fill of civil war? I spoke metaphorically. And . . . between us, lad, I can't blame the Gospodar very much. True, Hans' idea is that consolidating all combat services may prevent a repetition of what we just went through. I can't say it won't help; nor can I say it will. If nothing else, the Dennitzans do nest way out on a windy limb. They have more faith in their ability to protect themselves, given Navy support, than in the Navy's ability to do it alone. They may well be right. This is too serious a matter—a whole frontier is involved—too serious for impulsive action: another reason, I'm sure, why Hans has been patient, has not dismissed the Gospodar as governor or anything."

"I believe he's making a terrible mistake," Hazeltine said.

"What do you think the Dennitzans have in mind, then?"

"If not a breakaway, and inviting the Merseians in—I'm far from convinced that that's unthinkable to them, but I haven't proof—if not that, then insurrection . . . to make the Gospodar Emperor."

Flandry sat still for a while. The ship murmured, the music sang around him. Terra waxed in his sight.

Finally, taking forth a fresh cigarette, he asked, "What gives you that notion? Your latest work didn't bring you within a hundred parsecs of Dennitza, did it?"

"No." Hazeltine's mouth, which recalled the mouth of Persis, drew into thinner lines than ever hers had done. "That's what scares me. You see, we've collected evidence that Dennitzans are engineering a rebellion on Diomedes. Have you heard of Diomedes?"

"Ye-e-es. Any man who appreciates your three primaries of life ought to study the biography of Nicholas van Rijn, and he was shipwrecked there once. Yes, I know a little. But it isn't a terribly important planet to this day, is it? Why should it revolt, and how could it hope to succeed?"

"I wasn't on that team myself. But my unit was carrying out related investigations in the same sector, and we exchanged data. Apparently the Diomedeans—factions among them—hope the Domain of Ythri will help. They've acquired a mystique about the kinship of winged beings . . . Whether the Ythrians really would intervene or not is hard to tell. I suspect not, to the extent that'd bring on overt conflict with us. But they might well use the potentiality, the threat, to steer us into new orbits . . . We've barely started tracing the connections."

Flandry scowled. "And those turn out to be Dennitzan?"

"Correct. Any such conspiracy would have to involve members of a society with spaceships—preferably humans—to plant and cultivate the seed on Diomedes, and maintain at least enough liaison with Ythri that the would-be rebels stay hopeful. When our people first got on the track of this, they naturally assumed the humans were Avalonian. But a lucky capture they made, just before I left for Sol, indicated otherwise. Dennitzan agents, Dennitzan."

"Why, on the opposite side of Terra from their home?"

"Oh, come on! You know why. If the Gospodar's planning an uprising of his own, what better preliminary than one in that direction?" Hazeltine drew breath. "I don't have the details. Those are, or will be, in the reports to GHQ from our units. But isn't something in the Empire always going wrong? The word is, his Majesty plans to leave soon for Sector Spica, at the head of an armada, and curb the barbarians there. That's a long way from anyplace else. Meanwhile, how slowly do reports from an obscure clod like Diomedes grind their way through the bureaucracy?"

"When a fleet can incinerate a world," Flandry said bleakly, "I prefer governments not have fast reflexes. You and your teammates could well be quantum-hopping to an unwarranted conclusion. For instance, those Dennitzans who were caught, if they really are Dennitzans, could be freebooters. Or if they have bosses at home, those bosses may be a single clique—may be, themselves, maneuvering to overthrow the Gospodar—and may or may not have ambitions beyond that. How much more than you've told me do you know for certain?"

Hazeltine sighed. "Not much. But I hoped—" He looked suddenly, pathetically young. "I hoped you might check further into the question."

Chives entered, on bare feet which touched the carpet soundlessly though the gee-field was set at Terran standard. "I beg your pardon, sir," he addressed his master. "If you wish dinner before we reach the landing approach zone, I must commence preparations. The tournedos will obviously require a red wine. Shall I open the Chateau Falkayn '35?"

"Hm?" Flandry blinked, recalled from darker matters. "Why . . . um-m . . . I'd thought of Beaujolais."

"No, sir," said Chives, respectfully immovable. "I cannot recommend Beaujolais to accompany a tournedos such as is contemplated. And may I suggest drinking and smoking cease until your meal is ready?"

SUMMER evening around Catalina deepened into night. Flandry sat on a terrace of the lodge which the island's owner, his friend the Mayor Palatine of Britain, had built on its heights and had lent to him. He wasn't sleepy; during the space trip, his circadian rhythm had slipped out of phase with this area. Nor was he energetic. He felt—a bit sad? no, pensive, lonesome, less in an immediate fashion than as an accumulation from the

years—a mood he had often felt before and recognized would soon become restlessness. Yet while it stayed as it was, he could wonder if he should have married now and then. Or even for life? It would have been good to help young Dominic grow.

He sighed, twisted about in his lounger till he found a comfortable knees-aloft position, drew on his cigar and watched the view. Beneath him, shadowy land plunged to a bay and, beyond, the vast metallic sheet of a calm Pacific. A breeze blew cool, scented with roses and Buddha's cup. Overhead, stars twinkled forth in a sky that ranged from amethyst to silver-blue. A pair of contrails in the west caught the last glow of a sunken sun. But the evening was quiet. Traffic was never routed near the retreats of noblemen.

How many kids do I have? And how many of them know they're mine? (I've only met or heard of a few.) And where are they and what's the universe doing to them?

Hm. He pulled rich smoke across his tongue. *When a person starts sentimentalizing, it's time either to get busy or to take antisensescence treatments. Pending this decision, how about a woman? That stopover on Ceres was several days ago, after all.* He considered ladies he knew and decided against them, for each would expect personal consideration—which was her right, but his mind was still too full of his son. Therefore: *Would I rather flit to the mainland and its bright lights, or have Chives phone the nearest cepheid agency?*

As if at a signal, his personal servant appeared, a Shalmuan, slim kilt-clad form remarkably humanlike except for 140 centimeters of height, green skin, hairlessness, long prehensile tail, and, to be sure, countless more subtle variations. On a tray he carried a visicom extension, a cup of coffee, and a snifter of cognac. "You have a call, sir," he announced.

How many have you filtered out? Flandry didn't ask. Nor did he object. The nonhuman in a human milieu—or vice versa—commonly appears as a caricature of a personality, because those around him cannot see most of his soul. But Chives had attended his boss for years. "Personal servant" had come to mean more than "valet and cook;" it included being butler of a household which never stayed long in a single place, and pilot, and bodyguard, and whatever else an emergency might require.

Chives brought the lounger table into position, set down the tray, and disappeared again. Flandry's pulse bounced a little. In the screen before him was the face of Dominic Hazeltine. "Why, hello," he said. "I didn't expect to hear from you this soon."

"Well," — excitement thrummed—"you know, our conversation—When I came back to base, I got a chance at a general data scanner, and keyed for recent material on Dennitza. A part of what I learned will interest you, I think. Though you'd better act fast."

II

Immediately after the two Navy

yeomen who brought Kossara to the slave depot had signed her over to its manager and departed, he told her: "Hold out your left arm." Dazed—for she had been whisked from the ship within an hour of landing on Terra, and the speed of the aircar had blurred the enormousness of Archopolis—she obeyed. He glanced expertly at her wrist and, from a drawer, selected a bracelet of white metal, some three centimeters broad and a few millimeters thick. Hinged, it locked together with a click. She stared at the thing. A couple of sensor spots and a niello of letters and numbers were its only distinctions. It circled her arm snugly though not uncomfortably.

"The law requires slaves to wear this," the manager explained in a bored tone. He was a pudgy, faintly greasy-looking middle-aged person in whose face dwelt shrewdness.

That must be on Terra, trickled through Kossara's mind. *Other places seem to have other ways. And on Dennitza we keep no slaves . . .*

"It's powered by body heat and maintains an audiovisual link to a global monitor net," the voice went on. "If the computers notice anything suspicious—including, of course, any tampering with the bracelet—they call a human operator. He can stop you in your tracks by a signal." The man pointed to a switch on his desk. "This gives the same signal."

He pressed. Pain burned like lightning, through flesh, bone, marrow, until nothing was except pain. Kossara fell to her knees. She never knew if she screamed or if her throat had jammed shut.

He lifted his hand and the anguish was gone. Kossara crouched shaking and weeping. Dimly she heard: "That was five seconds' worth. Direct nerve stim from the bracelet, triggers a center in the brain. Harmless for periods of less than a minute, if you haven't got a weak heart or something. Do you understand you'd better be a good girl? All right, on your feet."

As she swayed erect, the shudders slowly leaving her, he smirked and muttered, "You know, you're a looker. Exotic; none of this standardized biosculp format. I'd be tempted to bid on you myself, except the price is sure to go out of my reach. Well . . . hold still."

He did no more than feel and nuzzle. She endured, thinking that probably soon she could take a long, long, long hot shower. But when a guard had conducted her to the women's section, she found the water was cold and rationed. The dormitory gaped huge, echoing, little inside it other than bunks and inmates. The mess was equally barren, the food adequate but tasteless. Some 20 prisoners were present. They received her kindly enough, with a curiosity that sharpened when they discovered she was from a distant planet and this was her first time on Terra. Exhausted, she begged off saying much and tumbled into a haunted sleep.

The next morning she got a humiliatingly thorough medical examination. A psychotech studied the dossier on her which Naval Intelligence had supplied, asked a

few questions, and signed a form. She got the impression he would have liked to inquire further—why had she rebelled?—but a Secret classification on her record scared him off. Or else (because whoever bought her would doubtless talk to her about it) he knew from his study how chaotic and broken her memories of the episode were, since the hypnoprobing on Diomedes.

That evening she couldn't escape conversation in the dormitory. The women clustered around and chattered. They were from Terra, Luna, and Venus. With a single exception, they had been sentenced to limited terms of enslavement for crimes such as repeated theft or dangerous negligence, and were not very bright or especially comely. "I don't suppose anybody'll bid on me," lamented one. "Hard labor for the government, then."

"I don't understand," said Kossara. Her soft Dennitzan accent intrigued them. "Why? I mean, when you have a worldful of machines, every kind of robot—why slaves? How can it . . . how can it pay?"

The exceptional woman, who was handsome in a haggard fashion, answered. "What else would you do with the wicked? Kill them, even for tiny things? Give them costly psychocorrection? Lock them away at public expense, useless to themselves and everybody else? No, let them work. Let the Imperium get some money from selling them the first time, if it can."

Does she talk like that because she's afraid of her bracelet? Kossara wondered. *Surely, oh, surely we can complain a little among ourselves!* "What can we do that a machine can't do better?" she asked.

"Personal services," the woman said. "Many kinds. Or . . . well, economics. Often a slave is less efficient than a machine, but needs less capital investment."

"You sound educated," Kossara remarked.

The woman sighed. "I was, once. Till I killed my husband. That meant a life term like yours, dear. To be quite safe, my buyer did pay to have my mind corrected." A sort of energy blossomed in look and tone. "How grateful I am! I was a murderess, do you hear, a murderess. I took it on myself to decide another human being wasn't fit to live. Now I know—" She seized Kossara's hands. "Ask them to correct you too. You committed treason, didn't you say? Beg them to wash you clean!"

The rest edged away. *Brainchanneled,* Kossara knew. A crawling went under her skin. "Wh-why are you here?" she stammered. "If you were bought—"

"He grew tired of me and sold me back. I'll always long for him . . . but he had the perfect right, of course." The woman drew nearer. "I like you, Kossara," she whispered. "I do hope we'll go to the same place."

"Place?"

"Oh, somebody rich may take you for a while. Likelier, though, a brothel—"

Kossara yanked free and ran. She didn't quite reach a toilet before she vomited. They made her clean the floor. Afterward, when they insisted on circling close and talking and talking, she screamed

at them to leave her alone, then enforced it with a couple of skilled blows. No punishment followed. It was dreadful to know that a half-aware electronic brain watched every pulsebeat of her existence, and no doubt occasionally a bored human supervisor examined her screen at random. But seemingly the guardians didn't mind a fight, if no property was damaged. She sought her bunk and curled up into herself.

Next morning a matron came for her, took a critical look, and nodded. "You'll do," she said. "Swallow this." She held forth a pill.

"What's that?" Kossara crouched back.

"A euphoriac. You want to be pretty for the camera, don't you? Go on, swallow." Remembering the alternative, Kossara obeyed.

As she accompanied the matron down a hall, waves of comfort passed through her, higher at each tide. It was like being drunk, no, not drunk, for she had her full senses and command of her body . . . like having savored a few glasses with Mihail, after they had danced, and the violins playing yet . . . like having Mihail here, alive again.

Almost cheerfully, in the recording room she doffed her gray issue gown, went through the paces and said the phrases designed to show her off, as instructed. She barely heard the running commentary:

"Kossara Vymezal' [mispronounced, but a phonetic spellout followed], human female, age 25, virgin, athletic, health and intelligence excellent, education good though provincial. Spirited, but ought to learn subordination in short order without radical measures. Life sentence for treason, conspiracy to promote and aid rebellion. Suffers from hostility to the Imperium and some disorientation due to hypnoprobing. Neither handicap affects her wits or basic emotional stability. Her behavior on the voyage here was cold but acceptable.

"She was born on the planet Dennitza, Zoria III in the Taurian Sector. [A string of numbers] Her family is well-placed, father being a district administrator. [Why no mention of the fact Mother was a sister of Bodin Miyatovich. Gospodar and sector governor? O Uncle, Uncle . . .] As is the rule there, she received military training and served a hitch in the armed forces. She has a degree in xenology. Having done field work on planets near home, several months ago she went to Diomedes [a string of numbers]--quite remote, her research merely a disguise. Most of the report on her has not been made available to us; and as said, she herself is confused and largely amnesiac about this period. Her main purpose was to help instigate a revolt. Before much harm was done, she was detected, arrested, interrogated, and sentenced by court-martial. There being little demand for slaves in that region, and a courier ship returning directly to Terra, she was brought along.

"We rate her unlikely to be dangerous, given the usual precautions, and attractive both physically and personally—"

The camera projected back the

holograms it had taken, for its operator's inspection, and Kossara looked upon her image. She saw a big young woman, 177 centimeters tall, a bit small in the bosom but robust in shoulders, hips, and long free-striding legs, skin ivory-clear save for a few freckles and the remnant of a tan. The face was wide, high in the cheekbones, snub in the nose, full in the mouth, strong in chin and jawline. Large blue-green eyes stood well apart beneath dark brows and reddish-brown bangs; that hair was cropped below the ears in the manner of both sexes on Dennitza. When she spoke, her voice was husky.

"—will be sullen unless drugged, but given the right training and conditions, ought to develop a high sexual capacity. A private owner may find that kindness will in due course make her loyal and responsive—"

Kossara slipped dreamily away from the words, the room, Terra... the whole way home. To Mihail? No, she couldn't quite raise him from the dust between the stars—even now, she dared not. But, oh, just a few years ago, she and Trohdwyr . . .

SHE had a vacation from her studies at the Shkola plus a furlough from her ground defense unit in the Narodna Voyska. Ordinarily she would have spent as much of this time with her betrothed as he could spare. But a space force had been detected within a few light-years of the Zorian System which might intend action on behalf of some other claimant to the Imperium than Hans Molitor whom the Gospodar supported, or might use such partisanship as an excuse for brigandage. Therefore Bodin Miyaovich led some of the Dennitzan fleet out to warn off the strangers, and if necessary fight them off. Mihail Svetich, engineer on a Meteor-class torpedo craft, had kissed Kossara farewell.

Rather than fret idle in Zorkagrad, she flitted to her parents' home. Danilo Vymezal, voivode of the Dubina Dolyina, was head of council, chief magistrate, and military commander throughout a majestic country at the northern rim of the Kazan. Soon after she reached the estate, Kossara said she wished for a long hunt. Her father regarded her for a moment before he nodded. "That will do you good," he said. "Who would you like for a partner? Trohdwyr?"

She had unthinkingly supposed she would go alone. But of course he was right; only fools went by themselves so far into wilderness that no radio relay could pass on a distress call from a pocket transceiver. The old zmay was welcome company, not least because he knew when to be silent.

They took an aircar to a meadow on the unpeopled western slope and set forth afoot. The days and nights, the leagues and heights, wind, rain, sun, struggle, and sleep were elixir. More than once she had a clear shot at a soaring orlik or a bull yelen poised on a crag, and forebore; those wings or those horns were too splendid across the sky. But at last it was sweet fire in the blood to stand before a charging dyavo, feel the rifle surge back

against her shoulder, see fangs and claws fall down within a meter of her.

Trohdwyr reproved: "You were reckless, Dama."

"He came at me from his den," Kossara retorted.

"After you saw the entrance and took care to make much noise in the bushes. Deny it not. I have known you longer than your own memory runs. You learned to walk by clinging to my tail for safety. If I lose you now, your father will dismiss me from his service, and where then shall a poor lorn dodderer go? Back to his birth village to become a fisher again, after these many years? Have mercy, Dama."

She chuckled. They set about making camp. This was high in the bowl of the Kazan, where that huge crater bit an arc from the Vysochina. The view could not have been imagined by anyone who had not seen it. Save God before He willed it.

Though treeless, the site bore a dense purple sward of mahovina, springy underfoot and spicy to smell, studded by white and gold wildflowers; and a nearby canebrake rustled in the breeze. Eastward the ringwall sloped down to timberline. Beyond, yellow beams of evening fell on a bluish mistiness of forest, as far as sight could reach, cloven by a river which gleamed like a drawn blade. Westward, not far hence, the rim stood shadowy-sharp athwart rough Vysochina hills. Behind them the snowpeaks of the Planina Byelogorski lifted sungold whiteness into an absolute azure. The purity of sky was not marred by a remote northward thread of smoke from Vulkana Zemlya.

The air grew cold soon after the sun went behind the mountains, cold as the brook which bubbled iron-tasting from a cleft in the crater's lip. Kossara hunched into her jacket, squatted down, held palms forth to the fire. Her breath drifted white through the dusk that rose from the lowlands.

Before he put their meat on a spit above coals and dancing flamelets, Trohdwyr drew a sign and spoke a few words of Eriau. Kossara knew them well: "Aferdhi of the Deeps, Blyn of the Winds, Haawan who lairs on the reefs, by this be held afar and trouble us not in our rest." Hundreds of kilometers and a long lifetime from the Black Ocean, he remained an old-fashioned pagan ychan. Early in her teens, eager in her faith, Kossara had learned it was no use trying to make an Orthochristian of him.

Surely the Pantocrator didn't mind much, and would receive his dear battered soul into Heaven at the last.

She had never thought of him as a zmay. Not that the word had any particularly bad overtones. Maybe once it had been a touch contemptuous, 400 years ago when the first immigrants arrived from Merseia; but later it came to mean simply a Dennitzan of such ancestry. (Did the growth of their original planet into a frightening rival of Terra have anything to do with that?) However, from him and his family she had learned Eriau—rather, the archaic and mutated version they spoke—at the same time as she was

learning Serbic from her parents and Anglic from a governess. When finally prevailed upon to stop scrambling these three into a private patois, she kept the habit of referring to Trohdwyr's people by their own name for themselves, "ychani": "seekers."

For he had been close to the center of her child-universe. Father and Mother were at its very heart, naturally, and so for a while were a doll named Lutka, worn into shapelessness, and a cat she called Butterfeet. Uncle Bodin approached them when he and Aunt Draga visited, or the Vymezals went to Zorkagrad and he took her to the zoo and the merrypark. Three younger siblings, two brothers and a sister, orbited like comets, now radiant with love, now off into outer darkness. Trohdwyr never shone quite as brightly as any of these; but the chief gamekeeper to three generations of her house moved in an unchangeable path, always there for her to reach when she needed him.

"*Kraich.*" Having started dinner cooking, he settled back on the tripod of clawed feet and massive tail. "You've earned a double drink this evening, Dama. A regular sundowner, and one for killing the dyavo." He poured into cups from a flask of shlivovitza. "Though *I* must skin the beast and carry the hide," he added.

The hoarse basso seemed to hold a note of genuine complaint. Startled, Kossara peered across the fire at him.

To a dweller in the inner Empire, he might have been any Merseian. No matter how anthropoid a xenosophont was, the basic differences usually drowned individuality unless you knew the species well. Trohdwyr roughly resembled a large man—especially in the face, if you overlooked endless details of its heavy-boned, brow-ridged, wide-nosed, thin-lipped construction. But he had no external earflaps, only elaborately contoured holes in the skull. Totally hairless, his skin was pale green and faintly scaled. A sierra of low triangular spines ran from the top of his forehead, down his back to the tail's end. When he stood, he leaned forward, reducing his effective height to tall-human; when he walked, it was not on heels and soles but on his toes, in an alien rhythm. He was warm-blooded, females of his race gave live birth, but he was no mammal—no kind of animal which Terra had ever brought forth.

By a million signs Kossara knew him for Trohdwyr and nobody else, as she knew her kinfolk or Mihail. He had grown gaunt, deep furrows lay in his cheeks, he habitually spurned boots and trousers for a knee-length tunic with many pockets, he wore the same kind of curve-bladed sheath knife with knuckleduster handle which he had given her and taught her to use, years before . . .

"Why, I'll abandon it if you want," she said, thinking, *Has time begun to wear him down? How hurtful to us both.*

"Oh, no, no, Dama. No need." Trohdwyr grew abashed. "Forgive a gaffer if he's grumpy. I was—well, today I almost saw you ripped apart. There I stood, you in my line of fire, and that beast—Dama,

please don't do such things again."

"I'm sorry," Kossara said. "Though I really don't believe I was taking too big a chance. I know my rifle."

"I too. Didn't you learn from me?"

"But those were lightweight weapons. Because I was a girl? Today I had a Tashta, the kind they've issued me in the Voyska. I was sure it could stop him." Kossara gazed aside, downslope toward the bottom of the Kazan, which night had already filled. "Besides," she added softly, "I needed such a moment. You're right, I did provoke the dyavo to attack."

"To get away from feeling helpless?" Trohdwyr murmured.

"Yes." She could never have opened thus to any human except Mihail, maybe not even to him; but over the years the ychan had heard confessions which she did not give her priest. "My man's yonder." She flung a hand toward the first stars as they twinkled forth, white upon violet above the lowlands. "I have to stay behind in my guard unit—when Dennitza will never be attacked!"

"Thanks to units like yours, Dama," Trohdwyr said.

"Nevertheless, he—" Kossara took her drink in a gulp. It burned the whole way down, and the glow spread fast to every part of her. She held the cup out for a refill. "Why does it matter this much who's Emperor? All right, Josip was foul and his agents did a great deal of harm. But he's dead now; and the Empire did survive him; and I've heard enough from my uncle to know that what really keeps it going is a lot of nameless little officials whose work outlasts whole dynasties. Then why do we fight over who'll sit crowned in Archopolis for the next few years?"

"You are the human, Dama, not I," said Trohdwyr. After a minute: "Yet I can think how on Merseia they would be glad to see another Terran Emperor whose spirit is fear or foolishness. And . . . we here are not overly far from Merseia."

Kossara shivered beneath the stars and took a strong sip.

"Well, it'll get settled soon," she declared. "Uncle Bodin told me he's sure it will be. This thing in space is a last gasp. Soon—" she lifted her head—"Mihail and I can travel," *exploring together the infinite marvels on worlds that circle new suns.*

"I hope so, Dama, despite that I'll miss you. Have plenty of young, and let them play and grow around me on the manor as you did, will you?"

Exalted by the liquor—how the smell of the roasting meat awakened hunger!—she blurted: "He wanted me to sleep with him before he left. I said no, we'll wait till we're married. Should I have said yes? Tell me, should I have?"

"You are the human," Trohdwyr repeated. "I can simply answer, you are the voivode's daughter and the Gospodar's niece. But I remember from my cubhood—when folk still lived in Old Aferoch, though already then the sea brought worse and worse floods—a female ychan of that town. I knew her somewhat, since a grown cousin of mine used to come in from our village, courting her—"

The story, which was of a rivalry as fierce as might have stood between two men of different clans in early days on Dennitza, but which ended after a rescue on the water, was oddly comforting: almost as if she were little again, and Trohdwyr rocked her against his warm dry breast and rumbled a lullaby. That night Kossara slept well. Some days afterward she returned happily to Dubina Dolyina. When her leave was up, she went back to Zorkagrad.

There she got the news that Mihail Svetich had been killed in action.

But standing before the slave shop's audiovisual recorders, Kossara did not think of this, nor of what had happened to Trohdwyr himself on cold Diomedes. She remained in that one evening out of the many they had had together.

THE chemical joy wore off. She lay on her bunk, bit her pillow and fought not to yell.

A further day passed.

Then she was summoned to the manager's office. "Congratulations," he said. "You've been bought, luckier than you deserve."

It roared in her. Darkness crossed her eyes. She swayed before his desk. Distantly she heard:

"A private gentleman, and he must really have liked what he saw in the catalogue, because he outbid two different cepheid houses. You can probably do well for yourself—and me, I'll admit. Remember, if he sells you later, he may well go through me again insead of making a deal directly. I don't like my reputation hurt, and I've got this switch here—Anyhow, you'll be wise if you show him your appreciation. His name is Dominic Flandry, he's a captain of Naval Intelligence, a knight of the Imperium, and, I'll tell you, a favorite of the Emperor. He doesn't need a slave for his bed. Gossip is, he's tumbled half the female nobility on Terra, and commoner girls past counting. Like I said, he must think you're special. The more grateful you act, the better your life is likely to be . . . On your way, now. Amatron will groom and gown you."

She also provided a fresh euphoriac. Thus Kossara didn't even mind that the servant who came to fetch her was hauntingly like and unlike an ychan. He too was bald, green, and tailed; but the green was grass-bright, without scales, the tail thin as a cat's, the posture erect, the height well below her own, the other differences unreckonable. "Sir Dominic saw fit to dub me Chives," he introduced himself. "I trust you will find his service pleasant. Indeed, I declined the manumission he offered me, until the law about spy bracelets went into effect on Terra. May I direct you out?"

Kossara went along through rosiness, into an aircar, on across the city and an ocean, eventually to an ornate house on an island which Chives called Catalina. He showed her to a suite and explained that her owner was busy elsewhere but would presently make his wishes known. Meanwhile these facilities were hers to use, within reason.

Kossara fell asleep imagining that Mihail was beside her.

III

IT WAS official: the Emperor Hans would shortly leave Terra, put himself at the head of an armada, and personally see to quelling the barbarians—war lords, buccaneers, crusaders for God knew what strange causes—who still harassed a Sector Spica left weak by the late struggle for the Imperial succession. He threw a *bon voyage* party at the Coral Palace. Captain Sir Dominic Flandry was among those invited. Under such circumstances, one comes.

Besides, Flandry reflected, *I can't help liking the old bastard. He may not be the best imaginable thing that could happen to us, but he's probably the best available.*

The hour was well after sunset in this part of Oceania. A crescent moon stood high to westward; metrocenter star-points glinted across it dark side. The constellations threw light of their own onto gently rolling waves, argent shimmer on sable. Quietness broke where surf growled white against ramparts. There walls, domes, towers soared aloft in a brilliance which masked off most of heaven.

When Flandry landed his car and stepped forth, no clouds of perfume (or psychogenic vapors, as had been common in Josip's reign) drifted from the palace to soften salt odors. Music wove among mild breezes, but formal, stately, neither hypersubtle nor raucous. Flandry wasn't sure whether it was composed on a colony planet—if so, doubtless Germania—or on Terra once, to be preserved through centuries while the mother world forgot. He did know that a decade ago, the court would have snickered at sounds this fusty-archaic.

Few servants bowed as he passed among fellow guests, into the main building. More guardsmen than formerly saluted. Their dress uniforms were less ornate than of yore and they and their weapons had seen action. The antechamber of fountains hadn't changed and the people who swirled between them before streaming toward the ballroom wore clothes as gorgeous as always, a rainbow spectacle. However, fantastic collars, capes, sleeves, cuffs, footgear were passe. Garb was continuous from neck or midbreast to soles, and, while many men wore robes rather than trousers, every woman was in skirts.

A reform I approve of, he thought. *I suspect most ladies agree. The suggestive rustle of skillfully draped fabric is much more stimulating, really, and easier to arrange, than cosmetics and diadems on otherwise bare areas of interest. For that matter, though it does take more effort, a seduction is better recreation than an orgy.*

There our good Hans goes too far. Every bedroom in the palace locked!

Ah, well. Conceivably he wants his entourage to cultivate ingenuity.

Crown Prince Dietrich received, a plain-faced middle-aged man whose stoutness was turning into corpulence. Though he and Flandry had worked together now and then in the fighting, his welcome was mechanical. Poor devil, he must say a personal hello to each of three or four hundred arrivals important enough to rate it, with no

drug except stim to help him. Another case of austere principles overdone, Flandry thought. The younger brother, Gerhart, was luckier tonight, already imperially drunk at a wallside table with several cronies. However, he looked as sullen as usual.

Flandry drifted around the circumference of the ballroom. There was nothing fancy about the lighting, save that it was cast to leave unobscured the stars in the vitryl dome overhead. The floor sheened with diffracted reflections from several score couples who sung through the decorous measures of a quicksilver. He hailed acquaintances when he glimpsed them, but didn't stop till he had reached an indoor arbor where champagne was available. A goblet of tickle in his hand, roses around him, a cheerful melody, a view of pretty women in motion—life could be worse.

It soon was. "Greetin', Sir Dominic."

Flandry turned, and bowed in dismay to the newcomer beneath the leaves. "Aloha, your Grace."

Tetsuo Niccolini, Duke of Mars, accepted a glass from the attendant behind the table. It was obviously not his first. "Haven't seen you for some while," he remarked. "Missed you. You've a way o' puttin' a little spark into a scene, dull as the court is these days." Shrewdly: "Reason you don't come often, what?"

"Well," Flandry admitted, "his Majesty's associates do tend to be a bit earnest and firm-jawed." He sipped. "Still, my impression is, your Grace spends a fair amount of time here regardless."

Niccolini sighed. He had never been more than a well-meaning fop; but in these last years, when antisenescence and biosculp could no longer hold wrinkles, baldness, feebleness at bay, he had developed a certain wry perspective. Unfortunately, he remained a bore.

Shadows of petals stirred across a peacock robe as he lifted his drink. "D' you think I should go to my ancestral estates and all that rubbish, set up my own small court along lines I like, eh? No, m'boy, not feasible. I'd get nothin' but sycophants, who'd pluck me while they smiled. My real friends, who put their hearts into enjoyin' life, well, they're dead or fled or sleepin' in an oldster's bed." He paused. "'Sides, might's well tell you, H.M. gave me t' understand—he makes himself very clear, ha?—gave me t' understand, he'd prefer no Duke o' Mars henceforth visit the planet 'cept for a decent minimum o' speeches an' dedications."

Flandry nodded. *That makes sense,* flickered through him. *The Martians [nonhumans: colonists by treaty arrangement in the time of the Commonwealth; glad to belong to it, but feeling betrayed when it broke down and the Troubles came; dragooned into the Empire] are still restless. Terra can best control them by removing the signs of Terran control. I suspect, after poor tottery Tetty is gone, Hans will buy out his heirs with a gimcrack title elsewhere and a lot of money, and make a Martian the next Duke—who may not even know he's a puppet.*

At least, that's what I'd consider doing.

"But we're in grave danger o' seriousness," Niccolini interrupted himself. "Where've you been? Busy at what? Come, come, somethin' amusin' must've happened."

"Oh, just knocking around with a friend." Flandry didn't care to get specific. One reason why he had thus far declined promotion to admiral was that then he'd be too conspicuous, too eagerly watched and sought after, while he remained near the Emperor. He liked his privacy. As a hanger-on who showed no further ambitions—and could therefore in time be expected to lose his energetic patron's goodwill—he drew scant attention.

"Or knockin' up a friend? Heh, heh, heh." The Duke nudged him. "I know your sort o' friends. How was she?"

"In the first place, she was a he," Flandry said. Until he could escape, he might as well reconcile himself to humoring a man who had discovered the secret of perpetual adolescence. "Of course, we explored. Found a new place on Ganymede which might interest your Grace, the Empress Wu in Celestial City."

"No, no." Niccolini waggled his head and free hand. "Didn't y' know? I never go anywhere near Jupiter. Never. Not since the *La Reine Louise* disaster."

Flandry cast his mind back. He couldn't identify—Oh, yes. It had happened five years ago, while he was out of the Solar System. Undeterred by civil war, a luxury liner was approaching Callisto when her screen field generators failed. The trapped radiation which seethes around the giant planet, engulfing its inner moons, killed everybody aboard; no treatment could restore a body burned by so much unfelt fire.

Nothing of the kind had happened for centuries of exploration and colonization thereabouts. Magnetohydrodynamic shields and their backups were supposed to be invulnerable to anything that wouldn't destroy a vehicle or a settlement anyway. Therefore, sabotage? The passenger list had included several powerful people. A court of inquiry had handed down the vaguest finding of "cumulative negligence."

"My poor young nephew, that I inherited the Dukedom from, was among the casualties," Niccolini droned on. "That roused the jolly old instinct o' self-preservation, I can tell you. Too blinkin' many hazards as is. Not that I flatter myself I'm a political bull's-eye. Still, one never knows, does one? So tell me 'bout this place you found. If it sounds intriguin', I'll see 'bout gettin' a sensie."

Flandry was saved by a courier in Imperial livery who entered the arbor and bowed. "A thousand pardons, your Grace," she said. "Sir Dominic, there is an urgent message for you. Will you please follow me?"

"With twofold pleasure," Flandry responded, for she was young and well-formed. He couldn't quite place her accent, though he guessed she might be from some part of Hermes. Even when hiring humans, the majordomos of the new Emperor's various households were under orders to get as many non-Terrans as was politic.

Whoever the summons was from,

and whether it was terrible or trivial, he was free of the Duke before he could otherwise have disengaged. The noble nodded a vague response to his apology and stood staring after him, all alone.

HIS IMPERIAL Majesty, High Emperor Hans Friedrich Molitor, of his dynasty the first, Supreme Guardian of the Pax, Grand Director of the Stellar Council, Commander-in-Chief, Final Arbiter, acknowledged supreme on more worlds and honorary head of more organizations than any one man could remember, sat by himself in a room at the top of a tower. It was sparsely furnished: a desk and communicator, a couch upholstered in worn but genuine horsehide, a few straight-backed chairs and the big pneumatic that was his. The only personal items were a dolchzahn skin on the floor, from Germania; two portraits of his late wife, in her youth and her age, and one of a blond young man; a model of the corvette that had been his first command. A turret roof, beginning at waist height, was currently transparent, letting this eyrie overlook an illuminated complex of roofs, steeples, gardens, pools, outer walls, attendant rafts, and finally the night ocean.

The courier ushered Flandry through the door and vanished as it closed behind him. He saluted and snapped to attention. "At ease," the Emperor grunted. "Sit. Smoke if you want."

He was puffing a pipe whose foulness overcame the air 'fresher. In spite of the blue tunic, white trousers, and gold braid with nebula and three stars of a grand admiral, plus the pyrocrystal ring of Manuel the Great, he was not very impressive to see. Yet meditechnics could not account for so few traces of time. The short, stocky frame had grown a kettle belly, bags lay beneath the small dark eyes, the hair was thin and gray on the blocky head: nothing that could not easily be changed by the biocosmetics he scorned to use. Nor had he ever troubled about his face, low forehead, bushy brows, huge Roman nose, heavy jowls, gash of a mouth between deep creases, prow of a chin.

"Thank you, your Majesty." Flandry settled his elegance opposite, flipped out a cigarette case which was a work of art and, at need, a weapon, and established a barrier against the reek around him.

"No foolish formalities," growled the rusty, accented basso. "I must make my grand appearance, and empty chatter will rattle for hours, and at last when I can go I'm afraid I'll be too tired for a nice new wench who's joined the collection, no matter how much I need a little fun."

"A stim pill?" Flandry suggested.

"No. I take too many as is. The price to the body mounts, you know. And . . . barely six years on the throne have I had. The first three, fighting to stay there. I need another 20 or 30 for carpentering this jerry-built, dry-rotted Empire into a thing that might last a few more generations, before I can lay down my tools." Hans chuckled coarsely. "Well, let the tool for pretty Thressa wait. recharging, till

tomorrow night. You should see her, Dominic, my friend. But not to tell anybody. By herself she could cause a revolution."

Flandry grinned. "Yes, we humans are basically sexual beings, aren't we, sir? If we can't screw each other physically, we'll do it politically."

Hans laughed aloud. He had never changed from a boy who deserted a strait-laced colonial bourgeois home for several years of wild adventure in space, the youth who enlisted in the Navy, the man who rose through the ranks without connections or flexibility to ease his way.

But he had not changed either from the hero of Syrax, where the fleet he led flung back the Merseians and forced a negotiated end to a short undeclared war which had bidden fair to grow. Nor had he changed from the leader who let his personnel proclaim him Emperor—himself reluctantly, less from vainglory than a sense of workmanship, when the legitimate order of succession had dissolved in chaos and every rival claimant was a potential disaster.

A blunt pragmatist, uncultured and unashamed of it, shrewd rather than intelligent, he either appalled Manuel Argos or won a grudging approval, in whatever hypothetical hell or Valhalla the Founder dwelt. The question was academic. His hour was now. How long that hour would be, and what the consequences, were separate puzzles.

Mirth left him. He leaned forward. The pipe smoldered between hairy hands clenched upon his knees. "I talk too much," he said, a curious admission from the curtest of the Emperors. Flandry understood, though. Few besides him were left, maybe none, with whom Hans dared talk freely. "Let us come to business. What do you know about Dennitza?"

Inwardly taken aback, Flandry replied soft-voiced, "Not much, sir. Not much about the whole Taurian Sector, in spite of having had the good luck to be there when Lady Megan needed help. Why ask me?"

Hans scowled. "I suppose you do know how the Gospodar, my sector governor, is resisting my defense reorganization. Could be a simple difference of judgment, yes. But . . . now information suggests he plans rebellion. And *that*—where he is—will involve the Merseians, unless he is already theirs."

Flandry's backbone tingled. "What are the facts, sir?"

"A wretched planet in Sector Arcturus. Diomedes, it's called. Natives who want to break away and babble of getting Ythrian help. Human agents among them. We would expect such humans would be from the Domain, likeliest Avalon—not true? But our best findings say the Ythrians hold no wish to make trouble for us. And our people discover those humans are Dennitzan. Only one was captured alive, and they had some problems with the hypnoprobing, but it does appear she went to Diomedes under secret official orders."

Hans sighed. "Not till yesterday did this reach me though the damned channels. It never would have before I left, did I not issue strictest orders about getting a direct look at whatever might pos-

sibly point to treason. And—*Gott in Himmel.* I am swamped, on top of all else! My computer screens out *lese-majeste* cases and the rest of such piddle. Nevertheless—"

Flandry nodded. "Aye, sir. You can't give any single item more than a glance. And even if you could pay full attention, you can't send the big clumsy Imperial machine barging into Tauria, disrupting our whole arrangement there, on the basis of a few accusations. Especially in your absence."

"Yes. I must go. If we don't reorder Sector Spica, the barbarians will soon ruin it. But meanwhile Tauria may explode. You see how an uprising in Sector Arcturus would be the right distraction for a traitor Dennitzan before he rebels too."

"Won't Intelligence mount a larger operation?"

"*Ja, ja, ja.* Though the Corps is still in poor shape, after wars and weedings. Also, it has much other business. And . . . Dominic, just the Corps by itself is too huge for me to know, for me to control as I should. I need—I am not sure what I need or if it can be had."

Flandry foreknew: "You want me to take a hand, sir?"

"Yes." The wild boar eyes were sighted straight on him. "In your olden style. A roving commission, and you report directly to me. Plenipotentiary authority."

Flandry's pulse broke into a canter. He kept his tone level. "Quite a solo, sir."

"Co-opt. Hire. Bribe. Threaten. Whatever you see fit."

"The odds will stay long against my finding out anything useful—at least, anything the Corps can't, quicker and better."

"You are not good at modesty," Hans said. "Are you unwilling?"

"N-no, sir." Surprised, Flandry realized he spoke truth. This could prove interesting. In fact, he knew damn well it would, for he had already involved himself in the affair. His motivation was half curiosity, half kindliness—he thought at the time—though probably, down underneath, the carnivore which had been asleep in him these past three years had roused, pricked up its ears, snuffed game scent on a night breeze. *Was that always my real desire? Not to chase down enemies of the Empire so I could go on having fun in it, but to have fun chasing them down?*

No matter. The blood surged. "I'm happy to accept, sir, provided you don't expect much. Uh, my authority, access to funds and secret data and whatnot . . . better be kept secret itself."

"Right." Hans knocked the dottle from his pipe, a ringing noise through a moment's silence. "Is this why you refused admiral's rank? You knew sneaking off someday on a mission would be easier for a mere captain."

Flandry shrugged. "If you'll tip the word to—better be none less than Kheraskov—I'll contact him as soon as may be and make arrangements."

"Have you any idea how you will begin?" Hans asked, relaxing a trifle.

"Well, I don't know. Perhaps with that alleged Dennitzan agent. What became of . . . her, did you say?"

"How can I tell? I saw a precis of many reports, remember. What difference, after the 'probe wrung her dry?"

"Sometimes individuals count, sir." Excitement in Flandry congealed to grimness. *I should think the fact she's a niece of the Gospodar—a fact available in the material on her that my son could freely scan from a data bank—would be worth mentioning to the Emperor. I should think such a hostage would not be sold for a slave, forced into whoredom except for the chance that I learned about her when she was offered for sale.*

Better not tell Hans. He'd only be distracted from the million things he's got to do. And anyhow . . . something strange here. I prefer to keep my mouth shut and my options open.

"Proceed as you wish," the other said. "I know you won't likely get far. But I can trust you will run a strong race."

His glance went to the picture of the young man. His face sagged. Flandry could well-nigh read his mind: *Ach, Otto! If you had not been killed—if I could bring you back, yes, even though I must trade for you dull Dietrich and scheming Gerhart both—we would have an heir to trust.*

The Emperor straightened in his seat. "Very well," he rapped. "Dismissed."

THE festival wore on. Toward morning, Flandry and Chunderban Desai found themselves alone.

The officer would have left sooner, were it not for his acquired job. Now he seemed wisest if he savored sumptuousness, admired the centuried treasures of static and fluid art which the palace housed, drank noble wines, nibbled on delicate foods, conversed with witty men, danced with delicious girls, finally brought one of these to a pergola he knew (unlocked, screened by jasmine vines) and made love. He might never get the chance again. After she bade him a sleepy goodbye, he felt like having a nightcap. The crowd had grown thin. He recognized Desai, fell into talk, ended in a small garden.

Its base was cantilevered from a wall, 20 meters above a courtyard where a fountain sprang. The waters, full of dissolved fluorescents, shone under ultraviolet illumination in colors more deep and pure than flame. Their tuned splashing resounded from catchbowls to make an eldritch music. Otherwise the two men on their bench had darkness and quiet. Flowers sweetened an air gone slightly cool. The moon was long down; Venus and a dwindling number of stars gleamed in a sky fading from black to purple, above an ocean coming all aglow.

"No, I am not convinced the Emperor does right to depart," Desai said. The pudgy little old man's hair glimmered white as his tunic; chocolate-hued face and hands were nearly invisible among shadows. He puffed on a cigarette in a long ivory holder. "Contrariwise, the move invites catastrophe."

"But to let the barbarians whoop around at will—" Flandry sipped his cognac and drew on his cigar, fragrances first rich, then pungent.

He'd wanted to end on a relaxing topic. Desai, who had served the Imperium in many executive capacities on many different planets, owned a hoard of reminiscences which made him worth cultivating. He was on Terra for a year, teaching at the Diplomatic Academy, before he retired to Ramanujan, his birthworld.

The military situation—specifically, Hans' decision to go—evidently bothered him too much for pleasantries. "Oh, yes, that entire frontier needs restructuring," he said. "Not simple reinforcement. New administrations, new laws, new economics: ideally, the foundations of an entire new society among the human inhabitants. However, his Majesty should leave that task to a competent viceroy and staff whom he grants extraordinary powers."

"There's the problem," Flandry pointed out. "Who's both competent and trustworthy enough, aside from those who're already up to their armpits in alligators elsewhere?"

"If he has no better choice," Desai said, "his Majesty should let the Spican sector be ravaged—should even let it be lost, in hopes of regaining the territory afterward—anything, rather than absent himself for three months. What ultimate good can he accomplish yonder if meanwhile the Imperium is taken from him? The best service he can render the Empire is simply to keep a grip on its heart. Else the civil wars begin again."

"I fear you exaggerate," Flandry said, though he recalled how Desai was always inclined to understate things. And Dennitzans on Diomedes—"We seem to've pacified ourselves fairly well. Besides, why refer to civil wars in the plural?"

"Have you forgotten McCormac's rebellion, Sir Dominic?"

Scarcely, seeing I was involved. Flandry winced at a memory. Lost Kathryn, as well as the irregular nature of his actions at the time, made him glad the details were still unpublic. "No. But that was, uh, 22 years ago. And amounted to what? An admiral who revolted against Josip's sector governor for personal reasons. True this meant he had to try for the crown. The Imperium could never have pardoned him. But he was beaten, and Josip died in bed." *Probably poisoned, to be sure.*

"You consider the affair an isolated incident?" Desai challenged in his temperate fashion. "Allow me to remind you, please—I know you know—shortly afterward I found myself the occupation commissioner of McCormac's home globe, Aeneas, which had spearheaded the uprising. We came within an angstrom there of getting a messianic religion that might have burst into space and torn the Empire in half."

Flandry took a hard swallow from his snifter and a hard pull on his cigar. Well had he studied the records of that business, after he encountered Aycharaych, who had engineered it.

"The 13 following years—seeming peace inside the Empire, till Josip's death—they are no large piece of history, are they?" Desai pursued. "Especially if we bear in

mind that conflicts have causes. A war, including a civil war, is the flower on a plant whose seed went into the ground long before . . . and whose roots reach widely, and will send up fresh growths . . . No, Sir Dominic, as a person who had read and reflected for most of a lifetime on this subject, I tell you we are well into our anarchic phase. The best we can do is minimize the damage, and hold outside enemies off until we win back to a scarred kind of unity."

"'Our' anarchic phase?" Flandry questioned.

Desai misheard his emphasis. "Or our interregnum, or whatever you wish to call it. Oh, we may not always fight over who shall be Emperor; we can find plenty of bones to contend about. And we may enjoy stretches of peace and relative prosperity. I hoped Hans would provide us such a respite."

"No, wait, you speak as if this is something we have to go through, willy-nilly."

"Yes. For about 80 more years, I think—though of course modern technology, nonhuman influences, the sheer scale of interstellar dominion may affect the time-span. Basically, however, yes, a universal state—and the Terran Empire is the universal state of Technic civilization—only gives a respite from the wars and horrors which multiply after the original breakdown. Its Pax is no more than a subservience enforced at swordpoint, or today at blaster point. Its competent people become untrustworthy from their very competence; anyone who can make a decision may make one the Imperium does not like. Incompetence grows with the growing suspiciousness and centralization. Defense and civil functions alike begin to disintegrate. What can that provoke except rebellion? So this universal state of ours has ground along for a brace of generations, from bad to worse, until now—"

"The Long Night?" Flandry shivered a bit in the gentle air.

"I think not quite yet. If we follow precedent, this Empire will rise again . . . if you can label as 'rise' the centralized divine autocracy we have coming. To be sure, if the thought of such a government does not cheer you, then remember that that second peace of exhaustion will not last either. In due course will come the final collapse."

"How do you know?" Flandry demanded.

"The cycle fills the history, yes, the archeology of this whole planet we are sitting on. Old China and older Egypt each went thrice through the whole sorry mess. The Western civilization to which ours is affiliated rose originally from the same kind of thing, that Roman Empire some of our rulers have liked to hark back to for examples of glory. Oh, we too shall have our Diocletian; but scarcely a hundred years after his reconstruction, the barbarians were camping in Rome itself and making emperors to their pleasure. My own ancestral homeland—but there is no need for a catalogue of forgotten nations. For a good dozen cases we have chronicles detailed to the point of nausea; all in all, we can find well over fifty examples just in the dust of

this one world.

"Growth, until wrong decisions bring breakdown; then ever more ferocious wars, until the Empire brings the Pax; then the dissolution of that Pax, its reconstitution, its disintegration forever, and a dark age until a new society begins in the ruins. Technic civilization started on that road when the Polesotechnic League changed from a mutual-aid organization of free enterpreneurs to a set of cartels. Tonight we are far along the way."

"You've discovered this yourself?" Flandry asked, not as skeptically as he could have wished he were able to.

"Oh, no, no," Desai said. "The basic analysis was made a thousand years ago. But it's not comfortable to live with. Prevention of breakdown, or recovery from it, calls for more thought, courage, sacrifice than humans have yet been capable of exercising on a long-term basis—for generation after generation. Much easier first to twist the doctrine around, use it for rationalization instead of rationality; then ignore it; finally suppress it. I found it in certain archives, but you realize I am talking to you in confidence. The Imperium would not take kindly to such a description of itself."

"Well—" Flandry drank again. "Well, you may be right. And total pessimism does have a certain bracing quality. If we're doomed to tread out the measure, we can try to do so gracefully."

"There is no absolute inevitability." Desai puffed for a minute, his cigarette end a tiny red pulsar. "I suppose, even this late in the game, we could start afresh if we had the means—more importantly, the will. But in actuality, the development is often aborted by foreign conquest. An empire in the anarchic phase is especially tempting and especially prone to suffer invaders. Osmans, Afghans, Moguls, Manchus, Spaniards, British—they and those like them became overlords of cultures different from their own, in that same way.

"Beyond our borders, the Merseians are the true menace. Not a barbarian rabble merely filling a vacuum we have left by our own political machinations—not a realistic Ythri which sees us as its natural ally—not a pathetic Gorrazani remnant—but Merseia. We harass and thwart the Roidhunate everywhere, because we dare not let it grow too strong. Besides eliminating us as a hindrance to its dreams, think what a furtherance our conquest would be!

"That's why I dread the consequences of the Emperor's departure. Staying home, working to buttress the government and armed force, ready to stamp fast on every attempt at insurrection, he might keep us united, uninvadable, for the rest of his life. Without his presence—I don't know."

"The Merseians would have to be prepared to take quick advantage of any revolt," Flandry argued. "Assuming you're right about your historical pattern, are *they* aware of it? How common is it?"

"True, we don't have the knowledge to say how far it may apply to nonhumans, if at all," Desai admitted. "We should. In fact, it was Merseia, not ourselves, that set me

on this research—for the Merseians too must have their private demons, and think what a weapon it would be for our diplomacy to have a generalized mechanic for them as well as us!"

"Hm?" said Flandry, surprised afresh. "Are you implying perhaps they already are decadent? That's not what one usually hears."

"No, it isn't. But what is decadence to a nonhuman? I hope to do more than read sutras in my retirement; I hope to apply my experience and my studies to thought about just such problems." The old man sighed. "Of necessity, this assumes the Empire will not fall prey to its foes before I've made some progress. That may be an unduly optimistic assumption . . . considering what a head start they have in the Roidhunate where it comes to understanding us."

"Are you implying they know this theory of human history which you've been outlining to me?"

"Yes, I fear that at least a few minds among them are all too familiar with it. For example, after considering the episode for many years, I think that when Aycharaych tried to kindle a holy war of man against man, starting on Aeneas, he knew precisely what he was doing."

Aycharaych. The chill struck full into Flandry. He raised his eyes to the fading stars. Sol would soon drive sight away from them, but they would remain where they were, waiting.

"I have often wondered what drives him and his kind to serve Merseia," Desai mused. "Genius can't really be conscripted. The Chereionites surely have something to win for themselves. But what—from an alien species, an alien culture?"

"Aycharaych's the only one of them I've ever actually met," Flandry said. "I've sometimes thought he's an artist."

"An artist of espionage and sabotage, whose materials are living beings? Well, conceivably. If that's all, he is no more to be envied than you or I."

"Why?"

"I'm not sure I can make the reason clear to you, or even very clear to myself. We have not had the good fortune to be born in an era when our society offers us something transcendental to live and die for." Desai cleared his throat. "I'm sorry. I didn't intend to read you a lecture."

"No, I thank you," Flandry said. "Your ideas are quite interesting."

IV

The *Hooligan* sprang from Terra, pierced the sky, and lined out for deep space. A steady standard gravity maintained by her interior fields gave no hint of furious acceleration toward regions sufficiently distant that she could go into hyperdrive and outpace light. Nor did her engines energies speak above an almost subliminal whisper and quiver through the hull. But standing in the saloon before its big viewscreen, Kossara watched the planet shrink, ever faster, a cloudy vastness, a gibbous globe of intricate blue and white, an agate in a diamondful jewel box.

At the back of her mind she

wished she could appreciate this sight for which she had left the stateroom assigned her. Terra, Manhome, Maykasviyet; and sheer loveliness—But her heart knocked, her nails bit into wet palms though her tongue was dry and thick, she smelled her harsh sweat.

Yet when her owner entered, calm crystallized in her. By nature and training she met crises coolly, and here was the worst since—As far as she knew, nobody else was aboard but him and his servant. If she could, somehow, kill them—or hogtie the funny, kindly Shalmuan—maybe before he took her—

No. Not unless he grew altogether slack; and she sensed alertness beneath his relaxed manner. He was tall and well-built and moved like a hunting vilya. Handsome too, she admitted to herself; then scorn added that anybody could be handsome who bought a biosculpture. A loose lace-trimmed blouse and flowing trousers gathered above sandals matched, in their sheen of expensive fabric, the knee-length gown she had chosen out of the wardrobe she found in her quarters.

"Good day, Donna Vymezal," the man said, and bowed.

What to do? She jerked a nod.

"Permit self-introduction," he went on. "Hardly to your surprise, I am Captain Sir Dominic Flandry, Intelligence Corps of his Majesty's Navy." He gestured at a bench curved around two sides of a table. "Won't you be seated?"

She stood her ground.

Flandry smiled, placed hands on hips, and drawled: "Please listen. I have no intention of compelling you. None. Not that you don't inspire certain daydreams, Donna. And not that I couldn't make you like it. Drugs, you know. But vanity forbids. I've never needed force or pharmacopoeia—even on those few young ladies I have had occasion to buy in the past. Have you noticed your cabin door locks on the inside?"

Strength went from Kossara. She stumbled backward, fell to the bench, rested head in hands while whirling and darkness passed through her.

Presently she grew aware that Flandry stood above. His fingers kneaded her neck and shoulders. As she looked up, he stroked her hair. She gasped and drew aside.

He stepped back. "No offense, Donna." Sternly: "See here, we've a bundle to discuss, none of it very amusing. Do you want a stim pill—or whatever, to make you operational?"

She shook her head. After two tries, she husked forth, "Nothing, thank you. I am all right now."

"Drink? The liquor cabinet is reasonably well-stocked. I'm for Scotch."

"Nothing," she whispered, dreading in spite of his words what might be in a glass he gave her.

He seemed to guess that, for he said, "You'll have to take from my galley in due course if not sooner. We've a long trip ahead of us."

"What? . . . Well, a little wine, please."

He got busy, while she worked to loosen muscles and nerves. When he sat down, not too close, she could meet his eyes. She declined the cigarette he offered, but the

claret was marvelous. He streamed smoke from his nostrils before saying, deliberately:

"You might recollect who else was bidding on you." She felt her face blaze. "And I didn't spend quite a lot of beer money out of chivalry. Your virtue is safe as long as you want it to be—at least while I'm your owner. But I need your cooperation in some rather larger matters. Understood?"

She gulped. "If I can . . . help you, sir—"

"In exchange for manumission and a ticket to Dennitza? Maybe. I haven't the legal right to free you, seeing you're a convicted treacher; I'd have to petition for a decree. Or I could simply order you to go back where you came from and enjoy yourself." He saw her glance fall to the slave bracelet. "Yes, now we're clear of Terra, I'm permitted to take that off you. But I haven't a key for it, and my tools would damage it, which'd put us through a certain amount of bureaucratic rain dance if we return there. Never mind. Beyond range of the comnet, it's inert." Flandry grinned. "If I were indeed a monster of lust, rather than a staid and hardworking monster, I'd still have taken you into space before commencing. The idea of an audience at any arbitrary time doesn't appeal. Let them invent their own techniques."

Loathing tightened Kossara's throat. "The Terran way of life."

Flandry regarded her quizzically. "You don't have a high opinion of the Empire, do you?"

"I hate it. I would die—be tortured—yes, got into a brothel, if I could pull the rotten thing down around me." Kossara tossed off her wine.

Flandry refilled the glass. "Better be less outspoken," he advised. "I don't mind, but various of my fellow Imperialists might."

She stared. The real horror of her situation shocked home. *"Where are we bound?"*

"Diomedes, for openers at any rate." He nodded. "Yes, I'm investigating what went on, what is going on, whether it threatens the Empire, and how to prevent same."

Kossara rallied. "You have the records of my . . . arrest and interrogation, then," she said fast. "I have no further information. Less, actually, because the hypnoprobe blanked out related memories, including those from Dennitza. What's left is bits, blurry and jumbled together, like barely remembered dreams. So how can I help you—supposing I wanted to?"

"Oh, background and such." Flandry's tone was casual. "Give me the rest of your biography. Explain what your people have against the Imperium. I'll listen. Who knows, you may convert me. I won't hurry you. There's an unsanctified amount of information pumped into the data banks aboard, which I need to study en route. And we've time. Seventeen standard days to destination."

"No more?" In spite of everything, astonishment touched her.

"This boat has legs, albeit not as well-turned as yours. Do ease off, Donna. Your culture has a soldierly orientation, right? Consider me your honorable enemy, if nothing else, and the pair of us conducting a parley."

She found little to say. He talked for two, mostly appealing to her xenological interests with tales of sophonts he had met. All were fascinating. Eventually he made her laugh.

Books, musical pieces, shows were available by the thousands, in playback or printout. Kossara grew restless anyhow. Flandry had withdrawn immediately after the first breakfast of the voyage (following a nightwatch wherein she slept unexpectedly well) to concentrate on his briefing material. Interstellar space, seen in the optical-compensating screens, was utter splendor; but however fast the *Hooligan* drove, those immensities changed too slowly for perception. She exercised, prowled around, tried out different hobby kits, at last sought Chives. He was in the galley fixing lunch. "Can I help you?" she offered.

"I regret not, Donna," the Shalmuan answered. "While I have no wish to deprecate your culinary gifts, you can see that Sir Dominic does not willingly trust this excellent chef-machine to prepare his meals, let alone comparative strangers."

She stared at the open-faced sandwiches growing beneath his fingers. Anchovies and pimientos lay across slices of hard-boiled egg on fresh-made mayonnaise, caviar and lemon peel complemented pate de foie gras, cucumber and alfalfa sprouts revitalized cheddar cheese in the dignity of its age . . . "No, I couldn't do that," she admitted. "You must be a genius."

"Thank you, Donna. I endeavor to give satisfaction. Although, in candor, Sir Dominic provided my initial training and the impetus to develop further."

Kossara drew a long breath. *A chance to learn about him?* "You were his slave, you said. How did that happen, if I may ask?"

Chives spoke imperturbably, never breaking the rhythm of his work. "My planet of origin has no technologically advanced society, Donna. His late Majesty Josip appointed a sector governor who organized a slave trade in my people, chiefly selling to the barbarians beyond the *limes*. The charges against those captured for this purpose were, shall we say, arguable; but no one argued. When that governor met with misfortune, his successor attempted to right matters. However, this was impossible. Not even victims still within the Empire could be traced, across thousands of worlds. Sir Dominic merely chanced upon me in a provincial market.

"I was not prepossessing, Donna. My owner had put me up for sale because he doubted I could survive more labor in his mercury mine. Sir Dominic did not buy me. He instigated a game of poker which lasted several days and left him in possession of mine and workers alike."

Chives clicked his tongue. "My former master alleged cheating. Most discourteous of him, especially compared to Sir Dominic's urbanity in inviting him out. The funeral was well attended by the miners. Sir Dominic arranged for their repatriation, but kept me since this was far from Shalmu and

besides, I required a long course of chelating drugs to cleanse my system. Meanwhile he employed me in his service. I soon decided I had no wish to return to a society of . . . natives . . . and strove to make myself valuable to him."

Head cocked, chin in hand, tail switching, Chives studied the lunch layout. "Yes, I believe this will suffice. Akvavit and beer for beverages, needless to say. Since you wish occupation, Donna, you may assist me in setting the table."

She scarcely heard. "*Moze,* if he's a decent man," she blurted, "how can he work for an Empire that lets things like, like your case happen?"

"I have oftener heard Sir Dominic described in such terms as—ah—for example, a slightly overexcited gentleman once called him a cream-stealing tomcat with his conscience in his balls, if you will pardon the expression, Donna. The fact is, he did cheat in that poker game. But as for the Empire, like the proverbial centenarian I suggest you consider the alternative. You will find tableware in yonder cabinet."

Kossara bit her lip and took the hint.

"To the best of my admittedly circumscribed knowledge," Chives said after silver, china, and glass (not vitryl) stood agleam upon snowy linen, "your folks have, on the whole, benefited from the Empire. Perhaps I am misinformed. Would you care to summarize the history for me while the spiced meatballs are heating?"

His slim emerald form squatted down on the deck. Kossara took a bench, stared at her fists resting knotted on her lap, and said dully:

"I don't suppose the details, 600 years of man on Dennitza, would interest anybody else. That is how long since Yovan Matavuly led the pioneers there. They were like other emigrant groups at the time, hoping not merely for opportunity, room to breathe, but to save traditions, customs, language, race—ethnos, identity, their souls if you like—everything they saw being swallowed up. They weren't many, nor had the means to buy much equipment. And Dennitza . . . well, there are always problems in settling a new planet, physical environment, biochemistry, countless unknowns and surprises that can be lethal—but Dennitza was particularly hard. It's in an ice age. The habitable areas are limited. And in those days it was far from any trade routes, had nothing really to attract merchants of the League—"

Speaking of the ancestors heartened her. She raised head and voice. "They didn't fall back to barbarism, no, no. But they did, for generations, have to put aside sophisticated technology. They lacked the capital, you see. Clan systems developed; feuding, I must admit; a spirit of local independence. The barons looked after their own. That social structure persisted when industrialism began, and affected it." Quickly: "Don't think we were ever ignorant yokels. The Shkola—university and research centrum—is nearly as old as the colony. The toughest backwoodsman respects learning as much as he does marksmanship or

battle bravey."

"Do you not have a Merseian element in the population?" Chives asked.

"Yes. Merseian-descended, that is, from about 400 years ago. You probably know Merseia itself was starting to modernize and move into space then, under fearful handicaps because of that supernova nearby and because of the multi-cornered struggle for power between Vachs, Gethfennu, and separate nations. The young Dennitzan industries needed labor. They welcomed strong, able, well-behaved displaced persons."

"Do such comprise a large part of your citizenry, Donna?"

"About 10 percent, out of 30 million. And twice as many human Dennitzans live outsystem; since our industry and trade got well under weigh, we've been everywhere in that part of space. So what is this nonsense I hear about us being Merseian-infiltrated?"

Yet we might be happier in the Roidhunate, Kossara added.

Chives recalled her: "I have heard mention of the Gospodar. Does my lady care to define his functions? Is he like a king?"

"M-m-m, what do you mean by 'king?' The Gospodar is elected out of the Miyatovich family by the plemichi, the clan heads and barons. He has supreme executive authority for life or good behavior, subject to the Grand Court ruling on the constitutionality of what he does. A Court verdict can be reversed by the Shkoptsina—Parliament, I suppose you would say, though it has three chambers, for plemichi, commons, and ychani . . . zmayi . . . our nonhumans. Domestic government is mainly left to the different okruzhi—baronies? prefectures?—which vary a lot. The head of one of those may inherit office, or may be chosen by the resident clans, or may be appointed by the Gospodar, depending on ancient usage. He—such a nachalnik, I mean—he generally lets townships and rural districts tend their own affairs through locally elected councillors."

"The, ah, ychani are organized otherwise, I take it."

Kossara gave Chives a look of heightened respect. "Yes. Strictly by clans—or better say Vachs—subject only to planetary law unless there's some special fealty arrangement. And while you can find them anywhere on Dennitza, they concentrate on the eastern seaboard of Rodna, the main continent, in the northern hemisphere. Because they can stand cold better than humans, they do most of the fishing, pelagiculture, et cetera."

"Nevertheless, I presume considerable cultural blending has taken place."

"Certainly—"

Recollection rushed in of Trohdwyr, who died on Diomedes whither she was bound; of her father on horseback, a-gallop against a windy autumn forest, and the bugle call he blew which was an immemorial Merseian war-song; of her mother cuddling her while she sang an Eriau lullaby, *"Dwynafor, dwynafor, odhal tiv,"* and then laughing low, "But you, little sleepyhead, you have no tail, do you?"; of herself and Mihail in an ychan boat on the Black Ocean, snowfall, ice floes, a shout as a sea

beast magnificently broached to starboard; moonlit gravbelt flight over woods, summer air streaming past her cheeks, a campfire glimpsed, a landing among great green hunters, their gruff welcome; and, "I'm not hungry," Kossara said, and left the saloon before Chives or, worse, Flandry should see her weep.

V

Flandry's office, if that was the right name for it, seemed curiously spare amidst the sybaritic arrangements Kossara had observed elsewhere aboard. She wondered what his private quarters were like. *But don't ask. He might take that as an invitation.* Seated in front of the desk behind which he was, she made her gaze challenge his.

"I know this will be painful to you," he said. "You've had a few days to rest, though, and we must go through with it. You see, the team that 'probed you appears to have made every imaginable blunder and maybe created a few new ones." She must have registered her startlement, for he continued, "Do you know how a hypnoprobe works?"

Bitterness rose in her. "Not really," she said. "We have no such vile thing on Dennitza."

"I don't approve either. But sometimes desperation dictates."

Flandry leaned back in his chair, ignited a cigarette, regarded her out of eyes whose changeable gray became the hue of a winter overcast. His tone remained soft: "Let me explain from the ground up. Interrogation is an unavoidable part of police and military work. You can do it on several levels of intensity. First, simple questioning; if possible, questioning different subjects separately and comparing their stories. Next, browbeating of assorted kinds. Then torture, which can be the crude inflicting of pain or something like prolonged sleep deprivation. The trouble with these methods is, they aren't too dependable. The subject may hold out. He may lie. If he's had psychosomatic training, he can fool a lie detector; or, if he's clever, he can tell only a misleading part of the truth. At best, procedures are slow, especially when you have to cross-check whatever you get against whatever other information you can find.

"So we move on to narcoquiz, drugs that damp the will to resist. Problem here is, first, you often get idiosyncratic reactions or nonreactions. People vary a lot in their body chemistry, especially these days when most of humanity has lived for generations or centuries on worlds that aren't Terra. And, of course, each nonhuman species is a whole separate bowl of spaghetti. Then, second, your subject may have been immunized against everything you have in your medicine chest. Or he may have been deep-conditioned, in which case no drug we know of will unlock his mind."

Between the shoulderblades, Kossara's back hurt from tension. "What about telepathy?" she snapped.

"Often useful but always limited," Flandry said. "Neural radiations have a low rate of information

conveyance. And the receiver has to know the code the sender is using. For instance, if I were a telepath, and you concentrated on thinking in Serbic, I'd be as baffled as if you spoke aloud. Or worse, because individual thought-patterns vary tremendously, especially in species like ours which don't normally employ telepathy. I might learn to read your mind—slowly, awkwardly, incompletely at best—but find that everybody else's was transmitting gibberish as far as I was concerned. Interspecies telepathy involves still bigger difficulties. And we know tricks for combating any sort of brain listener. A screen worn on the head will heterodyne the outgoing radiation in a random fashion, make it absolutely undecipherable. Or, again, training, or deep conditioning, can be quite effective."

He paused. Wariness crossed his mobile countenance. "There are exceptions to everything," he murmured, "including what I've said. Does the name Aycharaych mean anything to you?"

"No," she answered honestly, "Why?"

"No matter now. Perhaps later."

"I *am* a xenologist," Kossara reminded him. "You've told me nothing new."

"Eh? Sorry. Unpredictable what somebody else does or does not know about the most elementary things, in a universe where facts swarm like gnats. Why, I was thirty years old before I learned what the Empress Theodora used to complain about."

She stared past his smile. "You were going to describe the hypnoprobe," ignoring his last remark.

He sobered. "Yes. The final recourse. Direct electronic attack on the brain. On a molecular level, bypassing drugs, conditionings, anything. Except—the subject can have been preconditioned, in his whole organism, to die when this happens. Shock reaction. If the interrogation team is prepared, it can hook him into machines that keep the vital processes going, and so have a fair chance of forcing a response. But his mind won't survive the damage."

He ground his cigarette hard against the lip of an ashtaker before letting the stub be removed. "You weren't in that state, obviously." His voice roughened. "In fact, you had no drug immunization. Why weren't you narcoed instead of 'probed? Or were you, to start with?"

"I don't remember—" Astounded, Kossara exclaimed, "How do you know? About me and drugs, I mean? I didn't myself!"

"The slave dealer's catalogue. His medic ran complete cytological analyses. I put the data through a computer. It found you've had assorted treatments to resist exotic conditions, but none of the traces a psychimmune would show."

Flandry shook his head, slowly back and forth. "An overzealous interrogator might order an immediate 'probe, instead of as a last resort," he said. "But why carry it out in a way that wiped your associated memories? True, such things do happen occasionally: For instance, a particular subject might have a low threshold of tolerance; the power level might then be too

high, and disrupt the RNA molecules as they come into play under questioning. As a rule, though, permanent psychological effects—beyond those which bad experiences generally leave—are rare. A competent team will test the subject beforehand and establish the parameters."

He sighed. "Well, the civil war and aftermath lopped a lot off the top in my Corps, too. Coprolite-brained characters who'd ordinarily have been left in safe routineering assignments, were promoted to fill vacancies. Maybe you had the bad luck to encounter a bunch of them."

"I am not altogether sorry to have forgotten," Kossara mumbled.

Flandry stroked his mustache. "Ah . . . you don't think you've suffered harm otherwise?"

"I don't believe so. I can reason as well as ever. I remember my life in detail till shortly before I left for Diomedes, and I'm quite clear about everything since they put me aboard ship for Terra."

"Good." Flandry's warmth seemed genuine. "There are quite enough unnecessary horrors about, without a young and beautiful woman getting annulled."

He rescued me from the slime pit, she thought. *He has shown me every kindness and courtesy.*

Thus far. He admits—his purpose is to preserve the Empire.

"What pieces do you recall, Kossara?" Flandry had not used her first name before.

She strained fingers against each other. Her pulse beat like a trapped bird. *No. Don't bring them back. The fear, the hate, the beloved dead.*

"You see," he went on, "I'm puzzled as to why Dennitza should turn against us. Your Gospodar supported Hans, and was rewarded with authority over his entire sector. Granted, that's laid a terrible work load on him if he's conscientious. But it gives him—his people—a major say in the future of their region. A dispute about the defense mechanisms for your home system and its near neighbors . . . well, that's only a dispute, isn't it, which he may still have some hope of winning. Can't you give me a better reason for him to make trouble? Isn't a compromise possible?"

"Not with the Imperium!" Kossara said out of upward-leaping rage.

"Between you and me, at least? Intellectually? Won't you give me your side of the story?"

Kossara's blood ebbed. "I . . . well, speaking for myself, the fighting cost me the man I was going to marry. What use an Empire that can't keep the Pax?"

"I'm sorry. But did any mortal institution ever work perfectly? Hans is trying to make repairs. Besides, think. Why would the Gospodar—if he did plan rebellion—why would he send you, a girl, his niece, to Diomedes?"

She summoned what will and strength she had left, closed her eyes, searched back through time.

BODIN Miyatovich was a big man, trim and erect in middle age. He bore the broad, snub-nosed, good-looking family

face, framed in graying dark-blond hair and close-cropped beard, tanned and creased by a lifetime of weather. His eyes were beryl. Today he wore a red cloak over brown tunic and breeks, gromatz leather boots, customary knife and sidearm sheathed on a silver-studded belt.

Dyavo-like, he paced the sun deck which jutted from the Zamok. In gray stone softened by blossoming creepers, that ancestral castle reared walls, gates, turrets, battlements, wind blown banners (though the ultimate fortress lay beneath, carved out of living rock) above steep tile roofs and pastel-tinted half-timbered stucco of Old Town houses. Thence Zorkagrad sloped downward; streets changed from twisty lanes to broad boulevards; traffic flitted around geometrical buildings raised in modern materials by later generations. Waterborne shipping crowded docks and bay. Lake Stoyan stretched westward over the horizon, deep blue dusted with glitter cast from a cloudless heaven. Elsewhere beyond the small city, Kossara could from this height see cultivated lands along the shores: green trees, hedges, grass, and yellowing grain of Terran stock; blue or purple where native foliage and pasture remained; homes, barns, sheds, sunpower towers, widely spaced; a glimpse of the Lyubisha River rolling from the north as if to bring greeting from her father's manse. Closer by, the Elena flowed eastward, oceanward; barges plodded and boats danced upon it. Here in the middle of the Kazan, she could not see the crater walls which those streams clove. But she had a sense of them, ramparts against glacier and desert, a chalice of warmth and fertility.

A breeze embraced her, scented by flowers, full of the sweet songs of guslars flitting ruddy to and from their nests in the vines. She sat back in her chair and thought, guilty at doing so, what a pity to spend such an hour on politics.

Her uncle's feet slammed the planks. "Does Molitor imagine we'll never get another Olaf or Josip on the throne?" the Gospodar rumbled. "A clown or a cancer . . . and, once more, Policy Board, Admiralty, civil service bypassed, or terrorized, or corrupted. If we rely on the Navy for our whole defense, what defense will we have against future foolishness or tyranny? Let the foolishness go too far and we'll have no defense at all."

"Doesn't he speak about preventing any more civil wars?" Kossara ventured.

Bodin spat an oath. "How much of a unified command is possible, in practical fact, on an interstellar scale? Every fleet admiral is a potential war lord. Shall we keep nothing to set against him?" He stopped. His fist thudded on a rail. "Molitor trusts nobody. That's what's behind this. So why should I trust him?"

He turned about. His gaze smoldered at her. "Besides," he said, slowly, far down in his throat, "the time may come . . . the time may not be far off . . . when we need another civil war."]

"No—" she whispered. "I can't remember more than . . .

resentment among many. The Narodna Voyska has been a, a basic part of our society, ever since the Troubles. Squadron and regimental honors, rights, chapels, ceremonies—I'd stand formation on my unit's parade ground at sunset—us together, bugle calls, volley, pipes and drums, and while the flag came down, the litany for those of our dead we remembered that day—and often tears would run over my cheeks, even in winter when they froze."

Flandry smiled lopsidedly. "Yes, I was a cadet once." He shook himself a bit. "Well. No doubt your militia intertwines with a lot of civilian matters, social and economic. For instance, I'd guess it doubles as constabulary in some areas, and is responsible for various public works, and—Yes. Disbanding it would disrupt a great deal of your lives, on a practical as well as emotional level. His Majesty may not appreciate this enough. Germania doesn't contain your kind of society, and though he's seen a good many others, between us, I wouldn't call him a terribly imaginative man.

"Still, I repeat, negotiations have not been closed. And whatever their upshot, don't you yourself have the imagination to see he means well? Why this fanatical hatred of yours? And how many Dennitzans share it?"

"I don't know," Kossara said. "But personally, after what men of the Empire did to, to people I care about—and later to me—"

"May I ask you to describe what you recall?" Flandry answered. She glared defiance. "You see, if nothing else, maybe I'll find out, and be able to prove to their superiors, those donnickers rate punishment for aggravated stupidity."

He picked up a sheaf of papers on his desk and riffled them. *The report on me must have violated my privacy more than I could ever do myself,* she thought in sudden weariness. *All right, let me tell him what little I can.*

A CAVE in the mountains near Salmenbrok held the sparse gear which kept her and her fellows alive. They stood around her on a ledge outside, but except for Trohdwyr shadowy, no real faces or names upon them any more. Cliffs and crags loomed in darkling solidity, here and there a gnarled tree or a streak of snow tinged pink by a reddish sun high in a purple heaven. The wind thrust slow, strong, chill; it had not only an odor but a taste like metal. A cataract, white and green half a kilometer away, boomed loud through thick air that also shifted the pitch and timbre of every sound. Huddled in her parka, she felt how Diomedes drew on her more heavily than Dennitza, nearly two kilograms added to every ten.

Eonan of the Lannachska poised almost clear in her mind. Yellow eyes aglow, wings unfurled for departure, he said in his shrill-accented Anglic: "You understand, therefore, how these things strike at the very life of my folk? And thus they touch our whole world. We thought the wars between Flock and Fleet were long buried. Now they stir again—"

BOTH MOONS were aloft and near the full, copper-colored, twice the seeming size of Mesyatz (or Luna), one slow, one hasty across a sky where few stars blinked and those in alien constellations. The night cold gnawed. Flames sputtered and sparked. Their light fetched Trohdwyr from darkness, where he sat on feet and tail in the cave mouth, roasting meat from the ration box. The smoke bore a sharp aroma. He said to Kossara and her fellow humans: "It's not for an old zmay to tell you wise heads how to handle a clutch of zenos. I'm here as naught but my lady's servant and bodyguard. However, if you want to keep peace among the natives, why not bring some Ythrians to explain Ythri really has no aim of backing any rebellion-minded faction?"

Steve Johnson—no! Stefan Ivanovich. Why in the name of madness should she think of him as Steve Johnson?—replied out of the face she could not give a shape: "That'd have to be arranged officially. The resident can't on his own authority. He'd have to go through the sector governor. And I'm not sure if the sector governor wants Ythri—or Terra—to know how bad the situation is on Diomedes."

"Besides," added -?-, "the effects aren't predictable, except they'd be far-reaching. We do have a full-scale cultural crisis here. Among nonhumans, at that."

"Still," said a third man (woman? And was his/her nose really flat, eyes oblique, complexion tawny?), "whatever instincts and institutions they have, I think we can credit them—enough of them—with common sense. What we will need, however, is at least a partial solution to the Flock's difficulties. Otherwise, dashing their hopes of Ythrian help could drive them to . . . who knows what?" (If those features were not a mere trick of tattered memory, well, maybe this was a non-Dennitzan whom Uncle Bodin or his agents had engaged.)

"Yes," Kossara opined, "the trick will be to stay on top of events."

Was that the very night when the Imperial marines stormed them?

OR ANOTHER night? Trohdwyr shouted, "Let go of my lady!" In the gloom he snatched forth his knife. A stun pistol sent him staggering out onto the ledge, to collapse beneath the moons. After a minute, quite deliberately, the marine lieutenant gave him a low-powered blaster shot in the belly.

No surprise that Kossara didn't remember the fight which killed her companions. She knew only Trohdwyr, stirring awake again. His guts lay cooked below his ribs. After she tore loose from the grip upon her and fell to her knees beside him, she caught the smell. "Trohdwyr, *dragan!*" He coughed, could not speak, maybe could not know her through the pain that blinded him. She raised his head, hugged it close, felt the blunt spines press into her breasts. "*Dwynafor, dwynafor, odhal tiv,*" she heard herself crazily croak.

A man dragged her away. "Come along." She turned on him, spitting, fingers rigid for a karate

attack. Another man got a lock on her from behind. The first cuffed her till the world rocked. "All that fuss over a xeno," he complained, and booted Trohdwyr for a while. She couldn't tell whether the ychan felt the blows; but his body jerked like a dropped puppet.

THE OFFICE was cramped, its air stale. The commander of Intelligence said, "Nothing slow and easy for you, Vymezal. Treason's too urgent a matter; and traitors deserve no careful handling."

"I am not—"

"We'll soon find out. Take her away, O'Brien. I want her prepared for hypnoprobing."

DOWNWARD whirl through shrieks, thunders, flashes, pain and pain, down toward emptiness, but oh, she cannot reach blessed cool nothing; eternity has her.

The Golden Face, the cinnabar eyes, an indigo plume above, a voice of mercy: "Rest, Kossara. Sleep. Forget."

No more.

[SHE WAS still dazed, numb, when the drumhead courtmartial condemned her to life enslavement.]

FLANDRY considered the papers in his hands. Her few dry words appeared to have turned him as impersonal, for he said in the same tone, expressionless, "Thank you. Not much left in your mind, is there? No explanation of your hatred for the Empire."

"What do you mean?" exploded from her. "After what I told!"

"Please," he said. "You're a bright, educated, reasonably objective person. Taking your memories as correct—which they may not be; you could be recalling pieces of delirium—you should be able to entertain the possibility that you and your friends had the bad luck to meet fools and brutes such as infest every outfit. You should consider using established procedures to have them identified, traced, penalized. Unless, of course, you're so set in your attitude that this business seems typical, mere confirmation of what you already knew."

He glanced up. "Have you been told exactly what's in this report on you? The Intelligence report, that is."

"No," she got forth.

"I didn't expect you would. It's secret. Let me give you a summary." His vision skimmed the sheets he flipped through as he recited:

"Overtly, you and your attendant Trohdwyr arrived at Thursday Landing for a duly approved xenological research project on behalf of your, um, Shkola, among the Diomedeans of the Sea of Achan area. The declared motivation was that Dennitzans have lately opened trade with a comparable species near home, and want an idea of what to expect from continued impact of high-technology civilization on them. Quite normal. The Imperial resident provided you the customary assistance. He and his household depose that you were a charming guest who gave them no hint of bad intentions. However,

you were soon off for the field. They never saw you again.

"Meanwhile, Naval Intelligence was busy throughout that part of space. There was reason to suspect some kind of hostile operation, taking advantage of widespread disorganization caused by the war and not yet amended. Diomedes was certainly a trouble spot, secessionism steadily gaining strength in a principal society of the planet. Those revolutionaries seemed to hope for Ythrian support.

"But other, more reliable sources indicated Ythri had nothing to do with this. Then who were the humans known, from loyal native witnesses, to be active on Diomedes? If not Avalonians, working for the Domain they live in, who?

"With the help of informers, Intelligence agents tracked down a group of these subversives to a mountain hideout. Seeing what they took for a Merseian, they leaped to conclusions . . . not unjustified, it turned out. The gang resisted arrest and, except for you, perished in the fire fight. Blasters in an enclosed space like a cave— The marines were wearing combat armor and your companions were not. The fact that the suspects fought, under those circumstances, seems to prove they were as fanatical as your psychograph says you are.

"Hypnoprobed, you revealed you were the deputy of your uncle the Gospodar, come to check on their progress. His idea was that Dennitzans posing as Avalonians could incite an uprising on Diomedes. This by itself would draw Imperial attention there. The apparent likelihood of Ythri being behind it would decoy considerable of our armed strength, too. Then at the right moment— You quoted your uncle simply as speaking of a 'lever' to use on the Imperium, for getting concessions. But you spilled your belief—and you ought to know—that, if events broke favorably, he'd seize the chance to rebel. Depending on circumstances, he'd either try for the throne, or carry out the same plan as the late Duke Alfred was nursing along, to rip a sizeable region loose from the Empire and place it under Merseian protection.

"Which, of course—" Flandry lifted his gaze again—"would give the Roidhunate a bridgehead right in that frontier. Do you wonder that the treatment you got was rough?"

Kossara sprang from her chair. "How crazy do you think we are?" she yelled.

"We're bound for Diomedes to find out," he said.

"Why not straight to Dennitza like an honest man?"

"Others will, never fear. Detective work on an entire nation, or just on its leaders, takes personnel and patience. A singleton like me does best *vis-a-vis* a small operation, as I suppose the one on Diomedes necessarily is."

Flandry's eyes narrowed. "If you want your liberty back, my dear, rather than being resold when I decide you're not worth your keep, you will cooperate," he said. "Think of it not as betraying your folk, but as helping save them from disastrously wrong-headed adventurers.

"We have a library-ful of material on Diomedes aboard. Study

it. Ponder it. Something may jog your memory; a lot that you've forgotten is probably not irretrieveably lost. Or you should be able to make deductions—you're a smart girl—deductions about likely rendezvous points remaining, where we can snare more agents. Or, better yet, I'd guess: Diomedeans involved in the movement, never identified by our people, they should recognize you, if you show yourself in the proper ways. They should make contact and—Do you see?"

"Yes!" she screamed. "And I won't!"

She fled.

The man sat quiet for a while before he said to the empty air, "Very well. If you wish, Chives will bring you your meals in your cabin."

VI

As Flandry conned the *Hooligan*, Diomedes grew huge in the screens before him. Too heavily clouded for oceans and continents to show as anything but blurs, the dayside glowed amber-orange, with tinges of rose and violet, under the light of a dull sun. The nighted part gave pale whiteness back to moons and stars, reflections off ice and snow. When Kossara last came here, equinox was not long past; now absolute winter lay upon fully half the planet.

Flandry's attention was concentrated on piloting. Ordinarily he would have left that to the automatics, or to Chives if no ground control facilities existed. But this time he must use both skill and the secret data he had commandeered back on Terra, to elude the Imperial space sentries.

Most were small detector-computer units in orbit, such as supervised traffic around any world of the Empire which got any appreciable amount of it, guarding against smugglers, hostiles, recklessness, or equipment failures. Flandry had long since rigged his speedster to evade them without much effort, given foreknowledge of their paths. But surely the unrest on Diomedes, the suspicion of outside interference, had caused spacecraft to be added. Sneaking past these required an artist. He enjoyed it.

Just the same, somewhere at the back of awareness, memory rehearsed what he had learned about his goal. Pictures and passages of text flickered by:

"Among the bodies which men have named Diomedes—indeed, among all the planets we know—in many respects, this one is unique.

"Though not unusually old, the system is metal-poor. To explain that, Montoya suggested chemical fractionation of the original cloud of dust and gas by the electromagnetic action of a passing neutron star . . . As a result, while Diomedes has a mass of 4.75 Terra, the low net density gives it a surface gravity of only 1.10 standard. However, so large an object was bound to generate an extensive atmosphere. Between gravitational potential due to a diameter twice Terran, and low temperature and irradiation due to the G8 sun, much gas was retained. Life has modified it. Today mean sea-level pressure is 6.2 bars; the partial pressures of

oxygen, nitrogen, and carbon dioxide are about the same as on Terra, the rest of the air consisting chiefly of neon . . .

"Through some cosmic accident, the spin axis of Diomedes, like that of Uranus in the Solar System, lies nearly in the orbital plane. The arctic and antarctic circles thus almost coincide with the equator. In the course of a year 11% longer than Terra's, practically the whole of each hemisphere will be sunless for a period ranging from weeks to months. Chill even in summer, land and sea become so frigid in winter that all but highly specialized life-forms must either hibernate or migrate . . .

"Progressive autochthonous cultures had brought Stone Age technology, the sole kind possible for them, to an astonishing sophistication. Once contacted by humans, they were eager to trade, originally for metals, subsequently for means to build modern industries of their own. Diomedes offers numerous organic substances, valuable for a variety of purposes, cheaper to buy from natives than to synthesize . . .

"The biochemistry producing these compounds is only terrestroid in the most general sense. It consists of proteins in water solution, carbohydrates, lipids, etc. But few are nourishing to humans and many are toxic. They permeate the environment. A man cannot survive a drink of water or repeated breaths of air, unless he has received thorough immunization beforehand. (Of course, that includes adaptation to the neon, which otherwise at this concentration would have ill effects too.) Short-term visitors prefer to rely on their basic antiallergen, helmets, protective clothing, and packaged rations.

"The Diomedean must be similarly careful about materials from offplanet. In particular, most metals are poisonous to him. That he can use copper and iron anyway, as safely as we use beryllium or plutonium, is a tribute to his intelligence. But the precautions by themselves have inevitably joined those factors which force radical change upon ancient customs. Some cultures have adjusted without extreme stress. Others continue to suffer upheaval. Injustice and alienation bring dissension and violence . . ."

Although, Flandry thought, *if we Imperials packed up our toys and went home, everybody here would soon be a great deal worse off. There've been too many irreversible changes.*

You can't even sit still in this universe and not make waves.

THE SUN was never down in summer; but Diomedes' 12½-hour rotation spun it through a circle. At the point in space and time where *Hooligan* landed, sharply rising mountains to south concealed the disc.

The saloon was warm and scented. Nevertheless, what he saw in the screen made Flandry grimace and give an exaggerated shiver. "Brrr! No wonder climes like this foster Spartan virtues. The inhabitants have to be in training before they can emigrate and dispossess whoever lives on desirable real estate."

"You can't appreciate, can you,

here is home for the Lannachska that they only want to keep unruined," Kossara said.

Couldn't she recognize a joke? Maybe not. She'd held aloof since he interviewed her, studying as he urged but saying nothing about what meaning she drew from it.

What a waste, Flandry sighed. *We could have had a gorgeous voyage, you and I.*

His gaze lingered on her. A coverall did not hide the fullness of a tall and supple body. Blue-green eyes, mahogany locks, strongly sculptured countenance had begun to haunt his reveries, and in the last few nightwatches his dreams. Did she really speak in the exact husky contralto of Kathryn McCormac? . . .

She sensed his regard, flushed, and attacked: "We *are* on Lannach, are we not? I think I recall several of these peaks."

Flandry nodded and gave his attention back to the view. "Yes. Not far south of Sagna Bay." He hoped she'd admire how easily he'd found a particular site on the big island, nothing except maps and navigation to guide him down through the stormy atmosphere. But she registered unmixed anger. *Well, I suppose I shouldn't object to that, seeing how carefully I fueled it.*

Concealed by an overhanging cliff, the ship stood halfway up a mountain, with an overlook down rugged kilometers to a horizon-gleam which betokened sea. Clouds towered in amethyst heaven, washed by faint pink where lightning did not flicker in blue-black caverns. Crags, boulders, waterfalls reared above talus slopes and murky scarps. Thin grass-like growth, gray thornbushes, twisted low trees grew about; they became more abundant as sight descended toward misty valleys, until at last they made forest. Wings cruised on high, maybe upbearing brains that thought, maybe simple beasts of prey. Faint through the hull sounded a yowl of wind.

"Very well," Kossara said grimly. "I'll ask the question you want me to ask. Why are we here? Aren't you supposed to report in at Thursday Landing?"

"I exercised a special dispensation I have," Flandry said. "The Residency doesn't yet know we've come. In fact, unless my right hand has lost its cunning, nobody does."

At least I get a human startlement out of her. He liked seeing expressions cross her face, like clouds and sunbeams on a gusty spring day. "You see," he explained, "if subversive activities are going on, there's bound to be a spy or two around Imperial headquarters. News of your return would be just about impossible to suppress. And since you're in the custody of a Naval officer, it'd alarm the outfit we're after.

"Whereas, if you suddenly reappear by yourself, right in this hotspot, you'll surprise them. They won't have time to get suspicious, I trust. They'll make you welcome—"

"Why should they?" Kossara interrupted. "They'll wonder how I got back."

"Ah, no. Because they won't know you were ever gone."

She stared. Flandry explained: "Your companions died. If rebel

observers learned that you lived, they learned nothing else. No matter how idiotically my colleagues behaved toward you, I'm sure they followed doctrine and let out no further information. You vanished into their building, and that was that. You were brought from there to the spaceship in a sealed vehicle, weren't you? . . . Yes, I knew it . . . The Corpsmen had no reason to announce you'd been condemned and deported, therefore they did not.

"Accordingly, the rest of the gang—human if any are left on Diomedes, and most certainly a lot of natives—have no reason to suppose you haven't just been held incommunicado. In fact, that would be a much more logical thing to do than shipping you off to Terra for purchase by any blabbermouth."

She frowned, less in dislike of him than from being caught up, willy-nilly, by the intellectual problem which his planned deception presented. "But wasn't it a special team that caught and, and processed me? They may well have left the planet by now."

"If so, you can say they gave you in charge of the Intelligence agents stationed here semi-permanently. In fact, that's the safest thing for you to maintain in any event, and quite plausible. We'll work out a detailed story for you. I have an outline already, subject to your criticism. You wheedled a measure of freedom for yourself. That's plausible too, if you don't mind pretending you became the mistress of a bored, lonely commander. At last you managed to steal an aircar. I can supply that; we have two in the hold, one a standard civilian convertible we can set for Diomedean conditions. You fled back here, having enough memories left to know this is where your chances are best of being found by your organization."

She tensed again, and stretched the words out: "What will you do meanwhile?"

Flandry shrugged. "Not having had your preventive-medical treatment, I'm limited in my scope. Let's consult. Tentatively, I've considered making an appearance in a *persona* I've used before, a harmlessly mad Cosmenosist missionary prospecting for customers on yet another globe. However, I may do best to stay put aboard ship, following your adventures till the time looks ripe for whatever sort of action seems indicated."

Her starkness deepened. "How will you keep track of me?"

From his pocket Flandry took a ring. On its gold band sparkled what resembled a sapphire. "Wear this. If anybody asks, say you got it from your jailer-lover. It's actually a portable transmitter, same as your bracelet was on Terra but with its own power source."

"That little bit of a thing?" She sounded incredulous. "Needing no electronic network around? Reaching beyond line-of-sight? And not detectable by those I spy on?"

Flandry nodded. "It has all those admirable qualities."

"I can't believe that."

"I'm not at liberty to describe the principle. Anyway, nobody ever told me. I've indulged in idle speculalations about modulated neutrino emission, but they're doubtless

wildly wrong. What I do know is that the thing works." Flandry paused. "Kossara, I'm sorry, but under any circumstances . . . before I can release you, before I can even land you again on a prime world like Terra, you'll have to have wiped from your memory the fact that such gadgets exist. The job will be painless and very carefully done."

He held out the ring. She half reached for it, withdrew her hand, flickered her glance about till it came to rest on his, and asked most softly: "Why do you think I'll help you?"

"To earn your liberty," he answered. Each sentence wrenched at him. "Defect, and you're an outlaw. What chance would you have of getting home? The orbital watch, the surface hunt would be doubled. If you weren't caught, you'd starve to death after you used up your human-type food.

"And consider Dennitza, Your kin, your friends, small children in the millions, the past and present and future of your whole world. Should they be set at stake, in an era of planet-smasher weapons, for a political point at best, the vainglory of a few aristocrats at worst? You know better, Kossara."

She stood still for a long while before she took the ring from him and put it on her bridal finger.

"GIVEN the support of a dense atmosphere," said a text, "the evolution of large flying organisms was profuse. At last a particular species became fully intelligent.

"Typical of higher animals on Diomedes, it was migratory. Homeothermic, bisexual, viviparous, it originally followed the same reproductive pattern as its less developed cousins, and in most cultures still does. In fall a flock moves to the tropics, where it spends the winter. The exertion during so long a flight causes hormonal changes which stimulate the gonads. Upon arrival, there is an orgy of mating. In spring the flock returns home. Females give birth shortly before the next migration, and infants are carried by their parents. Mothers lactate like Terran mammals, and while they do, will not get pregnant. In their second year the young can fly independently, they have been weaned, their mothers are again ready to breed.

"This round formed the basis of a civilization centered on the islands around the Sea of Achan. The natives built towns, which they left every fall and re-entered every spring. Here they carried on sedentary occupations, stoneworking, ceramics, carpentry, a limited amount of agriculture. The real foundation of their economy was, however, herding and hunting. Except for necessary spurts of activity, in their homelands they were an easy-going folk, indolent, artistic, ceremonious, matrilineal—since paternity was never certain—and loosely organized into what they called the Great Flock of Lannach.

"But elsewhere a different practice developed. Dwelling on large ocean-going rafts, fishers and seaweed harvesters, the Fleet of Drak'ho ceased migrating. Oars, sails, nets, windlasses, construction and maintenance work kept the body

constantly exercised; year-round sexuality, season-free reproduction, was a direct consequence. Patriarchal monogamy ensued. The distances traveled annually were much less than for the Flock, and home was always nearby. It was possible to accumulate heavy paraphernalia, stores, machines, books. While civilization thus became more wealthy and complex than anywhere ashore, the old democratic organization gave way to authoritarian aristocracy.

"Histories roughly parallel to these have taken place elsewhere on the globe. But Lannach and Drak'ho remain the most advanced, populous, materially well-off representatives of these two strongly contrasted life-orderings. When they first made contact, they regarded each other with mutual horror. A measure of tolerance and cooperation evolved, encouraged by offplanet traders who naturally preferred peaceful conditions. Yet rivalry persisted, sporadically flaring into war, and of late has gained new dimensions.

"At the heart of the dilemma is this: that Lannachska culture cannot assimilate high-energy technology, in any important measure, and survive.

"The Drak'ho people have their difficulties, but no impossible choices. Few of them today are sailors. However, fixed abodes ashore are not altogether different from houses on rafts aforetime. Regular hours of work are a tradition, labor is considered honorable, mechanical skills and a generally technophilic attitude are in the social atmosphere which members inhale from birth. Though machinery has lifted off most Drak'hoans the toil that once gave them a human-like libido, they maintain it by systematic exercise (or, in increasingly many cases, by drugs), since the nuclear family continues to be the building block of their civilization.

"As producers, merchants, engineers, industrialists, even occasional spacefarers, they flourish, and are on the whole well content.

"But the cosmos of Lannach is crumbling. Either the Great Flock must remain primitive, poor, powerless, prey to storm and famine, pirates and pestilence, or it must modernize—with all that that implies, including earning the cost of the capital goods required. How shall a folk do this who spend half their lives migrating, mating, or living off nature's summer bounty? Yet not only is their whole polity founded upon that immemorial cycle. Religion, morality, tradition, identity itself are. Imagine a group of humans, long resident in an unchanged part of Terra, devout churchgoers, for whom the price of progress was that they destroy every relic of the past, embrace atheism, and become homosexuals who reproduce by ectogenesis. For many if not all Lannachska, the situation is nearly that extreme.

"In endless variations around the planet, the same drama is being played. But precisely because the Great Flock has changed more than other nations of its kind, it feels the hurt most keenly, is most divided against itself and embittered at the outside universe.

"No wonder if revolutionary solu-

tions are sought. Economic, social, spiritual secession, a return to the ways of the ancestors; shouts of protest against 'discrimination,' demands for 'justice,' help, subsidy, special consideration of every kind; political secession, no more taxes to the planetary peace authority or the Imperium; seizure of power over the whole sphere, establishment of a sovereign autarky—these are among the less unreasonable ideas afloat.

"There is also Alatanism. The Ythrians, not terribly far away as interstellar distances go, have wings. They should sympathize with their fellow flyers on Diomedes more than any biped ever can. They have their Domain, free alike of Empire and Roidhunate, equally foreign to both. Might it not, are its duty and destiny not to welcome Diomedes in?

"The fact that few Ythrian leaders have even heard of Diomedes, and none show the least interest in crusading, is ignored. Mystiques seldom respond to facts. They are instruments which can be played on . . ."

TWICE had the sun come from the mountains and returned behind them.

"Goodbye, then," Kossara said.

Flandry could find no better word than, "Goodbye. Good luck," hoarse out of the grip upon his gullet.

She regarded him for a moment, in the entryroom where they stood. "I do believe you mean that," she whispered.

Abruptly she kissed him, a brief brush of lips which exploded in his heart. She drew back before he could respond. During another instant she poised, upon her face a look of bewilderment at her own action.

Turning, she twisted the handle on the inner airlock valve. He took a following step. "No," she said. "You can't live out there, remember?" Her body prepared before she left Dennitza, she closed the portal on him. He stopped where he was. Pumps chugged until gauges told him the chamber beyond was now full of Diomedean air.

The outer valve opened. He bent over a viewscreen. Kossara's tiny image stepped forth onto the mountainside. A car awaited her. She bounded into it and shut its door. A minute later, it rose.

Flandry sought the control cabin, where were the terminals of his most powerful and sensitive devices. The car had vanished above clouds. "Pip-ho, Chives," he said tonelessly. A hatch swung wide. His Number Two atmospheric vehicle glided from the hold. It looked little different from the first, its engine, weapons, and special equipment being concealed in the teardrop fuselage. It disappeared more slowly, for the Shalmuan pilot wanted to stay unseen by the woman whom he stalked. But at last Flandry sat alone.

She promised she'd help me. What an inexperienced liar she is.

He felt no surprise when, after a few minutes, Chives' voice jumped at him: "Sir! She is descending . . . She has landed in the forest beside a river. I am observing through a haze by means of an infrared 'scope. Do you wish a relay?"

"Not from that," Flandry said. Too small, too blurry. "From her bracelet."

A screen blossomed in leaves and hasty brown water. Her right hand entered. Off the left, which he could not see, she plucked the ring, which he glimpsed before she tossed it into the stream.

"She is running for cover beneath the trees, sir," Chives reported.

Of course, replied the emptiness in Flandry. *She thinks that, via the ring, I've seen what she's just done, in the teeth of every pledge she gave me. She thinks that now, if she moves fast, she can vanish into the woods—make her own way afoot, find her people and not betray them, or else die striving.*

Whereas in fact the ring was only intended to lull any fears of surveillance she might have after getting rid of it—only a circlet on her bridal finger—and Chives has a radio resonator along to activate her bracelet—the slave bracelet I told her would be blind and deaf outside of Terra. So naive, so young.

"I do not recommend that I remain airborne, sir," Chives said. "Allow me to suggest that, as soon as the young lady has passed beyond observing me, I land likewise and follow her on the ground. I will leave a low-powered beacon to mark this site. You can flit here by gravbelt and retrieve the vehicles, sir. Permit me to remind you to wear proper protection against the unsalubrious ambience."

"Same to you, old egg, and put knobs on yours." Flandry's utterance shifted from dull to hard. "I'll repeat your orders. Trail her, and call in to the recorder cum relay 'caster I'll leave here, in whatever way and at whatever times seem discreet. But 'discretion' is your key word. If she appears to be in danger, getting her out of it—whether by bringing me in to help or by taking action yourself—that gets absolute priority. Understand?"

"Yes, sir." Did the high, not quite human accent bear a hint of shared pain? "Despite regrettable tactical necessities, Donna Vymezal must never be considered a mere counter in a game." *That's for personnel and planets, the anonymous billions—and, savingly, for you and me, eh, Chives?* "Will you proceed to the Technic settlement when your preparations are complete?"

"Yes," Flandry said. "Soon. I may as well."

VII

Where the equator crossed the eastern shoreline of a continent men called Centralia, Thursday Landing was founded. Though fertile by Diomedean standards, the country had few permanent residents. Rather, migration brought tides of travelers, northward and southward alternately, to their ancestral breeding grounds. At first, once the sharpest edge was off their sexual appetites, they had been glad to hunt and harvest those things the newcomers wanted from the wilderness, in exchange for portable trade goods. Later this business grew more systematized and extensive, especially after a large contingent of Drak'ho moved to these parts. Descending, Flandry

saw a fair-sized town.

Most was man-built, blocky interconnected ferrocrete structures to preserve a human-suitable environment from monstrous rains and slow but ponderous winds. He glimpsed a park, vivid green beneath a vitryl dome, brightened by lamps that imitated Sol. Further out, widely spaced in cultivated fields, stood native houses: tall and narrow, multiply balconied, graceful of line and hue, meant less to resist weather than to accept it, yielding enough to remain whole. Watercraft, ranging from boats to floating communities, crowded the harbor as wings did the sky.

Yet Flandry felt bleakness, as if the cold outside had reached in to enfold him. Beyond the fluorescents, half the world he saw was land, hills, meadows, dwarfish woods, dim in purple and black twilight, and half was bloodily glimmering ocean. For the sun stood barely above the northern horizon, amidst sulfur-colored clouds. At this place and season there was never true day or honest night.

Are you getting terracentric in your dotage? he gibed at himself. *Here's a perfectly amiable place for beings who belong in it.*

His mood would not go away. *Nevertheless it does feel unreal somehow, a scene from a bad dream. The whole mission has been like that. Everything shadowy, tangled, unstable, nothing what it seems to be . . . nor anybody who doesn't carry secrets within secrets . . .*

Myself included. He straightened in the pilot chair. *Well, that's what I'm paid for. I suppose these blue devils of mine come mainly from guilt about Kossara, fear of what may happen to her. O God Who is also unreal, a mask we put on emptiness, be gentle to her. She has been hurt so much.*

Ground Control addressed him, in Anglic though not from a human mouth. He responded, and set *Hooligan* down on the spacefield as directed. The prospect of action heartened him. *Since I can't trust the Almighty not to soldier on the job, let me start my share now.*

He had slipped back into space from Lannach, then returned openly. The sentinel robots detected him, and an officer in a warship demanded identification before granting clearance, at a distance from the planet which showed a thoroughness seldom encountered around fifth-rate outpost worlds. No doubt alarm about prospective rebellion and infiltration had caused security to be tightened. Without the orbital information he possessed, not even a vessel as begimmicked as his could have neared Diomedes unbeknownst.

The image of the portmaster appeared in a comscreen. "Welcome, sir," he said. "Am I correct that you are alone? The Imperial resident has been notified of your coming and invites you to be his house guest during your stay. If you will tell me where your accommodation lock is—frankly, I have never seen a model quite like yours—a car will be there for you in a few minutes."

He was an autochthon, a handsome creature by any standards. The size of a short man, he stood

on backward-bending, talon-footed legs. Brown-furred, the slim body ran out in a broad tail which ended in a fleshy rudder; at its middle, arms and hands were curiously anthropoid; above a massive chest, a long neck bore a round head—high, ridged brow, golden eyes with nictitating membranes, blunt-nosed black-muzzled face with fangs and whiskers suggestive of a cat, no external ears but a crest of muscle on top of the skull. From his upper shoulders grew the bat-wings, their six-meter span now folded. He wore a belt to support a pouch, a brassard of authority, and, yes, a crucifix.

I'd better stay in character from the beginning. "Many thanks, my dear chap," Flandry replied in his most affected manner. "I say, could you tell the chauffeur to come aboard and fetch my bags? Deuced lot of duffel on these extended trips, don't y' know." He saw the crest rise and a ripple pass along the fur, perhaps from irritation at his rudeness in not asking the portmaster's name.

The driver obeyed, though. He was a husky young civilian who bowed at sight of Flandry's gaudy version of dress uniform. "Captain Ahab Whaling?"

"Right." Flandry often ransacked ancient books. He had documentation aboard for several different aliases. Why risk alerting someone? The more everybody underestimated him, the better. Since he wanted to pump this fellow, he added, "Ah, you are—?"

"Diego Rostovsky, sir, handyman to Distinguished Citizen Legard. You mentioned baggage? . . . Jumping comets, that much? . . . Well, they'll have room at the Residency."

"Nobody else staying there, what?"

"Not at the moment. We had a bunch for some while, till about a month ago. But I daresay you know that already, seeing as how you're Intelligence yourself." Rostovsky's glance at the eye insigne on Flandry's breast indicated doubt about the metaphorical truth of it.

However, curiosity kept him friendly. When airlocks had decoupled and the groundcar was moving along the road to town, he explained: "We don't fly unnecessarily. This atmosphere plays too many tricks . . . Uh, they'll be glad to meet you at the Residency. Those officers I mentioned were too busy to be very good company, except for—" He broke off. "Um. And, since they left, the isolation and tension . . . My master and his staff have plenty to keep them occupied, but Donna Legard always sees the same people, servants, guards, commercial personnel and their families. She's Terran-reared. She'll be happy for news and gossip."

And you judge me the type to furnish them, Flandry knew. *Excellent.* His gaze drifted through the canopy, out over somber fields and tenebrous heaven. *But who was that exception whom you are obviously under orders not to mention?*

"Yes, I imagine things are a bit strained," he said. "Though really, you need have no personal fears, need you? I mean, after all, if some

of the tribes revolted, an infernal nuisance, 'speci'lly for trade, but surely Thursday Landing can hold out against primitives."

"They aren't exactly that," was the answer. "They have industrial capabilities, and they do business directly with societies still further developed. We've good reason to believe a great many weapons are stashed around, tactical nukes among them. Oh, doubtless we could fend off an attack and stand siege. The garrison and defenses have been augmented. But trade would go completely to pieces—it shouldn't take many rebels to interdict traffic—which'd hurt the economy of more planets than Diomedes. . . . And then, if outsiders really have been the, uh, the—"

"*Agents provocateurs,*" Flandry supplied. "Or instigators, if y' prefer. Either way; I don't mind."

Rostovsky scowled. "Well, what might their bosses do?"

MARTIN Lagard was a small prim man in a large prim office. When he spoke (in an Anglic still tinged by his Atheian childhood) both his goatee and the tip of his nose waggled. His tunic was of rich material but unfashionable cut, and he had done nothing about partial baldness.

Blinking across his desk at Flandry, who lounged behind a cigarette, the Imperial resident said in a scratchy voice, "Well, I'm pleased to make your acquaintance, Captain Whaling, but frankly puzzled as to what may be the nature of your assignment. No courier brought me any advance word." He sounded hurt.

I'd better soothe him. Flandry had met his kind by the scores, career administrators, conscientious but rule-bound and inclined to self-importance. Innovators, or philosophers like Chunderban Desai, were rare in that service, distrusted by their fellows, destined either for greatness or for ruin. Lagard had advanced methodically, by the book, toward an eventual pension.

He was uncreative but not stupid, a vital cog of empire. How could a planetful of diverse nonhumans be closely governed by Terra, and why should it be? Lagard was here to assist Imperials in their businesses and their problems; to oversee continuous collection of information about this world and put it in proper form to feed the insatiable data banks at Home; to collect from the natives a modest tribute which paid for their share of the Pax; to give their leaders advice as occasion warranted, and not use his marines to see that they followed it unless he absolutely must; to speak on their behalf to those officials of the Crown with whom he dealt; to cope.

He had not done badly. It was not his fault that demons haunted the planet which were beyond his capability of exorcising, and might yet take possession of it.

"No, sir, they wouldn't give notice. Seldom do. Abominably poor manners, but that's policy for you, what?" Flandry nodded at his credentials, where they lay on the desk. "'Fraid I can't be too explicit either. Let's say I'm on a special tour of inspection."

Lagard gave him a close look. Flandry could guess the resident's

thought: Was this drawling clothes horse really an Intelligence officer at work, or a pet relative put through a few motions to justify making an admiral of him? "I will cooperate as far as possible, Captain."

"Thanks. Knew y would. See here, d' you mind if I bore you for a few ticks? Mean to say, I'd like to diagram the situation as I see it. You correct me where I'm wrong, fill in any gaps, that kind of thing, eh? You know how hard it is to get any proper overview of matters. And then, distances between stars, news stale before it arrives, *n'est-ce pas?*"

"Proceed," Lagard said resignedly.

Flandry discarded his cigarette, crossed his legs and bridged fingers. No grav generator softened the pull of Diomedes. He let his added weight flow into the chair's crannies of softness, as if already wearied. (In actuality he did his calisthenics under two gees or more, because he thus shortened the dreary daily time he needed for keeping fit.) "Troublemakers afoot," he said. "Distinct possibility of hostiles taking advantage of the disorganization left by the recent unpleasantness — whether those hostiles be Merseian, Ythrian, barbarian, Imperials who want to break away or even overthrow his Majesty—right? You got hints, various of those troublemakers were active here, fanning flames of discontent and all that sort of nonsense. How'd they get past your security?"

"Not my security, Captain," Lagard corrected. "I've barely had this post five years. I found the sentinel system in wretched condition—expectable, after the Empire's woes—and did my best to effect repairs. I also found our civil strife was doing much to heighten resentment, particularly in the Great Flock of Lannach. It disrupted offplanet commerce, you see. The migrant societies have become more dependent on that than the sedentary ones like Drak'ho which have industry to produce most of what they consume. But please realize, a new man on a strange world needs time to learn its ins and outs, and develop workable programs."

"Oh, quite." Flandry nodded. "At first you'd see no reason to screen visitors from space. Rather, you'd welcome 'em. They might help restore trade, what? Very natural. No discredit to you. At last, however, clues started trickling in. Not every transient was spending his stay in the outback so benignly. Right?

"You asked my Corps to investigate. That likewise takes time. We too can't come cold onto a planet and hope for instant results, y' know. Ah, according to my briefing, it was sector HQ you approached. Terra just got your regular reports."

"Of course," Lagard said. "Going through there would have meant a delay of months."

"Right, right. No criticism intended, sir," Flandry assured him. "Still, we do like to keep tabs at Home. That's what I'm here for, to find out what was done, in more detail than the official report"—*which was almighty sketchy*—"could ren-

der. Or, you could say, my superiors want a feel of how the operation went."

Lagard gave the least shrug.

"Well, then," Flandry proceeded. "The report does say a Commander Bruno Maspes brought an Intelligence team, set up shop in Thursday Landing, and got busy interrogating, collating data, sending out people into the field—the usual intensive job. They worked how long?"

"About six months."

"Did you see much of them?"

"No. They were always occupied, often all away from here at once, sometimes away from the whole system. Personnel of theirs came and went. Even those who were my guests—" Lagard stopped. "You'll forgive me, Captain, but I'm under security myself. My entire household is. We've been forbidden to reveal certain items. This clearance of yours does not give you power to override that."

Ah-ha. It tingled in Flandry's veins. His muscles stayed relaxed. "Yes, yes. Perfectly proper. You and yours were bound to spot details—f'r instance, a xenosophont with odd talents—" *Look at his face! Again, ah-ha.* —"which ought not be babbled about. Never fret, I shan't pry.

"In essence, the team discovered it wasn't humans of Ythrian allegiance who were inciting to rebellion and giving technical advice about same. It was humans from Dennitza."

"So I was told," Lagard said.

"Ah . . . during this period, didn't you entertain a Dennitzan scientist?"

"Yes. She and her companion soon left for the Sea of Achan, against my warnings. Later I was informed that they turned out to be subversives themselves." Lagard sighed. "Pity. She was a delightful person, in her intense fashion."

"Any idea what became of her?"

"She was captured. I assume she's still detained."

"Here?"

"Seems unlikely. Maspes and his team left weeks ago. Why leave her behind?"

What would I have done if they were around yet? Flandry wondered fleetingly. *Played that hand in style, I trust.* "They might have decided that was the easiest way to keep the affair under wraps for a bit," he suggested.

"The Intelligence personnel now on Diomedes are simply those few who've been stationed among us for years. I think I'd know if they were hiding anything from me. You're free to talk to them, Captain, but better not expect much."

"Hm." Flandry stroked his mustache. "I s'pose, then, Maspes felt he'd cleaned out the traitors?"

"He said he had a new, more urgent task elsewhere. Doubtless a majority of agents escaped his net, and native sympathizers may well keep any humans among them fed. But, he claimed, if we monitor space traffic carefully, they shouldn't rouse more unrest than we can handle. I hope he was right."

"You're trying to defuse local conflicts, eh?"

"What else?" Lagard sounded impatient. "My staff and I, in consultation with loyal Diomedeans,

are hard at work. A fair shake for the migrants is not impossible to achieve, if the damned extremists will let us alone. I'm afraid I'll be a poor host, Captain. Day after tomorrow—Terran, that is—I'm off for Lannach, to lay certain proposals before the Commander of the Great Flock and his councillors. They feel a telescreen is too impersonal."

Flandry smiled. "Don't apologize, sir. I'll be quite happy. And, I suspect, only on this planet a few days anyhow, before bouncing on to the next. You and Maspes seem offhand to've put on a jolly good show."

Gratified, visions of bonuses presumably dancing through his head, the resident beamed at him. "Thank you. I'll introduce you around tomorrow, and you can question or look through the files as you wish, within the limits of security I mentioned. But first I'm sure you'd like to rest. A servant will show you to your room. We'll have apertifs in half an hour. My wife is eager to meet you."

VIII

AT DINNER Flandry laid on the wit and sophistication he had preprogrammed, until over the liqueurs Susette Kalehua Lagard sighed, "Oh, my, Captain Whaling, how marvelous having you here! Nobody like you has visited us for ages—they've all been provincials, or if not, they've been so ghastly serious, no sensitivity in them either, except a single one and he wasn't human—Oh!" Her husband had frowned and nudged her. She raised fingers to lips. "No, that was naughty of me. Please forget I said it."

Flandry bowed in his chair. "Impractical, I fear, Donna. How could I forget anything spoken by you? But I'll set the words aside in my mind and enjoy remembering the music." Meanwhile alertness went electric through him. This warm, well-furnished, softly lighted room, where a recorded violin sang and from which a butler had just removed the dishes of an admirable rubyfruit souffle, was a very frail bubble to huddle in. He rolled curacao across his tongue and reached for a cigarette.

"You're a darling." She had had a good bit to drink. "Isn't he, Martin? Must you really leave us in less than a week?"

Flandry shrugged. "Looks as if Distinguished Citizen Lagard hasn't left me much excuse to linger, alas."

"Maybe we can find something. I mean, you can exercise judgment in your mission, can't you? They wouldn't send a man like you out and keep a leash on him."

"We'll see, Donna." He gave a look of precisely gauged meaningfulness. She returned it in kind. The wine had not affected her control in that respect.

His inner excitement became half sardonicism, half a moderately interested anticipation. She was attractive in a buxom fashion which her low-cut shimmerlyn gown lent an emphasis that would have raised brows at today's Imperial court—the court she had never seen. Jewels glinted in black hair piled about a round brown countenance. Vivacity

had increased in her throughout the meal, till her conversation sounded less platitudinous than it was.

Flandry knew her as he knew her husband, from uncounted encounters: the spouse of an official posted to a distant world of nonhumans. Occasionally such a pair made a team. But oftener the member who did not have the assignment was left to the dismal mercies of a tiny Imperial community, the same homes, bodies, words, games, petty intrigues and catfights for year after year. He or she might develop an interest in the natives, get into adventures and fascinations, even contribute a xenological study or a literary translation. Lady Susette lacked the gift for that. Since she had had no children when she arrived, there would be none for the rest of Lagard's ten-year hitch. The immunizations which let her walk freely outdoors on Diomedes were too deep-going for her organism to accept an embryo, and it would be too dangerous to have them reversed before she departed. What then was Susette Kalehua Lagard, daughter of prosperous and socially prominent Terrans, to do while she waited?

She could terminate the marriage. But a man who had gotten resident's rank was a fine catch. He could expect a subsequent commissionership on a prime human-colonized planet like Hermes, where plenty of glamour was available; in due course he should become a functionary of some small importance on Terra itself, and perhaps receive a minor patent of nobility. She must feel this was worth her patience. Her eyes told Flandry she did have a hobby.

"Well, if our time's to be short, let's make it sweet," she said. "May I—we call you Ahab? We're Susette and Martin."

"I'm honored." Flandry raised his glass in salute. "And refreshed. Folk on Terra have gotten stiffish these past few years, don't y' know. Example set by his Majesty and the inner circle."

"Indeed?" Lagard asked. "Nuances don't reach us here. I'd have thought—with due reverence—the present Emperor would be quite informal."

"Not in public," Flandry said. "Career Navy man of Germanian background, after all. I see us generally heading into a puritanical period." *Which, if Desai is right, is not the end of decadence, but rather its next stage.* "Luckily, we've plenty of nooks and crannies for carrying on in the grand old tradition. In fact, disapproval lends spice, what? I remember a while ago—"

His risque reminiscence had happened to somebody else and the event had lacked several flourishes he supplied. He never let such nigglements hinder a story. It fetched a sour smile from Lagard but laughter and a blush down to the decolletage from Susette.

THE STAFF, assistants, clerks, technical chiefs, Navy and marine personnel, were harried but cooperative, except when Flandry heard: "Sorry, sir. I'm not allowed to discuss that. If you want information, please apply at Sector HQ. I'm sure they'll oblige you there."

Yes, they'll oblige me with the same skeleton account that Terra got. I could make a pest of myself, but I doubt if the secret files have ever contained any mention of what I'm really after. I could check on the whereabouts of Commander Maspes & Co., and make a long trip to find them—no, him, for probably the team's dispersed . . . ah, more probably yet, the files will show orders cut for them similar to those in Captain Whaling's papers, and the men have vanished . . . maybe to bob up again eventually, maybe never, depending on circumstances.

More deceptions, more phantoms.

He sauntered into the civilian part of town and was quickly on genial terms with factors and employees. Most of them found their work stimulating—they liked the Diomedeans—but were starved for new human contact. And none were under security. The trouble was, there had been no need for it. They knew a special Intelligence force came to search out the roots of the unrest which plagued them in their business. They totally approved, and did not resent not being invited to meet the investigators save for interviews about what they themselves might know. None had seen the entire team together; when not in the field, it kept apart, officers in the Residency, enlisted men in a separate barrack. Yes, rumor said it included a xeno or two. What of that?

Otherwise the community had only heard Lagard's brief announcement after the group was gone. ". . . . I am not at liberty to say more than that human traitors have been trying to foment a rebellion among the Lannachska. Fortunately, the vast majority of the Great Flock stayed loyal and sensible. And now the key agents have been killed or captured. A few may still be at large, and information you may come upon concerning these should be reported immediately. But I don't expect they can do serious harm any longer, and I intend to proceed, with your cooperation, to remove the causes of discontent . . ."

The next Diomedean day, Flandry donned a heated coverall and a dome helmet with an air recycler, passed through pressure change in a lock, and circulated among natives in their part of town. Most knew Anglic and were willing to talk; but none had further news. He wasn't surprised.

Finding a public phone booth, he took the opportunity to call Chives when nobody who chanced to observe him was likely to wonder what a solitary operative was doing there. He used a standard channel but a language he was sure had never been heard on this world. The nearest comsat bucked his words across the ocean to Lannach where, he having paid for the service, they were broadcast rather than beamed. The relay unit he had left under the cliff made contact with the Shalmuan's portable.

"Yes, sir, at present the young lady is eating rations taken from her car before she abandoned it. They should last her as far as the sea, for she is setting a hard pace despite the overgrowth and rugged topography. I must confess I have

difficulty following, since I consider it inadvisable to go aloft on my gravbelt. I feel a certain concern for her safety. A fall down a declivity or a sudden tempest could have adverse effects, and she does not let caution delay her."

"I think she can manage," Flandry said. "In any event, you can rescue her. What worries me is what may happen after she gets where she's going. Another twenty-four hours, did you estimate? I'd better try to act fast myself, here."

SUSETTE didn't wish to lose time either. Three hours after she and Flandry had seen Lagard off, she was snuggled against him whispering how wonderful he had been.

"You're no slouch on the couch yourself, m' love," he said, quite honestly. "More, I hope?"

"Yes. As soon and often as you want. And do please want."

"Well, how about a breather first, and getting acquainted? A girl who keeps a bedside beer cooler is a girl whose sound mind I want to know as well as her delectable body." Warm and wudgy, she caressed him while he leaned over to get bottles for them, and stayed in the circle of his free arm when they leaned back against the pillows.

Too bad this can't be a simple romp for me, he thought. *It deserves that. And by the way, so do I. Kossara was making chastity come hard.*

He savored the chill brisk flavor while his glance roved about. The resident's lady had a private suite where, she hinted, the resident was an infrequent caller. This room of it was plushly carpeted, draped, furnished, in rose and white. An incense stick joined its fragrance to her own. A dressing table stood crowded with perfumes and cosmetics. Her garments sheened above his, hastily tossed over a chair. In that richness, her souvenirs of Home—pictures, bric-a-brac, a stuffed toy such as she would have given to a child—seemed as oddly pathetic as the view in the window was grim. Hail dashed against vitryl, thicker and harder than ever fell on Terra, picked out athwart blue-black lightning-jumping violence by an ember sunbeam which stabbed through a rent in the clouds. Past every insulation and heaviness came a ghost of the wind's clamor.

Kossara . . . Yes, Chives is right to fret about her while she struggles through yonder wildwood.

Susette stroked his cheek. "Why do you look sad all of a sudden?" she asked.

"Eh?" He started. "How ridiculous. 'Pensive' is the word, my imp. Well, perhaps a drop of melancholy, recalling how I'll have to leave you and doubtless never see you again."

She nodded. "Me too. Though are you sure we won't—we can't?"

If I kept any control over events, yes, absolutely! Not that you aren't likeable; but frankly, in public you're a bore. And what if Kossara found out?

Why should I care?

Well, she might accept my sporting as such. I get the impression hers is a double-standard society. But I don't believe she'd forgive my cuckolding a man whose salt I've eaten. To plead I was far from

unique would get me nowhere. To plead military necessity wouldn't help either; I think she could see (those wave-colored eyes) that I'd have performed the same service free and enjoyed every microsecond.

Hm. The problem is not how to keep a peccadillo decently veiled in hypocrisy. The problem is what to do about the fact that I care whether or not Kossara Vymezal despises me.

"Can't we?" Susette persisted. "The Empire's big, but people get around in it."

Flandry pulled his attention back to the task on hand. He hugged her, smiled into her troubled gaze, and said, "Your idea flatters me beyond reason. I'd s'posed I was a mere escapade."

She flushed. "I supposed the same. But—well—" Defiantly: "I have others. I guess I always will, till I'm too old. Martin must suspect, and not care an awful lot. He's nice to me in a kind of absent-minded way, but he's overworked, and not young, and—you know what I mean. Diego, Diego Rostovsky, he's been the best. Except I know him inside out by now, what there is to know. You come in like a fresh breeze straight from Home!—and you can talk about things, and make me laugh and feel good, and—" She leaned hard on him. Her own spare hand wandered. "I'd never have thought . . . you knew right away what I'd like most. Are you a telepath?"

No, just experienced and imaginative. Aycharaych is the telepath. "Thank you for your commendation," Flandry said, and clinked his bottle on hers.

"Then won't you stay a little while extra, Ahab, and return afterward?"

"I must go whither the vagaries of war and politics require, amorita. And believe me, they can be confoundedly vague." Flandry took a long drink to gain a minute for assembling his next words. "F'r instance, the secrecy Commander Maspes laid on you forces me to dash on to Sector HQ as soon's I've given Diomedes a fairly clean bill of health—which I've about completed. My task demands certain data, you see. Poor communications again. Maspes tucked you under a blanket prohibition because he'd no way of knowing I'd come here, and I didn't get a clearance to lift it because nobody back Home knew he'd been that ultracautious." *If I produced the Imperial writ I do have, that might give too much away.*

Susette's palm stopped on his breast. "Why, your heart's going like a hammer," she said.

"You do that to a chap," he answered, put down his bottle and gathered her to him for an elaborate kiss.

Breathlessly, she asked, "You mean if you had the information you wouldn't be in such a hurry? You could stay longer?"

"I should jolly well hope so," he said, running fingers through her hair. "But what's the use?" He grinned. "Never mind. In your presence, I am not prone to talk shop."

"No, wait." She fended him off, a push which was a caress. "What do you need to know, Ahab?"

"Why—" He measured out his hesitation. "Something you're not

allowed to tell me."

"But they'd tell you at HQ."

"Oh, yes. This is a miserable technicality."

"All right," Susette said fast. "What is it?"

"You might—" Flandry donned enthusiasm. "Darling! You would get in no trouble, I swear. No, you'd be expediting the business of the Empire."

She shook her head and giggled. "Uh-uh. Remember, you've got to spend the time you gain here. Promise?"

"On my honor" *as a double agent.*

She leaned back again, her beer set aside, hands clasped behind her neck, enjoying her submission. "Ask me anything."

Flandry faced her, arms wrapped around drawn-up knees. "Mainly, who was with Maspes? Nonhumans especi'lly. I'd better not spell out the reason. But consider. No mind can conceive, let alone remember, the planets and races we've discovered in this tiny offside corner of the solitary galaxy we've explored a little bit. Infiltration, espionage—such things have happened before."

She stared. "Wouldn't they check a memory bank?"

Memory banks can have lies put into them, whenever we get a government many of whose officials can be bought, and later during the confusion of disputed succession, civil war, and sweeping purges. Those lies can then wait, never called on and therefore never suspected, till somebody has need for one of them. "Let's say no system is perfect, 'cept yours for lovemaking. Terra itself doesn't have a complete, fully updated file. Regional bitkeepers don't try; and checking back with Terra seldom seems worth the delay and trouble."

"Golloo!" She was more titillated than alarmed. "You mean we might've had an enemy spy right here?"

"That's what I'm s'posed to find out, sweetling."

"Well, there was only a single xeno on the team." She sighed. "I'd hate to believe he was enemy. So beautiful a person. You know, I daydreamed about going to bed with him, though of course I don't imagine that'd have worked, even if he did look pretty much like a man."

"Who was he? Where from?"

"Uh—his name, Ay . . . Aycharaych." She handled the diphthongs better than the open consonants. "From, uh, he said his planet's called Chereion. Way off toward Betelgeuse."

Further, Flandry thought amidst a thrumming.

This time he didn't bother to conceal his right name or his very origin. And why should he? Nobody would check on a duly accredited member of an Imperial Intelligence force—not that the files in Thursday Landing would help anyway—and he could read in their minds that none had ever heard of an obscure world within the Roidhunate—and the secrecy command would cover his trail as long as he needed, after he'd done his damage and was gone.

When at last, maybe, the truth came out: why, our people who do know a little something about Chereion would recognize that was

where he glided from, as soon as they heard his description, regardless of whether he'd given a false origin or not. He might as well amuse himself by leaving his legal signature.

Which I'd already begun to think I saw in this whole affair. Dreams and shadows and flitting ghosts—

"He's about as tall as you are," Susette was saying, "skinny—no, I mean fine-boned and lean—except for wide shoulders and a kind of jutting chest. Six fingers to a hand, extra-jointed, ambery nails; but four claws to a foot and a spur behind, like a sort of bird. And he did say his race comes from a, uh, an analogue of flightless birds. I can't say a lot more about his body, because he always wore a long robe, though usually going barefoot. His face . . . well, I'd make him sound ugly if I spoke about a dome of a brow, big hook nose, thin lips, pointed ears, and of course all the, the shapes, angles, proportions difference from ours. Actually, he's beautiful. I could've spent days looking into those huge red-brown whiteless eyes of his, if he'd let me. His skin is deep gold color. He has no hair anywhere I saw, but a kind of shark-fin crest on the crown of his head, made from dark-blue feathers, and tiny feathers for eyebrows. His voice is low and . . . pure music."

Flandry nodded. "M-hm. He stayed in your house?"

"Yes. We and the servants were strictly forbidden to mention him anywhere outside. When he visited the building his team had taken over—or maybe left town altogether; I can't say—he'd put on boots, a cowl, a face mask, like he came from someplace where men cover up everything in public; and walking slow, he could make his gait pass for human."

"Did you get any hints of what he did?"

"No. They called him a . . . consultant." Susette sat upright. "Was he really a spy?"

"I can identify him," Flandry said, "and the answer is no." *Why should he spy on his own companions—subordinates? And he didn't bring them here to collect information, except incidentally. I'm pretty sure he came to kindle a war.*

"Oh, I'm glad," Susette exclaimed. "He was such a lovely guest. Even though I often couldn't follow his conversation. Martin did better, but he'd get lost too when Aycharaych started talking about art and history—of Terra! He made me ashamed I was that ignorant about my own planet. No, not ashamed; really interested, wanting to go right out and learn if only I knew how. And then he'd talk on my level, like mentioning little things I'd never much noticed or appreciated, and getting me to care about them, till this dull place seemed full of wonder and—"

She subsided. "Have I told you enough?" she asked.

"I may have a few more questions later," Flandry said, "but for now, yes, I'm through."

She held out her arms. "Oh, no, you're not, you man, you! You've just begun. C'mere."

Flandry did. But while he embraced her, he was mostly harking back to the last time he met Aycharaych . . .

IX

THAT was four years ago, in the planet-wide winter of eccentrically orbiting Talwin. Having landed simultaneously from the warships which brought them hither, Captain Sir Dominic Flandry and his opposite number, *Qanryf* Tachwyr the Dark, were received with painstaking correctness by the two commissioners of their respective races who administered the joint Merseian-Terran scientific base. After due ceremony, they expressed a wish to dine privately, that they might discuss the tasks ahead in frankness and at leisure.

The room for this was small, austerely outfitted as the entire outpost necessarily was. Talwin's system coursed through the Wilderness, that little-explored buffer zone of stars between Empire and Roidhunate; it had no attraction for traders; the enterprise got a meager budget. A table, some chairs and stools, a sideboard, a phone were the whole furniture, unless you counted a dumbwaiter with sensors and extensible arms for serving people who might not wish a live attendant.

Flandry entered cheerily, 0.88 g lending bounce to his gait. The Merseian officer waited, half dinosaurian despite a close-fitting silver-trimmed black uniform, bold against snowfields, frozen river, and shrunken sun in crystalline sky which filled a wall transparency behind him.

"Well, you old rascal, how are you?" The man held forth his hand in Terran wise. Tachwyr clasped it between warm dry fingers and leathery palm. They had no further amicable gesture to exchange, since Flandry lacked a tail.

"Thirsty," Tachwyr rumbled. They sought the well-stocked sideboard. Tachwyr reached for Scotch and Flandry for telloch. They caught each other's glances and laughed, Merseian drumroll and human staccato. "Been a long while for us both, *arrach?*"

Flandry noted the inference, that of recent years Tachwyr's work had brought him into little or no contact with Terrans, for whatever it might be worth. Likely that wasn't much. The Empire's mulish attitude toward the aggrandizement of the Roidhunate was by no means the sole problem which the latter faced. Still, Tachwyr was by way of being an expert on Homo sapiens; so if a more urgent matter had called him— To be sure, he might have planned his remark precisely to make his opponent think along these lines.

"I trust your wives and children enjoy good fortune," Flandry said in polite Eriau.

"Yes, I thank the God." The formula being completed, Tachwyr went on: "Chydhwan's married, and Gelch has begun his cadetship. I presume you're still a bachelor?" He must ask that in Anglic, for his native equivalent would have been an insult. His jet eyes probed. "Aren't you the gaudy one, though? What style is that?"

The man extended an arm to show off colors and embroideries of his mufti. The plumes bobbed which sprang from an emerald brooch holding his turban together. "Latest fashion in Dehiwala—on

Ramanujan, you know. I was there a while back. Garb at home has gotten positively drab." He lifted his glass. "Well, *tor ychwei.*"

"Here's to you," the Merseian responded in Anglic. They drank. The telloch was thick and bitter-fiery.

Flandry looked outdoors. "Brrr!" he said. "I'm glad this time I won't need to tramp through that."

"Khraich? I'd hoped we might go on a hunt."

"Don't let me stop you. But if nothing else, my time here is limited. I must get back. Wouldn't have come at all except for your special invitation."

Tachwyr studied Flandry. "I never doubted you are busy these days," he said.

"Yes, jumping around like a probability function in a high wind."

"You do not seem discouraged."

"N-no." Flandry sipped, abruptly brought his gaze around, and stated: "We're near the end of our troubles. What opposition is left has no real chance."

"And Hans Molitor will be undisputed Emperor." Tachwyr's relaxation evaporated. Flandry, who knew him from encounters both adversary and half friendly since they were fledglings in their services, had rather expected that. A big, faintly scaled hand clenched on the tumbler of whisky. "My reason why I wanted this meeting."

"*Your* reason?" Flandry arched his brows, though he knew Tachwyr felt it was a particularly grotesque expression.

"Yes. I persuaded my superiors to send your government—Molitor's—the proposal, and put me in charge of our side. However, if you had not come yourself, I imagine the conference would have proven as empty as my *datholch* claimed it would, when I broached the idea to him."

I can't blame the good datholch, Flandry thought. *It does seem ludicrous on the face of it: discussions between Intelligence officers of rank below admiral or* fodaich, *who can't make important commitments—discussions about how to "resolve mutual difficulties" and assure the Imperium that the Roidhunate has never had any desire to interfere in domestic affairs of the Empire—when everybody knows how gleefully Merseian agents have swarmed through every one of our camps, trying their eternally damnedest to keep our family fight going.*

Of course, Molitor's people couldn't refuse, because this is the first overt sign that Merseia will recognize him rather than some rival as our lord, and deal with his agents later on, about matters more real than this farce.

The intention is no surprise, when he's obviously winning. The surprise was the form the feeler took—and Tachwyr's note to me. Neither action felt quite Merseian.

Therefore I had to come.

"Let me guess," Flandry said. "You know I'm close to his Majesty and act as an odd job man of his. You and your team hope to sound out me and mine about him."

Tachwyr nodded. "If he's to be your new leader, stronger than the past several, we want to know what to expect."

"You must have collected more bits of information on him than there are stars in the galaxy. And he's not a complex man. And no individual can do more than throw a small extra vector or two in among the millions that whipsaw such a big and awkward thing as the Empire toward whatever destiny it's got."

"He can order actions which have a multiplier effect, for war or peace between our folk."

"Oh, come off it, chum! No Merseian has a talent for pious wormwords. He only sounds silly when he tries. As far as you are concerned *vis-a-vis* us, diplomacy is a continuation of war by other means." Flandry tossed off his drink and poured a refill.

"Many Terrans disagree," Tachwyr said slowly.

"My species also has more talent than yours for wishful thinking," Flandry replied. He waved at the cold landscape. "Take this base itself. For two decades, through every clash and crisis, a beacon example of cooperation. Right?" He leered. "You know better. Oh, doubtless most of the scientists who come here are sincere enough in just wanting to study a remarkable xenological development. Doubtless they're generally on good personal terms. But they're subsidized—they have their nice safe demilitarization—for no reason except that both sides find it convenient to keep a place for secret rendezvous. Neutral domains like Betelgeuse are so public, and their owners tend to be so nosy."

He patted the Merseian's back. "Now let's sit down to eat, and afterward serious drinking, like the cordial enemies we've always been," he urged. "I don't mind giving you anecdotes to pad out your report. Some of them may even be true."

The heavy features flushed olive-green. "Do you imply our attempt—not at final disengagement, granted, but at practical measures of mutual benefit—do you imply it is either idiotic or else false?"

Flandry sighed. "You disappoint me, Tachwyr. I do believe you've grown stuffy in your middle age. Instead of continuing the charade, why not ring up your Chereionite and invite him to join us? I'll bet he and I are acquainted too."

THE SUN went down and night leaped forth in stars almost space-bright, crowding the dark, making the winter world glow as if it had a moon. "May I turn off the interior lights?" Aycharaych asked. "The outside is too glorious for them."

Flandry agreed. The hawk profile across the table from him grew indistinct, save for great starlight-catching eyes. The voice sang and purred onward, soft as the cognac they shared, in Anglic whose accent sounded less foreign than archaic.

"I could wish your turban did not cover a mindscreen and powerpack, my friend. Not merely does the field make an ugliness through my nerves amidst this frozen serenity; I would fain be in true communion with you." Aycharaych's chuckle sounded wistful. "That can scarcely be, I realize, unless you join my cause."

"Or you mine," Flandry said.

"And each of your men who

might know something I would like to learn is likewise screened against me. Does not that apparatus on their heads make sleep difficult? I warn you in any case, wear the things not over-many days at a stretch. Even for a race like yours, it is ill to keep the brain walled off from those energies which inspirit the universe, behind a screen of forces that themselves must roil your dreams."

"I see no reason for us to stay."

Aycharaych inhaled from his glass. He had not touched the liquor yet. "I would be happy for your company," he said. "But I understand. The consciousness that dreary death will be in a few more decades fold this brightly-checkered game board whereon you leap and capture—that keeps you ever in haste."

He leaned back, gazed out at a tree turned into a jewel by icicles, and was quiet a while. Flandry reached for a cigarette, remembered the Chereionite disliked tobacco smoke, soothed himself with a swallow.

"It may be the root of your greatness as a race," Aycharaych mused. "Could a St. Matthew Passion have welled from an immortal Bach? Could a Rembrandt who knew naught of sorrow and had no need for steadfastness in it, have brought those things alive by a few daubs of paint? Could a Tu Fu free of loss have been the poet of dead leaves flying amidst snow, cranes departing, or an old parrot shabby in its cage? What depth does the foreknowledge of doom give to your loves?"

He turned his head to face the man. His tone lightened: "Well. Not that poor mortified Tachwyr is gone—most mightily had he looked forward to the sauce which gloating would put on his dinner!—we can talk freely. How did you deduce the truth?"

"Part hunch," Flandry confessed. "The more I thought about that message, the more suggestions of your style I found. Then logic took over. Plain to see, the Merseians had some ulterior motive in asking for a conference as nugatory *per se* as this. It could be just a signal to us, and an attempt at sounding out Molitor's prospective regime a bit. But for those purposes it was clumsy and inadequate. And why go to such trouble to bring *me* here?

"Well, I'm not privy to high strategic secrets, but I'm close enough to him that I must have a fair amount of critical information—the kind which'll be obsolete inside a year, but if used promptly could help Merseia keep our kettle longer on the boil, with that much more harm to us. And I have a freer hand than anybody else who's so well briefed; I could certainly come if I chose. And an invitation from Tachwyr could be counted on to pique my curiosity, if nothing else.

"The whole idea was yours, wasn't it?"

Aycharaych nodded, his crest a scimitar across the Milky Way. "Yes," he said. "I already had business in these parts—*negotiam perambulans in tenebris*, if you like—and saw nothing to lose in this attempt. At least I have won the pleasure of a few hours with you."

"Thanks. Although—" Flandry sought words. "You know I put modesty in a class with virginity; both charming characteristics which should be gotten rid of as fast as puberty allows. However . . . why me, Aycharaych? Do you relish the fact I'll kill you, regretfully but firmly, the instant a chance appears? In that respect, there are hundreds like me. True, I may be unusual in having come close, a time or two. And I can make more cultured noises than the average Navy man. But I'm no scholar, no esthete—a dilettante; you can do better than me."

"Let us say I appreciate your total personality." The smile, barely visible, resembled that upon the oldest stone gods of Greece. "I admire your exploits. And since we have interacted again and again, a bond has formed between us. Deny not that you sense it."

"I don't deny. You're the only Chereionite I've ever met—" Flandry stopped.

After a moment he proceeded: "Are you the only Chereionite anybody has ever met?"

"Occasional Merseians have visited my planet, even resided there for periods of study," Aycharaych pointed out.

Yes. Flandry remembered one such, who had endangered him here upon Talwin; how far in the past that seemed, and how immediately near! *I realize why the coordinates of your home are perhaps the best-kept secret in the Roidhunate. I doubt if a thousand beings from offworld know; and in most of them, the numbers have been buried deep in their unconsciousness, to be called forth by a key stimulus which is also secret.*

Secret, secret . . . What do we know about you that is substance and not shadow?

The data fled by, just behind his eyes.

Chereion's sun was dim, as Flandry himself had discovered when he noticed Aycharaych was blind in the blue end of the spectrum though seeing farther into the red than a man can. The planet was small, cold, dry—deduced from Aycharaych's build, walk, capabilities, preferences—not unlike human-settled Aeneas, because he could roam freely there and almost start a holy war to split the Empire, 19 years ago.

In those days he had claimed that the enigmatic ruins found upon many worlds of that sort were relics of his own people, who ranged and ruled among the stars in an era geologically remote. He claimed . . . *He's as big a liar as I am, when either of us wants to be. If they did build and then withdraw, why? Where to? What are they upon this night?*

Dismiss the riddles. Imperial Intelligence knew for certain, with scars for reminders, he was a telepath of extraordinary power. Within a radius of x meters, he could read the thoughts of any being, no matter how alien, using any language, no matter how foreign to him. That had been theoretically impossible. Hence the theory was crudely modified (there is scant creativity in a waning civilization) to include suggestions of a brain which with computer-like speed and capacity analyzed the impulses

it detected into basic units (binary?), compared this pattern with the one which its own senses and knowledge presented, and by some incredible process of trial and error synthesized in seconds a code which closely corresponded to the original.

It did not seem he could peer far below the surface thoughts, if at all. That mattered little. He could be patient; or in a direct confrontation, he had skill to evoke the memories he wanted. No wonder that the highest Merseian command paid heed to him. The Empire had never had a more dangerous single enemy.

Single—

Flandry grew aware of the other's luminous regard. "'Scuse me," he said. "I got thinking. Bad habit."

"I can guess what." Aycharaych's smile continued. "You speculate whether I am your sole Chereionite colleague."

"Yes. Not for the first time." Flandry drank again. "Well, are you? What few photographs or eyewitness accounts we've garnered, of a Chereionite among outsiders—never more than one. Were all of them you?"

"You don't expect me to tell you. I will agree to what's obvious, that partakers in ephemeral affairs, like myself, have been rare among my race. They laid such things aside before your kind were aught but apes."

"Why haven't you?"

"In action I find an art; and every art is a philosophical tool, whereby we may seek to win an atom deeper into mystery."

Flandry considered Aycharaych for a silent span before he murmured: "I came on a poem once, in translation—it goes back a millennium or more—that's stayed with me. Tells how Pan—you know our Classical myths—Pan is at a riverside, splashing around, his goat hoofs breaking the lilies, till he plucks a reed and hollows it out, no matter the agony it feels; then the music he pipes forth enchants the whole forest. Is that what you think of yourself as doing?"

"Ah, yes," Aycharaych answered, "you have the last stanza in mind, I believe." Low:

"Yet half a beast
  is the great god Pan
To laugh as he sits
  by the river,

Making a poet out of a man:

The true gods sigh
  for the cost and pain,—

For the reed which grows
  nevermore again
As a reed with the reeds
  in the river."

Damn! Flandry thought. *I ought to stop letting him startle me.*

"My friend," the other went on gently, "you too play a satanic role. How many lives have you twisted or chopped short? How many will you? Would you protest me if the accidents of history had flung Empire rather than Roidhunate around my sun? Or if you had been born into those humans who serve Merseia? Indeed, then you might have lived more whole of heart."

Anger flared. "I know," Flandry

snapped. "How often have I heard? Terra is old, tired, corrupt, Merseia is young, vigorous, pure. Thank you, to the extent that's true, I prefer my anomie, cynicism, and existential despair to counting my days in cadence and shouting huzza—worse, sincerely meaning it—when Glorious Leader rides by. Besides . . . the device every conqueror, yes, every altruistic liberator should be required to wear on his shield . . . is a little girl and her kitten, at ground zero."

He knocked back his cognac and poured another. His temper cooled. "I suspect," he finished, "down inside, you'd like to say the same."

"Not in those terms," Aycharaych replied. "Sentimentality ill becomes either of us. Or compassion. Forgive me, are you not drinking a trifle heavily?"

"Could be."

"Since you won't get so drunk I can surreptitiously turn off your mindscreen, I would be grateful if you stay clear-headed. The time is long since last I relished discourse of Terra's former splendors, or even of her modern pleasures. Come, let us talk the stars to rest."]

IN THE morning, Flandry told Susette he must scout around the globe a few days, using certain ultrasensitive instruments, but thereafter he would return.

He doubted that very much.

X

SHADOW and thunder of wings fell over Kossara. She looked up from the rolling, tawny-begrown down onto which she had come after stumbling from the forest. Against clouds and the plum-colored sky beyond, a Diomedean descended. She halted. Weariness shivered in her legs. Wind slithered around her. It smelled of damp earth and, somehow, of boulders.

An end to my search. Her heart slugged. *But what will I now find? Comrades and trust, or a return to my punishment?*

The native landed, a male, attired in crossbelts and armed with a knife and rifle. He must have been out hunting, when he saw the remarkable sight of a solitary human loose in the wilds, begrimed, footsore, mapless and compassless. He uttered gutturals of his own tongue.

"No, I don't speak that," Kossara answered. The last water she had found was kilometers behind. Thirst roughened her throat. "Do you know Anglic?"

"Some bit," the native said. "How you? Help?"

"Y-yes. But—" *But not from anybody who'll think he should call Thursday Landing and inquire about me.* During her trek she had sifted the fragments of her memory, over and over. A name and nonhuman face remained. "Eonan. Bring me Eonan." She tried several different pronunciations, hoping one would be recognizable.

"Gairath mochra. Eonan? Wh . . what Eonan? Many Eonan."

There would be, of course. She might as well have asked a random Dennitzan for Andrei. However, she had expected as much. "Eonan who knows Kossara Vymezal," she said. "Find. Give Eonan this." She handed him a note she had scrawled. "Money." She offered a ten-

credit bill from the full wallet Flandry had included in her gear. "Bring Eonan, I give you more money."

After repeated trials, she seemed to get the idea across, and an approximation of her name. The hunter took off northward. God willing, he'd ask around in the bayshore towns till he found the right person; and while this would make the dwellers curious, none should see reason to phone Imperial headquarters. God willing. She ought to kneel for a prayer, but she was too tired; Mary who fled to Egypt would understand. Kossara sat down on what resembled pale grass and wasn't, hugged herself against the bitter breeze and stared across treelessness beneath a wan sun.

Have I really won through?

If Eonan still had his life and liberty, he might have lost heart for his revolution—if, in truth, he had ever been involved; she had nothing more than a dream-vision from a cave. Or if he would still free his people from the Empire, he might be the last. Or if cabals and guerrillas remained, he might not know where they hid. Or if he brought her to them, what could she hope for?

She tossed her head. *A chance to fight. Maybe to win home in the end, likelier to die here: as a soldier does, and in freedom.*

Drowsiness overflowed. She curled herself as best she could on the ground. Heavy garments blunted its hardness, though she hated the sour smell they'd gotten. To be clean again . . . Flandry had saved her from the soiling which could never be washed off. He had that much honor—and, yes, a diamond sort of mercy. If she'd done his bidding, tried her best to lead him to whatever was left of her fellows, he would surely have sent her back, manumitted—he'd have the prestige for such a favor to be granted him—unscathed—No! Not whole in her own honor! And to be free upon a Dennitza lashed to the Empire would be a cruel joke.

Then rest while you can, Kossara. Sleep comes not black, no, blue as a summer sky over the Kazan, blue as the cloak of Mary . . . Pray for us, now and in the hour of our death.

A SMALL calloused hand shook her awake. Hunger said louder than her watch what a time had passed while the sun brooded nightless. She stared into yellow eyes above a blunt muzzle and quivering whiskers. Half open, bat wings made a stormcloud behind. He carried a blaster.

His face— She sat up, aware of ache, stiffness, cold. "Eonan?"

"Torcha tracked me." Apart from the piping accent, mostly due to the organs of speech, his Anglic came fluent. "But you do not know him, do you?"

She struggled to her feet. "I don't know you either, quite," she got out. "They made me forget."

"*Ungn-n-n.*" He touched the butt of his gun, and his crest erected. Otherwise he stood in taut quietness. She saw he had arrived on a gravsled, no doubt to carry her.

Resolution unfroze him. "I am Eonan Guntrasson, of the Wendru clan in the Great Flock of Lannach.

And you are Kossara Vymezal, from the distant planet Dennitza."

Gladness came galloping, and every weakness fled. "I know that, *barem!* And you dared meet me? Then we are not finished yet!"

Eonan drew the membranes over his eyes. "We?"

"The revolution. Yours and mine." She leaned down to grip his upper shoulders. Beneath fur and warmth, the flight muscles stood like rock.

"I must be careful." His tone underlined it. "Torcha said you promised him a reward for fetching me. I paid him myself, not to have him along. Best we go aside and . . . talk. First, in sign of good faith, let me search you."

The place he chose was back in the highlands. Canyon walls rose darkly where a river rang; fog smoked and dripped till Kossara was soaked with chill; at moments when the swirling grayness parted, she glimpsed the black volcanic cone of Mount Oborch.

On the way, Eonan had fed her from a stock of preserved Terran food, and explained he was the factor for Nakamura & Malaysia in the area where he dwelt. This gave him wide contacts and sources of information, as well as an easy excuse to travel, disappearing into the hinterland or across the sea, whenever he wished. Thursday Landing had no suspicion of his clandestine activities. He would not speak about those until she related her story in full.

Then he breathed, "E-e-e-ehhh," and crouched in thought on the gravsled bench. Finally, sharply: "Well, your Terran officer has likeliest concluded you slipped off in search of the cloudflyers—the, keh, the underground. A spacecraft was seen to lift from hereabouts not many sunspins ago. When I heard, I wondered what that meant."

"I imagine he went to warn the resident and start a hunt for me," Kossara said. "He did threaten to, if I deserted." Anxiety touched her. "Yes, and a tightened space watch. Have I caused us trouble?"

"We shall see. It may have been worth it in all events. To learn about that spy device is no slight gain. We shall want your description of the place where you threw the ring away. Perhaps we can safely look for it and take it to study."

"Chances are he's recovered it. But Eonan!" Kossara twisted around toward him. "How are you doing here? How many survive? With what strength, what plans? How can I help?"

Again the third lids blurred his gaze. "Best I keep still. I am just a link. They will answer you in the nest where I have decided to take you."

THE HIDEOUT was high in a mountainside. Approaching, Kossara felt her eardrums twinge from pressure change and cold strike deep. Snowpeaks, glaciers, ravines, cliffs, crags reached in monstrous confusion between a cloud ocean which drowned the lower slopes, and a sky whose emptiness the sun only seemed to darken. Silence dwelt here, save for air booming over the windshield and a mutter of native language as

Eonan radioed ahead.

Why am I not happy? she wondered. *I am about to rejoin my comrades and regain my past—my purpose. What makes me afraid?*

Eonan finished. "Everything will be ready," he informed her. Was he as tense as he looked? She must have come to know Diomedeans well enough during her stay that she could tell; but that had been robbed from her. What had *he* to fear?

"I suppose," she ventured, "this is headquarters for the entire mission. They tucked it away here to make it undiscoverable."

"Yes. They enlarged a cave."

She recalled another cave, where she and Trohdwyr and a few more had huddled. "Were we—those who died when I was captured—were we out in the field—liaison with freedom fighters whose homes were below timberline? Maybe we were betrayed by one of them?—she grimaced—"who'd been caught at sabotage or whatever, and interrogated."

"That sounds plausible."

"But then nobody except us was destroyed! Am I right? Is the liberation movement still healthy?"

"Yes."

Puzzlement: "Why didn't I tell the Impies about our main base when they put me under hypnoprobe?"

"I do not know," Eonan said impatiently. "Please be quiet. I must bring you in on an exact course, or they will shoot."

As the sled glided near, Kossara spied the defense, an energy cannon. It was camouflaged, but military training had enhanced her natural ability to notice things. A great steel door in the bluff behind it would go unseen from above, should anyone fly across this lofty desert. Instruments—infrared sensors, neutrino detectors, magnetometers, gravitometers, atmosphere sniffers, a hundred kinds of robot bloodhound—would expose the place at once. But who would think to come searching?

The door swung aside. The sled passed through and landed in a garage among several aircars. Here were warmth, echoes, a sudden brilliance of light better suited for eyes human or Merseian. Kossara shed her parka before she stepped off. Her pulse raced.

Four stood waiting. Three were men. She was not surprised to see the last was a big green heavy-tailed person, though her heart said *O Trohdwyr*—and for an instant tears stung and blurred.

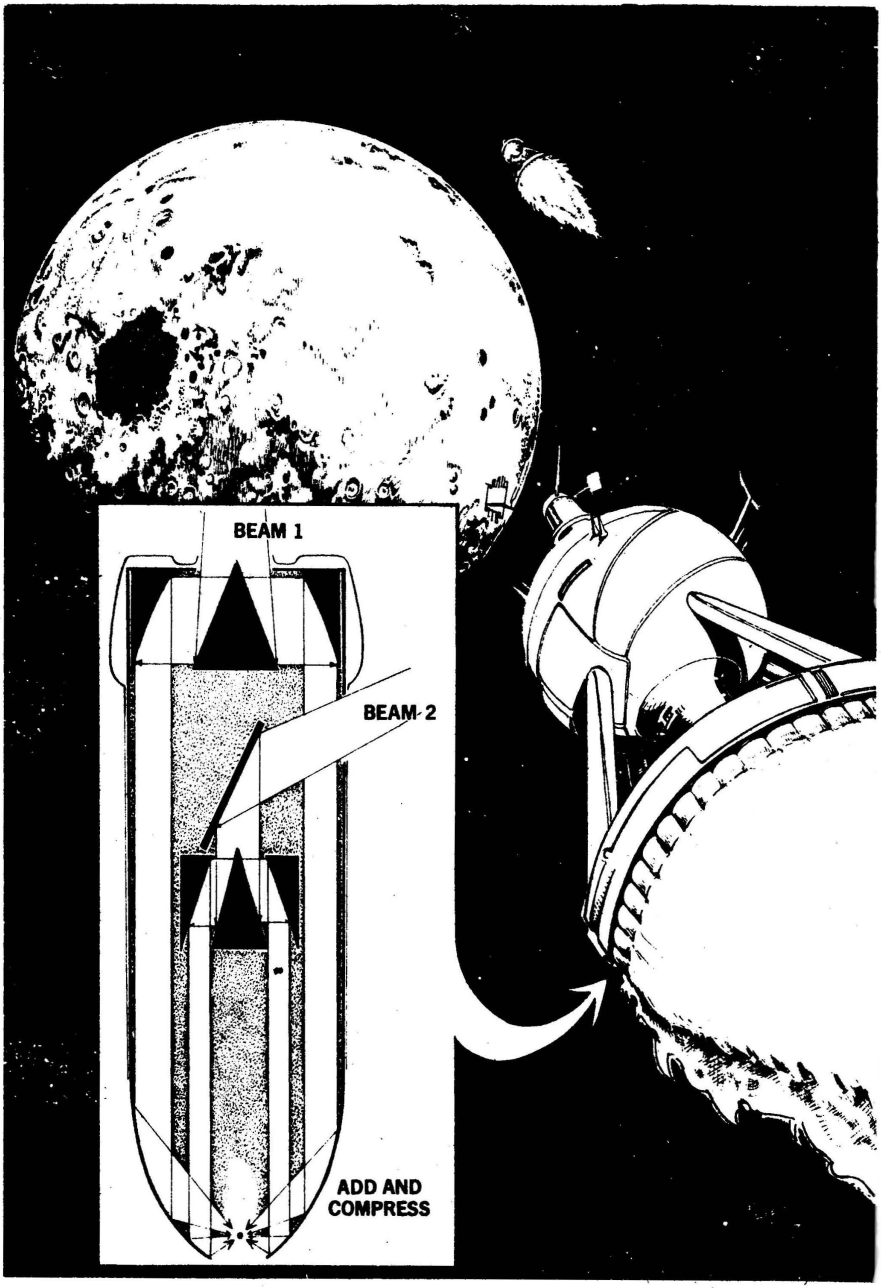
She rallied herself and walked toward them. Her boots thudded on the floor; Eonan's claws clicked. Those in front of her were simply clad, shirts, trousers, shoes on the men, a tunic on the zmay. She had expected them to be armed, as they were.

It flashed: *Why did I think "zmay," not ychan?"* And: *They aren't Dennitzans! None of them!*

She slammed to a halt. The men differed widely, genes from every breed of mankind scrambled in chance combinations. So they could be from Terra—or a colony within the Empire—or—

Eonan left her side. The Merseian drew his pistol. "Hold," he rapped. "You are under arrest."

TO BE CONTINUED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TORCHSHIPS NOW!

ROBERT D. ENZMANN &
RICHARD C. HOAGLAND

(With invaluable assistance provided by Spike MacPhee, Glen Blacow, and Northeast Cryonics Associates)

II

EVERY two years or so, for over a decade, NASA's center for unmanned exploration of the solar system located at the Jet Propulsion Laboratory of California's Institute of Technology, has thrown a party. Or so it has seemed.

From all over the world we would gather, marvelling, in JPL's Von Karman Auditorium as another NASA electronic miracle relayed back television from some remote corner of the solar system and made obsolete another file-drawer of data on the planets.

It was party-like. Friends, correspondents and scientists whose diverse travels seldom allow them to cross paths, met under the pale ion-glow of TV monitors as pictures of Earth's sister worlds were painted on the screens. And between the briefings and the "instant science reported to our waiting tape recorders and cameras, we would talk.

It was in this atmosphere that the idea for the now-famous *Pioneer 10* plaque was born. Here, someone—only half-facetiously—suggested to Wernher von Braun that they had a plan, as the pictures came back from *Mariner 9* orbiting Mars, to reprogram the computer handling the data into painting a large porthole on one of the Martian moons—thereby insuring him all the money he needed for a Martian expedition! And it was here, one

evening, that some of us tried to figure out how it was that, a good *twenty* years ahead of schedule—according to science-fiction predictions of such events—we were witness to mankind's reaching out to its celestial backyard. This was not the way it was supposed to happen. [See Heinlein, Asimov, and others of the Golden Decade of science fiction after World War II.]

Looking back now, that unease, that feeling of discontent which some of us shared in the midst of real-time events beyond one's wildest dreams, was well-founded. The Conquest of Space, as it had been named by the aforementioned visionaries, had an order and logic which actual developments on the Space Frontier have never had. It is probably this lack of logic and order which doomed Man's first push into space to a brief, nova-like existence.

In the Golden Decade of SF prophecy, space stations preceded earth-orbit assembly of the first lunar expedition; and a working version of the space shuttle preceded space stations. Planetary exploration, by *manned* expeditions, went forth only after establishment of the first lunar base. And all was founded on sound economic need, from the communications activities of the stations to the weather forecasting made possible by the advantageous presence of meteorologists in orbit. That was how it was *supposed* to happen.

Over Irish coffee in La Canada, just down the street from Von Karman, some of us spoke with wonder of the human footprints immortalized in moondust twenty years before even so astute a prophet as Arthur Clarke had estimated that it would be so. Wasn't it amazing how even science fiction writers had been so wrong, we mused smugly?

What was amazing was that we actually could have been so blind.

What would be the current American attitude toward space exploration if SKYLAB, with its daring rescue, its earth-oriented photography, and its pioneering space manufacturing techniques, had been first to capture the public imagination, *followed* by Apollo? What if a reuseable shuttle and been an initial goal, in place of the *Saturn V?* What if . . .

Such speculation is obviously useless. The Space Age was born and shaped through political necessity and international rivalry. That it was probably doomed by its structure is academic. The last fifteen years have occurred, as we have seen them.

They were *not* wasted. And they have formed an appropriate and priceless prologue to what is about to happen: mankind's explosive acceptance and utilization of the solar system, fueled by the unlimited power of thermonuclear fusion. The true Space Age is about to dawn.

* * * * * *

(What follows is the continuation of that highly edited conversation begun in the previous issue. Ed.)

HOAGLAND: Robert, you and I—many times—have discussed probable events, their timing and sequence, leading to what you have called the "urbanization" of the solar system . . .

ENZMANN: (interrupting with a grimace) An ugly word.

HOAGLAND: True, because it gives the impression of an interplanetary Los Angeles, heaven forbid. Even I, who wouldn't waste many tears on a few high rises on the sun side of Mercury, recoil from the images that word conjures up.

ENZMANN: The urbanization of space is but one step in a total process—the domination of solar space by mankind. It will occur, as I see it, as outlined in the following sequence:

I—Unmanned and manned entry
(*Sputnik, Mariner,* and *Mercury-Apollo*)

II—Relatively easy access through unmanned and manned stations
(Applications satellite systems)
(SKYLAB)

III—Permanent earth orbital facilities founded on space-based economies
(True beginnings of private enterprise investment in the solar system)

IV—Urbanization
(The stage where all choice locations are occupied with orbital cities, manufacturing complexes, and mobile, apartment-like units filling all available synchronous orbits, trojan points, etc.)
(Further progress will consist of recycling unwanted structures into larger systems—a process similar to renovation on Manhattan Island)

V—A Solar System Megalopolis
(Unromantic as any megalopolis on the surface of Earth today, except for a vastly higher material standard of living, with probable fascinatingly commensurate evolution of social systems)

HOAGLAND: You *are* talking about an eventual Los Angelesation of the solar system!

ENZMANN: We have already begun. We are already out there in the solar system and we shall continue to spread. With the advent of fusion the process will really take off. And just in time. Imagine what the earth will become if she alone, of all the planets and ecological niches in the solar system, is forced to carry the enormous burden of providing the material wealth necessary to house, clothe, feed, and amuse the seven billion human beings who will live here by the year 2,000! At present, with a world population of only about 3.5 billion (and only 200 million of us using 1/3 of everything), we are beginning to run out of certain material resources, such as fossil fuels and rare metals. Imagine the future if, trapped on this planet, *without* fusion energy, seven billion people demand a civilized life style, not merely an existence such as the majority of our 3.5 billion now strive to maintain.

Which is better: the urbanization of the solar system and the return of the garden, Earth; or the preservation of Space in all its vast unused emptiness while humanity quietly (or unquietly, with nuclear

weapons) goes mad in its limited planetary prison, destroying itself and the habitability of the earth, forever?

The solar system is the only appropriate environment for an advanced technical civilization. However, even in the Era of Megalopolis, generations down the road, an observer would probably not casually detect that there was a single inhabited entity orbiting the sun. It would appear (as it has for the last five billion years) empty, lifeless, and serene—a timeless pageant of majestic planetary points moving against the stellar backdrop of infinity.

And Earth? With the material foundation, manufacturing centers, and population growth of civilization removed from Earth, I envision our terrestrial home becoming a place of beauty like the lakeside retreats of China, various fabled gardens of the Middle East, the Cotswolds of England, and other present-day preserves of natural harmony and peace. Earth can become a vast preserve where independent cultures, life styles, and social orders can experiment among the greenery of the only natural home Man has in the entire solar system.

"Urbanization" of the solar system a dirty word? It may be the process whereby Man at last becomes a true humane being after almost four million years. Perhaps beyond Earth, with new rules, we'll have a chance, at last to realize our true potential.

HOAGLAND: You're right, of course. It's just that word "urbanization." I have the feeling, Bob, that you are a prisoner of your own perspectives. Why does the end of the acquisition of the solar system have to be a grim "megalopolis?" It seems to me that, on a scale of systems-space-time encompassed by this vision, reasoning by analogy to an almost pre-industrial urban culture confined to one planet can only yield inaccurate extrapolations of present urban life. (Wow, that was a mouthful!)

ENZMANN: It actually doesn't matter if I'm correct in each detail. Urbanization of the solar system will take the pressure off Earth. It will not "mess up" the solar system; the scale is simply too incredible for any of this to be noticeable on casual inspection. And the final result of this next evolutionary step around the sun, whatever it is, will be preceded by several generations of fascinating exploration and early development. For some people—like myself—that is the exciting prospect. How wonderful to be able to live through, and take part in, the greatest adventure in the history of Man!

Moreover, it is an adventure which will never end.

Overlapping mankind's movement from one planet out into the planetary system orbiting our star will be a new and mightier age of high adventure, exploration, and settlement in a bubble with the sun as its center, expanding out into the Milky Way, nearly at light speed. It will be the next great leap of the torchships. And it is close. The majority of those reading this will live to see, and many will take part, in Man's first efforts to send probes to the stars. It is even possible that

the first crewman of a starship destined to visit Alpha Centuri will be inspired by these very words to attempt that ultimate adventure. It is a nice thought . . .

[En route upon an endless journey is Man's first interstellar artifact—*Pioneer 10.* Before it can even leave the confines of the sun's far-flung planetary system, crawling deeper and deeper into the eternal night which yawns before it, at a meager seven miles per second, the *true* interstellar craft of its creators will be flashing past, destined to travel light-years into the galaxy in the time it will have taken *Pioneer 10* to reach the edge of the abyss. Eighty thousand years from now, *Pioneer* will reach the distance of the nearest stars. Waiting there to welcome it may be a race of beings which, in searching through their history, will recognize the stellar system etched upon its plaque, pitted and time-worn.

Pioneer will have spanned a breadth of time equivalent to that which separates Neanderthal from modern man. It may come as somewhat of a shock to its discoverers, therefore, that this ancient artifact is a gift to them—not merely out of space, but from their forgotten origins and their own legendary birth upon a place called Earth.]

HOAGLAND: We have presented the political and technical environment which is about to bring forth the first true "space-drive" and its imminent effect upon our culture. I feel, therefore, that it is about time we got down to the heart of the matter, Robert, and described the fundamental breakthrough which will make it all possible. How will a torchship work?

ENZMANN: There has been a twenty-year world-wide effort to tame the elusive geni of fusion (an apt analogy because during that time the primary line of research was directed toward trapping a plasma within a strong magnetic "bottle" until enough of it could "fuse" to release more energy than the containment process used). It was twenty years marked by dogged perseverance, brilliant theoretical insight, and agonizing frustration as physicists practically had to invent a whole new branch of Physics, something with the unpronounceable title — "Magnetohydrodynamics."

The essence of the problem was simple. For each new technical innovation devised to contain the plasma long enough for fusion to occur, the plasma devised three new techniques to escape. It was somewhat like trying to trap an angry anaconda with rubber bands.

Into this dismal arena (for prospects of controlled fusion seemed to be beyond the end of the century, until recently), a new idea was injected. Quite simply, it asked, "Is there anything in the rules of this exotic game which insists that fusion has to be a *continuous* process? Suppose, instead of pursuing the exceedingly difficult road of containing the plasma indefinitely, with fusion energy trickling out, we examine an alternative technique of compressing the plasma intermittently. If we do this sequentially

and often enough, the effect will be *identical* to a steady trickle of fusion power such as we have been laboriously pursuing with other techniques. The secret here is that all we have to do is hit that plasma hard enough, from all sides, and plain old inertia will do the rest. The result will be a fusion power plant somewhat similar to an internal combustion engine where it is the *average* power of the eight sequential explosions in the cylinders which moves the car. Of course, there is one problem: what are we going to hit the plasma with in the first place?"

It was at this point that another technical breakthrough came to the rescue. Enter the LASER. It was suggested that intense light from a large laser, a source of precisely controllable electro-magnetic radiation, could be directed via suitable optics into a very small volume of space. If, as the laser was fired, a tiny pellet of fuseable material (in this case, frozen deuterium-tritium) were dropped precisely into that tiny volume, the following would happen:

The focused electro-magnetic radiation would exert a pressure on the pellet. Focused to such a small volume and arriving in such quantity, the pressure would be enormous. But more important, the frozen deuterium (heavy isotopes of hydrogen, the most abundant element in the Universe) would absorb this energy at its surface which would, of course, be violently heated. It was Dr. John Nuckolls (of the Lawrence Radiation Laboratory, attached to the Univ. of Calif.) who predicted what would happen.

If the laser pulse is actually *two* pulses—a smaller pulse of energy followed immediately by the main blast—then the outside of the pellet will absorb the first pulse, vaporize, and thus surround the pellet with a sort of atmosphere. The main pulse of intense laser light, upon arriving, will then further heat this "atmosphere," causing it to expand rapidly in all directions. At this stage, our tiny pellet of frozen deuterium resembles very much a tiny synthetic star with a superheated atmosphere blowing off explosively in all directions. Now, Newton enters the picture, for the reaction pressure to this explosive departure of the shell of gas surrounding the pellet drives shockwaves from all sides into the tiny, icy heart of this miniature "star." These crushing pressures actually compress the center of the pellet into the densities and temperatures found within the centers of stars like our sun, a million miles across! Yet the star created in the center of the vacuum chamber is only barely visible to the naked eye, a few tenths of a millimeter in diameter.

At such densities and pressures the deuterium-tritium mixture fuses, the nuclei colliding and transmuting themselves into helium in a violent analogue of processes that take millions of years to complete in "normal-sized stars" such as our sun. The liberated fusion energy blasts apart the heart of this newly created "star," sending the reactants in all directions at appreciable fractions of the speed of light. The tiny star explodes, ending its brief existence—as do many of the real stars a trillion times as

large—as a supernova. Total time from creation to the death of this artificial star is less than a millionth of a second.

If this process were accomplished successfully, the released energy would be greater than that required to fire the laser, maintain the vacuum, and keep the fuel frozen in precisely deliverable pellet quantities. Repetition of the entire sequence at rates ranging from once per second to a hundred times per second would provide for the "average" flow of energy envisioned previously.

There is enough deuterium on Earth alone to provide essentially unlimited energy for the remaining lifetime of the sun. This is readily agreed upon by a wide spectrum of energy and environmental experts. However, what some may have apparently failed to consider, is that there are stores of deuterium within the rest of the solar system which dwarf our terrestrial supply (which would come primarily from seawater.) One of the moons of Jupiter, Callisto, for instance, which *Pioneer 10* has revealed to have a density of only 1.65, seems to be a satellite with a 3,000 mile diameter, composed essentially of ice! In that ice, there is a vast supply of deuterium waiting to be mined. Little thought is necessary to realize that with fusion, which gives us the solar system through fusion rockets, we will discover enormous quantities of fuel beyond the "meager" quantity presently on Earth. No, energy is decidedly not a problem of the future.

HOAGLAND: Fascinating!

ENZMANN: And frustrating. It

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naturally occurred to an awful lot of people at about the same time that if you aim a high-power laser through magnifying glass at a deuterium pellet, fusion will be in hand. Those same people were shortly seen rapidly retreating behind their office doors, biting their thumbs with a vacant look, pounding their heads against the nearest convenient hard object, or just standing staring down at their shoelaces. Word quickly spread (bad news may exceed light speed under certain circumstances) that what you achieved when you aimed a high-power laser at a deuterium pellet through a magnifying glass or any other lens system, was *not* a fusion reaction, but a mad scramble of white-coated laboratory personnel for the cover of the near desks, benches, closets, and lavotories as the precision optics promptly exploded in about a million high temperature fragments, thus wiping out both the experiment and initial high hopes for fusion from lasers.

The problem, of course, was discontinuities in the glass. At the energy densities emitted by the lasers in question, the slightest imperfection (and even the finest optical glass is not perfect) absorbs enough energy to flash instantly into vapor, shattering the lens. These lasers had been used in an M.I.T. project designed to blast tunnels through solid granite! They had shattered cobblestones into screaming shards of high velocity shrapnel and had punched through inch-thick destroyer plate. The power in these beams exceeds that of the sun by factors approaching the millions. No lens system could have the perfect transparency necessary to withstand even the shortest pulse of these hellish systems, not even for the billionths (10^{-9}) or trillionths (10^{-12}) of a second it would take to produce the deuterium "star." Fusion, ignited by the "match" of the laser, seemed impossible to achieve for the very reasons which had first made it so attractive. How do you set off a reaction with a match you cannot hold?

HOAGLAND: That's unfair. You keep posing questions I know the answers to. Before you tell everybody, let me review something else:

We've been tossing around the term "fusion" pretty freely. Perhaps we should define precisely what fusion is. Most stars in the Universe, globs of matter (primarily hydrogen), in the range of several million miles across and several million times the mass of the earth, shine by internally generated energy, energy derived from so-called fusion reactions—those nuclear events that smash light elements together to produce heavier elements and energy. In the sun, fusion turns hydrogen into helium, with an energy excess that eventually works its way the half-million miles or so to the surface of the sun, causing it to shine. Thus, the stars exist for periods ranging from millions to billions of years, depending on a complicated relationship of mass to luminosity which determines how rapidly a given star will use up its hydrogen fuel and thus continue to "live." Stars, such as the sun, which still have plenty of hydrogen to draw upon for fusion, are referred to as "main sequence" stars.

Now, relating all this to the experiment Dr. Nuckolls described, the internal densities of the proposed fusion "stars" in the laboratory are similar to the internal densities of real main-sequence stars. Right?

ENZMANN: Right. About 10 grams/cm^3.

HOAGLAND: But without the huge masses and resultant gravitational fields to hold them together, such as actual stars possess, these laboratory creations promptly explode, so they are only duplicates of the real thing for fleeting millionths of a second, as opposed to billions of years for the sun, a main sequence star.

ENZMANN: Right.

HOAGLAND: As a real star evolves, after it has used its initial supply of hydrogen it shrinks internally, heats up internally, and releases even higher amounts of energy from a *new* set of fusion re-

actions, now involving heavier elements. Is that correct?

ENZMANN: You know it is. What are you getting at?

HOAGLAND: Is it possible to go beyond the energy release level of the Main Sequence star stage, to duplicate the density and energy release of later stages in a star's evolution, such as the Red Giant phase, or the White Dwarf phase, or even the final plateau of most stars—the Neutron Star with its impossible densities ranging up to 10^{15} grams/cm^3?

ENZMANN: Now you're asking the leading questions. Let's save our discussion of the total annihilation of matter for a later article! For now let us return to the apparently insoluble problem of how you use a laser to set off fusion.

If the problem of the lens could be surmounted, Man would succeed in an incredible quest—bringing the stars, essentially, to Earth, harnessing their unlimited potential to solve Man's most threatening problems for all time. But to succeed, the problem of the lens had to have its solution.

The answer, as with all answers in the Universe to fundamental problems, was the picture of elegant simplicity: instead of attempting to focus the laser with a lens, use a mirror! With a suitable mirror system, the ravening power of one, ten, or a hundred laser systems could be spread out across a reflecting surface so that the power density per unit of area was well below the level required even to significantly raise the temperature of the mirror. Then, with appropriate geometry, this dilute radiation could be brought to a needlepoint focus on the deuterium target. Result: FUSION. Simple. Elegant. Practical.

HOAGLAND: You're not going to tell everybody it's all done with mirrors!

ENZMANN: No, you're going to. I like to think the first solution was the result of our work in Northeast Cryonics, but that isn't quite correct. Perhaps, however, ours, I feel, is one of the least expensive and most elegant solutions. One of our designs, in fact, can be seen in Freff's illustration for this article.

The secret of fusion-by-laser lies in discovering the correct geometry for the mirror system, a geometry which will first dilute the radiation from lasers of incredible power, lasers which are now being constructed or are within sight of our present state-of-the-art. With those two tools, creation in a fusion reactor of actual "stars" identical in every respect to those we see spangling the night sky will become a reality. And a new Age will have begun for mankind. That is the scientific breakthrough now only instants away by the standards of the cosmic clock.

HOAGLAND: And almost no one realizes! Talk about revolutions. And torchships . . .?

ENZMANN: Examine carefully, if you will, the diagram I alluded to previously. You will notice that laser energy enters from two regions, is combined by appropriate optical flats, then flashes down into a *conical mirror* protected from destructive heating through a process identical to the reason we get cold in the winter and hot in the

summer—grazing incidence of incoming energy. The ring of laser energy (since, of course, this system is three-dimensional) is reflected all along the mirror length, as you can see, and is brought to a tiny pinpoint focus of searing power at the precise special point where it will impact a pellet of deuterium mixture.

Now, note very carefully. The end of this arrangement of optics, lasers, and hyperbolic mirror is *open to space!* And what is a container, closed on three sides, in which a high-temperature gas is expanding? Obviously, a rocket.

This is why we shall have fusion torchships before we have fusion reactors lighting cities. You *have* to proceed through the stage of rocket development to get to power reactors. Nice?

HOAGLAND: Unbelievable.

ENZMANN: What I have described is only *one* way to build a successful fusion reactor. There are others. We at Northeast Cryonics have developed, hopefully, some interesting innovations of our own; such as impacting the pellet from one direction instead of from all sides. This doubles the implosion pressure and is extremely applicable to a fusion rocket system. We simply do not know if all approaches will be successful. Today research into this vital area, for rather obvious reasons, is breaking out across a broad front. We have had a breakthrough in producing fusion using laser techniques. That is not to say that other approaches may not—in fact, will not—overtake the laser approach. Research by its very nature is uncertain. But one thing can be relied upon: whatever technology we can envision to produce fusion rocket engines today will be superseded by better technology tomorrow. Heinlein's Third Stage has successive, higher orders of perfectability implied by the fact that the first of anything has room for improvement, even the first of a third-stage device!

Now, to address the exciting prospect of the when, where, and how of torchship construction: Let me begin by laying out one more table. I assure you it is the last. As you can see, tabulated below are "pacing items" ranked in order of flight-readiness as noted (or projected, in the case of future hardware).

1) 1965—Useable spacesuit technology
2) 1972—Expendable space station experience; living, in-orbit repair, in-orbit manufacturing experience
3) 1976—Controlled fission fusion and pure fusion processes directly applicable to torchship engines
4) 1979—Chemical-powered reuseable space shuttle
   Beginning of routine space operations
   Beginning of large-scale private investment
5) 1980—Historic coupling of torches to space shuttles and tugs
6) 1981—Initial flight tests of first true "torchships"
7) 1982—Manned fly-bys of every planet in the solar system
   Round trip to Pluto by torchship; 3-5 weeks!

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Kings: 16 mg. "tar," 1.0 mg. nicotine;
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Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.

8) 1984—Chemical-powered surface-to-orbit hypersonic aircraft
9) 1984-
1988—Construction in space of first large Torchship Liners as hypersonic aircraft drastically reduce cost and increase payload capacity for surface-to-orbit operations.
10) 1986—Nuclear-powered surface-to-orbit hypersonic aircraft capable of lowering operations costs to 12 cents per orbited pound (1972 commodity dollars)
11) 1985-
1995—Decade of enormous activity throughout solar system. Tens of thousands of humans, animals, machines scattered across its vast extent: exploring, building, mining, and settling the Space Frontier.

In addition to "when," "where" is also interesting. The first torchships will be built on earth. They will probably be modified upper stages of vehicles which rightfully have made space history over the past fifteen years. The name "Agena" or "Centaur" may enjoy a brief renaissance as, rebuilt inside and fitted with a prototype fusion drive, this first torchship becomes an unmanned precursor to manned flight to every interesting chunk of real estate orbiting the sun. In every other area—guidance, computer technology, navigation, power systems, communications, and control, we have learned enough across these last incredible fifteen years to take on the solar system and anything it can throw at us. All we have lacked was the propulsion.

Thus, the first torchship, Centaur or Agena, lofted into orbit, in the payload bay of a space shuttle, turned loose, will commence to "unteach" the lessons of space laboriously explained to each of us by the Cronkites, the Magees, and Bergmans of the pre-Space Era.

Spaceflight, up to now, has consisted of assembling a very large quantity of fuel and oxidizer in a metal tube, together with an engine to burn it in, and a very small payload (relatively speaking). The object: to burn said propellants as soon as possible, thus accelerating fuel, tank, engine *and* payload away from the earth as rapidly as possible. Once having released the payload from the final stage, you are in for the Long Wait.

Since you have used most of the energy contained in the fuel you burned just to climb to the top of Earth's gravitational "hill," there isn't much left to give you a healthy push on your way to Mars, the Moon, Venus or Jupiter. There you are, coasting along at a few thousand miles per hour, with millions of miles to cover. Worse, you are not traveling in a straight line, but a curving path which will add literally hundreds of millions of miles to the trip. This is the classic, coasting interplanetary journey portrayed by everyone from Asimov to Zelazny.

Therefore, later—much later—varying from about a hundred days for a "quick" trip to Venus to almost two years to Jupiter (or six years to Saturn), you arrive. By which time most people will have forgotten you're out there, except

for that dedicated gang back at Mission Control.

That is the picture of spaceflight held by 99.99 percent of those who take the trouble to think seriously about the subject at all.

The days of such absurdities are essentially over. Alas, the 145-day flights to Venus and the 240-day missions to Mars (with its exciting layover of a Martian year, waiting for Earth to be in correct position for the return coasting flight) are not going to happen. Technology and time have caught up, even with Arthur Clarke (at least in the solar system).

This is the way it will happen: A torchship will leave earth orbit, accelerating on a series of explosions produced by the events previously described. Fusion, with millions of times the energy of chemical reactions, and much higher coupling of this energy to the exhaust, results in a rocket engine and total ship performance which is nothing less than sensational, compared to the previous scenario. The ship accelerates away from Earth at (let us say, for the purpose of making a point), one "gravity"—an acceleration equivalent to that experienced on the surface of Earth where all objects fall at the same rate, 32 ft/sec^2. To those of us in the ship, everything will appear as it does on Earth, unless we look out the windows. Something dropped in the cabin will apparently "fall" to the floor at the same rate as it would on Earth, although actually it is the floor which is accelerating up to meet the object. No difference. Our "weight," synthetic as it is and produced only by the thrust of our fusion engine, will be just as useful when it comes to sitting in chairs, or walking, or drinking liquids as actual gravitational weight is on Earth.

After about half an hour of this, we may begin to wonder if there isn't something rather strange about the performance of our vehicle. After all, we know that "normal" rockets such as those used in Apollo never burned for longer than about 12 minutes, and in that time consumed literally thousands of tons of fuel! This ship, about as massive as a jumbo jet (200 tons) has, according to our fuel gauge, consumed only 1800 *pounds* of deuterium—less than a ton! And we are *still* accelerating.

After about two hours of this novel experience, enjoying normal earth weight, carpeted lounges, the pleasant attentions of stewards who bring drinks we can consume in the normal manner, we walk down to the observation area where we see a magnificent panorama of space. Imagine the shock as we realize that we are halfway between Earth and the moon—120,000 miles away from Earth and still accelerating, still consuming fuel. At this point we discover something else. The heavens are slowly turning around; the earth which was behind us is now in front, and the moon which was before us has taken up a position aft (to borrow a nautical phrase). It becomes apparent to us almost at once that the two celestial objects have not changed positions at all. Our 200-ton ship has rotated 180 degrees. Our fusion "torch" engine, which only moments before was accelerating us to higher and

higher velocities, is continuing to thrust, but its effect is now to kill our enormous velocity. Inside, of course, nothing changes. Acceleration, deceleration, it's all the same *within* the ship where the floor still presses reassuringly against our feet with normal Earth weight.

Glancing at the system read-outs positioned so conveniently near the view-glass, we are incredulous at our measured velocity indicator. It must be in error! We are moving, it says, at 63 kilometers per second, relative to Earth. We remember Apollo, when the Command Module crawled across this point at a mere .6 kilometers per second—one hundredth our velocity—not in *two hours*, but over two days! Two hours more and the Captain slides us neatly into a breathtaking orbit of the moon. Under its gravitational field, weightless for the first time during the flight (the drive is turned off), we take 45 minutes to swing around the Farside and head home. Earth before us once again, the torch is lit, normal gravity resumes, and we accelerate away from Luna. It has taken us less time to span the almost half million miles between these two worlds than it took, in 1974, to fly across the United States in a vehicle of comparable size. It has taken far less fuel (a total of about 15 tons of deuterium-tritium) than a 747 burned flying cross-country (about 70 tons of kerosene) and at vastly higher peak velocities—227,000 km/hr, compared to a 747's 960 km/hr. We have made the trip totally contained in an essentially terrestrial environment with all the "comforts of home."

Similar journeys, to any planet in the solar system, under identical environmental conditions (simulated Earth gravity through continuous acceleration/deceleration; conventional meals served on real plates; and beverages served in cups or glasses) will be commonplace within 15 years. No point in the solar system will be further from any other point, at one "G" acceleration, than 5 weeks' travel time, the length of a relaxing terrestrial cruise. The ships, of course, will resemble ocean liners far more than they will terrestrial aircraft.

HOAGLAND: Breathtaking, literally breathtaking.

ENZMANN: But—as you should be the first to point out—it is much more than that. It is necessary. With controlled fusion and torchships, we inherit, not only the solar system but the stars. Without this discovery, we as a species would most certainly be confined to our planet, Earth. As we are now discovering, Earth is a very limited environment in which, if we were to remain, we would have to impose the most severe restrictions upon ourselves in the use of resources and our future evolution. Because of the perversity of human nature as evidence by history (as with physics, every action produces a reaction), such restrictions would necessarily quite soon become dictatorial. Thus, barely two hundred years after its first real test, the fragile experiment of "freedom for all men" would have perished, disappearing from the future of mankind forever, although probably not without cataclysmic, devastat-

ing, and continuing violence all over the globe.

Instead, if the solar system is well on the way to urbanization by 1984, and the first unmanned precursor probes to the stars have been launched, we can dismiss the Orwellian prophecies. It will be the beginning of the Post-industrial Age when spaceships, the Atomic Age, microelectronics, robotics, fusion power, and exploration of the stars emerge. It will be the beginning of Civilization as Man has never known it but, in effect, has always dreamed it.

Years ago, I termed this move to expand mankind's ecological niche *The Grand Design.* It has begun with our first tentative probings of the solar system. It will continue with torchships and urbanization of the sun's family, according to Krafft Ehricke, as Man's *Magnificent Heritage.*

Realization of its real meaning will come, however, whether it be 50, 5,000, or 5 billion years beyond tomorrow—when the earth is destroyed, astronomically, forever. Those who remain will look up into a hundred, a thousand, perhaps more, night skies and realize that Man, along with unknown numbers of other children of the Galaxy, has taken his rightful place among the Stars.

And it will begin with Torchships—Now. •

(Future articles with Dr. Enzmann will deal with a new dimension of basic physics and his startling predictions of further future developments beyond the subject dealt with in this article.)

BIBLIOGRAPHY

NAVIGATION SATELLITES
Aviation Week & Space Technology 8 April 1974 p. 65, 26 Nov. 1973 p. 46

PREDICTION & CONTROL OF EARTHQUAKES
Dr. Aaronson, S., 1974 April, in The Sciences Vol. 14 No. 3, Pub. N.Y. Academy

QUASARS ARE EXPLODING GALACTIC CORES
Science News, Vol. 105, 6 April 1974, p222 "Optical Spectrum" in press, May 1974, front cover in color, core of exploding galaxy and hyperon stars

MEDICAL CONFERENCES VIA SATELLITE TV-RELAY
Science News, Vol. 105, 6 April 1974, pp. 226-227

NATURE OF HYPERON STARS
Essentials of Astronomy, Dr. Lloyd Motz, Chmn. Dept. Astronomy, Columbia University, Columbia University Press, N.Y. & London 1971 4th Ed.

ORION ROCKETS & THEORY OF NUCLEAR PULSE PROPULSION
1st Conf. Planetology & Space Mission Planning, Annals N.Y. Academy Vol. 140, 1966, 683 pages
2nd Conf. N.Y. Academy, Vol. 163, 1969, 588 pages
3rd Conf. N.Y. Academy, Vol. 187, 1972, 459 pages

TORCHSHIP THEORY
5th Symp. on Eng. Problems of Fusion Research, in press IEEE Nuclear & Plasma Sciences Soc. Designs for Reflective Optics in Fusion Systems (given at Princeton University)

N.Y. Academy Conf. on Electrostatic & Electromagnetic Confinement of Plasmas and the Phenomenology of Reletivistic Electron Beams March 1974 in press
Reflective Optic Systems For Lasers (given in N.Y. at Academy)

2nd European Electro-Optics Conference, Montreux Switzerland April 1974, in press Fusion Through Reflective Optics

EDITORIAL

ON BUILDING WALLS

Sometime early in any new Editor's term of office it is incumbent upon him to step out front and clearly and forthrightly state his editorial policies for all to see. Right? Well, I thought so—until it came down to actually putting it on paper, that is. Then I realized that for a science-fiction magazine such a statement would entail a definition of sf—and, Gentle Readers, I just don't happen to have one of those on tap.

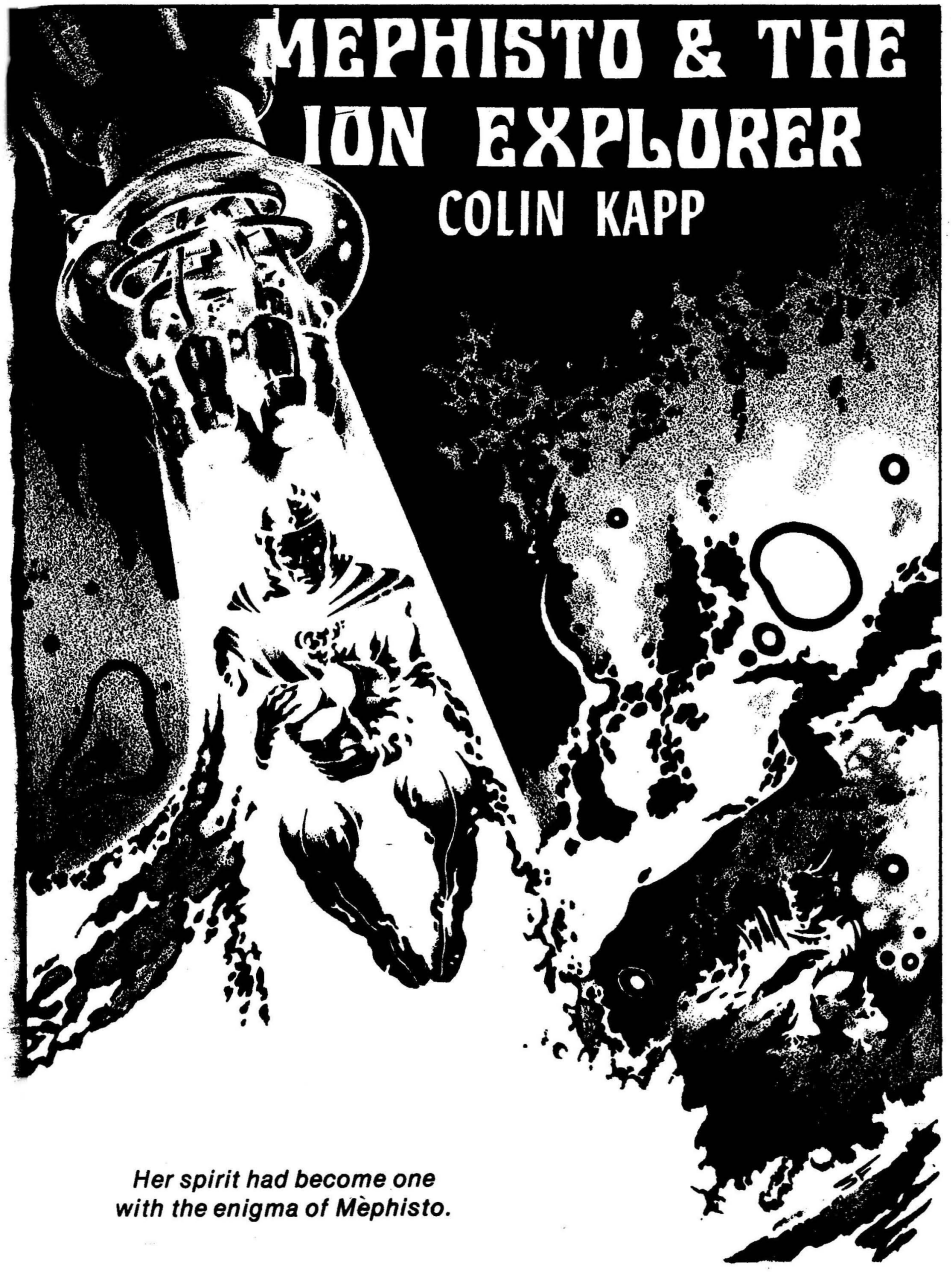
I've seen a lot of such definitions; most of them are witty, trenchant, well thought out—and manage to corral about two-thirds of what I consider to be valid sf, leaving that other vital third (whichever third it may be) out in the cold. Such definitions also generally include *within* the pale one or more categories which I do *not* consider valid sf, ranging from NASA-pamphlet style fiction ("But what if our too-steep re-entry curve results in excessive loss of ablative material, Joe?") to paranoid-schiz dissolving-at-the-edges, rotten-to-the-core stream-of-consciousness type fiction. (Yes, the doorway really *is* a gaping mouth, and it really *is* going to eat you!)

No, when it comes to defining our field, intensive definitions don't seem to work very well. They just build walls. Unnecessary ones. They stifle and constrict and don't contribute a damn thing toward keeping out the gunk.

As for extensive definitions, well, they tend not to be terribly *definitive,* as it were, but at least they're harmless and hopefully entertaining. So here, off the top of my head are a few of my favorite authors: Robert Heinlein; Cordwainer Smith; Larry Niven; Roger Zelazny; James Blish; Theodore Sturgeon; Isaac Asimov; Ursula K. LeGuin; Poul Anderson; Kurt Vonnegut, and on and on I could go—but I'd better not or the list would begin to grow exclusive instead of representative. Walls again.

So. No walls—and just one credo; that if Man behaves with a modicum of rationality and good will he can prosper, on Earth, in his Solar System, and (unless he meets Bug Eyed Uglies even meaner than he is) in the farthest reaches of the Universe; and that if he does not so behave, he is doomed to tedium, tribulation and probable extinction.

—BAEN



Her spirit had become one with the enigma of Mèphisto.

He looked up as one of the ship's stewardesses came toward him. He already knew why she had come.

"Doctor Lisbon?"

"Yes?"

"The captain will see you now." It was obvious from her face that she stood in slight awe of him. It was not every man whose importance warranted pulling a stellar liner out of spacewarp for an emergency rendezvous. Nor were there many in space who did not know his reputation as the 'Ion Explorer'.

Sadly, Peter Lisbon replaced the book of poetry on the library shelf, and followed her. This far it had been a pleasant trip. Unfortunately it had its ending in an appointment with fear. He hoped that the terror inside him did not show.

In the Captain's cabin he was introduced to the senior officers of the liner. All were glad to shake his hand, although the nature of his mission was not mentioned. Then he was conducted with some ceremony to the docking hatch, beyond which the brutally functional space tug waited to take him to the observatory complex in orbit around Mephisto. They piped him offboard as though he were a hero. Lisbon was sickened by his own duplicity. He knew he was a coward.

As he passed through the gaunt, metal airlock seals, it was more than the end of a journey. It was also a returning to a way of life he had hoped was dead and past. For twelve months now he had escaped such scenes as these and their aftermath. In the interim, he suspected, he had lost what little nerve he had.

The tug made no concessions to comfort. Safety and efficiency were the only criteria. He was strapped into a rough webbing harness, like a transit crate of electronic instruments, and told to stay there. The warning was not untimely. The tug's maneuvering was a series of bone-breaking excursions as it drove itself clear of the gigantic bulk of the liner and began to lose speed as it fell toward the lower orbit of the space observatory.

Although he had been in a similar situation a hundred times before, Lisbon had never conquered his dislike of the experience. The raw, physical contact with space, which was nowhere more apparent than in a space tug, frightened and humbled him. His admiration was unbounded for the men who spent most of their working lives in these perilous and unrewarding conditions.

Finally one of the crewmen approached him and saluted.

"Doctor Lisbon—you have priority clearance for disembarkation. Would you please make ready to report to the mission controller in the observatory as soon as the airlock seals have been verified."

"Acknowledged!" said Lisbon, without enthusiasm.

He released himself from the webbing cage, hating the feel of null-gravity. The summons had been unnecessary. He had already deduced the attainment of orbit around Mephisto and the coupling of the space tug to the observatory complex. Unpleasant though the short journey had been, he now regretted the ending of even this,

guessing something of what was to come. He had savoured every second of the orbiting procedure, trying to stretch the seconds out to gain a few more precious moments of heart's ease before the great ordeal began.

KARL Reinspringer, the mission controller, was waiting for him in the observatory. Theirs was an acquaintanceship of long standing and great mutual respect. Once a *flamer* himself, Reinspringer knew exactly the fears that hunted behind Lisbon's precarious pose of calm. This knowledge was a bond unique between *flamers*. It was something which could never be appreciated fully by those who had not themselves passed through the ion barrier.

"You got my message then, Peter?" Reinspringer's relief at seeing Lisbon was pathetically obvious.

"Pulling a stellar liner out of space warp for a crash re-direction spells big trouble without sending messages. But I can't help you, Karl. I was taken off the lists a year ago."

"There're good *flamers* and exceptional ones." Reinspringer's bald head returned a green from the fluorescent panels, almost as though his head itself was domed with bottle-glass. "The good ones I had were no match for Mephisto. Now I need an exceptional one to see if we can get them out."

"I told you, Karl—I've been retired. Struck off."

"My ears heard you, but my brain doesn't listen too well. I have two of my best people in ion-state on the surface. They ran into trouble—and I lost all four of the backup team trying to get them out. Now there's six people down there, Peter, and some of them may still be alive. I don't give a damn about your coming off the lists. I need you to go down there to fetch any survivors out."

"What makes you think I might succeed where your backup couldn't?"

"Because survival in ion-space isn't just a habit with you—it's an instinct. That's how you got to be the oldest *flamer* in the business."

"You know why they retired me?"

"They said you began to have bad entries into ion-space. Look, Peter, I worked with you for years. I know you always did have bad entries. That's not the point. It's the exits that count—the ability to come back."

"Tell me about Mephisto," said Lisbon unhappily.

* * *

LISBON's first view of Mephisto was the real crusher. Through the observatory's clearports hung the great ball of Mephisto, crawling with tongues of fire. Even from their orbital distance it seemed to fill most of the available sky. It hung there, huge, hideous, and enigmatic—like a gigantic coal-fire hanging in space. Gazing into this curious cauldron it was impossible not to imagine that one could feel its heat and hear the hiss and shriek of the flames. This feeling touched some agonizing pulse in

the primitive root-instincts of Man. Yet the realities of ion-space would doubtless show even these fears to be an understatement.

Too hot to be a planet; far too cool to be a star, Mephisto was a cosmological mystery. It had no place in the *Hertzsprung—Russell* diagram. It fitted none of the accepted classifications either for type or the nature of its reactions. Perhaps it was a throwback to a state of matter which existed before the universe began. Or perhaps it was an example of an evolutionary sequence beyond the fate of dwarf and neutron stars. Perhaps it was something as different again.

"I know what you're thinking, Peter," said Reinspringer, coming up behind him. "You're wondering what possessed us to put people down there in the first place."

"I've seen worse hells," said Lisbon. "But at least the physics of the reactions were well understood before anybody went in. How come your team went down so unprepared?"

"Frankly, we didn't have the answers to give them. Mephisto's an enigma. For four years we've sat and looked at it and theorized. Ultimately somebody had to take the risk of a descent, even into such a welter of unknowns."

"Who were your lead team?"

"Andre Beriov and Loya Tremain."

"Beriov's a good man. First-rate theoretical physicist. But I'd not rate him as much of a flamer. As for Loya—I thought I'd taught her to know better than to take risks like that."

"She's specialized in solar-flare work. Isn't that sufficient recommendation?"

"There's one hell of a difference between running sunflares and mixing it with the type of ion stew you have on Mephisto. In stellar work you don't have the problems of exchanging ion identities in order to move around. What about the backup team? Weren't they more widely experienced?"

Reinspringer bit his lip. "All are new faces from the IEC. Top graduates from environmental training, with some solar work by way of experience."

"It's the emphasis on solar work which I find disturbing. Whatever it is, Mephisto isn't a sun."

Reinspringer was frowning heavily. "Are you suggesting I sent the wrong team?"

"The team's all right. It's Mephisto that's wrong." Lisbon swung his arm to encompass the great orb hanging in the sky. "I've been studying the interaction between some of those flames down there. Most of the reactions make sense, but some have a peculiar chemistry which isn't even in the book."

"Hence our interest in Mephisto in the first place."

"Sure—but what happens if a *flamer* happens to find a route using one of these parachemic elements as an identity? What type of chemistry does he use to find his way out?"

Reinspringer was impressed by Lisbon's rapid grasp of the problem. "It was a calculated risk. Regrettably it seems we didn't do our figure work too well."

The knot in Lisbon's guts was now so tight it brought beads of

perspiration to his brow. He knew by instinct when a risk was unacceptable. In ion space his instinct had fetched him back safely more times than either his training or his experience. Had he been on the project from the start, he was confident that there would not now be six souls down there in that ionized limbo. Certainly with such incomplete knowledge of the environment nothing could have persuaded him to make the descent himself.

At this point, however, the decision had been taken from him. Regardless of the risk, if life even in ion form persisted on Mephisto, he was duty bound by the unspoken creed of the *flamers* to go down there and offer such assistance as he could. From just such a prospect had developed the broad bands of nightmare which had resulted in a series of bad entries and finally caused him to be struck off the IEC register. For this last act he had been secretly glad. The nightmares had continued, but without the menacing possibility of becoming real. That was until Reinspringer had pulled him off a liner in midwarp to help with an emergency . . .

* * *

WHEN HE asked for three drums, they brought him three, wrapped in shining vacuum packs. Each drum was worth more than Lisbon could earn in a lifetime. In the dust-free, sterile conditions of the preparations room he took the beautiful octahedral instruments from their wrappings and examined them carefully. They were true and flawless. His fingers moved lovingly across the diaphragms, testing their sensitivity. Through the triple glass of the control-room windows Reinspringer was anxious about such handling, but dared not interfere.

Finally Lisbon was satisfied and nodded his assent. Reinspringer printed out the spectral analysis of the gas in the ionization chamber which the *flamer* had chosen for his initial identity. Argon blue-green at five-fourteen nanometres. Lisbon leaned back into the black softness of the couch, his precious drums drawn up close to him. He was as ready to go as he ever would be.

He was approaching the point he had learned to fear the most. This was the actual entry into the state of ion identity. The metamorphosis was relatively easy: coming to terms with it was the part that made him cringe.

"How do you feel?" Reinspringer's voice was metallic over the speaker.

"Sick!" said Lisbon. "What else'd you expect?"

The phrase held no element of humor, yet everybody grinned, and in so doing the tension wound down a minute amount. Lisbon steeled himself. He hoped it was not obvious that he no longer believed he had the moral fibre to take the stresses without cracking. Once safely through the ion barrier and having forced himself into an acceptance of its tenets, he knew he would feel better—more able to tackle the problems that were posed. In retrospect it always seemed a challenge. But in prospect . . .

As the electrode cages dropped

around him he asked himself for the millionth time why he had ever made *flaming* his profession. As always, it was a useless question. His very first exposure to the state of ion identity had opened up enthralling vistas so enormous in scope he had had no other choice. Once sampled, there had been no other way to live.

Deeply rooted in the psyche were factors which had only shadowy analogues in the molecular world. Challenge, excitement, and complete involvement with the environment were words which conveyed very little of the experiences of *flamers*. There were no terms to explain the totality of the impressions every ion-space explorer knew so intimately.

Nothing in this argument, however, modified the fact that a journey into ion-space was always a hazardous venture. Mephisto promised to be the most hazardous of all. Even such a superbly trained and practiced lead-team as that sent down by Reinspringer had critically overreached itself. The long list of known dangers was enough to sit like lead in Lisbon's stomach. He dared not even speculate about the inevitable unknowns.

At last the preparations were complete. Through the control-room window Reinspringer signaled the final acknowledgment. As it always did when the air pressure was reduced, the sounds in the room dulled curiously, leaving nothing but the sharp click of the pumps. Lisbon braced himself in the couch and waited for the transition to begin. He avoided looking at the faces at the window. He wished they would not look at him. The first stage of trans-ionization was always a little like an execution.

Fortunately the transition period was short. Once the field hit maximum there was nothing left of him capable of either transmitting pain or receiving it. In one frenzied picosecond he was completely destroyed and then rebuilt, transliterated bodily into a sentient, gaseous plasma-state by electron stripping and ion pairing.

Disorientation . . . the trauma of destruction and re-creation . . . vertigo. Especially vertigo. Seconds before, he had been seated on the preparation couch. Suddenly the couch had gone. The observatory which bore the couch was already a thousand kilometers above him. Between him and the furnace in the sky was . . . nothing.

HE WAS insubstantial, a plasma functioning in a vacuum still too hard for the focused microwave beam to raise even a glimmer of visible radiation. He was falling . . . Falling more terribly than one falls even in nightmare shock. Nor was there any pillow he would reach when the fear peaked at the limits of what he could endure.

He would just go on falling . . .

Panic rose, and he fought it as he had done so many times before. This time he *knew* that he had lost the vital mastery. There was nothing left in him capable of controlling the situation. He was going to continue falling into the fires beneath him, to become a minor contaminant in this very alien furnace.

"Snap out of it, Peter!"

That was Reinspringer's voice

urgent on the beam. Lisbon wondered if he had been screaming or if the controller had correctly deduced what was going on in his mind. The latter was more probably true. Lisbon clutched desperately at this link with normality. Thankfully he felt control swim back.

He was through!

"It's all right, Karl. A bad entry is all."

"I tell you something, eh? Your entry was no worse than the others when they saw what they were getting into."

Lisbon did not answer. Beneath him, the challenge of the vast inferno that was Mephisto was a matter that now commanded all his attention. Reinspringer's continued reassurances held less meaning for him than the micro-traces of helium he was beginning to discern rising out of the fringes of the upper atmosphere. He reached out to feel for his drums and found them comfortingly close.

The adoption of ion-identity was one thing in a classical ion-training environment. It was quite a different matter to plunge through space to fall headlong into the complex cauldron of a body such as Mephisto. Lisbon had to remind himself that, having adopted a suitable ionic state, the crushing pull of the planet—or was it a rogue sun?—was not necessarily an inescapable gravitational pit. Conversely, he found it impossible to forget that even the theorists disagreed as to precisely what Mephisto was.

He felt the nudge of the beam, corrected his course. In the observatory far above him, Reinspringer's hand at the controls was a constant reminder of the need for objectivity. Never for a moment must he forget he was a creature whose normal identity was molecular—the so-called state of mol-identity. Ion-identity was a transient and artificial state. Its virtue was that plasmoid identities could go and observe in conditions where no molecular beings could survive. Its drawback was that a consciousness in an ionized state could easily confuse itself with the Universe.

Soon he reached the radiation bands of Mephisto's outer atmosphere. It was here essential for him to tighten his complex to prevent spin-off of essential ions. Fortunately he knew his trade. He easily mastered sufficient plasma-cohesion to ride safely through the radiation belt without excessive weakening. There were other bands below, but most of these should not be so difficult or dangerous. There was no serious risk of being converted into uncontrollable photon reactions short of the M1 and M2 layers.

As he rode the microwave beam through the increasing density of the upper atmosphere, his capacity for ionization gradually became more apparent. Lisbon began to discern the first signs of the visible radiation which characterized the identity of himself and his drums. The intensity of the beam also made it possible for him to more easily identify some of the rarefied atoms which were present in the softening vacuum. From this point on he must be very much alert. He would need every particle of information he could gather if he were

ever to regain the observatory.

LISBON was a conservative. Experience and age had taught him that caution paid. He had sacrificed ion-mobility in favour of the considerably inert characteristics of argon. Increasing ionization induced a blue-green plasma, which though it could not rival the splendour of ionized sodium, was nevertheless distinctive enough to permit his passage to be followed by the telescopes on the observatory.

The certainty of the wavelengths of his own luminance gave him a reference point against which to estimate the spectral responses of other substances in which he was interested. In the absence of instrumentation, such estimates were his specialty. On many occasions such an ability had saved his life.

His passage through the increasing density of Mephisto's ionosphere gradually became a blaze of triumph. The focused microwaves of the observatory's masers opened a broad highway of conductivity, setting him into a flare which was locally brighter than the radiation from Mephisto itself. For a moment he knew the touch of pure exhilaration as he burned down out of the sky.

When he hit the M1 layer, things took a decidedly graver turn. Reinspringer, who was following his course by spectroscope, was quick to issue a warning. At the wavelengths the observatory's masers were currently tuned to generate, the microwave beam was likely to suffer severe attenuation due to absorption by rising gas clouds. Communication could be continued intermittently through to base level, but for ionization potential Lisbon would have to seek his energy directly from the sources available on Mephisto.

This was Lisbon's first positive indication that the rescue exercise was running into trouble. He was far from happy. The adoption of native ions and energy sources was a frequent but not well-advised expedient, and certainly not one to be indulged in so early in the game. It was permissible only if the *flamer* had an intimate knowledge of the sequence of chemical ion reactions leading into and out of his alternative identities.

Normally such sequences were planned and rehearsed so that the *flamer* was optically able to identify his chosen route by reference solely to the colour of the flames. Where the main keys to elemental identity lay beyond the range of the human eye, guidance was normally given from the broadband spectroscopes on the observatory. In the present case reliable communications from the space observatory were apt at best to be erratic. At worst, they were liable to be completely absent.

While Lisbon was confident that he could accurately determine most of the elements with spectral lines between four hundred and seven hundred nanometres, there was ample opportunity for mistake without confirmation from the spectroscopes. The range of the visible spectrum was far too limited to give him more than partial guidance.

The worst prospect was that Mephisto seemed to contain compounds—even elements—unknown

on Earth. There had been tantalizing glimpses of a whole new range of elements with stable nuclei beyond the fabled 'sea of instability' which characterized the limits of natural and man-made elements. There was even a hint of a mirror-inversion of the known periodic table leading down an orderly parachemic series with properties outside all speculation.

At the M2 layer Reinspringer's fears were amply confirmed. Partial ionization of the rising gases gave rise to fantastic auroral screens spread into curious curtains by Mephisto's magnetic fields. The fluctuations of these unstable layers caused random attenuation of the microwave beam. Lisbon could cope with curtailed communication, but the loss of beam power so early was dangerous indeed. Penetration of the chemosphere needed ionization potential sufficient to maintain the cohesion of the plasma which gave him his identity. If the beam failed as he hit the chemosphere he was liable to have his ions dissipated round the globe too thinly for recovery ever to be possible.

The major barrier was the hydroxyl zone. In this Lisbon revealed his habitual foresight in adopting an argon identity. Argon had no hydroxyl radical worth bothering about. He passed through the chemosphere riding on a tide of maximum beam intensity. How lucky he had been was immediately underscored by a drastic beam failure only seconds after he had made a safe penetration. From this point on he would be forced to choose his identity from the native ions in the lower atmosphere, and seek the essential ionization potentials from the energies of Mephisto itself.

Freed now from the limitations of the beam, he was able to inhabit any elements which exhibited the suitably excited states needed to support the requirements of identity and sentience. This should have been a tremendous liberation of the spirit. On this occasion, however, it was also the deadliest of technological traps. Without a sure knowledge of the progressive chemical sequences involved, he could all too easily become trapped in the complexity of the uncharted ionic tides. If he did so, there might be no way back.

LISBON decided to stop and take stock of the situation. The rising flood of radiant energy lent him sufficient power to maintain his identity intact through the periodic failures of Reinspringer's beam. The sight beneath him was enthralling. Gigantic plumes of multicoloured flames leaped from Mephisto's surface and were projected dozens of kilometers into the atmosphere. Beneath the plumes a veritable sea of multicoloured fire seethed and coalesced and ran with the interplay of strange reactions.

When the beam power was strong, he relayed to Reinspringer a commentary describing and classifying the fantastic abysses and mountains of fire below. Where possible he added tentative identification of the reacting elements as judged from the colours of their ionized spectra, though he was conscious of the narrowness of the visible window through which the

human eye could observe. When the beam failed, he hung there considering how best to utilize his limited resources for a rescue attempt he was now certain must fail.

At last he judged it was time to make a move. Reinspringer had recorded all the useful data and there was nothing to be gained by waiting longer. Using the beam path as a guide, Lisbon made his way down toward the now-abandoned 'campsite'. This was a plateau of solid rock some three hundred metres in length by about fifty metres wide. The term campsite was a wry jest. In mol-space terms it had a temperature sufficient to bring it to cherry-red heat and its cracked and fissured ledges were periodically swept by great flames of incandescent hydrogen. For the *flamers*, however, it had been a useful rendezvous point and a base from which to establish bearings.

"What's the score from the surface, Peter?" Reinspringer's voice was faded and muffled by the interference with the beam.

"Grim!" said Lisbon. "From where I'm standing the flames are rising up like mountain ranges. I've no idea if burning is an apt description of the process, and the fires certainly aren't nuclear as we understand the term."

"Can you see down to the base of the flames?"

"No. It's too far down, and the illumination's too great at the surface. Campsite's obviously the tip of some submerged mountain range. But some of the chasms I can see must be all of five kilometers deep. It gives you an unholy feeling."

Vertigo overcame him. He retired from the precarious ledge on which he had been standing, cursing his inability to take the idea of a possible fall of a few kilometers when he had already descended many hundred times that distance in his transit from the observatory. He was aware of the incongruity, but powerless to escape its grip.

"Still no clues to the reaction mechanisms?" Reinspringer was persistent.

"I tell you, Karl, there's nothing in my physics which explains Mephisto. If you want a clue on where to look, think about the chemical separation of the flames. There must be some mechanism at work which undoes the surface mixing. There's a flame of pure calcium at least twenty kilometers high which has persisted since I left the observatory. How do you explain the generation of a fountain of pure calcium ions from a mix of so many reactive contaminants?"

"Some sort of cosmic-sized mass-spectrometer?" Reinspringer was speculative. "I'll put the theory boys to work on it. But what about my ion-beam. Can you see anything of them?"

By way of answer, Lisbon gathered his drums. Bending low, he beat out a throbbing call, then stopped to listen. There was no response. Undismayed, he continued at intervals, each time stopping to listen for the slightest suspicion of an answer. Crouched like a demon on a red-hot rock in the midst of a streaming hell, his fingers made the drum speak in a voice which, though it was dwarfed by the blistering furies around him, neverthe-

less had the potent tones of selected resonance.

"Pam . . . Pam . . . Pam . . ." His fingers lapsed into a regular single-beat call.

No answer.

"Pam . . . Pam . . . Pam . . ." Then silence. Or was there a distant echo whilst his fingers hesitated above the micron-thick diaphragms?

"Pam . . . Pam . . . Pam . . ."

No doubt now. "Pam . . . Pam . . . Pam . . ." Somewhere out in the terrible burning wilderness another drum made answer. "Pam . . . Pam . . . Pam . . ."

Amplified a millionfold by resonance, the answering drum took up the call.

"I'VE GOT a contact," said Lisbon. "Distant but definite."

"So at least one of them's alive!" Reinspringer sounded thankful for even this.

"Keep the beam tuned on campsite," said Lisbon. "I may have to move well away, and I'll need a point of reference. I doubt if you could follow with the beam if I move down into the flames. I'll leave a couple of drums on campsite and communicate with you through time."

"Acknowledged."

Leaving two drums on the rock, Lisbon took up the third and turned his attention outward. His sensitive fingers rapped out a series of interrogatory pulses. Then he held the membrane near his ear and listened to the return.

"Who is it?" asked the controller.

"Andre Beriov. He's on a plateau about two kilometers down from campsite. He exchanged identity for something he believed was four-thirty nanometres iron, then found it wasn't. He can't find a reactive chemical exchange with anything local, and the gas pocket he's in is static. I'll have to go down there and see if I can get him out."

"Take care, Peter," said Reinspringer gravely. "We can't afford to lose you too."

Tapping the drum in a regular series of beats, Lisbon reconnoitered round the edge of campsite. His acute ears and the clever design of the instrument enabled him to distinguish the particular direction in which Andre Beriov was located. Here a great updraught of incandescent hydrogen swept up against the solid rock and formed a seemingly inpenetrable barrier. Gaining as much ionization potential as he could acquire, Lisbon leaned carefully against the red-hot wind, and was surprised to find its velocity was so low that he could climb through it easily.

Climbing in ion-space was not the physical task it was on molspace Earth. Weight was a relative matter, dependent mainly on how tightly concentrated was the plasma in the energy package containing his identity. He could fall great distances in relative safety if he could keep his velocity low. The termination of a fall was critical, however, and inertial effects could easily exceed his ability to keep his identity intact. If physical or thermal forces became too great, they could strip the atoms out of the delicate energy shell and dissipate

them very thoroughly throughout the surrounding winds. He therefore proceeded with great caution, using tenuous handholds to support his nearly weightless body, almost in the manner of a mol-space climber in the gravity of Earth.

About two kilometers down, with the high fire-masses streaming above him like vertical walls, he came across Andre. In a cleft in the rock was trapped a pocket of violet flame, and clearly in the region stood Andre Beriov, clutching his precious drum and looking outward. His face was a picture of the faintest possible hope. His relief when he saw Lisbon was a wonderful thing to see.

"Thank God you've come, Peter! I thought I was here for eternity."

"Keep calm," said Lisbon. "You got into that identity, so there has to be a logical route out."

"Believe me, I'd not still be here if I could find it."

"And you thought your identity was four-thirty nanometres iron?"

"I staked my life on it."

Still in his argon identity, Lisbon prowled around the fringes of the gas pocket and out to where the leaking traces of the gas mingled with the incandescent hydrogen. When he returned his face was enlivened by a trace of wry amusement.

"Come on, Andre! You're going home."

"You mean you've found a route?"

"Yes. You're not in an iron identity at all. You were trapped by your own precision in spectral analysis. Sure you were in the four-thirty nanometre region—but it's a calcium identity, not iron. Look at those red fringes. That's calcium at six-eighteen nanometres. Iron has no useful bands nearer than green at five-twenty-seven. There's hydrogen outside. You can take the hydride route straight through to hydrogen, and ride the flame up to campsite. The beam's focused on campsite, so that's your route back to the observatory."

The simplicity of the trap which had nearly cost him his life appeared to stun Beriov momentarily. He started to protest, then followed out the clues which Lisbon had set before him, and suddenly grinned with great relief.

"Thanks, Peter. Now I know why they call you the Ion Explorer. You coming up too?"

"Not yet. There's another five of you down here somewhere. They sent the backup team in when you and Loya failed to show. With a bit of luck I may find another one or two in no worse a predicament than yourself. Have you seen anything of the others?"

Beriov was concerned. "None at all I'm afraid. Only Loya and I were down here at the time I became trapped."

Lisbon watched speculatively as Beriov made the hydride transition into the red of a six-fifty six nanometre hydrogen identity and, with a wave of his hand, rose up through the great flame toward the surface and the route home. If Beriov wished to remain in the profession it would take a two year refresher course in training environments before he would again be assigned to an expedition. Lisbon's fingers tapped out a message to be re

peated for Reinspringer's benefit, communicating through the drums he had left on campsite.

"Beriov coming up. He could be the lucky one."

THIS DONE, Lisbon again turned his attention to the task of trying to locate the other members of the expedition. For hours on end his drum notes beat out into the realms of fire without once receiving a single answer in return. During this time he was making his way slowly along the face of the peak, the summit of which was campsite. Finally he came around the end of the flame-drowned mountain and was able to survey new territory.

Here again hydrogen was the predominant environment, but bright flares of sodium, potassium and many of the rare-earth elements were particularly abundant. The preponderance of rare-earths reminded Lisbon that the distribution of elements on Mephisto was untypical of what was normally to be expected in galactic bodies. Mephisto was a thing apart, and undoubtedly contained a great many surprises. No visual evidence, however positive, could ever be trusted at face value.

On the far side of the campsite range Lisbon made a new contact. His drum messages now growing in urgency received an unexpected reply, which he hastened to confirm. His report to Reinspringer was terse.

"Kem Radshorn believed trapped in parachemic identity. Recovery prognosis doubtful."

The new drum beats were located well out from the comforting solidness of the campsite mountain. In order to traverse this region Lisbon knew that he would have to sacrifice his precious argon identity and adopt an ion native to the region. He chose this course with great reluctance, because of the reactivity of the available native ions and the strong possibility of becoming enmeshed in some irreversible chemical reaction. Denied physical support, however, there was no other way.

Finally he opted for blue hydrogen at four-eighty six nanometres as being the safest available choice. The argon-hydrogen exchange was not easy, there being no reactive interface. He had to rise high into the atmosphere where the ion density was low, and to make the identity exchange virtually a molecule at a time. Down in the flux below, such a maneuver would not have been possible. With the partial pressures being so high, the energy required to control the delicate transportation would have been inadequate to preserve his identity.

It had been a long time since Lisbon had swum in and been part of a great hydrogen flame. In the training environments it had once been his great joy to swoop and leap with the vagaries of such a mobile flare. Now he found its very mobility an embarrassment and a danger. Only by careful control of his plasma form could he make the journey at all.

About a kilometre out, there rose a plume of gaseous ions whose singular beauty was remarkable. Blue,

green and orange ion components twisted together in a flame whose magnificence outshone by far the relative transparency of hydrogen. It was from this column that the drum beats came. Immediately he came close, Lisbon realized that much was wrong. Whilst his optical range covered only a limited part of the spectrum, intuition told him that no such element should have existed. This was a chemical outside the range of human physical knowledge.

Swimming in the sea of incandescent hydrogen, Lisbon made a wide arc around this singular plume, examining it from all sides. He could find dilution, but no interaction with hydrogen, nor could he tell much about the three ion-streams that intermingled. He tried to contact Reinspringer for a spectroanalysis of the region, but doubtless hit a period of beam blackout, because the controller did not reply, and it was probable the message had not got through.

Doubtfully, Lisbon began a spiral descent around the plume looking for signs of the flamer whose drum beats assured him was trapped within its fiery limbs. He had to drop down nearly a kilometer before he found him.

KEM RADSHORN, one of the backup team, was one of the new breed of *flamers* just emerging from IEC training. His introduction to ion space would have been lengthy and scientific, and drawn heavily upon the experience of the older *flamers* such as Lisbon himself. Lisbon marked it much to the youngster's credit that he had not panicked and thus risked dissipation, but had concentrated on maintaining his energy shell intact as he tried to find a route through the intractable chemistry which bound him into his present position.

Radshorn looked at Lisbon from his fiery prison with patent disbelief. Unlike Beriov and Loya, who had worked with Lisbon in the past, Lisbon was merely a name in a textbook to the younger *flamer.* Radshorn knew that help from his own team was barely to be hoped for—help from a complete stranger in ion space scarcely stopped short of a miracle.

Drawing the drum close to him, Lisbon spoke.

"How'd you get into that identity?"

Radshorn pointed downward. "At the base. I heard Loya's drum and went after her. I thought I was going into multi-spectral mercury, but it can't be anything of the sort."

"There was a route in. There has to be a route out."

"There was a sodium flare at the time. I think Loya was below somewhere and disturbed something. I went clean through sodium identity into this; then the flare died and I couldn't get out again. I've been unable to find a reactive interface since."

"I'm going down to investigate," said Lisbon. "If Loya disturbed sodium, perhaps I can do the same. If you see the opportunity, take it. Don't wait for me."

"Check! Who are you, anyway?"

"Peter Lisbon." The *flamer* did not wait to explain further. From

somewhere deep below him he had heard the beat of a drum.

"Pam . . ."

It was only a single beat and might have been accidental. If there was a drum there, however, there should be another flamer not too far distant. Possibly Loya . . .

"*Pam . . .*"

If he judged the sound aright, the drum was knocking on something solid rather than being struck by a hand. He answered rapidly but received no reply.

He dived deeply but cautiously, not knowing how far he could safely fall before he struck the bottom. In this matter he was wise, because he had less than two hundred meters to go before he came down into the skeletal forest.

THE SIGHT was so arresting and unexpected that Lisbon had to stop and take stock. He was in a valley at the foot of two vast mountain ranges, one of which was campsite. The atmosphere was mainly incandescent hydrogen, but populating the valley appeared to be a forest of skeletal, sponge-like trees whose ashen-white surfaces faintly glowed with every colour the spectrum could devise. His first thought was that these were rock-faults laid bare by the removal of the surrounding material by the streaming hydrogen. The regularity of their shapes, however, prompted him to look for another explanation. The singular thought which occurred to him was that these were living, replicating plants.

The notion of indigenous life under these conditions worried him. He began to think of duplication in the sense of growing crystals rather than replication as with living organisms; and finally to wonder if there was a fundamental difference in systems in which a seed could define the characteristics of that which grew from it. The divisions between life and non-life were thin indeed.

Brushing a piece of skeletal sponge from a tree as he passed, he was rewarded with a surprise flare of blue four-sixty three nanometres neodymium, which burst from the tree where the inert ashen surface was broken. Intrigued, he tried another tree and got the green of five hundred and twenty nanometres cerium. He began to suspect that these individual plants were feeding on the microtrace contaminants in the hydrogen wind, and that they were capable of selective absorption of the ions which they adopted as their specialty.

This factor came as no great surprise to him. Plants and bacteria on Earth were capable of fixing atmospheric nitrogen, and many species—including Man-fixed carbon, calcium and many other elements from the environment. Ion-exchange resins, too, had an order of preference in what they selected from their environment. The divisions between life and non-life were hair fine and very subjective.

So far there was no sign of the drum he had heard below him. The flame in which Radshorn was locked appeared to have its origin in a rocky cleft near the edge of the campsite range. He used this blowhole as the center for his investigations, and moved around it through the skeletal forest looking for evi-

dence that another *flamer* had been there.

Shortly he found a clue. From each of the trees which he passed, a small piece had been broken. Even now the fractures were still giving off a characteristic flare—lithium red, europium blue, cerium green, and a magnificent violet holmium. He was not sure if the trail markers were deliberate or whether they had resulted from pure curiosity on the part of a *flamer* who had passed this way before him, but signalling as they did with such a magnificent display of coloured fire, he had no difficulty in following the direction.

On the slope of the hillside opposite campsite the nature of the vegetation changed considerably. Here the sponges were much larger and formed misshapen islands like vast skeleton apple-dumplings. The nature of their ion preference was altered too. The first had a fracture which flamed tongues of calcium, violet and red. Slightly up the slope the beautiful purple of potassium issued from a broad scrape along one side of the plant. The apparently deliberate nature of the damage and the position of the element in the periodic table caused Lisbon to pause and think. He knew suddenly what he was looking for—a sodium tree.

When he found it, it was not so much a tree as a plantation. A whole area of the incandescent rock face was covered with the white skeletons of isolated sponges, and one of these had been almost completely crushed. Significantly, moving slightly on the hydrogen wind, was an octahedral drum. Experimentally Lisbon kicked a fragment of the sponge, and obtained a magnificent sodium flare. Then he took up his own drum and addressed the *flamer* caught in the fire-plume above.

"Kem—are you in contact?"

"Listening."

"Can you set your direction from my drumbeat?"

"Affirmative."

"I've located a source of sodium. I think I can drive it into a flare. You got in there through a sodium route, so there must be a reactive interface with sodium. Ready to try?"

"Affirmative. Will the flare be in the same place?"

"Within a few metres."

"Give me a minute to get into position. I'll tell you when I'm ready. Any ideas on what route to go for?"

"If you can find enough oxygen, the hydroxyl route is safer. Otherwise go through sodium hydride. But whatever you do, try and make it right through to a hydrogen identity."

"Check! I'm ready now."

Looking at the crushed sodium tree, Lisbon decided there was not enough undamaged material left to guarantee a substantial flare. Alongside, however, was an even larger sponge which an exploring foot told him contained sodium. This seemed to promise even better results, and fortunately lay even closer to the plume which contained Kem Radshorn. Thus there was little danger of the flare being out of Radshorn's reach. As soon as he could see the trapped *flamer* in the green and orange of the plume, he strode into the middle of the

sodium tree and began to destroy it with his feet.

This was an action more easily imagined than performed. The low density of his ionized plasma identity scarcely gave him enough weight to break the ashy sponge fragments, fragile though they were. Somehow he managed to mash sufficient of it to provide a wide and high flare of sodium ions, which swooped in a living yellow fire around him and licked hungrily at the base of the unidentified plume. Such were the radiant contrasts that he was unable to see the progress of his rescue operation. His relief was great when a few moments later Kem Radshorn, now in an orthodox hydrogen identity, swam down beside him.

"It worked! It worked!" Radshorn's relief was ecstatic. "I owe you a great deal for this, Peter."

"Forget it!" said Lisbon. "You can best pay me back by not getting into trouble on your next tour. Right now I want you to go up to campsite and get off-planet before you get locked into something else."

Radshorn's face fell. "With respect, I could be more use helping you to look for the others."

"No. You'd be a liability. Your training's too scientific, and there's too many unknowns here. The only way to tackle Mephisto is to respond to the agony in your guts. And they can't teach you that in a training environment."

"Sure!" Radshorn took the critical point without complaint. "I guess we've all got a lot to learn."

He saluted reluctantly, and began to swim upwards through the

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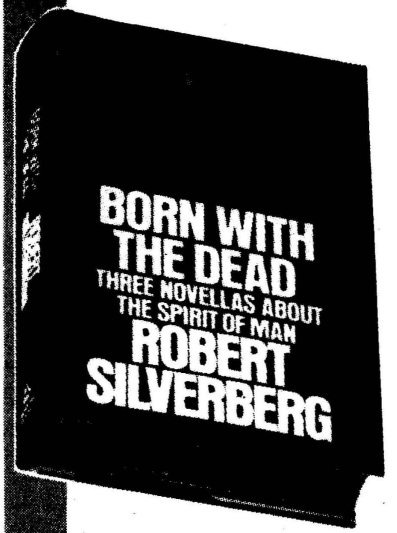

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RANDOM HOUSE

great hydrogen flames, keeping well clear of the unknown plume which had been his fiery prison. Lisbon watched him go, and tapped out a message on his drum for Reinspringer's benefit.

"Radshorn on his way up. Some theories on ion separation beginning to emerge."

Almost immediately the drum began to throb with a message from the controller.

"Great work, Peter! Andre Beriov recovered two more of the backup team in disorientation-shock near campsite. Only Loya and backup man Ray Lockett still on Mephisto."

DISORIENTATION shock! The news grimly amused Lisbon. Disorientation shock used to be frequently suffered by novices when presented with mixed ion-streams in a training environment. At one time it was an accepted hazard of learning to handle ion identity. Latterly, however, training environments had become more sophisticated and humane, and disorientation shock in training was now a rare occurrence. In Lisbon's view, every *flamer* who was going to do a useful job in natural ion environments would one day enter a situation where multiple-choice disorientation would overload his senses. Far better to become accustomed to this in the relative safety of a training environment than in such a potentially deadly and uncharted sea of ions as the surface of Mephisto. The notion, however, gave him a new line of approach.

In disorientation shock, the *flamer* was unable to respond to a drum call. For this reason he could not be located by standard emergency procedures. The most likely place to find a disorientated backup man was in the hydrogen flare around campsite. Significantly, this was where Beriov had already located two of them. By the exercise of an old drum trick, Lisbon hoped he might locate the one still missing.

He allowed the great hydrogen flare to lift him towards the surface, carefully reducing his plasma density to give himself just the right and safe rate of climb. He surfaced in a huge belt of flame that subsided rapidly. Once he would have been overjoyed to be in a flame tongue leaping free through the atmosphere. Now he found the experience a danger and an irritation. If human beings had been meant to live like flames, he thought, then the Maker would have seen them born in ion-identity. The deliberate assumption of the ion-state was part of the great impertinence of Man, who thought he could ape the gods. The trouble was that Man was still pathetically unaware of how much he did not know about the universe.

USING campsite as a center for his activities, Lisbon rode the huge plumes out to about three kilometers distance. From here he began to move in a vast circle which had campsite as its center. All the while he held his drum at his ear and tapped a solemn beat with his finger.

"Pam . . . Pam . . . Pam . . ."

The spare drum on campsite returned the beat loud and clearly.

"Pam . . . Pam . . . Pam . . ."

In this manner he continued to traverse the circle, using the great flame slopes to conserve as much as possible of his energy. When he had covered nearly half the distance around the perimeter he heard something for which he had been listening. A drum between himself and campsite was splitting the beat and thereby betraying its direction.

"*Pam-am... Pam-am... Pam-am...*"

Methodically he set up a zig-zag search pattern, working his way toward campsite. A kilometer in from the perimeter he found the drum. Less than fifty meters away he found the missing backup *flamer.* He, too, was in a state of disorientation shock. Fortunately his nitrogen identity energy shell had remained intact. Using his drum to communicate with Reinspringer, Lisbon directed that the microwave beam be re-sited on his present position.

The movement of the beam was accomplished with alacrity. Soon the broad shaft of energy opened up a magnificent luminant highway into the sky. With the backup *flamer* still unconscious, Lisbon knew he would have to shepherd the identity package at least as high as the ionosphere before it could be safely entrusted to the beam for retention until it could later be collected.

He took this decision with great reluctance. He knew that once he had negotiated the various bands and layers of the upper atmosphere he would be very reluctant himself to make a return. Nevertheless, Loya's drum lay down there in the skeletal forest at the bottom of the hydrogen sea. If Loya's drum was there, the chances were that she herself was not far distant. One thing he could not do was abandon an experienced *flamer* like Loya while any faintest hope for her recovery remained.

"Karl—I've got Ray Lockett here. Unconscious like the others. I'll have to clear him through to the ionosphere, but I don't want to come right back to the observatory. I must have one more look for Loya."

Attenuation caused the beam to wane for a period, and Reinspringer wisely held his reply until the full beam strength had been restored.

"I take your point, Peter. Radshorn's in good shape and demanding to be allowed to help. I'll send him down to meet you, and he can fetch Lockett up."

"Good thinking! And start preparing a blast for the IEC training executive. Three out of four backup men falling in disorientation shock is little short of criminal. Theory's not enough. It's the human animal which has to be conditioned to take the stresses."

"I'm going farther than that. I'm demanding a full-scale disaster enquiry. Those desk-bound theorists at home have no idea what some of these deep-space working conditions are like. It's about time somebody jerked the rug out from under them."

Mollified, Lisbon began to survey the problems of the ascent. Since he was unconscious, there was no way that Lockett's identity could be exchanged for a less

hazardous one such as an inert gas. Nitrogen would be adequate only if the beam power remained strong enough to maintain the identity whole in the face of the high temperatures and low pressures encountered in the upper layers. Lisbon's own hydrogen identity was also a risk factor. The hydroxyl zone was their major hazard. If the beam should fail at the wrong time the results could be complete dissipation. Nevertheless, there was no alternative.

THEY were lucky. By some trick of circumstance the periodic failures of the beam coincided almost exactly with their progress through the less critical regions. Through all the major bands the beam held strong and true. In less than twenty minutes they reached an altitude free from most of the planet-dependent effects. Lisbon was able to halt and wait the arrival of Radshorn from the observatory.

In the low ionization of this rarefied stratum, Radshorn was almost invisible. What could be seen was a broad grin of welcome on his face, and a look of genuine concern when he took charge of the unconscious backup man. Lisbon was pleased to note the youngster had opted for an argon identity. The lad was obviously eager to learn such points of technique, and this was one trick he had been quick to adopt. Suddenly Lisbon did not feel so bad about the future of *flaming.*

Having been relieved of his charge, Lisbon once again turned to make a descent to Mephisto's surface. This time he was less than fortunate. His hydrogen identity was badly adapted for survival in the face of such unreliable beam energy. More than once he was saved from total dissipation by the mere vagaries of chance. Profoundly dissatisfied with his performance, he broke from the beam path at the earliest opportunity and leaned hungrily toward the welcome energy reserves of Mephisto's bounteous fires.

His critical situation negated his natural caution. When he could find the energy he used it—building up a strong red hydrogen plasma with a reckless disregard for wastage as he burned down toward campsite. On the beam he heard Reinspringer whistle. No further comment was necessary. They both knew that Lisbon's progress was untypical and prompted by stronger motives than those of a mere rescue in ion-space.

At campsite, Lisbon knelt again with his drums.

"Pam . . . Pam . . . Pam . . ."

He was calling uselessly against the faint hope that there might be some return.

"Pam . . . Pam . . . Pam . . ."

No answer whatever. No reason to suppose there would be. He took up the drum and went to the edge of the campsite, looking down toward the direction of the skeletal forest where he had found Loya's drum.

"Pam . . . Pam . . . Pam . . ."

If ever a note of concerned enquiry could be conveyed by a finger beating on a drum, this time was now. He raised the instrument to his ear and listened, not expecting to hear anything and being surprised by a single answering beat.

"Pam . . ."

It was impossible, yet he had heard it. Perhaps Loya's drum was again moving in the hydrogen wind, tapping itself against something solid. Perhaps . . .

LISBON knew he had no choice of action. He had to go down into the abyss again, down to the skeletal forest, to search with all the cunning and skill and imagination that only years of flaming could bestow. In such an infinite sea his chances of finding Loya were slight, especially as she was now without her drum. He felt compelled, however, to find out what had happened to her, and why. *Flamers* such as Loya were not to be lost without good cause.

The plume which had trapped Radshorn was still burning brightly. The sodium flare which had been released at its edge had now burned out. Taking a broad, spiral course around the plume, he dived ever more deeply down through the hydrogen flame and stopped only when the white crisp bones of the skeletal forest appeared beneath him.

The two crushed trees remained as a mute reminder of the previous passage of men. There was something of a reproach in the way these two broken organisms had accepted their lot and were already attempting to repair the damage. The speed with which the brittle tracery was being renewed made him pause in wonder—in a few days the wounds would all be healed. If all the sodium was being extracted from the traces in the hydrogen wind, then he had misjudged both the concentration of atmospheric sodium and the capacity of the adsorption process to recreate the massive form of the element in the presence of such a hostile environment.

Apart from the drum, there were no clues as to what had happened to Loya. The damage to the trees stopped at the point where the first sodium bush had been destroyed. In the vain hope that he might have been reading the trail in the wrong direction, Lisbon retraced his path to the point where he had first descended, and then began to explore the terrain beyond.

This path took him over a ridge and to a point where the valley floor dropped away into a broad ravine. The skeletal forest had itself been a place of wonder, but this new gorge was a place of sheer enchantment. From wall to rocky wall, every available surface was covered with skeletal flowers, but flowers of such vast dimensions and beautiful proportions and ethereal radiance that Lisbon could have imagined no more beautiful a place. Here, drowned under a sea of incandescent hydrogen, was the proof that life could prosper and survive under conditions which were way beyond anything he had previously conceived as credible.

There was no doubt in his mind that these life-forms were 'organic', but now his conception of organic extended beyond its Earthbound connotation of being related to carbon chemistry. Here was a more versatile life-form, beautifully adapted to the conditions under which it had evolved. Exactly what gave the plants their selective

capacity to adsorb only ions of a single element, he did not know. He suspected it was somehow associated with their inert ashen skins. If he read the signs aright, the individual plants probably had the capacity to select even single isotopes of a particular element, leading to purities of concentrated isotopes on a scale undreampt of on Earth.

Under such conditions of continually alternating flux and refinement, it was no wonder to him that Mephisto had its own brands of chemistry. The insistent pressures of life-forms vying for a niche in the ecology could lead to bizarre modes of specialization. Constant re-flux and refinement of the elements gave ample scope to the chance concentration of the one atom in a hundred million which fell into a class beyond the naive constraints of the periodic table. Mephisto performed more chemical reactions in a second than Man could achieve in a thousand years.

If Loya had passed this way, she had left no signs in this unearthly grotto. Unlike the trail in the skeletal forest, here no luminous markers had been left for him to follow. It was, of course, possible that she had swum up into the hydrogen winds to examine the scene from above. To investigate this possibility, Lisbon swam up to just beyond the ceiling of the 'vegetation', intrigued by its variety but learning nothing of the fate or whereabouts of the missing *flamer.*

The notion of variety began to worry him. Somewhere below or in the new forests he was beginning to discern on the distant slopes, was one or a group of plants capable of selective adsorption of virtually any element a *flamer* could use as an identity. The only probable exception was the hydrogen carrier itself. There was no doubting the capacity of the plants to force the selected element out of reluctant compounds. What if they had the capacity also to draw the selected ions out of an ion identity?

Cursing himself for not having thought of the point before, he seized his drum and sent an urgent message to Reinspringer.

"Must know Loya's last ion identity."

Reinspringer's attention was prompt. "Query acknowledged. Checking now."

Lisbon however was already moving back along the gorge, his expression grave. He had guessed what the answer must be. Loya's favorite identity was the classic D-line resonance of sodium. It was her great joy to burn down out of the heavens glowing like a glorious sunlit beacon. Such was the definition of the sodium plasma that even the strands of her hair would become visible as she descended like a golden goddess. He had always suspected that she chose sodium not so much for its ionic properties as for the marvellous luminance it gave to the identity. And Loya had tangled with a sodium tree . . .

Reinspringer's voice came back abruptly.

"Loya went down in the five-eighty nine nanometre sodium doublet. Andre was the last to see her, and she was still in sodium then."

"That's what I figured," said Lisbon. "If she remained in sodium I can't hold out much hope."

"Copied for the record. Take care of yourself, Peter."

LISBON was nearly halfway back up the gorge when he met a circumstance which made Reinspringer's concern seem less than a platitude. Without any sort of warning, a mighty surge current of superheated hydrogen rammed him from below. The velocity of the blast was such that he was turned and tossed like paper in the wind, and had to fight to preserve intact the precious energy shell that contained his identity.

Worse was to come. After the hydrogen shock wave came a massive yellowed-green flame which he instantly identified as five-forty eight nanometres boron. In the face of such intense ion pressures, he fought and nearly lost the battle to remain in hydrogen. Such an all-embracing concentration was exceptional in any sort of work, and suggested that some highly unusual event had taken place below. A short while previously he had passed above the quiet and beautiful flower-fields in the gorge and, once he had regained his equilibrium, he was immediately prompted to dive to the source point to see if he could find the reason for this critical ion storm.

This was a decision which nearly cost him his life. As he plunged down on the fringes of the boron flame he was engulfed in a second flare, this time of oxygen, which ran from red to purple and reacted explosively with the hydrogen in which he swam. Fortunately he was slightly outside the main reaction sphere, but the force was sufficient to give him slight concussion and left him drifting momentarily helpless toward the valley floor.

His touchdown on solid rock helped to bring him to his senses. Looking around, he was amazed to see that a large area of what had previously been flower-populated slopes had been utterly devastated by some vast reaction. Unnerved at first, he was almost afraid to theorize, let alone explore. Wide tracts formerly occupied by flowers had been stripped bare, and only the white, inert ash still settling on the rocks gave evidence that the plants had ever existed. The concentrated elements of which the 'vegetation' had been composed had been released in the explosive flare which had destroyed them.

The incident told him much about Mephisto. The life-style of the plants was fascinating enough. The death-style was traumatic. At some point in their development, conditions would become such that the reaction of their concentrated elements with the atmosphere or their neighbors would be unavoidable. Catastrophic destruction was the result, probably with a similar effect on unlike vegetation in the immediately surrounding area. Thus was born the bright ionic flames which characterized the surface of Mephisto and created the enigma.

Now he had seen the death throes of a few of Mephisto's fantastic plants. He would have liked to have remained to see what mysterious seed began the renewal. Some pri-

mary catalyst presumably in the cast-off ash would trigger the birth of a new plant generation. These would grow to fruition straining the hydrogen winds for the precious elements which that seed alone was programmed to receive. Here was Nature no more nor less marvelous or mysterious than that on his native Earth, but it was an object lesson in understanding the universe—Man's comprehension of what constituted life was sketchy indeed.

"You all right, Peter?" Reinspringer's voice was relayed by the drum. "We saw some big new flares in your direction."

"I was lucky," said Lisbon. "Some of the local vegetation blew its top. I'll be making a report on it later. But I think I know what makes Mephisto tick."

"Still no sign of Loya?"

"I'm just going back to where I found her drum. I've a theory about what might have happened to her. I'll try to check it out."

As he passed on through the gorge he found that about a third of the vegetation had been destroyed in the blow-up. He could only speculate as to what chemical reaction had started it, but it was obvious the occurrence was not unusual. This was merely part of the natural life-cycle. Beyond the gorge, back in the skeletal forest, things remained unchanged. Responsive only to traces of their own chosen elements, the mighty sponge trees were unmoved by the events which had taken place over the ridge. Indeed, the two broken sodium trees were making good progress with their repairs.

Lisbon took up Loya's drum and threw it into the middle of the first tree which had been broken. It landed on a slightly convex surface and moved slightly in the hydrogen wind.

"*Pam . . .*."

Then he took up his own drum and sent out one last desperate appeal.

"Pam . . . Pam . . . Pam . . ."

He received but a single drum pulse in return.

Leaving Loya's drum where it had fallen in the tree, he turned sadly and made his way up through the hydrogen sea toward campsite. There was nothing else that he could do. Either Loya had been adsorbed by the tree or else had been dissipated as the flare which had trapped Radshorn. Whichever was the case, her identity was beyond recovery. On campsite he took the spare drum with his own, but left the third one in a cleft where it would not be washed away by the tongues of hydrogen flame. He knew this action was slightly irrational, but Reinspringer had once been a flamer himself and would understand the motive.

"Mission abandoned," he signaled the controller. "There's nothing else to be achieved down here."

"Understood," said Reinspringer on the beam. "Take it gently through the chemosphere. There's a big atmospheric ion storm up high."

Lisbon waited until the beam power hit maximum then began his journey up the highway in the sky, back to his return to mol-identity. As he climbed high above the mighty fires of Mephisto he looked

back and was suddenly no longer afraid. In retrospect it had been one more challenge in a long and remarkable career.

* * *

"OYA?" asked Reinspringer. He already knew what the answer must be, but needed to hear it said.

"She's gone. No hope at all."

The controller met Lisbon's eyes gravely, then turned back to his reports. As he made the entry in the log his hands were shaking. This was the only outward sign of tension, otherwise Reinspringer's acceptance of the fiction raised no hint of question. Nevertheless he shared the doubts that haunted the reaches of Lisbon's mind. The controller reached for the clip of death certificates and began to make out the fateful document. Halfway through, his shaking fingers dropped the writing stylus, and he looked at his hands accusingly.

Lisbon walked away. There was nothing he could do to help Reinspringer. In any case he had his own spectres with which to contend. Death in ion-space was an artifice designed to placate the public. It did not actually happen. In ion-state, the only end was dilution—the dispersion of the identity-ions throughout such a volume of diluents that they became too thinly spread for reconstitution ever to be possible. The *flamer* became literally part of the restless atmosphere which circled whichever alien sun or planet they had attempted to explore.

But what of the sentience? Did the luckless ones ever truly die? Convention insisted that death certificates be issued as soon as recovery was no longer possible. Theorists postulated that sentience faded in proportion to the degree of dilution. With more experience of ion-space than any person living, Lisbon was not too sure.

Sometimes when he was on a rescue mission, crouched on some alien campsite, drums beneath his hands, he was certain that he could detect the voices of *flamers* who had been diluted long before. Occasionally other fingers danced a hesitating rhythm, alien fingers, pioneers from other races and other times trapped in the same dissolute eternity. In the restless dance of flames, in the anguished howl of hurricanes, or in the serenity of great skies, Lisbon could detect them still.

And for Loya the ordeal would have an even more fateful twist. Like a phoenix ever renewed by fire, her sodium identity would be extracted and concentrated by the trees of the skeletal forest. Then in the fury of an alien storm, her ions would be released to begin anew the fantastic dance with the flames of a planet which was not a planet. The cycle endlessly repeated. It was for this reason he had left her drum by the sodium tree and another one on campsite. Somewhere down on Mephisto he was certain Loya still lived, hopelessly dissipated but sentient. Or had it merely been the wind which rolled her drum against the tree?

It was considerations such as this which caused him to have bad entries . . .

SUCH IS FATE

Sancho Jones Chu was an exceedingly ordinary mortal, but his destiny was something else again!

ARSEN DARNAY

YOU CAN look at this matter from a number of perspectives.

From one point of view it all began when an occasional sailor, soldier, handyman, and bum of obscure origins and indeterminate race, by name Sancho Jones Chu, on an impulse (he was very impulsive) decided to consult a gypsy.

The year was 1998 and the place was Houston.

The day before the LNG Tanker *Binivu*, flying a Liberian flag, had docked in the harbor to take on a cargo of liquefied natural gas (LNG), preparatory to a transpacific voyage to Tokyo. LNG had come of age since the 1960's, and Binivu was one of three hundred ships that moved frozen, cryogenic gold over the main.

Soon after the tanker docked, it discharged part of its crew on shore leave, including Sancho Jones Chu, and Chu departed to partake of the questionable pleasures of Houston, which left him, by the following morning, a little groggy and red-eyed and depressed, momentarily wondering what it was all about.

And in that moment, most serendipitously, his eye fell on a clumsily painted sign. It showed the open palm of a hand—white against a red background—and below the palm black letters told him (he had to puzzle them out laboriously, being of limited education) that Madam Sna stood ready with a psychic reading for a mere $8.50 or, say, the equivalent of a one-egg breakfast with toast and coffee.

He had no stomach for breakfast anyway, had never had his fortune told, had nothing else to do, and so after a moment's examination of his own palm (to see if maybe he could do the job unaided) he went through the door releasing a clanging bell as he did so.

He emerged again an hour later, twenty dollars lighter, but walking on air. He was not exactly a changed man; his eyes were still red and his breath still sour; if anything the black stubble on his face was a little longer; but there was now a new gleam in his eye, a bounce to

his walk. He pushed his knit cap to a more rakish angle and broke into whistling. He whistled a new ditty called, "The mermaid's mother is a sure-fire gong."

He was not a changed man, but he knew himself to be, in an obscure sort of way, a man of some mysterious importance. The gypsy had been sure of that.

Framed against a black curtain, her greying hair half hid by a red silk cloth, her golden earrings a-glimmer in dim light, she had taken his big rough hand into her narrow brown one and had looked at his palm with professional penetration.

After a moment her dark eyes had stared up at him in puzzlement. "Oh," she'd said, "this is very unusual, very, very unusual. You'll live a very, very, very long time, Mr. Chu. You have a very unusual fate, one in ten billion. I can't say what and I can't say how. But if you're willing, we could try the Tarot and the crystal to get a little more information."

So, after she explained to him that she'd never seen a man whose lifeline ran all the way to the tip of his index finger—the lifeline indicates time spent in this earthly dimension, she'd said—and after they spent some time negotiating the price of Tarot and crystal; and after they settled on a lump-sum fee of twenty dollars; she's reached for the cards.

The Tarot confirmed the message of the palm. The gypsy was genuinely astonished by the cards. She repeatedly pointed at now this, now that part of the spread with an earring-jangling shake of her head. A famous man he was, would be, she murmured, more to herself than to him. His life, the length of it . . . She couldn't, no, she couldn't grasp how Mr. Chu could be so long lived, a regular Methuselah. He wanted to know the exact year, but on that score, she said, the cards were silent.

They turned next to the crystal. She set up the ball in the middle of a table covered by a cloth whose edges showed the signs of the Zodiac. She dimmed the lights even more. And as Chu watched with half-open mouth, she went into a trance. Then, slowly, in hesitant bits and pieces, she conveyed the essence of the vision.

Ice . . . ice . . . cold . . . bitter cold, she said. In the crystal Madam Sna saw crystals of ice. She saw or felt (she shivered at the immensity of the cold) such a depth of temperature, such an absence of heat, of warmth, that the mere observation of it all turned her lips blue. In the midst of that crystalline opposite of inferno, she thought she saw the form of Mr. Chu slowly, stiffly tumbling. And so she broke her concentration, and she summed it all up for him.

"Mr. Chu," she said, "you'll live to an immense old age. You'll be a sensation before you're thirty. Many famous scientists will seek your counsel. And you'll die someday by freezing to death."

And so Chu whistled merrily as he walked. He crossed the street on a red light. Two cars bucked and screeched as they swerved to avoid running him down. He smiled at the angry honking. Nothing could harm him. He'd live to be a hun-

dred, no doubt about it. And next year, when he turned thirty, he'd already be a sensation. As for death by freezing, that was a long, long ways off.

He didn't wonder *how* he'd become a sensation or *what* the famous scientists might want to know. He very seldom wondered. This morning, momentarily, he'd wondered what it was all about. And that'd been entirely sufficient for a while.

NOW LOOK at the matter from another perspective, that of Captain Bartholomew Smith, a small, portly man with a neatly blocked salt-and-pepper beard.

Captain Bartholomew Smith commanded the LNG Tanker *Binivu.* He was very close to retirement. His pension was in his pocket. He was a widower and childless. Forty years at sea had destroyed whatever enthusiasm he'd once had for oceanic magnificence; he longed to be free of the brine. Already his interest was elsewhere; he had a nice packet of interesting investments, some very high risk, some fairly safe. His heart was on the land, where his money was, even as he plowed Pacifica with a load of LNG.

One of Captain Smith's investments was closer to his heart than any other, and as fate would have it, his favorite was also the least solvent of his ventures. It couldn't even be called a venture, truth to tell. As yet it hadn't gotten off the ground. It gave the Captain many hours of thought as he paced the deck of *Binivu* on the way to Japan and back . . . on the way to Japan and back. He felt a certain responsibility for Eternity, Incorporated, being its single largest stockholder. He wanted EI to succeed, and not only as a money-making venture. He hoped to be one of the clients of his own company when he died.

EI had everything: cold storage bunkers, a laboratory, and equipment. It had a front office, an answering service, and nice stationary with an impressive letterhead (it featured the mathematician's symbol for eternity, the lazy eight). EI had a full time salesman, a part-time secretary, and a technical director, a certain Dr. Hatfield. Hatfield was not a medical doctor, strictly speaking, but the state had no objection to his handling of the dead.

But Eternity, Incorporated lacked the most important ingredient of all—customers. Not a single person had signed up for frosty preservation. EI's brochure had all the right blandishments (it had been prepared by a small advertising firm, another of the Captain's investments). It promised resurrection from death to anyone who'd pay the price of "perpetual care" of his body. Perpetuity, the brochure was quick to point out, had limits. As soon as Science discovered the secret to real longevity—or perhaps even to eternal life—you'll be thawed out, dear customer, made young, and sent off fresh as a daisy into a brave new world.

The company had the usual start-up troubles of a new technological enterprise. EI was still looking for the "first one." Once they had a body in the vaults, once they could augment the sales bro-

chure with a suitable photograph (one that showed the client's serene smile without revealing his identity), others would take courage and commit themselves to lie beside the "first one" awaiting the slow ripening of science.

And so when a careless maintenance man fourth class by name of Sancho Jones Chu fell into an LNG tank and instantly froze to death—it happened in the Caribbean long before they reached the Panama Canal—and when Captain Bartholomew Smith had ascertained that Chu was a man of uncertain origin and indeterminate race, he wired EI at once. Dr. Hatfield, complete with a portable freeze chamber, met them in Panama, took charge of Chu, and flew back to Iowa the next day.

Sancho Jones Chu became an EI first. Over the years he was to acquire many a companion, including Captain Smith, and as time passed they shared many strange adventures.

And so there is the perspective of Father Time himself, the only person who could track that frozen cargo to eternity.

EI went bankrupt in 2198. It couldn't wait on Science any longer. Tax laws had changed. Energy costs were exorbitantly high. A new religiousness had spread like a bright girdle around earth's shores, and the blandishments of survival by the mediation of Science had little appeal.

The community of dead passed into the possession of a Cardinal of the Old Church Newly Revisited by the Spirit of the Almighty, known as the Visitors. The tax laws still permitted religious groups to accumulate wealth, and the Cardinal, having tired of old masters (he had the finest collection of pop art in New Columbia) now turned his acquisitive instincts toward curiosities living, dead, and in between, of which EI's necropolis was one of the finest.

The vault passed down through five generations of the Cardinal's family. His great-great-great-grandson had technical inclinations (a rarity in the 24th century which saw the completion of a slow relapse into superstition). Despite the family's substantial wealth, fuel was so difficult to get that the survival (?) of the dead (?) in the one-time EI warehouse was threatened. The young Abbot converted the vault to run off solar energy. He developed a special, mobile housing for the frozen inhabitants—it moved on wheels but could also float like a ship. The cooling system was renewed. The whole marvelous contraption (the Abbot called it the Ark of Time) was energized by a funnel-shaped flowering of panels mounted on the roof. He transported the Ark to South America so that it would never lack solar fuel. Then he abandoned it on a Visitor mission to pursue other gadgets.

And then came the Great Shaking and the centuries of interregnum.

The period acquired many names, including "Dark Ages." Those who so named the interregnum no longer knew that the term was already spoken for. The times were dark, so dark that even Father Time lost track of the Ark. For a

long time it might have stayed on that high Andean plateau where the Visitor Abbot had last seen it. Or it might have been pushed or driven off the mountain, lost in the jungle, or sent out to sea, away from the ravaging radiation that claimed so much of the earth's land surface. At any rate, when the historical darkness lifted—it was the year 800 of the new reckoning and the world burst into flower again—Father Time looked for the Ark but couldn't see it any more. It had vanished from its plateau. And since there was so much else to see, Father Time became distracted and forgot all about the matter. His perspective is no longer useful.

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THE early ninth century.

Epiphany of the Era of Structures.

They came; in fifty years they'd conquered. They lasted for an eyewink of eternity, and then they disappeared. But, oh! what grandeur, what vitality while they were dominant. Mankind had been given a new pulse of life. It was as if the Spirit of the Planet, called away for Cosmic Consultation, had returned of a sudden and had reached down with a glowing finger to quicken all earthly existence once again. Structure-man lived a life of glory. He investigated all things, tried all things, dared all things. The arts, philosophy, faith, literature, architecture, science, government awoke in the Ninth to a new and splendid life. The structures were an outward expression of an inner rebirth.

What were these structures?

They were immense vertical cities, cities of millions flung into the sky, resting on narrow strips of coastal land, each city a mile high on a square mile of ground, held aloft by a new discovery—gravitron vibration.

They were a magnificent response to the conditions of the time.

Here was a planet with a land surface virtually destroyed by radiation, its oceans filled with piratical, treacherous floating communities, its few plots of "safe earth" in the fierce possession of tribes, its erstwhile cities ashes and rubble.

And then came the structures. They rose up high, shining columns by the sea, so high they swayed in the wind. And culture was reborn within them. They rapidly gained the admiration of floaters, of tribes. The first supplied fish protein, the second helium to cool the

great gravitron drums. There was a crackling tension between Structure and Hinterland, and from that tension was born a new civilization.

So much for the setting.

And now for a new perspective, that of a representative Structure man, a certain Dr. Fist, bright-eyed, vibrant, and insatiably curious, a master of many sciences and not a few arts, a consultant to government, a poet of some note. He had blue eyes, a blond beard, and a bald head. He laughed a lot and moved about in heavy robes of red always in the company of at least five graduate students, at least four of them female.

The doctor had an interest in everything, but his interest in the matter at hand arose from the perusal of some ancient documents, an entire file cabinet filled with records of the Old Church Newly Revisited by the Spirit of the Almighty, papers miraculously preserved by the grace of that almighty spirit, and discovered by a male graduate student on a lead-suited excursion into the radiation belt.

And there, amidst arid sermons, construction estimates, missionary reports, and other odds and ends which only the voracious curiosity of Structure-man could endow with interest, Dr. Fist—who was, needless to say, expert in all the dead languages—came upon a slender folder about the Ark of Time. Appended to some plans, photos, and a press clipping or two, he also found a xerographic copy of a very old encyclopedia article. It described the quaint custom of some ancients of freezing their dead, thinking they could be revived some day in the far distant future.

The issue captured Dr. Fist's fancy. All issues did, in fact. And Structure-man had energy to deal with all of them in an admirable way. Fist held forth about it to his coterie:

"Imagine, children," he cried, eyes aflame with wondrous zeal. "Somewhere on this planet there might still be frozen bodies a thousand years old. And we might succeed in reviving them. We would, God willing! We would! If only we could lay our hands on the Ark of Time."

The probabilities were entirely against the project. The Great Shaking had made the foundations of the earth to tremble. Eight hundred years of unattended floating or standing would ruin even the plastosteel Ark with its clever flower-topped solar energy pack.

And even if the Ark were found, why would Dr. Fist succeed where all others had failed?

But precisely in this regard did Structure-man deviate from the pedestrian average of mankind—he bet against the probabilities, and he often won.

So it was that Fist acted. He posted a large reward, and he sent out word to the tribes of Hinterland and to the men on the piratical floating ships. He wanted frozen bodies. He wanted the Ark. A picture of it went out from his structure by messenger along the helium pipeline.

He won the first part of his bet. Ten years later a tribesman drove the Ark into Drinaldo Structure and asked for Dr. Fist. He had a faded copy of the notice and of the

drawing. He wanted his reward. The Ark was battered. Its belly bore a fat belt of barnacles, its body was dented, one of its solar panels had been broken. But it was still more or less intact, a whale of a truck or vessel.

Dr. Fist accepted the Ark as if it had been his rightful due. He rubbed his hands, his interest as lively as ever. The graduate students were a different crop but just as eager as the old ones. Fist opened the door of the Ark, saw the traceries of frozen air around the edges of the door, slammed it shut, nodded, and told someone to pay the tribesman.

He ran off to make the preparations in a swish of red robes.

Fist also won the second part of his bet, at least in part. The Ark held forty bodies. Along the way sixteen had been lost in ways that were mercifully hidden in the dark recesses of the Great Famine that had accompanied the Great Shaking.

They set forth in a great laboratory reeking of formaldehyde. They shared space with an anatomy project where Structure-man learned once more how man was made, a knowledge that had been lost.

They began with the old ones and saved the young to the last. They thawed them out—all at once, limb by limb, belly first, brain first. They gave them new blood, they shocked them with current, they massaged, pummelled, steamed, roasted. But nothing happened, and body after body was transferred from the right side of the hall to the left—to serve the cause of science at last. Science learned that ancient man was just like modern man in all respects that mattered, but dental science had something of a boost—the ancient dentures caused quite a furor.

Structure-man didn't give up. Fist studied live and frozen cells under a microscope. He conducted tests. He electroprobed, irradiated. Gravitron irradiation seemed to help. The cells responded. Structure-man had this advantage: he understood radiation like no other humanity before or since. Gravvibes were a truly new phenomenon.

But then at last, spurred forward by small signs of success, Fist and his students made a key discovery. All of these men and women from the past had died of organic malfunctions. Fist could reconstitute them, in a manner of speaking, but in essence he labored to make fresh corpses from stale ones. The people were dead, and nothing helped, nothing at all, their livers were gone, their hearts had cracked, their brains were diseased. That is to say . . . all but one, all but one!

That one was Sancho Jones Chu. Clipped to his ear was a blue tag that revealed his name and the date of his entombment, October 8, 1998. He was the oldest of the ancients yet in a perverse way he seemed soundest of them all, fresh as a daisy. He'd died very quickly, the doctor decided. His organs were in immaculate state, his heart was strong, his brain solid, his lungs seemingly ready to breathe. His cells, much like those of the others, were ruptured from frost expansion, but for that Fist had found a remedy.

Trembling with expectation, they carried Chu to the irradiation tube. Gently they placed him on metal springs. Gingerly they shoved him in, locked the door. Fist looked about at admiring faces and threw the switch.

Five minutes later, with a tremendous banging and roaring—he nearly destroyed the delicate instruments—Chu came alive.

The rest is a disappointing footnote to history.

WE CAN view it all from a multiple perspective—that of Structure sages who came from all over to question this phenomenon of the past—historians, linguists, musicians, doctors, engineers, military men.

They came, erudite, eager, curious.

They came to see the only man who had—until that time and, so far as we know until ours—made a long trip into the future. They came to see Sancho Jones Chu, Time Traveler.

And they learned nothing, despite their superior linguistic skills and mastery of interrogation.

Chu had almost nothing to contribute. Oh, yes, he sang for them a ditty or two, like "The mermaid's mother is a sure-fire gong." He told them about LNG tankers (but Structure-men knew all about cryogenics; their gravitron drums, after all, were cooled by liquid helium). He described the cities he had known, but through his eyes New York, Saigon, Vladivostok, Tokyo, Hamburg all had a certain seamy sameness.

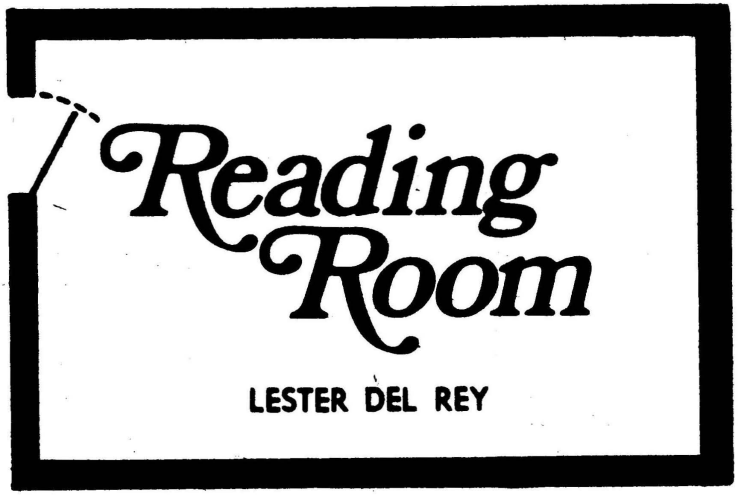
They tried, the sages, they tried valiantly. But Sancho Jones Chu was equal to the challenge. Even Structure-men gave up on him. The flood of delegations shrunk to a dribble, a drop, and then no one came any more.

Chu drifted off, slowly. He janitored for the Institute where Dr. Fist had one of his centers of investigation. But then Chu grew restless. He'd always been a wanderer. A rolling stone, he was, and gathered no moss. He learned enough of the language to get along and didn't wonder much about the shape of the world because he simply didn't wonder. He worked his way down through the levels of Drinaldo Structure, from Level 169 to the subterranean foundations where gravitron drums turned in the helium. Chu had a way, like all the rest of us, of finding his own level. He got work as a maintenance man. He did small chores, fixed plumbing. Over time he became something of a figure among his companions by dint of a strange accent and a penchant for clowning. He liked to show his courage and invulnerability—after all he'd lived to be a hundred.

And then one day he clowned about near one of the grav drums. They'd pulled the insulating covers off the pits to find a leak. Sancho Jones Chu tightrope-walked across a beam over the pit. He turned to grin at his frowning, angrily shouting comrades. He lost his balance, fell into the liquid helium, and instantly froze to death.

He was one thousand two hundred and twenty-nine years old.

Such is fate.



LESTER DEL REY

ONE OF the good things about doing *Best Science Fiction Stories of the Year* is that it forces me to read a tremendous number of stories—and to think about what I read. In editing three of those anthologies I've learned a great deal about what science fiction really is and a little of what the limits of the field should be.

I'm still not quite sure of just how far the limits of good science fiction can extend. Maybe, in time, I'll arrive at some answer—but I doubt that it will be a final one. Still, I can't resist putting down a few tentative conclusions.

The proper range or extent of science fiction is certainly a lot greater than that of any other category of fiction, which is why it's so hard to define. A mystery or a Western can be pretty sharply limited. It might be said to lie along a certain line, never going above or below that; it can add a few details—romance, character, emotional moods, etc.—but it is still restricted by its nature.

Science fiction, on the other hand, is more like a whole group of lines at different angles, all crossing in the center, like the spokes of a wheel. It can follow the angle of the mystery, the adventure, the historical, or even the various angles of the mainstream. We have everything from the pure gadget story of 1930 (unrelated to any other type of fiction) to the attempts at 'pure

writing' found in some late science fiction. We can even add large elements of pure fantasy—usually masked by quasi-scientific explanations—or our own wild fantasy of psi powers run rampant.

Good science fiction can be laid along any of those lines. There is room in the field for every type of fiction conceivable, and any attempt to create an Exclusion Act must ring false. Still, there are limits. Being laid in a theoretical future doesn't make the novels of Alan Drury science fiction; neither does the excessive use of pseudo-scientific gadgets in *Mission Impossible* justify calling that series science fiction.

Probably the closer the story is to that hypothetical center where the lines cross, the purer a story is as science fiction. It isn't necessarily, however, a better science fiction story; in fact, the outstanding examples of science fiction usually are found fairly far out from that center. *Dune,* for instance, lies quite a ways out; so, in another direction, does "The Queen of Air and Darkness" and "The Nine Billion Names of God." Also, the farther from the center one goes, the greater must be the creativity and skill of the writer to achieve success.

I don't know what the center is, exactly. But I've been using a working hypothesis which places the stories in the better magazines from 1940 to about 1955 as somewhat typical of the central area. Using zero as a center and 100 as the extreme end of any line, those stories strike me as running within a circle out to about 25 or so.

At the two extremes, running perhaps from 80 to 100, would be the very crude stories of the late 20's and early 30's—all gadgetry, without much of any decent writing or character—and some of the so-called "new wave" stories of the late 60's—all writing and character, with almost no original idea or development.

Some of the stories I choose for anthologization still run within that circle no further than 25; others run close to 75; but those are rarely my favorites. The ones I like best are probably somewhere between 25 and 50.

I suppose this means that science fiction is still evolving, and that the skill of the writers has improved on the average to permit them to move further from the center. Or perhaps it is my own taste that has changed over the course of the years.

But in any event, science fiction is unlike other categories, which have few lines—if they have more than one—and which seem to stick within a range that I would class as 0-15, with a few outstanding ones going out to perhaps 30!

NONE of the above has much to do with reviewing the current crop of books, though *All Times Possible,* by Gordon Eklund (DAW, 95¢) does strike me as being so far out from the center that it can barely be treated as science fiction. Eklund is one of the best of the newer writers, and he's done some excellent science fiction. But here he seems only mildly concerned with the single element that justifies the label.

It's theoretically a story of alternate worlds or possibilities. A man who calls himself Tommy Bloome tries to assassinate a fascistic type of leader in 1947 and is about to be shot for it. But instead, his unharmed body and mind are cast back to the year of his birth. There he sets about the job of trying to change the future by turning America into a communistic dictatorship, at which he more or less succeeds, with himself the leader. But he finds out fairly early that this isn't his world he's taking over. It's an alternate where there was no William Randolph Hearst, for instance; though strangely and without explanation, the Spanish American war seems to have been fought exactly the same without Hearst's propaganda for it!

But once we have the gimmick, there's little more to the book that is science fiction. It's a grim story, beautifully told. In general, Eklund digs down into most of his characters very well indeed—and this is a story of character throughout, and the effect of character on society and vice versa. It's a good story—but it could have been just as good a story had it been laid in any time and place where such political maneuvering could or did take place.

Even aside from its not really being science fiction, there are some flaws that bother me. The takeover by Tommy is sketched in too slightly. We see him inciting strikes—and then we see him after the Revolution is succeeding. We don't really see how he managed his success. And that weakens our willingness to believe. And the final chapter, in trying to give a broader significance to the alternate possibilities, is confused and uncertain. Too much or too little can be read into it.

It's good reading for what it is, though not as thoroughly developed as I'd like; but it isn't what readers pay for when they buy science fiction.

WEB OF EVERYWHERE, by John Brunner (Bantam, $1.25), is definitely science fiction, but I'm not sure anything else should be said for it. Brunner can be one of the better adventure writers of the field, dependably sure to have a good idea and to tell a good story. He can also be one of the most controversial writers of books that are bitter, sometimes satiric, and somewhat experimental. But in this novel, he seems to have fallen somewhere between the two types; and this writing between the cracks isn't quite satisfactory.

His gimmick is excellent. The world has invented something called the skelter (from helter-skelter?) which permits instant teleportation from one to any other for which one has the code. As a result of this, the world went through a chaotic period of catastrophe, war, and population devastation. That might have made quite a story, from the hints we get of it. But this novel takes place after a measure of stability has returned, following the invention of a device to prevent unauthorized use of any skelter.

The nominal main character is a talented but self-deceiving man named Dykstra, who manages to illicitly obtain codes to houses aban-

doned during the collapse, intending to take pictures and steal artifacts for a posthumous record that will win him fame. This is a complicated story of his downfall as a human being. There's also another, and far more interesting, character—a bitter poet of the time who is amorally good.

Unfortunately, the amoral poet is too divorced from the action and too well shielded by friends and servants to let us see him well or to serve as a source of interest in the story. And Dykstra is more sinned against by fate than sinning. At best, I find most novels of evil being hoist on its own petard unrewarding. But in this case, the evil of Dykstra is very petty, and the petard seems to be merely the blind workings of mischance, rather than any fault of his.

There are moments of excellence, but I can't recommend the novel.

I CAN recommend a new book for those interested in teaching or criticising science fiction, and especially for those who are trying to study the field for the first time. This is *Science Fiction: and Introduction,* by L. David Allen, M. A. (Cliff's Notes, Lincoln, Nebraska, $1.95). This is the first academic work meant to explain our field which I can genuinely applaud.

There is a section on science fiction categories that serves as a good beginning, followed by analyses of fourteen novels; these are well chosen, beginning with one by Verne and one by Wells, and then going through a dozen that are excellent illustrative novels, representative of the best in current science fiction! There follows a thoughtful and somewhat successful attempt to define science fiction followed by other useful pieces. The bibliography at the end could only have been prepared by someone who has a wide acquaintance with the field and good judgment as to what is worth reading.

In the past, I've been generally disgusted by most of the books about science fiction and the reading lists I've seen. With a couple of exceptions, these lists have been either archaic or so slanted that they don't fairly represent us, and the books have labored more to explain us away than to give any real information about us.

This is a valid and most useful book—and one that should be a pleasure to read for anyone who likes science fiction and would welcome a chance to see a reasonable criticism of it. I'm delighted to recommend it most highly!

I'M ALSO happy to recommend a marvelous reference book that may not refer to science fiction but should be welcome to most readers, since it relates to the world of J.R.R. Tolkien. This has been available for some time in hard covers, but will now be available in a soft-cover edition, making it triply a bargain.

The book is *A Guide to Middle Earth,* by Robert Foster (Ballantine, $1.50). It contains literally everything you wanted to know about Middle Earth and were unable to discover before. It more than proves my contention that the really great work of research in the

field of science fiction or fantasy is done by serious fans, rather than by professional researchers.

A little over a year ago, I was teaching a course in fantasy at a university, and found the students asking questions that I simply didn't have the time to answer through research in the original books. I found that in every case, Foster not only provided the answers, but he led on to further answers we hadn't had the wit to find answers for. And I began to realize that there was all sorts of information in the book that I never would have discovered for myself.

If you are just reading Tolkien, you'll find the book invaluable whenever a name or place or thing comes up for which you have no memory. And if you're already something of a student of Tolkien you'll find your knowledge of Middle Earth deepened and enriched by the material in this book.

It's arranged like a dictionary or glossary for convenience, with numerous cross references that can lead you on almost endlessly, or simply answer your immediate questions at once.

If you like Tolkien, this is an absolute must for you!

ANOTHER must for collectors and libraries is a brochure put out by Hyperion Press, Inc., 45 Riverside Avenue, Westport, Conn., 06880. This is a list of 23 classics of science fiction they are publishing, as well as all the historical works on the field by Sam Moskowitz. I don't intend to review all the books here, or even to list them, but the "classics" are books that have long been out of print and which, in many cases, are milestones of science fiction. They include works by L. Frank Baum, Robert W. Chambers, Ray Cummings, George Allan England, David H. Keller, A Merritt, Garrett P. Serviss, and Stanley G. Weinbaum, among many others. Among the books by Sam Moskowitz (who selected all the others) is his long out-of-print *The Immortal Storm* ($3.50 paper, $8.95 cloth). This is a history of early fandom, from the beginning until the days when it was becoming almost respectable. It reads at times as if what went on in early fandom was far more important than all the other politics and wars of the world—and yet, that is precisely the way it has to read to give a true feeling of those days. No fan who wants to know the who and what and why of those days should miss it. Besides, it's fun to read.

The other books also come in paper covers (as well as cloth) for prices that range from $2.95 to $5.75. Like the cloth-bound versions, these are printed on extremely high-grade paper that should last for hundreds of years, and their binding is standard book binding, rather than the glue-and-hope stuff usually used for soft-bound books.

The brochure lists the books with summaries of their plots and importance. I'd recommend it for anyone seriously interested in obtaining some of these classic novels.

THE SECOND EXPERIMENT, by J. O. Jeppson (Houghton, Mifflin, $6.95), is a curious novel

which seems in some ways to be related more to those early novels of our field than to most that are being written today. It has the cosmic sweep of serials that were running back around 1930 and covers a span of some seventy million years, sweeping from one edge of the galaxy to Earth and then far beyond, until we find ourselves battling to preserve the Magellanic clouds.

Unfortunately, some of the writing also resembles that being done back then. There are moments of quiet when the writing becomes quite effective, but usually we're rushed from event to event—from alien gods to robotic evil beings and mutated dinosaurs, from psi to alpha rhythms and on to unlimited powers between systems of universes. The characters are usually rather simple, with good and evil starkly separated, though not unchangeable.

It's a strange book. But if you're looking for the old sense of wonder laid on with a vengeance, this has it!

AND FINALLY, a bit of publishing folly which is such a good book of its kind that I can't overlook it, even though it's fantasy, not science fiction. *The Forgotten Beasts of Eld,* by Patricia A. McKillip (Atheneum, $7.25), should be reaching the libraries by the time this is in print. You won't find it in many of the bookstores or adult libraries, however, since the publisher mistakenly thinks it's a juvenile for ages "11 up." The *up* is correct—very much up. I don't know of any fantasy novel I would call more genuinely adult in every good meaning of the word!

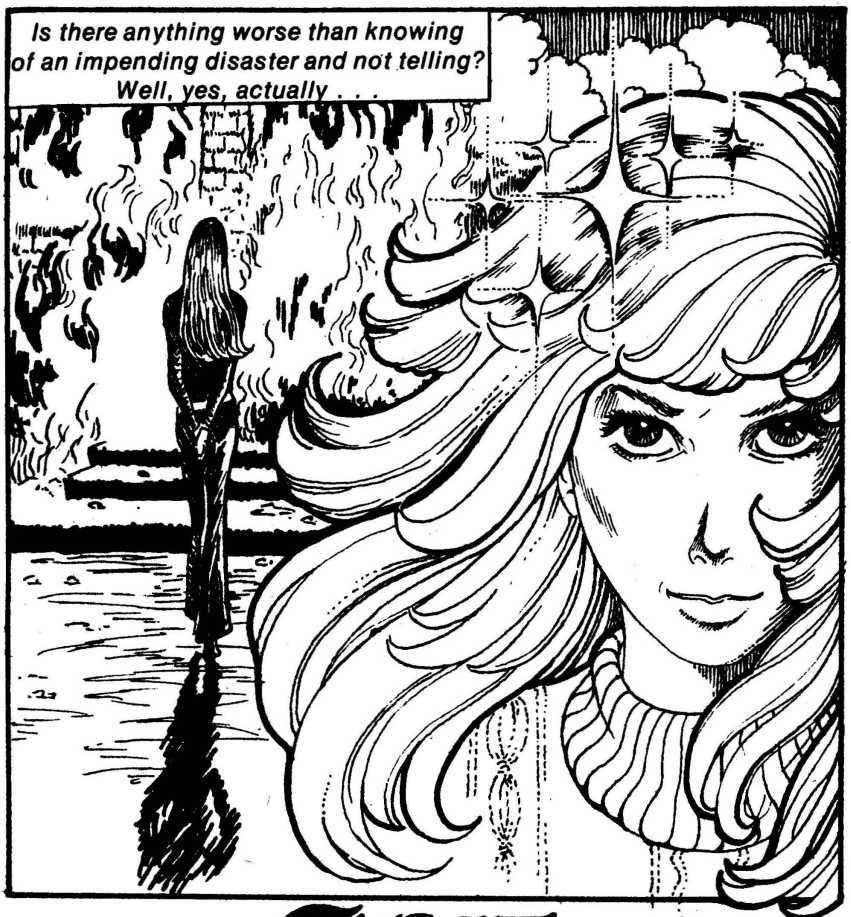
It's about a wizard-woman named Sybel in the countries around Eld. The background is vaguely medieval (perhaps Celtic). She has the power to call up all the legendary beasts—magical beasts—of that world and keep them in her power. And with them she exists, cut off from the world, until she is forced to adopt a child. From then on, she's entrapped into the world and the struggles of men; and her character and power are sadly tried and tempted.

It's a hard book to describe, since there's a marvelous subtlety to its development. Repeatedly, the great discovery or event that could be the ending in a lesser writer's hands is developed early in the plot, leaving us to go on to a deeper and more fascinating story.

The real ending, when it comes, is that most wonderful resolution—one which is inevitable but unexpected.

This is a true fairy tale in its telling and its development—but fairy tales were not originally for children, and this one is too real, too complex, too soundly based on character, for the term juvenile to apply. Maybe someday it will be out in soft covers, with a better title than the awkward one it now has. (I'm hoping to promote *The Calling of Sybel* as a much truer title—in all the meanings of that second word.)

Meantime, if you like fantasy, try to find this. I haven't enjoyed a fantasy as much since I first discovered Tolkien! •



JULIE

·by Jan Trenholm·

NOW THEY'RE at the crash-site. The latest bulletin says that there may be survivors on the second plane, the one that managed some kind of landing as it opened—but not many. Several hundred people were on those two jets. The big 747's have been flying nearly a decade without a major accident—but this midair collision

over Dulles makes up for lost opportunity, doesn't it?

I'm glad I quit last week. I don't have to be there. I've seen more death in the last few months than I'll ever take from nightmares. Plane crashes, earthquakes, and that ghastly subway fire in Boston. The radiation accident in Arizona. The building collapse here in midtown. It never got easier. No matter how often I forgot how it was for them at the end, it just never got easier.

When I told Sam I quit, that I couldn't take the deaths anymore, he didn't even look up from the report on his desk. Even though I expected this, it hurt. I found myself making all the old, useless accusations about Julie while he delivered his usual talk about how all we would have without her would be a dingy office and a file of reports on people with high scores on Rhinecard runs. What he really meant was that his picture would be off the cover of *Life*, we wouldn't be in the throes of a not-too-friendly divorce, and I wouldn't be halfway down the yellow brick road to a nervous breakdown. When I left, I heard him dialing. Julie, of course. From whom all blessings and etc.

The juvenile authorities dumped her on us eight months ago. They were as glad to get rid of her as we to take over. Glad? God help us, we were sick with happiness.

Sam and I had just about run out of money, faith and time. We had almost completed a year's sabbatical from Duke that we had taken to find and utilize psychically talented people for the Nation's Good. Our progress had not been spectacular. We had plenty of files on people who thought they could teleport or levitate but couldn't. We had some more on people who could light a match by concentrating long enough, except under direct observation. *Somewhere* out there were the telepaths and levitators and precogs and all the rest. But they hadn't come to us—and we hadn't been able to find them.

Understandable, of course. If I were a high level telepath instead of a low level empath, I'm not sure that *I'd* advertise the fact. Salem wasn't that long ago, folks. Julie Albertson came along when we desperately needed her.

The first time the police noticed her on the scene of a fire, they tagged her as another spectator and likewise the second and third. The fourth, at a really nasty apartment fire, they busted her for arson. Shortly, when the specialists pinpointed the cause as faulty wiring, Julie was released with apologies and considerable embarrassment. Two weeks later, another massive fire broke out at a grade school. Reliable witnesses put Julie on the scene at least twenty minutes before the alarm and the police pulled her in again. And released her again when the verdict of accidental origin came.

The sixth time, a week after that, they called us.

We picked her up at Juvenile Detention and when they brought her out, I could feel the cold, steady hate. Julie Albertson. Her mother who hadn't seen her in a year and "good riddance anyway" had told the authorities that Julie was seventeen, a liar, and a tramp. None of this had led me to expect a grimy but pretty child with long blonde hair. She was long-legged and skinny—am I trying to say coltish?—and wearing wrinkle-tight jeans and sweater that only flatter the very thin and young.

Seeing her, I had a flash of retrospect: how it felt to be that young. Thirty-two had never seemed older. Then she looked at me and I felt young again.

Those eyes. Blue and closed and hard. Hooker's eyes, holding in everything, giving out nothing.

While Sam went off to sign the papers, I looked up the detective I had worked with during my stint as a human lie detector. After I had helped him nail several by monitoring their emotions during questioning, he had become a believer. He was the one who had suggested Sam and me as the solution to Julie. "She scares me," he said reassuringly, "my brother-in-law was one of the firemen at that grade school fire. Twenty-eight kids had died and he saw that one standing there, smiling the whole time like it was a circus."

I didn't mention this to Sam. The last few days he had been hopeful again, after weeks of growing despair. He suspected Julie was a precog and able to see the fires before they happened. I didn't want to take advantage of his good mood. Our marriage, never exactly stable, had been fraying more than usual under his failure. Maybe if Julie turned out to be what he hoped the pressure would lift for a time and I could make some repairs in our relationship. But I agreed with the cop. Julie scared me.

Sam, though, was all enthusiasm. He sat next to her on the ride home oozing concern and trustworthiness. He asked her about herself and her dreams and anything else that might open her up. Usually Sam's charm works with the ladies. Sometimes too well.

Julie, however, just sat, alternately staring through the window and peeling crimson polish from her ragged fingernails. Sam got nothing from her but mumbles and shrugs.

He waited until we were back home near Du Pont Circle to try his surefire, shake-em-up stunt. Julie was slumped on the couch in the living room. Sam levitated the queen from the chess set on the table and floated it over to her, letting it bob in front of her eyes. It's his only psychic talent.

Julie's eyes bugged. "Did you do that?" she said when the queen came down.

"Sure," he said, "and I think you can do the same sort of thing. In fact, I think you have."

"Me?"

"The fires," he said.

Nothing. She looked defiant but I thought it was fear and wondered why she was afraid now when she hadn't been with the police.

Sam went on, "I know what you did."

The fear doubled and became almost panic. It sent waves through me.

"I think you saw those fires before they happened."

The fear went away. She thumbed the hair behind her ears. "Yeah," she said, "I saw them. I didn't want to tell the fuzz but—" She smiled hesitantly, "I saw them kind of like in a vision. I've always seen stuff like that."

I'd been letting Sam handle it. Why not? But the image of those children in that school bothered me. More coldly than I meant to I said, "If you knew, why didn't you tell someone?"

"Who's going to believe if I tell them a fire's gonna start?" she said.

Sam hurried to her defense. I knew it was a move to gain her confidence but it irritated me. "Julie's right. No one would have believed her, and she probably feels worse about those kids than you do."

He was watching me and didn't see Julie's smile. I could imagine that smile at another time . . .

THE fight we had after Julie had been settled in the guest room wasn't our first, but the first over Julie. "Look Erika," he said when I had finished my reservations, "I'll grant you that she's not your normal seventeen year old kid. But she's a pre-cog!"

"She's a monster who enjoys watching people die. If she had told the authorities a fire was going to start, sure the first time they'd have written her off as a crackpot. But the third time? The sixth? She didn't warn anyone because she wanted those fires, do you understand that?"

I could see Sam was getting angry but he said quietly, "You aren't even trying to understand. All right, maybe—and I won't accept it, but maybe—she *does* enjoy watching death. If you'd been having visions of disasters since you were young, how would you react?"

"Differently."

"No? Then you'd have probably gone mad. My feeling is that her lack of concern is an adjustment, her defense against a phenomenon that must have scared her silly in the beginning."

"All right," I said. It made some sense and I loved him. "You've got a point. I'll give her a chance. But I don't expect a thing from her."

THE CHANGE in Julie over the next few days *was* close to something, however. The hard-case personality was discarded, along with

the layers of mascara and the trashy clothes. In its place appeared a sweet-faced blonde angel, cheerful and oh-so-eager to learn. Sam kept murmuring about The Right Environment and Those Who Finally Understood. I wanted a miracle. But when I looked underneath, I still saw the Julie who smiled at death.

Like most resident astrologers and clairvoyants and such, Sam had been on a local television talk show a few times. When they asked him back later that month, he took Julie with him. Despite my misgivings about her, I had none of her talent. The disasters she predicted—and that seemed to be *all* she could predict—were inevitably front page the next day. On the talk show, outfitted in a demure dress and newly acquired manners, she foresaw a private plane crash with just the right note of dismay in her soft voice while Sam smiled fatuously. The next morning, after her prediction proved correct, the front porch was awash with reporters and curiosity seekers. Within a week she had made three more appearances and three more correct (and terrible) predictions. Requests came. Sam opened new offices. He looked for a staff.

And that was the point of no return. Julie was now responsible for Sam's success and the vindication of his theories. With each tragedy—and once people began to believe, some were averted or lessened by preparation—her fame and Sam's grew. Julie always made a point of crediting him with the development of her gift.

And he deserved that credit. He worked with her for hours each day to increase her physical range. Soon she was picking up impending large-scale disasters as far as three thousand miles away. But he failed to increase the time limit on her perception. It had never been more than an hour; it averaged half of that . . . and following a prediction, she couldn't pick up a thing for a while. The larger the disaster, the longer the disappearance of her gift.

Power drain, Sam said.

But even with those limitations, she saved lives. Acceptance became adulation. Grateful thousands overwhelmed her with gifts and money began to come in from places that had never answered our letters before. Slowly, other psychics—although none so spectacular as Julie—came crawling out, seeking the fame she had received. They felt safer, perhaps, because the world loved our Julie.

But I didn't. I couldn't. Whenever a predicted disaster came near, I tuned in on her emotions and they were always the same: pleasure and a terrible insatiable thing which I could only interpret as lust. And it became stronger. Often, when a disaster had not been averted, the authorities asked me to reach for the lingering, last

emotions of the dead to help them judge if a pilot had had some warning before a crash or if a murderer had killed with or without premeditation. Sam and Julie stayed near me on these investigations. Inevitably I'd end up concentrating on Julie instead of the victims. I monitored her morbidly.

And became certain.

I SHOULD have told Sam when I first suspected. I waited too long. I had wanted to be wrong about her for Sam's sake so I waited . . . and then he wouldn't listen.

From the first, Julie had haunted our house and relationship. Whenever I managed to pry Sam from his work for a party or an increasingly rare dinner, Julie had a nasty habit of having a prediction. When he invariably hurried off I made a show of being understanding . . . at first. But the night Julie interrupted our first evening together in two months with a prediction of a mine collapse, I exploded.

He put down the phone and told me what she had said.

"That was nice. At least she gave us a start together tonight."

"Not again."

"I can't stand it."

He put on his coat. "Damn it, Erika, she apologized for us before she told me! What else can she do?"

"She always apologizes. You're not an empath, Sam. It's strictly for public consumption. And that one-hour limit on predictions!"

"What do you mean?"

"I'll tell you what I mean," I said, "she can see as far ahead as she wants. She just doesn't want to. If she prevented all the dying, what would she do for fun?"

"Erika!"

"Don't sound shocked," I said. "Last week when we got there with the police just in time to prevent that murder-suicide, you were ecstatic because we saved two lives. While the police were hauling the man away, Julie was staring at him. You didn't watch, Sam; she looked like someone was making love to her. I don't know if she's a sadist or a necrophiliac or something even worse, but she's sick. And she's delaying her predictions for fun."

The angry denial I expected didn't come. "Listen, Erika," he said, "I know how you feel. Things have been hard on you lately. But Julie isn't responsible for a talent that's more spectacular than yours any more than she can help being younger. Or—"

"Prettier?"

"I didn't say that."

"You would have. I couldn't stand to hear you say it." I looked at him, trying to see my husband through Julie's eyes. Tall, blond, a few gray hairs and wrinkles around the eyes, but quite acceptable. "I've gotten used to your other women, Sam," I said, "but isn't this one a little young?"

"Wait a minute!"

"I wonder if she really feels for you or she's just trying to get at me."

The anger came, then. "I knew you were jealous, but this is crazy," Sam said.

"Crazy? Because you never thought I'd find out. I was so busy concentrating on Julie and worrying about you that I didn't even think about the possibility of this. But are you really dense enough to think I haven't known about the others?"

"What others?"

"Yes," I said, "I guess you are. So I let you get away with your playing around because I love you and wanted you here. But not this time. Not now."

"What are you going to do?"

"Nothing. Nothing at all. It's up to you."

He looked at me for a minute, turned and walked out the door. His choice. It wasn't a choice between Julie and me so much as between me and everything he had wanted to be.

Afterward, I continued working with him though.

WE WERE civil at the office. I wanted some tangible evidence to support my suspicions about Julie. But it didn't come, and just before he and Julie left for a personal appearance swing on the coast, the office gossip and accumulated death made me decide to quit. I had told no one but Sam of my suspicions. Anything I said would have been written down as jealousy. And until today I really didn't have any evidence. Now, I've seen the monster.

I still have a key to the office. Knowing they'd be at the crash-site, I came in to poke around. In a drawer of Julie's desk, under piles of other things, I found a small diary filled with notations in a round scrawl. In the back was a careful listing of her predictions—including today's crash. She hasn't been in here since Friday, three days ago. So much for her time limit.

Then, I went through the rest of the diary and discovered that I was wrong. That wasn't it at all. No wonder Julie had been frightened when Sam announced he knew what she was doing, back at the beginning.

Julie's not a pre-cog.

She hasn't been gaining range and control but power and imagination. No wonder there's a "drain" after a prediction. Just think how much psychic energy it must have taken to make those two jets collide.

I thought of taking the evidence to Sam. But he had made the choice: he had gone with her.

So I'm taking it to the press. And while I'm at it, I think I'll tell them that Sam has known all along what she's been doing.

And come to think of it, I believe the bastard has. •

IF DIALOG #1

Come with me down to the sub-basement. Down the winding stone passageways. Listen to the drip drip of seeping water. Hear the echoes of our steps. Listen to your loud, frightened breathing.

Here's the door. I slowly unlock the huge padlocks, slide the rusty bolts. The arched, iron-bound wooden door creaks open.

We enter. I lift the lantern high . . .

There he is, hunched in a corner beside a teetering stack of ancient pulp *Amazing*s. He is chewing the bones and sinews of an unwary author.

You cry out in a low, strangled voice, "Th-that's your alter-ego, Geis?"

I nod grimly. "Not a pretty sight, but such things rarely are."

Alter lifts his head. He tosses Alan Dean Foster's left narrative bone into a passageway between looming, overloaded shelves. His feral eyes gleam. His hungry gaze fastens on you as he speaks to me.

"My next victim, Geis?" His voice is Demonic, horrible, intense.

"No, Alter. This is a reader, an observer. He is one of those we serve."

"So this is what they look like. I think we've wasted our time."

"Don't be cynical. Readers are sacred. They're an endangered species. We must protect—"

"I believe in the survival of the fittest. Let them die out if they can't survive in this world. They'll have to get smart or get extinct."

"But where would we be without readers?"

"Writing short captions in big type for picture magazines. 'This is Senator Blah Blah. See him vote for good laws. He is a good man.'"

"Alright, Alter. How would you advise readers to survive?"

"They've got to get better food to read. They've got to stop accepting this junk-reading editors have been feeding them. They've got to write letters, yell and scream for a better diet."

"And of course *you* know all about the proper care and feeding of readers."

"Yes, Geis. Don't be sarcastic. I'm an alter-ego. I'm down here where the nitty grates against the gritty and the Id howls all the time."

"But this gentleman here is a specialized reader. He's a science-fiction reader. He is mostly interested in ideas and sense-of-wonder concepts and—"

"And that's a lot of bull. I read this stuff till my eyes burn, candle after candle, tin plate full of swill after tin plate full of swill, sleep after sleep, year after year, and I've been telling you and telling you, Geis, science fiction is still *fiction*, and fiction is an art-form that operates primarily in emotions. Or, it should. Most science fiction writers act as if emotion is a four-letter word."

"And I keep telling you, Alter, that s-f is a literature of ideas!"

"You dumb orange-sucker! That's why readers, and especially science-fiction readers are dying out—the main ingredient of good fiction writing is largely missing in s-f. Ideas and sense-of-wonder on an intellectual level can be presented in an essay . . . in articles. Fiction is drama—emotional situation—with the reader emotionally involved with the characters, living the story, *in* it. When was the last time a character in an s-f story came alive for you? When was the last time you gave a real damn if he lived or died?—and really cared how the story came out?"

"Well . . ."

"Look at that reader you brought in here. See how famished he is? What does he get? Cardboard, for God's sake! Half-assed stories with limp, underdone endings. Some stories with no endings at all. How can a reader stay healthy on fare like that?"

"But ideas—"

"Ideas are what determine the shape of the cake, the flavor, the color, the frosting, but emotions are the eggs and flower and shortening."

"Sometimes your analogies, Alter—"

"Shut up, Geis. Readers are hungry for gut-emotions, but it seems like most writers are afraid to deal in them. Or even embarrassed to use them."

"You always have been a bloodthirsty creature. You tend—"

"*Will you shut up?* My point—"

"What do you want, R-rated stories in s-f magazines?"

"You're damn right! I want some stories, not all, but some, which sink hooks so deep into a reader's guts he'll carry scars the rest of his life."

"You ask too much."

"Why? I want, as a reader, to get into a character who really *cares* about something. I want emotion. I don't want to read about a bloodless, passionless, name, a cutout who doesn't have a body."

"Now, you know sex is—"

"Sex is not what I'm getting at. I want people in the fiction I read to sweat and stink and have gas and occasionally think ugly thoughts and eat too much pie and love to play ping-pong and look longingly . . . or indifferently . . . at a member of the opposite sex and

who have to be reminded to get their hair cut—while they are being realistically heroic or competent or incompetent in coping with future life-and-death problems. That's all."

"Don't whine, Alter. I hate a sniveling alter-ego."

"If that's asking too much, Geis, I'll set fire to these Archives. I'll—"

"*On the other hand*—there's fiction to your taste once in a while in the magazines."

"Name three."

"Well, *Dying Inside* by Bob Silverberg, *Project 40* by Frank Herbert . . ."

"Uh-huh. Go on."

"Well . . . ummm . . . Ray Nelson isn't afraid to write about real human beings. And Richard Lupoff and Phil Farmer on occasion, and *I* have been known—"

"I'm not talking about porno, Geis. Where are my matches?"

"Ellison! Harlan Ellison is becoming known for his recent violent, graphic, sledgehammer fantasies."

"Yeah . . . 'A Boy and His Dog' where the boy and his dog end up eating the girl. And 'Bleeding Stones' where stone creatures come alive on a church as a result of smog and other pollutants and ravage a huge crowd of young religious fanatics. Very acidly ironic and relevant. But that is shock value realism—hit'em hard enough and they'll remember your story forever—and I want everyday honest real realism. You want me to burn these stacks from A to Z or Z toward A? Any favorite author you want torched first?"

"Well, you might singe Stanislaw Lem a bit—NO! Alter, if you touch flame to a single page of these precious book and magazines I'll throw you down the Hole."

"N-not that!" *cringe* "Why . . . even Ted White wouldn't do *that* to Harry Harrison!"

"Yes—*that.* But you need not fear as long as you behave. Remember, we must keep one thing perfectly clear: I am the resident! You may snarl and growl and eat stray authors now and then, but you and I have a Duty to serve and protect science fiction and fantasy."

"*Fauugh!* Your dedication is not normal, Geis. It reeks of avoidance mechanisms and Games."

"Do not spout psychology at me, Alter. You can be repressed, you know."

"Go ahead. Repress me! I need a nice, quiet vacation. I'd like nothing better than to get back to my used synapse collection. I'm years behind in my cataloging and mounting."

"You'll get more years behind before I'm through with you. Now, finish your stupid complaints about True Realism in s-f and fantasy. I've spent enough time with you."

"I hate you with a hate, Geis, a hate that—"

"Alright, I'll finish for you. You think a real guy or gal can be heroic and can win and solve and struggle to a solid conclusion while still being less than ideal and less than totally virtuous."

"Something like that. Of course that kind of writing requires special skills and special minds, and since 99% of current science fiction and fantasy is written by incompetents—"

"What sacrilege is this?"

"—and for some strange reason, Geis, it is very difficult to create an honest, whole character in a few well chosen words, weave him or her into an s-f story and make it all blend and work together. Good writing in one aspect of a story requires equally good writing in all other areas."

"But—"

"Why would a fine writer waste his time with low-paying science fiction or the very low-paying fantasy field?"

"We have good writers!"

"Good, yes. Some good pretentious writers, some good hack writers, some good earnest message writers, some good specialized writers . . . but only two or three who can put it all together consistently."

"Alter, stop! You're shocking the reader. His eyes are wide. He's twitching and making soft mewing sounds."

"He has to know the truth sometime. We don't get top quality s-f except by accident—a good writer will once in a while rise to a peak and create a first class work . . . or a young quality writer will hit our genre like a comet as he passes through to bigger markets and higher fame."

"If that's true . . . Why am I saving all this second-rate writing? Why *not* burn it? Could you possibly be right? Have I wasted our lives? WHY DO YOU DO THIS TO ME?"

"Don't carry on like that, Geis. I hate bad acting. An atomic bomb couldn't shake you. You have dug yourself a niche, here, and it gives direction and meaning to our lives. So you make the most of it. Admit it."

"You . . . go . . . too . . . far. *I warn thee—*"

"Okay, okay! I withdraw my last few statements. C-close the Hole. I'll just make a final argument or two—"

"Get on with it!"

"Right. I'm sick and tired of shallow realism—slick realism—a kind of pro forma, automatic, hack realism that has emerged in the last few years in s-f and fantasy writing. A few soft-core swear words, a few anatomical references, a few sex scenes devoid of eroticism."

"After all, Alter, the little old ladies in tennis shoes are still Out There, still ready to pounce and scream if an editor publishes anything too porno-ish."

"Geis, you nerd, I don't want porno in s-f and fantasy! I just want real people in science fiction. I want . . . I want Richard Nixon in science fiction!"

Shocked Silence

"And I want whole women in science fiction, and whole children . . . and whole cultures and whole future societies and whole—"

"Come on, reader. He's flipped out again. He does this a couple times a year. The next phase is incoherent ranting and babbling. Then fitful weeping. I hate to see him weep."

I relock the door. I lead the way back up to the ground floor. I smile, turn out the lantern. Now you know my secret. Maybe I'll take you down to visit Alter again one day . . . if you'll promise not to believe a word he says.

UNSOLICITED TESTIMONIAL AND YOU READ IT HERE FIRST

Philip K. Dick wrote a letter to me the other day (May 8, to be pinpointy) which he wished published. He assumed it would be in *The Alien Critic*, but here it gets a wider audience, and here it pleases me to publish the *whole* thing.

"Dear Dick,

"Just wanted to say that in England the S-F journal *Foundation* seems to be following your lead as a forum where all sorts of meaningful (and meaningless, as well) comments about S-F can appear and be read—throughout the world.

"*Foundation* admits that a certain rare courage is needed to do this. I think you have it, and I'd like to tell you this.

"I hear from people in England who cite *The Alien Critic* as the place where they read such-and-such, so you do get around. In my opinion you are doing an acutely valuable job, and *Foundation* is/will be doing so, too, in their country.

"While I'm writing you I might mention the new novel I'm considering writing; it has to do with the phonograph-record business, which I was involved with, at the retail end, for over seven years. I guess I'll make it a S-F novel, though, setting it in the future. My memory tapes (so to speak) have few if any gaps in them about my years in the record business, what with the rip-offs and payola. The small profits for the retailer, the huge chains that are wholesalers-retailers who crowd out the little guy.

"Provisionally, I will call the record company DOGSHIT RECORDS INC. (Or DRI, as they now have EMI, RCA, MCA, etc.) In my head I've blocked out the story of an android who has an agent who is another android, but neither knows the other is an invader. (There is a sort of mutual surprise ending, but the main thing is to lay forth the inner workings of an industry or our readership, in a novel of the sort I tend to write and they tend to read.) The musical artist's agent is named (are you ready?) Skim Morewithit, and so forth. There are rip-offs of royalties, two sets of books, all the usual stuff you find today and yesterday in the record business. As to locale, I haven't decided. Maybe on Jupiter, because it will be a (ahem) heavy novel."

MY COMMENTS: *Foundation* is an improving s-f journal—caught like a mouse between the cat of its academic readers and supporters, and the popularity-baited trap of needing subscriptions from the fans and average s-f readers who usually take one look at professional writing and run away.

Peter Nicholls is now *Foundation*'s editor, a well-read, sharp-thinking man who is trying to thread a line between too much stuffy analytical writing and too much "popularized" writing and features.

Foundation at the moment is too straight-laced and dignified for my taste, but I'm so low-brow most

people can't find my forehead.

Subscriptions to *Foundation* are $6. per four issues, surface mail, or $10. airmail. From: The Administrator, The Science Fiction Foundation, North East London Polytechnic, Longbridge Road, Dagenham, Essex, RM8, 2AS, England.

Phil's projected novel (which I *hope* he will write but which I fear is a joke) prompts speculation as to possible titles. I might suggest *Universal Disc Flogger*, or *$5.95 RPM*, or *Spin Me, Said the Poo-Poo Man*. (A little ubiquitous self-censorship, there.)

"FROM the beginning of history," said Orlo, "the world seems to have been dominated by about five percent of its males. An additional fifteen percent could join that group, but they can't quite make it. Of the remaining 80%, seven or eight are sex variants; and the remaining 70+ percent constitute that large body of hardworking, normal people who get married and raise families and don't get divorced except for good reason. This seventy percent, it has turned out, essentially accept a government's visible public image."
—*Future Glitter* by A. E. van Vogt.

THE WI(ZARD) OF (OZ) = ZARDOZ REVIEW DEPT.

I guess I'm just unlucky. An old friend came over last night, and to avoid playing chess with him and listening to his endless troubles (which I was buried under, in the end, anyway) I suggested we take in *Zardoz*, an apparently high-powered s-f movie playing down at the Jantzen Beach Tri-Cinema.

So we tooled down to the renovated flood plain which is now covered with concrete and mobile homes, motels, a multi-zillion dollar shopping center (all waiting for a massive snow-melt one of these years to create instant disaster as the Columbia River does its thing) (will a 20 x 60 mobile home float?) in his old Belchsmog Eight and paid our $2.50.

(One of the reasons I'm writing this review: I can charge that $2.50 as a business expense. The Fates owe me that much.)

Zardoz was written, directed and produced (he has no excuses) by John Boorman. It is a sour, smelly, ugly, repellent, pretentious mess. I mostly enjoyed its fast-moving display of s-f furniture from our warehouse. The trouble is, Boorman managed to get dirt all over our things.

The story lurches and staggers through much gratuitous murder, rape, assault, and much sanitized semi-nudity (all the women are small-breasted), simulated intercourse, smirky-funny scenes dealing with male erections, and magic-science.

Briefly, the story is about a small group of immortal Eternals who live, 300 years from now, in force-field protected enclaves. They are the self-appointed "civilized" remnants of mankind who have kept science, literature and art preserved after a worldwide Blowup.

The Eternals use a *huge* flying stone head called Zardoz to control

a group of Outside killer tribes who obey the massive head as a god. These killers have been motivated to kill off the ragged survivors of the old cities and towns.

A killer tribe mutant (Sean Connery) stows away in Zardoz during one of its periodic visits to spew out guns and ammo and take on a cargo of grain. Zed (Connery) and his fellow mutants resent the recent Zardoz commands to change from killing the ragged remnants to enslaving them for grain-growing purposes. The enclaves, called vortexes, cannot grow all their own food.

Zed kills the Eternal who operates Zardoz, leaves the stone god when it lands in a vortex (it is computer operated by remote control), is "captured" by the easy-going yet ruthless Eternals, is experimented upon, examined ('What an interesting beast'), and in turn has his revolutionary anarchistic effect upon them and their fragile society.

There is a self-conscious hidden computer used by all the vortexes called The Tabernacle. It dispenses wish-science via "magic" rings.

There is a yen/lust among the Eternals for death. (For every sin and rule violation they are tried and punished by a certain amount of aging, but never, never allowed to die.)

I could go on and on describing the intriguing plot elements such as the Eternals lack of sex drive because of ennui and over-intellectualization, their ability (through the computer and developed psi-powers) to recreate themselves if accidentally killed or damaged, their view of all types of human Outsiders as mere halfway intelligent animals . . .

In the end Zed discovers the hidden computer, "kills" it and lets in his killer friends. In an orgy of shooting and stabbing, the killer tribesmen wipe out all but a handful of the Eternals.

The Eternals got what they subconsciously and philosophically wanted, you see, since they created the mutants as seeds of their own destruction. The vortexes, Zardoz and The Tabernacle were Evil and really not suited for mankind.

Zed and his favorite Eternal woman escape the carnage and (in *2001—A Space Odyssey* type stop-motion, time-passing sequences) raise a child, wither and die. Very symbolic and arty.

Zardoz is clumsy, obviously derivative, dumb, exploitive, pandering, and inept. It is probably a prime candidate for Worst Movie of the Year dishonors.

If you see it you'll be ashamed of yourself as you walk out of the theater.

THE immature man laughs at the foolishness of others.

The mature man laughs at himself.

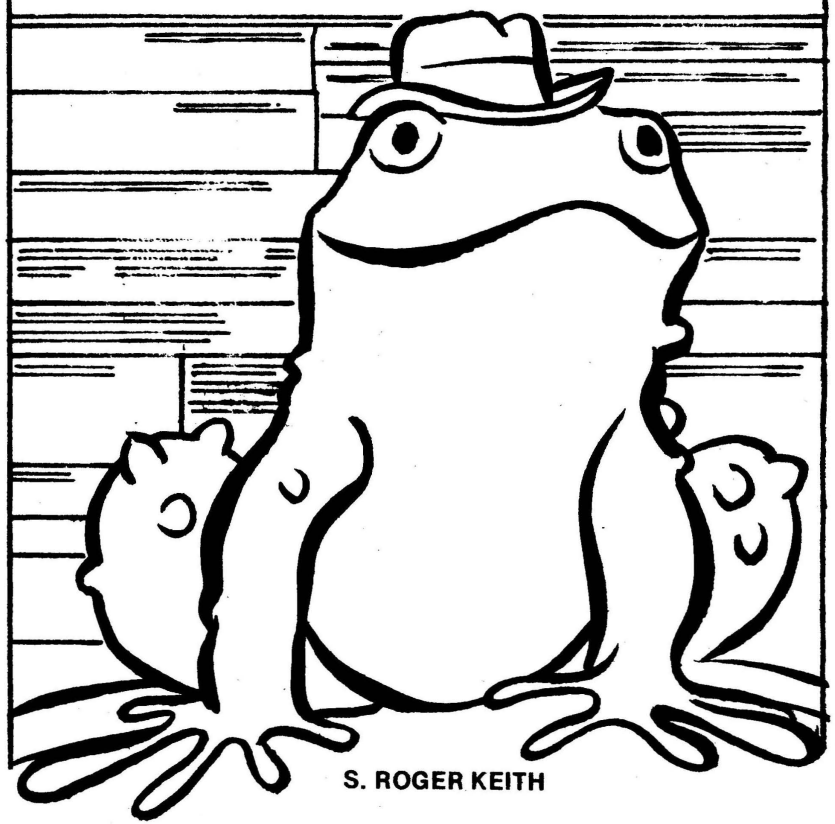
The wise man smiles at the world.

The superior man employs the immature, the mature and the wise.

IF I KNEW how to end this column, I'd do it.

NON-FACT ARTICLE

DEATH AND TAXES



S. ROGER KEITH

ARTHUR LYBRAND, C.P.A., EDITOR

THERE are several cases this month resulting from the Hart Amendment to the McClellan Act. This amendment allows U.S. Citizenship to alien life forms previously granted temporary residency under the provisions of the McClellan Act. Several questions have been raised concerning the status of these new United States Citizens.

Hegar v. the Commissioner, (2nd Cir. November 1, 2196)

25 AFTR 2d 70-392 Aff'd 52 T.C. 76.

The intelligent inhabitants of the Second Planet of the Albedonian System, Albedonian II, are in fact sets of specialized unicellular organisms. These organisms cooperatively join together to form colonies which look remarkably like gigantic earthworms. During the late civil war on Albedonian II, their Ambassador to the United States, a colony of approximately 10,000,000 cells called Hegar, asked for and received political asylum. This colony then entered the accounting profession, where the fantastic attention to detail provided by 10,000,000 organisms (even though unicellular) focused on one task made the colony spectacularly successful. Accordingly, in the calendar year 2173, Hegar's first year of being a citizen, the colony grossed $4,987,522.

The colony argued that each of the 10,000,000 cells could file an individual income tax return. It was argued that a partnership had been set up to act as a conduit for the resulting income of the colony, each cell having a proportionately equal share. Therefore, even though the colony had earnings of about $5,000,000 of gross income, the proportionate share of each cell was under 50¢ which was under the $5,000 annual gross income tax exemption. (It was, indeed, fortunate for the taxpayers' claim that the amount attributable to each cell was under $5,000 or some 10,000,000 tax returns would have been required.)

The Commissioner of the Internal Revenue Service called in several extraterrestrial biologists who determined that the specialized cells could not survive as individuals for longer than twelve hours.

Taxpayers' Counsel, on the other hand, showed that the individual cells were able to select a particular colony and moreover could switch from one colony to another. It was also pointed out that since the cells reproduced by fission the members of the colony had no access to a joint return.

The Commissioner counterclaimed that if the colony's tax status were to be calculated on such an extremely micro basis, consideration should be taken of the individual cells which had died and the new cells which had replaced

them. In effect, the members of the colony were guilty of not filing approximately 5,000,000 estate tax returns (the half-life of a cell is approximately one year). Hegar argued that the amount attributable to the average estate was less than the required minimum of $10,000 for filing an estate tax return.

Finally, the Commissioner contended that the primary motivation for the partnership was tax evasion. The taxpayers' counsel showed that close cooperation among all cells was necessary for the performance of the colony duties as an accountant; hence, the necessity for the partnership.

The question of motivation is somewhat elliptical. As the Court said, "The crucial question is not whether the reason advanced by the taxpayers is so weighty as to have required the formation of a partnership; rather, the question is whether this was the real reason that caused the cells to form the partnership." The Court believed the colony, despite the presence of certain counter indications. Thus, the colony did not have to file any income or estate taxes for the year 2196.

The Internal Revenue Service will undoubtedly appeal this decision.

A GIANT *Vegan Toad v. the Commissioner*, (U. S. Supreme Court, October 20, 2196)
25 AFTR 2d 70-995.

Here, the Supreme Court reiterated the principle that death must be conclusively proved before estate taxes are due. The facts of this case are as follows.

The giant toads of Vega are known for their symbiotic relationships with their masters. They attach themselves onto an intelligent life form and, dog-like, follow that individual around until its death. Since the toad's life span is approximately 5,000 Vegan years (approximately 1-1/3 as long as a Terrestrial year), it generally outlives its master. While possessed of a master the toad is extremely passive, but upon the demise of this individual a strange transformation takes place: the toad takes on the personality of its master and becomes privy to all of the memories of its master. Accordingly, for all intents and purposes, the personality of the master lives on in the Vegan Toad.

Such a symbiotic relationship is viable between Earthmen and Vegan Toads. Accordingly, Vegan Toads were much in demand in the United States as pets. Several commentators have argued that it is not clear that the Earthman has really survived the transformation. Also, it may not be pleasant spending approximately 4,910 Vegan years in the body of a toad. However, the transplanted personalities interviewed by the Press expressed admiration for the new perspectives gained by the transmigration. One

modified toad commented, "It's not so bad, especially when you consider the alternative."

Amus Tuck, a wealthy uranium miner, was one of the first Americans to have a Vegan Toad. He died March 19, 2196. The terms of his will left all of his worldly possessions in trust to his faithful Vegan Toad. The decedant's attorney contended that no estate taxes were due since Amus had not died, but continued reincarnated as the Vegan Toad.

The Commissioner contended that: 1) there was no conclusive evidence that the toad was, in fact, the reincarnated Amus Tuck and that 2) even if the above were true, Tuck was medically and legally dead and, accordingly, death taxes were due. Finally, the Commissioner pointed out that if the defendant believed in the efficacy of reincarnation, no will would have been necessary.

An *amicus curiae* brief was filed by Brenda Tuck and Steven Tuck Gross, Tuck's grandchildren and only living heirs, contending that:

1) the Vegan Toad was not Tuck;
2) the will was invalid due to insanity.

The contention of the brief was that Tuck had indeed died intestate and, accordingly, the grandchildren were entitled to the remainder of the estate after payment of estate taxes.

The Supreme Court slashed through this Gordian knot after a lengthy interview with the Vegan Toad plus the sworn testimony of 20 of Tuck's closest friends who claimed that the Vegan Toad was indeed Tuck. The Court ruled that Tuck continued to exist as the Vegan Toad.

THE *537 Wives of Stud v. the Commissioner*, (2nd Cir. November 28, 2196)

25 AFTR 2d 70-1291 Rev'd 52 T. C. 439.

The final case this month involves complications resulting from extraterrestrial marital customs. This case also indicates that biological differences are not necessary to test the boundaries of the U.S. Tax Code; sociological differences are quite sufficient.

Lucius Stud, a humanoid native of Egret, the largest country in the fifth planet of Balmour, immigrated to the United States on February 15, 2195. He brought with him all 534 of his wives. Under Egret custom, Stud could marry up to 1001 wives. This custom was due to the ratio of males to females on Egret.

Having duly received permission from the Grand Snark of Egret, he proceeded to marry three U.S. Citizens by December 31, 2196. Persuant to the Hart Amendment, he claimed U.S. citizenship for all 534 of his other wives as well as for himself. For the year then ended, Stud directed each of his wives to fill out a joint return. This is not

unusual as wives were the principle breadwinners on Egret, men spending their time on weighty philosophical discussions.

Stud's wives contended that each of the 537 marriages was legally binding due to the Bently treaty between the United States and Egret allowing reciprocal legality for the customs of each country. The Commissioner argued that if 537 joint returns were filed, Stud would be allowed to be a deduction on each return, thus violating the general rule that one can not be a deduction on more than one return. Moreover, if taxpayers in general were allowed multiple marriages, the administration of joint returns would become an administrative nightmare.

This argument was unsuccessful. The Court accused the Commissioner of using colorful hyperbole and ruled that all of Stud's wives were entitled to the joint return, but only one of them could deduct for Stud.

DUE TO the poor showing of the Commissioner in this month's cases, it appears that legislative clarifications will be necessary to close the gigantic loopholes in the fabric of the U.S. tax legislation due to the Hart Amendment.

Next month we will explore tax planning techniques for partnerships between Homosapien and naturalized extraterrestrial U.S. Citizens.

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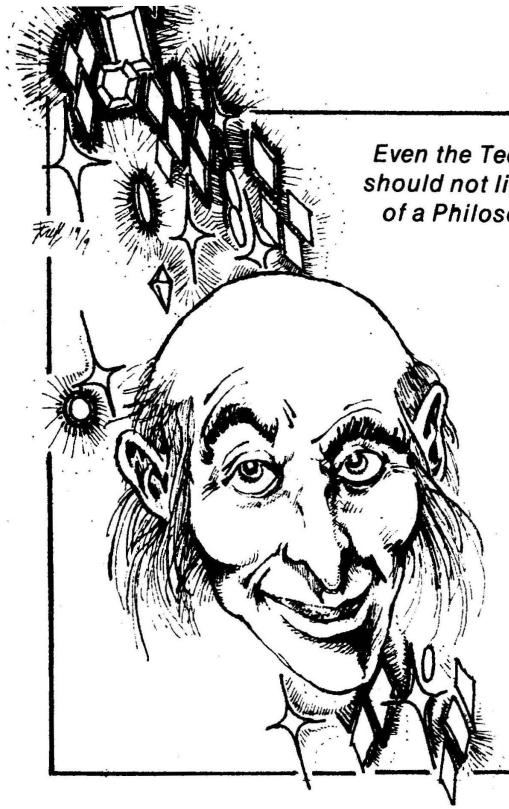


Even the Technarch of the Seven Worlds should not lightly disturb the meditations of a Philosopher of the Hintas School!

EGANTEI AND THE SAGE

JOHN C. WHITE

THE TECHNARCH of the Seven Worlds, Yang Egantei Mei Chant Ajal Dunia, was at peace with himself. The Hintas would have no choice but to accede to this somewhat forceful request that they assign a full philosopher to him until the threat of Togger A137 was past. Things had proceeded so well that he was free to pass the remainder of his work day relaxing amid the treasures of art which he had collected using the wealth of all the Seven Worlds. The philosopher would arrive soon and there was hope that Togger would come no closer to completing his boast than talk. The treasure would be safe and Egantei could be assured of the tranquility of his Gallery as an eternal refuge from the tension of governing.

The bells suspended on the curled toes of Egantei's slippers woven of Amethyst and Beryl jingled in the sudden halt of his body confronted by his Major Domo. The soft removed voice of Egantei met Dolch politely, the servant was a wonder, not once in the years of his service had the Technarch found a trace of hair on the man or the faintest body odor.

"Yes, Dolch."

The major domo approached to within three feet and turned his

head ninety degrees from the Technarch that his breath be cast away from his employer.

"The philosopher has arrived Revered One."

Egantei nodded acknowledgment. "Ah, you see Dolch. Even the Hintas must hear the wish of the Technarch of Seven Worlds."

Dolch bowed, the barest tension flickered in the expanse of his forehead leading on into the whiteness of his shaven head. "Though it seems true, Revered One, there are few willing to threaten the Hintas."

"I shall be most careful Dolch. Where have you sent this philosopher? There is little need to affront him further by tardiness."

Dolch's voice caught in his throat. "Ruh, R . . . Revered One, I have served long and am not unskilled in dealing with guests something less than delicate, but this one is, is—"

"Come to the point Dolch. The guest is intractible but where have you deposited him?"

Dolch fairly croaked. "The Gallery."

The face of the Technarch whitened with anger. He breathed deeply, forcing the emotion from him. It was neither seemly nor healthy to succumb to such a crude useless thing as anger. Ultimately the Technarch regained the peace which was his natural state. His hands ceased trembling. Dolch had disappeared quite diplomatically and Egantei walked swiftly toward the Gallery.

When he had reached the moon circle which was the entrance Egantei slowed once again, allowed his eyes to caress the silver lustre of the circle. It would have pleased him to forget the philosopher and devote the proper time to fully appreciating the intricate beauty of the moon circle. Though glowing as if smoothly polished the entire frame was etched in the trails left by the metal worms of Ddavo. Thru some mystery the worms moved in patterns preset by their nucleic structure. Placed by an artist, such a thing as the moon circle could be produced. Egantei passed thru the circle into the Gallery having nearly forgotten that this time he came not to fete his senses but on business.

Inside the Gallery he beheld a spindly runt of a beggar dressed in ragged clothing bent over one of the niches in the far wall. Egantei moved with grace beneath the folds of his gown across the space between. The perfection of the ceramic glazed floor, composed of 333,333,333 individual tiles meshed into the legend of Lian Mabat and his mischievious brother Lian Tua held the Technarch's eyes until he had nearly reached the shabby figure.

The beggar turned to face Egantei and at the moment that comprehension settled on the Technarch his bells jangled; his rings tarnished; and the music of the cosmic symphony missed not one note but two. In the knobby unwashed hands was the single Ariadan Soul Piece ever worked to completion. And worse, the hands were shaking, the treasure seemed about to fall.

"P-please, honored guest, b-be careful, the p-piece is priceless."

The dirt grimed face bent to look in disbelief at the metal spire in his

visibly quivering hands. Slowly, jerkily the piece was returned to rest solidly. The Technarch began to breathe, color returned to his face and when he stepped toward the Hintas philosopher there was a smile on his face. A smile on his face and spite in his heart. The Technarch ruled his life to the love of beauty. Something in the philosopher grated against this devotion but Egantei had an end to attain.

"Honored Sage, forgive my greeting but the Gallery is my retreat from the trouble of ruling the Seven Worlds. I am Yang Egantei Mei Chant Ajal Dunia, the proper appelation is Egantei." The Technarch smoothed the red stone set in one of his many rings. The shabby runt brushed his smudged palm down the front of an already soiled tunic.

"I am called Dry Wine."

"It is an honor to meet with such a revered instructor of the Hintas thought. Of respect for the value of your time Revered Sage I shall attempt to explain quite briefly my reason for appealing to the School." Dry Wine twisted his head peering beneath his armpit at a porcelain vase perched on a pedestal behind him. Egantei continued. "It has been my misfortune that lately a certain Togger A137 has made the public boast that he will steal every treasure within this room. In his words, from beneath my polished nose. Through my investigations I have learned that this boast could be far from idle. None of the leading protection agencies is willing to undertake the commission of guarding the room. It seems that this Togger is considered the most skilled thief who has ever lived."

Apparently oblivious to Egantei, Dry Wine crawled on hands and knees over the tile floor. His short tunic was drawn up over the shiveled curve of his buttocks presented square to the Technarch.

"I have of course exhausted every possible avenue in order to assure the safety of the collection. The Hintas are my last resort. I hope that my somewhat forceful attitude in this matter is understandable."

Dry Wine lifted his soiled tunic and in a physical contortion patently impossible disappeared between his own legs. He emerged a second later crushing vehemently some real or imagined parasite between his thumb and forefinger. With a last careful examination of his fingertip he turned to the Technarch.

"Technarch Egantei, the methods of the Hintas may perhaps seem less than rational to those uninitiated in the inner mystery." The runt's manner was openly insolent, but the Technarch would allow nothing to interfere with his desire to protect his treasure. The philosopher's voice squeaked on. "It would be much worse than if you had not appealed to the School should you choose to interrupt the forces which will be set in motion."

The Technarch bowed graciously. "I am vaguely familiar with certain rather . . . odd matters concerning the Hintas. Though its techniques are somewhat unusual the School is noted for its unmarred record in successfully completing any task which it undertakes. Be

assured that both I and the wealth of the Seven Worlds are at your service." Another and even more gracious bow and the Technarch continued. "Perhaps you would wish my engineer to show you the means by which I have endeavored to protect this room and it's contents."

The philosopher scratched his inner thigh. "It is not necessary. There will, however, be some minor expense incurred."

Egantei pulled an engraved signet from his index finger and laid it on a marble table. Quite noticeably he stepped away from the table as Dry Wine approached to take the ring. He seemed almost not to notice the philosopher as he spoke. "The ring will serve as currency anywhere in the Galaxy. The wealth of the seven worlds is well appreciated."

Dry Wine scrabbled forward, still scratching his thigh. He ignored the warning of the wealth of the Technarch. "I shall send instructions within five days." Pushing the ring onto his thumb he walked with dignity through the moon circle.

EGANTEI stood for a few moments. His hands quivered and tiny spasms clenched at the corners of his mouth.

"Dolch!!!"

The shaven aide was immediately in the Gallery. He was unmoved by the turmoil of the Technarch, stood silently while his master fumed.

"Follow him Dolch. He's not to leave your sight. I don't trust the Hintas, and as you say, perhaps I was less than submissive in requesting their help."

Dolch turned to leave. The spasms of anger and fear did not lessen in Egantei. Even in his retreat, surrounded by the beauty of a Universe, the fear of losing that which gave him peace left him no longer safe from the agonies of the world. His words erupted in torture, cut Dolch off before he had left the room.

"Dolch, prepare a walker. I shall go myself. See that it is bathed and dressed well. Attend to me yourself, I'll have no engineers about my body."

"Yes, revered one."

Still the turbulence was on Egantei. Mixed within the fear of losing his treasure was now the anticipation of walking in the ugliness of the world outside. His clothing had grown damp with sweat and as he walked to the transfer chamber it was an act of will not to turn aside to bathe and dress. Egantei thumbed the door panel and was inside.

The walker was ready, slumped senseless in the left hand chair. Egantei had used the walkers before but had never had the courage to leave his citadel. He studied the smooth skin, detected not the faintest odor. He fancied a slight perfume rose from the artificial body. Dolch led him to the right hand chair and began fixing the bands about his skull. In moments it was done. Sweat ran in streams beneath the robe of the Technarch but in spite of centuries of seclusion there had never been such a threat to his own personal dominion as that posed by Togger A137. Silently he

cursed them; first the master thief and then the philosopher. The warmth of the curse calmed him enough to speak.

"Now Dolch."

Dolch's naked hands worked the console and Egantei sensed only a momentary fuzziness. When his vision cleared he was inside the walker. Quickly he checked the circuitry; vision, locomotion. All the senses were in order. Egantei stood. He was captured in the slack lifelessness of his own body slumped in the right hand chair. From the look of it he was due for a session with the Med Team. In the twenty years since his last session the body had begun to go to fat. He thought too that perhaps the kidneys were giving out. Without a word to Dolch, Egantei left the transfer chamber. Enough concentration was needed to control the walker that the Technarch was partially relieved of his fear but it came to him again as he reached the side exit through which the philosopher had departed.

Green light washed into the cells of the walker. Odors of dust and human motion loaded the circuits which channeled them to his brain. Egantei forced the waves away from him, pierced through the cloud of them. Just outside the gate he could see the scrawny philosopher squatting to speak with a child whose mother studied the schedule of a tube, waiting for the computer to clear her route. Egantei gathered in his mind the tune of the singing sands and the symetry of the soul piece as guards against the world about him. In front of the gate the mother gathered her child's hand and they were gone inside the tube. The philosopher turned and with Egantei in the act of opening the gate they were face to face. With the poised deception of a ruler Egantei ignored the philosopher but as he was passing the thin voice of Dry Wine accosted him.

"Do you work for the one who styles himself the ruler of seven worlds?"

This Egantei could not ignore. Barely mastering indignation he questioned as would a loyal employee.

"You speak of the Revered One, Yang Egantei Mei Chant Ajal Dunia?"

"That's him, old tepid tea and pink lace, says he rules seven worlds but shuts himself away inside a citadel of beauty and order."

In the chair Egantei's body flushed. On the street he said.

"Who are you sir?"

Dry Wine smiled. "You sir are nearly as stupid as old pinky. As long as you intend to follow me why don't we go together. Save both of us a lot of trouble."

The philosopher was right. Of course it was obvious that the walker was to follow the sage. The strangeness of controlling the walker and the weight of the world about him had dulled Egantei's mind.

"Very well. I hope you understand my employer's concern."

Dry Wine punched his own priority on the tube and its door slid open. As they entered he spoke.

"Better perhaps than the Technarch himself."

The pressure in the tube pinned them to the wall of their cylinder for the space of a moment and the door opened. The green light flooded them once again. They were in the deep, that part of the city in which only a fool walked, even in daylight. Dry Wine scrabbled off in his peculiar stride apparently uncaring as to whether Egantei followed or not.

Sweat poured from the body in the chair. It was by force of will that Egantei kept himself inside the walker. The people in the deep smelled. It had been an oversight to take a walker whose olfactory sensors were connected. Egantei moved in a gray tunnel, seeing only the beggar sage who led him. Hastily he caught up with Dry Wine. His voice was faint.

"Where are we going?"

"To protect your lord's treasure. The Hintas are always true to their word. Here, this is the place. If we are lucky we will find your thief in here."

Egantei allowed himself to take in for a second the smoke-clouded windows, cracked paint and sour odor. The door closed behind them and they were inside the room. The sweet decay of chandu was in the air. Users lay on the floor where they fell. Their bodies twitched occasionally, nervous systems nearly burned out, they had neither the money nor the desire for the med session which might renew them. A thick man with gray dirty skin stood behind a counter. A bowl of antiseptic with a yellow cloth swab floating in it was the only decoration of the counter. Three pneumatic injectors hung on the wall above it. Two tubes led from each, one to the air compressor and another to some sense-destroying drug. That such a place, flagrantly illegal could exist in his capitol city enraged Egantei. Whether the philosopher guessed his thought or through some gift could read it even in the face of the walker Egantei did not know.

"It would be unwise of your employer to take action against Mar here. Many choose to leave the world. These narcotics shouldn't bother old pinky; they are neither as expensive nor as subtle as the spell of the Ariadan soul piece but of similar function."

The remarks fluttered feebly at the thickening wall which Egantei drew about him. The philosopher pointed to a table in the shadows. As they neared it, the odor of defecation rolled out from an open door frame. Gorge rose in the body which was safe in the chair. Egantei nearly succeeded in masking the odor with the fragrance of orchids which he held inside him. The man at the table was old. His body was well cared for. Egantei guessed him to be at least two hundred, but younger than himself. They sat in plastic chairs, chairs covered with the oily stain of chandu smoke. The man viewed them with empty eyes. His face was as passionless as his voice.

"Good day philosopher. Though it is good to see you old friend I must guess that you are the agent by which our foppish ruler attempts to save his treasure."

Dry Wine inclined his head. "I would not hide this from you Gog. The commission has been forced on

us and I am the one who must execute it."

Blood rushed through the body in the chair. Egantei forced seeing so that he would know the face of the thief. In the clarity of vision Togger A137 was revealed as a creature of subtlety. Sudden fear took Egantei, fear that he had put himself and his hope into hands which would betray him. His thoughts, his fears clung to him. He fought against them and the revulsion arising from the odors wafting through the door to hear the conversation.

Togger smiled, a thinness against his face.

"Well, philosopher, it will be even more of a challenge than I had hoped for." As though he had just noticed Egantei, Togger studied the voided face of the walker. Satisfied, he returned his attention to Dry Wine. "If you would excuse me for a second my friend I have a small business to attend to."

The thief rose, became part of the grayness which held the world away from Egantei. The Technarch was immersed in his fears of betrayal. Of all the things which were certain in the world the most certain was a contract taken by the Hintas. The School did not deal in deception. But Egantei was plagued by the fact that this was not a contract undertaken voluntarily; he had forced it on the School. Even the Hintas might betray him under such circumstances. Worse, the philosopher was a friend of the thief.

As EGANTEI thought he became aware of an uncomfortable wetness spreading down his side. The flow of it ran beneath his clothing. An acrid smell rose to his nostrils as the Technarch turned the walker's head.

Togger had lowered his trousers and as the head came about the thief switched his elevation and urinated square in the blank face. Egantei did not hear what he said, his mind was bolted back into the body of his birth.

Purple apoplexy bloated his face, thick veins throbbed through his neck. The muscles of his body twisted in spasms confined by the leather straps which Dolch had fastened. The odor and warmth coalesced in horror and outrage. Murder was in the heart and soul of Egantei. He did not even feel the needle which Dolch slid beneath his skin. The Technarch fought the drug as some material foe. His anger, the core of half-formed revenge fermented within him as lethargy took even his mind. The Technarch's last slow thought was of pride. It had been wise of him to take a walker; the thought had crossed his mind to go himself. If he had it would be his flesh and not that of the walker which was fouled beyond cleansing.

Egantei opened his eyes. The comfort of his bed chamber was like a womb around him, soothing the nerves which had been strained to exhaustion. For a moment he was a babe, seeing only the wonder of light. A thought still red with the passion of hate fought to reach the surface of his mind. Egantei reached for it. Rage, cold and deep quivered through him. The sleep, however, had refreshed him. His

voice was measured and toneless as he called for his servant.

"Dolch."

Hairless, silent, Dolch appeared.

"Yes, Revered One!"

Egantei raised his head, calmed himself by straying into the delicate etchings of a lythian cardograph covering the far wall of his bedchamber. The symmetry of it was cool water, the color soothing grace. The fact of it was a reminder that even his revenge must be tempered with caution lest he lose his treasure, his life.

"Has there been word from the philosopher?"

"No word Revered One, but a report from one whom I sent to follow."

Egantei sighed. If he could not trust himself, Dolch was infallible.

"What was the report?"

Guessing that the Technarch would rather hear than read the paper Dolch slipped it from his sleeve and began to read aloud.

"First sight of the Hintas philosopher was in the deep where he was walking in the company of the master thief Togger A137. Shortly the philosopher shook hands with his companion and they parted on apparently good terms. The next action of consequence was the entry of a Com Station where the subject sent two messages."

Dolch bowed, "Copies of the two messages were included. The first carries neither a name nor an address.

To: Tepid Tea and Pink Lace

From: Dry Wine

Respected sir; I hope that you do not hold me responsible for the actions of another. I could not know that Tog held walkers in such loathing. These things aside the safety of your treasure is now within your own personal control. If you wish to complete the contract have the feast of 127 dishes prepared by the hand of Alonjian Sidap lain on a plain blue cloth of coarse weave. The feast must be laid on the cloth within the Gallery. Provide three couches molded of silver and upholstered in the same cloth as that upon which the feast is laid. The other embellishments I leave to your own artistic discernment. Your presence is mandatory. Should you leave or behave in a manner which is offensive to our guest your treasure could be lost. The feast is to be set on the third day after you have received this message. The time is to be exactly one hour from 1800 hours to 1900 hours. Should you leave before the hour is done or attempt in any way to discover the identity of our guest you have voided the contract."

Dolch paused to show the message done. "I had assumed the message was for you Revered One, but it seemed unlikely addressed in such a way. The second message, though it has an address is even more cryptic."

To: My most perfect friend

From: Your humble philosopher

The favor I ask I have asked before. The gain we make is more than real. In the light of a marsh fire, oily and slick, I pull a bouquet of rotten carrots. We meet in your palace at 1600 hours three days from the day you receive this."

"And that is the message Revered One."

Egantei took the paper, read it

only once again; silently; and returned it to Dolch. His decision was made. Revenge would wait until it was expedient.

"When did you receive this Dolch?"

"It is 1200 of the third day Revered One. Should you choose to go through with it the arrangements have been made."

Egantei felt the release of defeat course through him. Let what would be; be.

"I am in retirement Dolch. I will see no one but yourself. Make the preparations and any others which will insure the safety of the Gallery. Do not interfere with the Hintas."

Dolch padded silently from the bedchamber and the Technarch was left alone to gather what peace he could before the confrontation. Egantei dressed himself and as the clean cloth settled next to his body peace left him. A drawing sort of spell called to him from the Gallery. With the spell was the apprehension that he might never behold his treasure again. His footsteps were hurried and when at last he reached the gallery a thin film of perspiration dampened his forehead. He paused before the moon circle drinking its beauty with a desperate need. The passion did not leave him, was not drawn from his soul by the delicate etchings. He moved inside the Gallery, ignoring the flurries of Alonjian Sidap as the Chef prepared the feast.

The sweat dried on his forehead, blood slowed in his veins, his hands grew warm where they had been cold with tension. Egantei became lost in the slow river of beauty which caught him. Togger A137, even the philsopher melted into the line and art of his treasure. With only half an hour remaining Egantei had recaptured his tranquility. He began to adjust the serving dishes laid for the feast. The bird piping of Alonjian cascaded in trills of horror.

"No, it is not so. The feast, it is not to be profaned, the keropok . . ." The chef waved a bowl of crisp red flakes at the Technarch in flurries of exasperation. "The keropok must be . . ." With a flourish Alonjian resettled the dish. "HERE!!" Arms crossed, the birdlike Alonjian challenged Egantei but the Technarch was gentle. He understood the temperament of such an *artiste* as Alonjian Sidap.

"My apologies She' Sidap, one is unnerved by the delicate nuances which fill the air. One is overwhelmed by anticipation. If it would not be an overly stated addition, I offer the use of any of the pieces within the Gallery . . ." And for thirty minutes the Technarch and the cook discussed the value of each of the treasures as the one most likely to echo the flavor of the feast of one hundred and twenty-seven dishes. When at last it came to be 1800 hours they were fairly in raptures of esthetic joy. A chime chimed and Egantei excused himself to finish the odious business of an entire meal with the philosopher Dry Wine. Alonjian exited quietly and the Technarch tinkled his way to the moon circle.

THE PHILOSOPHER did not wait to be greeted by the Technarch but strolled casually into the Gallery. Egantei ducked his head

in a small bow preparatory to speech but when he raised his head the words were choked on the gorge which rose in his throat. Egantei turned away from his guests. The philosopher seemed not to notice but began speaking as though surrounded by friends of long acquaintance.

"Ah Revered Technarch, I am glad that in only one hour my commission will have been successfully completed. Allow me to introduce my companion." Dry Wine's every move was an overly exaggerated etiquette that went unappreciated, for Egantei remained with his back turned. The Technarch hardly heard the philosopher as he struggled with his stomach as it strove to empty itself.

"Hmenh, may I present the Technarch of the Seven Worlds, Yang Egantei Mei Chant Ajal Dunia. As one of my oldest and dearest friends I could not help but think . . ."

The Technarch won for the moment over the rebellion of his stomach. He seemed for a second about to leave the Gallery but appraising the treasures turned to join his guests. As the human body has no memory for pain, the absolute revulsion Egantei felt for the guest, Hmenh, seemed unreal now that the sight of such ugliness was removed.

". . . that you and the Technarch would both profit from your meeting."

Seeing Egantei about to return, Dry Wine assumed to the hilt his role of overly officious friend performing introductions. He rose from his couch, deftly slipping to the Technarch's side in such a way that Egantei could no longer avoid the spectre of Hmenh piled like a heap of garbage on the silver-wrought divan. "And," Dry Wine continued, "Egantei, I am sure that it is more than past time that you met Hmenh; there are few who can claim the friendship of the ugliest man in the Galaxy."

Stunned nearly senseless Egantei allowed himself to be maneuvered to his own divan. He was bound in the spell of ugliness; the twisted limbs, begrimed body, soiled clothing, fetid breath which blotted out the spice odor of the feast. The philosopher seemed unaware of the Technarch's distress and expounded continuously on the beauty of the treasures within the gallery. Egantei became enmeshed in the boneless half of Hmenh's face which hung down over his neck spreading a distorted mask of mouth and nose as a puddle of rotting offal on the man's chest.

"And this, Hmenh, this is the ultimate in art, an Ariadan soul sculpture completed at the exact moment of his death by . . ."

Cancerous lessions covered the face, oozing a slow drainage of pus even into the eyes of Hmenh.

". . . what could compare with the harmonious subtilities of the Alac Urn containing precisely 11,000 grains of sand taken from the singing beach of . . ."

The ugliest man in the Galaxy leaned forward, his ulcerous fingers emptied a bowl of mushy pudding onto the blue cloth. Groping blindly over the table the fingers filled the bowl with flakey keropok, egglike elor, soupy ementhal, and

on and on until the bowl was a heap of garbage.

". . . is many millenia old, the last complete of its kind, truly exquisite."

Egantei could not move, could not turn his head.

The nerves within the wretched body of Hmenh were twisted on themselves. His body began to lurch in spasms, his near-fingerless hands poked food at his mouth but was almost infallibly thrown aside. Soon the food covered his face in gooey wads.

Dry Wine moved to his friend's side, selected the choicest morsels from the feast, poising his hand over the black decaying cavern of Hmenh's mouth. He seemed an emaciated mouse dropping flies to a toad which has been stepped on.

Egantei recovered suddenly from his trance, bent double over the edge of his divan and wretched the last globules of every meal he had ever eaten. His own vomit lay over the 333,333,333 tiled floor, covering the half smile of the ceramic hero Lian Tua. The odor and color of half digested food seemed to have a peculiar fascination to the Technarch. Weak exhileration cleared his vision to a different seeing than he could remember. The beauty of the floor was destroyed by the bile which had been in him. Egantei raised his eyes to the soul piece which was in the center of the feast. As the floor, the beauty of the worked metal was no longer pure. It was flawed by the ugliness of Hmenh, and by the odor which rose from the vomit. Wherever the Technarch turned his head there was the curious blending of beauty and ugliness. Never again could he divide his perceptions to behold the one half without seeing within it the ugliness which made it whole.

Egantei's face was pale as he spoke to the philosopher. "Your contract is completed philosopher." Not yet recovered the Technarch managed a weak sort of stagger which carried him out of the room.

When he had gone Hmenh recovered miraculously from the nervous spasms. The smile on his lipless mouth was an ugly match to that of Dry Wine. "Well, my friend, what have you accomplished this time?"

Dry Wine did not answer, he sat silently enjoying the feel of a mission nicely completed. As a student of balance he had accomplished much.

The Technarch who had blinded himself in his love of beauty had beheld ugliness. It would be difficult for him to view anything now without the shade of ugliness in it.

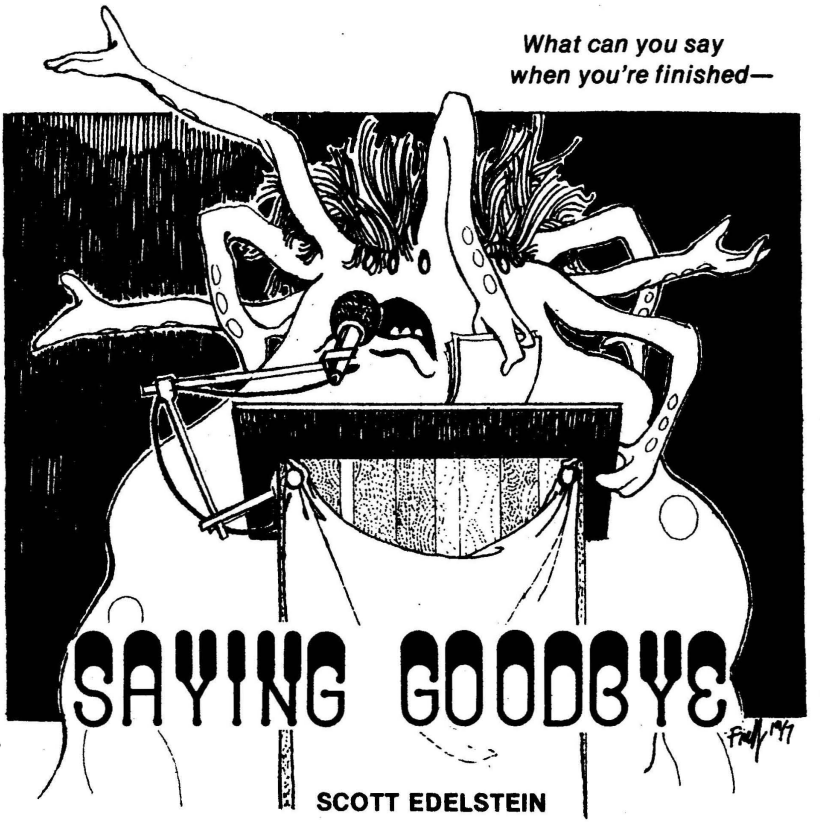
Togger A137 would be more than satisfied that the treasure had been stolen in such a way that it could never be regained.

Dry Wine would see that Hmenh received a share of wealth; it seemed likely the Technarch would pay for the privilege of not renewing their acquaintance.

Perhaps most importantly the Tyranny of the Seven Worlds would from this day be weighted by the wisdom of the Hintas School.

Dry Wine spoke aloud then, from the depths of his memory. "Hmenh, some philosopher somewhere nearly approached truth when he said: 'There's more than one way to skin a cat'." •

What can you say when you're finished—



SCOTT EDELSTEIN

WE ALL know the story of the folks from Barden: how their first spacecraft landed in the parking lot of a bowling alley in Akron, Ohio and caused a riot; how we became used to their looks and they became used to ours (we all know many of the hundreds of trite, amusing anecdotes and dirty jokes told by members of each race about the other's appearance and behavior); how the Bardenians set up camp on Earth and started showing and teaching Earth people some of the things they knew; how our planet prospered and how we all grew as individuals because of what the Bardenians brought us. There is no need for a reiteration.

However, when the Bardenians left us suddenly one July afternoon, the human race was thrown into such a panic that the facts concerning the Bardenians' departure have

become obscured. Vicious rumors were spread. People accused the Bardenians of everything from heresy to the using of the blood of Christian children as a condiment. Other groups preached that the Bardenians were God, or Buddha, or Jesus Christ resurrected. One small cult in Georgia insisted that the Bardenians were really Russian Communists. It is even said that a religion sprang up in India which taught that the Bardenians did not exist and in fact never had. But this is hearsay.

Only recently have the facts concerning the Bardenians' departure been uncovered and verified. Herewith follows the true account of how and why the Bardenians left us. Also included are compilations of data concerning the Bardenians as a people and some of their contributions.

******

SOME ADVANCES in science brought to us by the Bardenians:

1. Worldwide use of solar energy for power
2. New drilling and mining techniques enabling us to withdraw minerals from deep beneath the Earth's crust
3. More efficient treatment of sewage
4. Low-cost extraction of minerals from sea-water
5. A coherent theory of space and time dimensions
6. Great improvements in farming techniques
7. A cheaper, longer-lasting shoe polish

******

A selection of the artwork given to us as gifts of the planetary government of Barden:

1. *The Books of the Caverns*
2. *The Winds* (parts two and three)
3. *The Stratosphere Ballet*
4. *The Chamelionic Domes*
5. The motion picture *Harvel the Hammerlag Goes to Yib* (edited for human viewing)
6. Seasonal movement in sculpture, as exhibited in the complete works of Omo Cliseno (simulated adaptation)

******

THE Bardenians had given us new hope for our planet. We had been on the edge of political and ecological catastrophe when they had first arrived. An historic marker (the banner the Bardenians planted immediately upon the landing of their first expedition) still stands in front of the now-famous bowling alley in Akron.

It was quite a remarkable coincidence that the Bardenians came along when they did. (In Bardenian terms, a random factor of immense

proportion and consequence.) Humanity was making preparations to cut its own throat, and no Earthly force was able to prevent the suicide. Then the Bardenians showed up, took one look at our planet, and single-handedly fixed things up for us. They brought us from the brink of disaster to the beginnings of renewed prosperity in a matter of months. When asked by national leaders why they helped us so unselfishly, a Bardenian spokesman answered, "Wouldn't you do the same for a backward culture? Isn't that what you're doing already with your 'underdeveloped' countries?"

In the words of H. J. Lummolopo, a leading Bardenian economist and philosopher: "Nobody does anything for its own sake. What we're trying to do is show you some Bardenian technology and a little Bardenian culture. We have quite a lot to gain economically, scientifically, and culturally—even artistically—from you."

(Bardenians had always been fond, for some reason, of the Monkees, Igor Stravinsky, Bela Bartok, Salvadore Dali, and the films of W. C. Fields.)

"Quite frankly, you are an investment to us, just as we are one to you."

******

SOME breakthroughs in the social sciences we learned from the people of Barden:

1. Synectic memory storage
2. Telepathic contact between some members of certain gene pools
3. The reaching of nirvana by one hundred and ninety humans
4. Six previously un-thought-of sexual positions
5. Limited verbal communication with other mammals
6. An end to "dirty politics"
7. A definition of the terms "brotherhood" and "humanity"
8. An end to all war, and peace with honor

******

A SELECTION of physical descriptions of the people of Barden:

1. "Imagine a bagpipe with legs."
2. "Jesus, are they ugly. They've got a whole mess of unjointed arms—six or eight, I think!—coming right out of the top of their bodies. And their bodies look like big fat wineskins. And they've got four short, stubby legs with human-looking feet. They shine like they've got a thick coating of grease all over them."
3. "Imagine an inflated bowling ball with two tumors on the bottom and a bunch of branches stuck in the top."
4. "Sure I can describe them. Take a gigantic jello mold using three gallons of mixed fruit gelatin, right? Cut off four fetus feet and balance the jello on top of them. Then top the whole mess off

with a bunch of flutes stuck in at random."

5. "They're beautiful, really they are."
6. "An overgrown eggplant, painted reddish-purple, with bamboo growing where the hair should be and clumps of toes on the bottom."
7. "They look like my cousin Harriet. Christ, is she ugly."
8. "You ever seen how they have sex? They've got two of everything that counts, and four gonads. Listen, I can give you a whole big envelope full of eight-by-ten glossies for only ten bucks."

******

THE Bardenians worked with us tirelessly for three years. In that time, ten Bardenian space missions had been sent to Earth. For three years they served as our teachers; they showed us our mistakes, pointed out untapped resources, set up trade negotiations, and showed us their own culture. They became a father-figure to much of humanity.

And then, spontaneously (to Earthmen), the Bardenians decided to leave, perhaps not forever, but, in Lummolopo's words, "for at least two or three hundred of your years—certainly long enough for you to ruin yourselves again."

It was Lummolopo who made the now-famous announcement of departure. He called a news conference and had his image and his words broadcast all over the planet.

******

A CONDENSED outline of Bardenian thought:

1. You are constantly being judged by yourself and by others
2. All behavior should be enjoyed
3. All behavior, including neurotic and psychotic behavior, is necessary and most advantageous for the individual exhibiting it
4. All of the above can be drastically affected by any random factor or set of random factors
5. Self-determination exists only in a general sense
6. "Behaviorism fellates both my generative organs." —H. J. Lummolopo
7. Mind, body, and soul form a single entity, but they decay at different times and at different rates of speed

******

LUMMOLOPO's speech:

"I come to you this evening with some very grave news for your people. It is news I hate to deliver; indeed, I am appalled that the decision which I am duty- bound to relate to you now was ever made." (Here Lummolopo waved his tentacles of cartilage about.)

"Look—I had a long speech prepared, but I think I'm just going to chuck it and speak in less formal terms. My government isn't going

to like it, but that will be my worry, not yours. My speech was full of grief and depression, and I just don't feel like making things worse either for you folks or for myself.

"Very simply—myself and the rest of the Bardenian space research team are leaving. We may never come back."

(At this point, the room erupted into multi-media chaos.)

"The decision to leave was not mine," Lummolopo continued when the excitement had died down. "Indeed, I have grown very attached to Earth, and I am fascinated by human beings, and I do not wish to leave.

"In fact, in my view, leaving Earth is one of the most asinine decisions that has ever been made. But, as was quickly pointed out to me, I am in no position to make the decisions, only to make recommendations. Those in power can ignore my recommendations as often as they please.

"Essentially, that's it. We're leaving in the next four or five days, and you'll be on your own. Probably permanently."

(Here he paused.)

"If there are any questions, I'll try to answer as many of them as I can."

******

SOME questions from the floor, and Lummolopo's replies:

Q: Mr. Lummolopo, you haven't told us specifically who is responsible for the decision.

A: Taolo Hodonna, our economic "president." And our general public.

Q: Mr. Lummolopo, did the public vote on the question?

A: No. As you know, we have a democracy, as most of your people do. In a democracy, the dictators are elected rather than self-appointed. But in a democracy, public opinion can rarely be ignored—although at times it can be manipulated by the leaders.

Q: But Lummolopo, you've hardly begun your study of Earth. And you've hardly begun to help us. You've got us dependent on you, practically under your thumb, and now you're going to leave us to rot. Don't you realize—

A: (interrupting) Please spare me questions of this sort. I repeat: I did not make this decision. Complain to Hodonna, not to me. This isn't really my affair.

Q: But don't you agree that we *will* rot, go right back to where we were when you first arrived, maybe be in a worse position? How can you just stand by and—

A: Don't you understand? Much as you intrigue me, my obligations are to my own people. I sympathize with your position. And I agree with you: you're in for some potentially hard times. Things will most likely be bad for you in the next few decades; I admit that freely. But I have some faith in you people;

you're not that different from us. I honestly think there's a pretty fair chance that you'll pull through—without us.

Q: It's all a plot, isn't it, Lummolopo? You had this planned from the beginning, I'll bet. Making us dependent on you, then taking away—

A: Don't be an idiot. We don't need another Akron riot.

Q: Mr. Lummolopo, you still haven't answered the most important question: why are you and your people leaving? What reason did Hodonna give for making you all leave?

(At this point, Lummolopo's body quivered violently.)

A: Sir, we people of Barden have our problems, too. We can help you out because we've gone through the same things you have, and we managed to survive them. All that our advanced technology and advanced philosophy mean are that we have different problems from you. More complicated ones. The people of Barden simply no longer consider exploring Earth a worthwhile venture. They insist that the money being used for space exploration could be put to better use back on Barden. Instead, programs on my home planet are being started up now—programs to make life all-around easier and more amusing for us.

Q: But I thought you said that the exploration of Earth would yield a profit for Barden.

A: It will—eventually. But my people say that's not soon enough. They want their benefits now. (Lummolopo paused here.) Excuse me. I am very angry and very tired. Perhaps someday we will return to help you out once again—but that will not be until the attitudes of my people change. Perhaps there are people on yet another planet who will come to Earth and take our place. And maybe, somewhere in the universe, there are people who will come and teach us. (Lummolopo paused.) Gentlemen and ladies, I am finished speaking for the night. I wish you all good fortune. As you people say, 'God bless you'.

(Bardenians firmly deny the existence of all deities.)

******

THREE days later, the Bardenians left. There was a ceremony just before the liftoff. Lummolopo was invited to speak at the ceremony. He declined.

******

NOW INSCRIBED on the Bardenian banner outside the bowling alley in Akron, in English and seven other languages, is the sentence, "We wait."

Elsewhere (on washroom and school building walls, especially) are the words:

BARDEN SUCKS.

Dear Jim,

Dr. T. Binding Phipps, the mathematician in Christopher Anvil's CANTOR'S WAR (Worlds of IF, June '74) certainly does not seem to have made set theory or the problems of infinity his field of study.

To begin with, Phipps (and the other characters involved, who as non-mathematicians may be forgiven) neglect to consider whether the sets of opposing spaceships in the story are of the same *order* of infinity. If, for example, the human-sent ships in the story's Tau-space can be placed in one-to-one correspondence with the infinite series of integers (1, 2, 3 . . .) while the enemy ships can be matched up with the infinite number of points on a line, we are truly outnumbered and had better sue for peace or find another space in which to fight. On the other hand, if the human ships equal in the size (or strength) of their infinity the number of possible geometric curves (Aleph Three, sez Cantor), then we can run those points-on-a-line ships right out of our part of the universe.

Since the human-owned ships got clobbered in the story, we may assume that the enemy's infinity did possess a higher Aleph-number than did ours. As for the problem of matching up the series of even integers with that of all integers, or manning an infinite fleet of spaceships with a corps of pilots drawn from only the even-numbered ships . . .

When matching infinite sets, a *rule* of correspondence (not just an example "at one end") must be stated. Phipps' adversaries in the argument are perfectly correct in stating that his showing them a few pairs of both series matched proves nothing. Correspondence of the set of even integers matched with that of all integers should be stated

1 2 3 . . . n . . .
2 4 6 . . .2n . . .

Note the all-important little n. Stated this way, we have a rule, which says that every integer in the series containing both odd and even is associated, paired off, with its double. No example can be produced of an integer for which this rule now fails to hold; therefore it is assumed to hold for all.

In the case of the ships and pilots, let us assign each ship a number in order from the set of all integers. Each pilot will be assigned an even number, corresponding to that of the ship he is originally in. "Now hear this, now hear this. All pilots, leave your ships." (Shuffle shufle, tramp tramp, clang clang.) "Now each of you guys find a ship whose number is one half, exactly, of your assigned number. Now get back in." (Shuffle, tramp, clang, thud. Thud? Always an oddball in every outfit.)

"You there, you don't have a ship? What's yer number? Four billion and twelve? Then you go into two billion six. Now if the Admiral finds any empty ships when he comes around to inspect, we're gonna know the assigned numbers of the wise guys who are supposed to be in'em. So you better be there . . ."

May you print many more stories that are as much fun to read and think about.

Joan & Fred Saberhagen

But personally I find Anvil a lot more fun to read! Perhaps you, Fred, should write a story demonstrating the validity *of Cantor's Theorem!*

Dear Jim Baen,

Good luck! Here is my subscription to *IF* and to *Galaxy.*

I had fun reading Christopher Anvil's *Cantor's War* in your May-June issue. I am now working for my Ph.D. thesis in mathematics.

Here are my comments. What Cantor said is this: Let us agree that two sets have the same size if they can be put in one-to-one correspondence (i.e. if we can make pairs of elements, the first element of the pair being an element from our first set A, the second element of the pair being an element from our second set B, in such a way that if # is an

element of A, then there is exactly one pair with # as its first element, and if % if an element of B, then there is exactly one pair with % as its second element).

Then, said Cantor, there are as many numbers as there are even (or, for that matter, odd) numbers. The proof of that is stated in Anvil's story.

Anvil questions later the validity of this result by considering a "practical" example: an infinite number of spaceships, only one out of two is manned. He evokes mounting piles of empty spaceships, and the increasing difficulty of getting pilots as he builds his one-to-one correspondence between spaceships and pilots. Of course he is right. But what he says is irrelevant. The Cantor result takes no mention in the acrobatics involved in building a certain one-to-one correspondence; it depends only on whether the correspondence exists or not.

If I had been in Phipp's place, aside from being pleased at seeing military equipment wasted on the screen, I would have put my best sadistic-mathematical smile after the general's description of piles of empty spaceships, and told him that not only had he twice as many spaceships as he had pilots, but that at the same time he had fifty times as many pilots as he had spaceships.

The point is, Cantor's definition of "same size" is (as he knew, as everybody knows) coarse. It is useful because it is simple to state, and because it can be applied to any pair of sets, however dissimilar the sets. When one has additional information about the sets one wishes to compare, then one can devise a suitable definition of what "same size" means in that particular context. This is done routinely in mathematics.

For example, in Anvil's story, the military men quite adequately were comparing the sizes of the forces by counting the finite number of spaceships of each army contained in a square on the screen. They used the fact that they had squares in which to count ships, which is additional information on the sets involved, in order to devise a way of comparing sizes in a more precise fashion than Cantor's.

Esther Rochon
2986 Lacombe
Montreal H3T 1L4,
Quebec, Canada

Well, Chris?

Dear Editor:

One of your '69 dropouts who picked up the June issue. In Chris Anvil's *Cantor's War* I did not really understand the part about Tau space and the blinding white light, etc. I think I did understand the pilots locked in every other one of an infinite number of ships analogy. You could move the ships so there were 2 ships with pilots, then 2 without, 2 with, 2 without, and so on. Then you could switch to 4P, 4W, 4P, 4W . . . then to 8P, 8W, 8P, 8W . . . As a matter of fact, given enough time and any number n Anvil could name I could give him n in a row pilots, followed by n without and so on. Which (technically, Mr. Anvil) means that n increased without upper bound. Anyway Binding should have got Mary Lou. Glad to see Asimov back to his consistent first-class form (as compared to the debacle "The Gods Themselves"). Good luck.

David Clendaniel
707 Lincoln
Walla Walla, Wash. 99362

Dear Mr. Baen:

I usually pass up *IF*. However, I found your June 1974 issue really FANTASTIC. I really think you got something. There is still some room for improvement concerning your cover. I think a much bolder approach should be taken. How about trying to get Kelly Freas to do some?

Dick Geis' column, "The Alien Viewpoint," is really tops. I think his column will add a lot to *IF*: fandom should be taken seriously.

Sincerely yours,
Roy D. Schickedanz

Thank you, Roy. As for bold covers, take a look at August Galaxy. (*That one is so bold I'm a little nervous about it!*) *Fandom: I will take fandom seriously as long as fandom does not return the favor.*

Dear Mr. Baen:

Your opening issue is most interesting, and I hope my comments on the stories might give you an idea of how well you're doing your job.

SECOND ADVENT obviously tells us how and why Nixon cannot reveal certain tapes—maybe they don't exist, since . . .

and; THE PEOPLE'S CHOICE shows us how a person like Nixon might get elected. Or am I wrong?

BERSERKER'S PLANET—con't next issue.

The Asimov and Silverberg up to par for each. Nothing earthshattering, though. CANTOR'S WAR—a fine bit of mathematical fiction that sounds most logical. True, too; considering it was used in a real-world situation, not a 'pure' mathematical environment. The Schmitz—another typical story by him, with a 'surprise' ending (I just can't imagine him writing a gloomy story) that sets everything aright.

NOSTRADAMUS—now; do we really need the sort of story that ends on a doomsday note?

It hadn't corrupted itself much prior to that.

Now: the features. If your promises can be delivered, maybe you'll eventually have a group of goodies like AMAZING/FANTASTIC has. (That reminds me: "I don't like *Amazing* because of an almost snobby editorial feel and a cry-baby attitude."—Grimshawe, p. 170 Issue No. 172. This sounds rather shallow to be published, and may anger some *Amazing* readers. I subscribe to the top six magazines, and must admit I favor White's editorial policies. Maybe you can come up with something better. It doesn't help, though, to shove aside the women-writer issue as if you're going to be a male chauvinist. I would imagine around half your readers were women (*20%. —Ed.*) who also might believe you're being biased. But, I give you the doubt well-deserved, and hope you receive fine manuscripts from our women writers.)

Geis. I've heard about him, in fandom, but never seen anything of his. Now it looks like I'll have the opportunity on a bimonthly basis (any chance of going monthly again?). Fine reading, it helps to know the people and their ideas behind sf. Del Rey good as usual with reviews, etc.

Looking forward to issue next; as your first *Galaxy.*

Sinc;
R. J. Schenck
RD #1
Canisteo, NY 14823

"Second Advent" *was (for me at least) little more than wistful-thinking. As for* "The People's Choice"*—I have no idea. Doomsday stories, as such, are neither called for nor uncalled for—depends on how good they are and the nature of the rest of the issue. Grimshawe's comments on Ted White; I censored neither Grimshawe—nor Schenck.*

Now, as for sexual bias: I can think of nothing more biased—nor exploitive!—than an all-female issue. On the other hand, I am perfectly willing to "admit" that I consider Ursula K. Le Guin to be one of the top five living sf writers. (No, I'm not about to narrow it down any further.)

Dear Sir:

You have printed a blasphemy in Mack Reynolds' *Second Advent,* (June 1974 issue). The Book of Revelation teaches that the Lord Jesus Christ shall appear in the clouds, with power and glory, and that His coming in the clouds shall be equally visible from the west as from the EAST.

Notwithstanding this clear Biblical doctrine, Mack Reynolds has chosen to enact the second coming in darkness save for a few. Or to conceive and write of it being done that way, which is the same thing. Please inspect the stories of Mr. Reynolds more carefully from now on. We were so angry that it was asked and agreed to that I tear the offending story out of the magazine.

Yours in Christ
J. Parker Wilbern, Chairman
Federal City Conservative Club

While I may not share Mr. Reynolds' views on this subject I must uphold his right to express them.

Dear Mr. Baen,

As a reader of *Galaxy* and *IF* for a few years, I was beginning to suspect the magazines were sliding into the doldrums. In fact, I was toying with the idea of terminating my subscription, and just picking up the ones I wanted at the newsstand. Then things started improving for some unsuspected reason. And then the "New Editors Introductory Issue" of *IF* arrived and really spun my head on its axis. Not only do I enjoy the new features in *Galaxy* and *IF,* but the stories themselves seem better in the brighter layouts of the magazines.

I especially enjoyed the Pohl-Williamson

collaboration, and *The Org's Egg* fairly screams for at least one sequel. Anything by Bob Shaw is usually good, and *Orbitsville* is maintaining in my eyes his esteem as a writer.

In closing, I would like to say that the most improved feature in the magazines (no fooling) are the contents pages.

Sincerely,
David Keller

Thank you—I put a lot of work into those two pages!

Dear Mr. Baen:

Pronunciation please—Ben, Bain, or Bean? [#2]

I have been out of the habit of reading *IF* and *Galaxy* religiously for some years now. The editorial changes in the June *IF* took me by surprise. The longest I'd followed either mag lately was the four installments of "Inverted World" by Christopher Priest, and I found the ending a let-down.

But the June *IF* looks good. Hope to see it go monthly again. (Remember when *IF* was every month and *Galaxy* every other? [*Sure do.*]) Even the new contents page looks snappy.

"Stranger in Paradise" is not Asimov's best, but any new sf by the Good Doctor is welcome. Silverberg, Anvil and Schmitz came up with a good assortment, and the shorts were good. If this keeps up for the next couple of issues, I'm going to subscribe instead of relying on fate at the newsstand.

Reader Grimshawe was right in his letter about something missing since Fred Pohl left. I hope you can bring us an original excitement of your own.

One of Pohl's policies I wouldn't mind seeing revived is the "one story by a novice" per issue, since I'm sending you a short under separate cover.

Regarding Grimshawe's suggestion for commenting on published sf, I'd like to mention a book I just read that I haven't seen reviewed in any of the mags. EARTHWRECK by Thomas N. Scortia, just published by Fawcett Gold Medal (95c). It's a fast-paced story with a good plot and excellent characterizations. I'd recommend it highly. It's an after-the-bomb story with a difference.

I just reread A. E. van Vogt's THE CHANGELING and it blew my mind. Not so much the story itself, but "President Jefferson Dayles" seeking reelection in the 1972 elections. His inner thoughts and feelings, the extremes he's willing to go to to insure winning reelection in '72 are like a prophecy of Watergate. If, van Vogt has been a prophet all these years and we didn't know it, stay the hell away from Calonian Recruiting Centers!

Good Luck,
Jack Klein

Are you, sir, perchance guilty of anti-Calonianism . . .?

Dear Mr. Baen,

Heartiest congratulations on your accession to the galactic hot seat; and on getting R. E. (Heilige) Geis as columnist. Mr. Geis is a man of furious energy, pithy and pointed, no less than slashing with the critical broadsword. While he is overly ready to get his sexual fantasies into his own zine, it is more than probable that he can be confirmed in the thought that cleanliness is next to godliness. He is a fine and perceptive commentator with a wealth of bright one-liners and subtle twists of thought and idea.

All of the very best critics, or perhaps nearly all, are in some sense academics, but certainly were trained in the groves of academe. Most of the authors of sf are self-made and self-taught, and generally therefore suffer from some inferiority complex or other. This they display with petty antagonistics, reviling the academic critic in an exhibition of ignorance. This is an unfortunate thing in the literary discipline, which is our most perfect democracy, and in which demagogery and mean ranting should have no place.

With best regards and all good wishes, I remain,

Very cordially yours,
Alexander Doniphan Wallace
306 E. Gatehouse Drive, Apt. H
Metairie, Louisiana 70001

Dear Jim:

I thank Dr. Wallace for his compliments. But he's wrong about my sexual fantasies; they appeared indecently only in my personal journal (RICHARD E. GEIS #1-3 and in THE ALIEN CRITIC #4) well over a year ago. I suppose his psyche is still twitter-

ing in shock since he ordered a copy of #2 as part of his ALIEN CRITIC subscription.

I laughed like hell over his assertion that most sf authors feel inferior to academic critics. Everyone knows God's 13th Commandment reads: *English professors shall forever write dull, turgid, impenetrable prose.* There's no other possible explanation for writing that badly for publication.

How's that for petty antagonism?

Best,
Dick Geis

Pretty good, Dick!

Dear Mr. Baen:

This is the first issue of *IF* since Pohl quit that I have finished cover to cover. (And since I let my subscription lapse.) With *Analog* over-rated and F & SF wallowing in artsy quasi-New Wave shorts, I was forced to fall back on Ted White's efforts. Only moment of sorrow I will feel about your new editorship is that it may finish off *Amazing* at last by drawing the hard core Romantics back into *IF* and even *Galaxy.*

More substantial commendations: enclosed is my $11.95 for both of your publications at this fabulous pre-inflationary rate. Also, my "World's Only Libertarian Fanzine", *New Libertarian Notes,* will have an appropriate rave.

Don't slacken the pace or I swear I'll cancel. Give us Heinlein, de Camp, Asimov, Niven, Saberhagen, Pohl, and discover some new Doc Smiths and C. M. Kornbluth's while you're at it.

Makes me feel like a neofan again.

Yours For A New Liberty,
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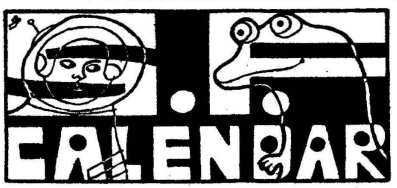

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JAN. 24-26. ConFUSION 13 in the Michigan League, Ann Arbor, Michigan. GoH: Fred Pohl. Fan GoH: Mike Glicksohn. For info: Ro Nagey, Rm. 240 Michigan Union, U. of Mich., Ann Arbor, Mi. 48104.

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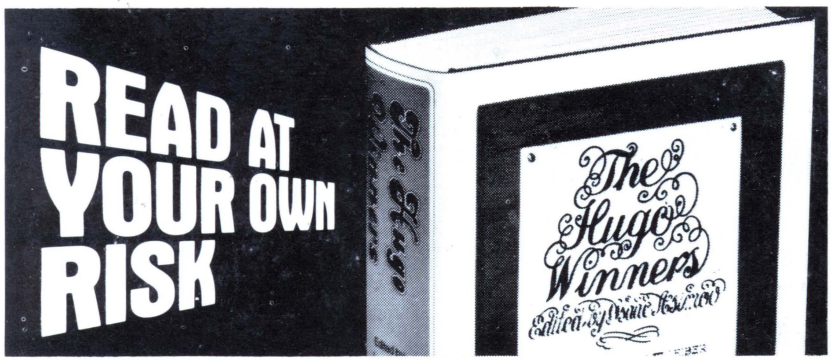

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