

# The Borderlands of Sol



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The organ bank problem remained an important social factor for most of the colony worlds. On Jinx it was unimportant; there was too much empty land for felons to flee to. On Plateau it created a hideous social stratification, vestiges of which remained long after ramrobot packages ended the organ bank problem itself.

Sol had its own problems. The Kzinti had discovered and conquered

Wunderland and were on their way to Earth.

For a time the situation was touchy. Sol held off the Kzinti by virtue of two accidents: the timely development of manned Bussard ramjets ("The Ethics of Madness") and the existence of giant laser cannon in the outer asteroids. These had been used to launch light-sail craft to Bussard ramjet speeds; now they were turned on the Kzinti. The Kzinti were amazed and hurt. Their telepaths had reported a species given over entirely to peace.

While Sol battled the Kzinti, an Outsider ship had arrived at We Made It. The Outsiders were interstellar traders,

fragile, cold beings. They sold the secret of the faster-than-light drive to the human colony on We Made It. Two years later, a ship powered by the Outsider hyperdrive arrived in Sol system. The crew had not known of the war. They were amazed at their heroes' welcome.

It was the Outsiders' faster-than-light drive that ended the first Man-Kzin War. The second, third, and fourth are hardly worth discussing. The Kzinti always had a tendency to attack before they were quite ready.

The hyperdrive also opened up known space. There were other intelligent

species around: Grogs, Bandersnatchi, Pierson's Puppeteers, Kdatlyno. An interstellar, interspecies civilization developed... and tales of that time are told in Neutron Star, the other known space collection.

Beowulf Shaeffer was a child of that time. A wandering crashlander, he was generally too lazy to stay out of trouble, but bright enough to think his way out once he was in. It was he who discovered that the galactic core was exploding... that within twenty thousand years, humanity would have to move elsewhere.

The following is the fifth of the tales of Beowulf Shaeffer.

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THREE MONTHS ON Jinx, marooned.

I played tourist for the first couple of months. I never saw the high-pressure regions around the ocean because the only way down would have been with a safari of hunting tanks. But I travelled the habitable lands on either side of the sea, the East Band civilized, the West Band a developing frontier. I wandered the East End in a vacuum suit, toured the distilleries and other vacuum industries, and stared up into the orange vastness of Primary, Jinx's big twin brother.

I spent most of the second month between the Institute of Knowledge and the Camelot Hotel. Tourism had palled.

For me, that's unusual. I'm a born tourist. But--

Jinx's one point seven eight gravities put an unreasonable restriction on elegance and ingenuity in architectural design. The buildings in the habitable bands all look alike: squat and massive.

The East and West Ends, the vacuum regions, aren't that different from any industrialized moon. I never developed much of an interest in touring factories.

As for the ocean shorelines, the only

vehicles that go there go to hunt Bandersnatchi. The Bandersnatchi are freaks: enormous, intelligent white slugs the size of mountains. They hunt the tanks. There are rigid restrictions to the equipment the tanks can carry, covenants established between men and Bandersnatchi, so that the Bandersnatchi win about forty percent of the duels. I wanted no part of that.

And all my touring had to be done in three times the gravity of my home world.

I spent the third month in Sirius Mater, and most of that in the Camelot Hotel, which has gravity generators in most of the rooms. When I went out I rode a

floating contour couch. I passed like an invalid among the Jinxians, who were amused. Or was that my imagination?

I was in a hall of the Institute of Knowledge when I came on Carlos Wu running his fingertips over a Kdatlyno touch-sculpture.

A dark, slender man with narrow shoulders and straight black hair, Carlos was lithe as a monkey in any normal gravity; but on Jinx he used a travel couch exactly like mine. He studied the busts with his head tilted to one side. And I studied the familiar back, sure it couldn't be him.

"Carlos, aren't you supposed to be on

Earth?"

He jumped. But when the couch spun around he was smiling. "Bey! I might say the same for you."

I admitted it.

"I was headed for Earth, but when all those ships started disappearing around Sol system the captain changed his mind and steered for Sirius. Nothing any of the passengers could do about it. What about you? How are Sharrol and the kids?"

"Sharrol's fine, the kids are fine, and they're all waiting for you to come home." His fingers were still trailing, over the Lloobee touch-sculpture called

Heroes, feeling the warm, fleshy textures. Heroes was a most unusual touch-sculpture; there were visual as well as textural effects. Carlos studied the two human busts, then said, "That's your face, isn't it?"

"Yah."

"Not that you ever looked that good in your life. How did a Kdatlyno come to pick Beowulf Shaeffer as a classic hero? Was it your name? And who's the other guy?"

"I'll tell you about it sometime. Carlos, what are you doing here?"

"I... left Earth a couple of weeks after

Louis was born." He was embarrassed. Why?

"I haven't been off Earth in ten years. I needed the break."

But he'd left just before I was supposed to get home. And... hadn't someone once said that Carlos Wu had a touch of the flatland phobia? I began to understand what was wrong.

"Carlos, you did Sharrol and me a valuable favor."

He laughed without looking at me.

"Men have killed other men for such favors. I thought it was ...tactful to be

gone when you came home."

Now I knew. Carlos was here because the Fertility Board on Earth would not favor me with a parenthood license.

You can't really blame the Board for using any excuse at all to reduce the number of producing parents. I am an albino. Sharrol and I wanted each other; but we both wanted children, and Sharrol can't leave Earth. She has the flatland phobia, the fear of strange air and altered days and changed gravity and black sky beneath her feet.

The only solution we'd found had been to ask a good friend to help.

Carlos Wu is a registered genius with an incredible resistance to disease and injury. He carries an unlimited parenthood license, one of sixty-odd among Earth's eighteen billion people. He gets similar offers every week... but he is a good friend, and he'd agreed. In the last two years Sharrol and Carlos had had two children, who were now waiting on earth for me to become their father.

I felt only gratitude for what he'd done for us.

"I forgive you your odd ideas on tact," I said magnanimously. "Now. As long as we're stuck on Jinx, may I show you around? I've met some interesting

people."

"You always do." He hesitated, then, "I'm not actually stuck on Jinx. I've been offered a ride home. I may be able to get you in on it."

"Oh, really? I didn't think there were any ships going to Sol system these days. Or leaving."

"This ship belongs to a government man. Ever heard of a Sigmund AusfaRer?"

"That sounds vaguely... Wait! Stop! The last time I saw Sigmund Ausfaller, he had just put a bomb aboard my ship!"

Carlos blinked at me.

"You're kidding."

"I'm not."

"Sigmund Ausfaller is in the Bureau of Alien Affairs. Bombing spacecraft isn't one of his functions."

"Maybe he was off duty." I said viciously.

"Well, it doesn't really sound like you'd want to share a spacecraft cabin with him. Maybee--"

But I'd thought of something else, and now there just wasn't any way out of it.

"No, let's meet him. Where do we find

him?"

"The bar of the Camelot," said Carlos.

Reclining luxuriously on our travel couches, we slid on air cushions through Sirius Mater. The orange trees that lined the walks were foreshortened by gravity; their trunks were thick cones, and the oranges on the branches were not much bigger than ping pong balls.

Their world had altered them, even as our worlds have altered you and me. And underground civilization and point six gravities have made of me a pale stick-figure of a man, tall and attenuated. The Jinxians we passed were short and wide, designed like bricks, men and

women both. Among them the occasional offworlder seemed as shockingly different as a Kdatlyno or a Pierson's Puppeteer.

And so we came to the Camelot.

The Camelot is a low, two-story structure that sprawls like a cubistic octopus across several acres of downtown Sirius Mater. Most offworlders stay here, for the gravity control in the rooms and corridors and for access to the Institute of Knowledge, the finest museum and research complex in human space.

The Camelot Bar carries one Earth gravity throughout. We left our travel

couches in the vestibule and walked in like men. Jinxians were walking in like bouncing rubber bricks, with big happy grins on their wide faces. Jinxians love low gravity. A good many migrate to other worlds.

We spotted Ausfaller easily: a rounded, moon-faced flatlander with thick, dark, wavy hair and a thin black mustache. He stood as we approached.

"Beowulf Shaeffer!" he beamed. "How good to see you again! I believe it has been eight years or thereabouts. How have you been?"

"I lived," I told him.

Carlos rubbed his hands together briskly.

"Sigmund! Why did you bomb Bey's ship?"

Ausfaller blinked in surprise.

"Did he tell you it was his ship? It wasn't. He was thinking of stealing it. I reasoned that he would not steal a ship with a hidden time bomb aboard."

"But how did you come into it?" Carlos slid into the booth beside him.

"You're not police. You're in the Extremely Foreign Relations Bureau."

"The ship belonged to General Products Corporation, which is owned by Pierson's Puppeteers, not human beings."

Carlos turned on me.

"Bey! Shame on you."

"Dammit! They were trying to blackmail me into a suicide mission! And Ausfaller let them get away with it! And that's the least convincing exhibition of tact I've ever seen!"

"Good thing they soundproof these booths," said Carlos.

"Let's order."

Soundproofing field or not, people were staring. I sat down. When our drinks came I drank deep. Why had I mentioned the bomb at all?

Ausfaller was saying, "Well, Carlos, have you changed your mind about coming with me?"

"Yes, if I can take a friend."

Ausfaller frowned, looked at me.

"You wish to reach Earth too?"

I'd made up my mind.

"I don't think so. In fact, I'd like to talk you out of taking Carlos."

Carlos said, "Hey!"

I overrode him.

"Ausfaller, do you know who Carlos is? He had an unlimited parenthood license at the age of eighteen. Eighteen! I don't mind you risking your own life, in fact I love the idea. But his?"

"It's not that big a risk!" Carlos snapped.

"Yah? What has Ausfaller got that eight other ships didn't have?"

"Two things," Ausfaller said patiently.

"One is that we will be incoming. Six of the eight ships that vanished were

leaving Sol system. If there are pirates around Sol, they must find it much easier to locate an outgoing ship.

"They caught two incoming. Two ships, fifty crewmembers and passengers, gone. Poof!"

"They would not take me so easily," Ausfaller boasted. "The Hobo Kelly is deceptive. It seems to be a cargo and passenger ship, but it is a warship, armed and capable of thirty gees acceleration. In normal space we can run from anything we can't fight. We are assuming pirates, are we not? Pirates would insist on robbing a ship before they destroy it."

I was intrigued.

"Why? Why a disguised warship? Are you hoping you'll be attacked?"

"If there are actually pirates, yes, I hope to be attacked. But not when entering Sol system. We plan a substitution. A quite ordinary cargo craft will land on Earth, take on cargo of some value, and depart for Wunderland on a straight-line course. My ship will replace it before it has passed through the asteroids. So you see, there is no risk of losing Mr. Wu's precious genes."

Palms flat to the table, arms straight, Carlos stood looming over us.

"Diffidently I raise the point that they are my futzy genes and I'll do what I futzy please with them! Bey, I've already had my share of children, and yours too!"

"Peace, Carlos. I didn't mean to step on any of your inalienable rights." I turned to Ausfaller. "I still don't see why these disappearing ships should interest the Extremely Foreign Relations Bureau."

"There were alien passengers aboard some of the ships."

"Oh."

"And we have wondered if the pirates themselves are aliens. Certainly they have a technique not known to humanity."

Of six outgoing ships, five vanished after reporting that they were about to enter hyperdrive."

I whistled.

"They can precipitate a ship out of hyperdrive? That's impossible. Isn't it? Carlos?"

Carlos' mouth twisted.

"Not if it's being done. But I don't understand the principle. If the ships were just disappearing, that'd be different. Any ship does that if it goes too deep into a gravity well on hyperdrive."

"Then... maybe it isn't pirates at all. Carlos, could there be living beings in hyperspace, actually eating the ships?"

"For all of me, there could. I don't know everything, Bey, contrary to popular opinion." But after a minute he shook his head.

"I don't buy it. I might buy an uncharted mass on the fringes of Sol system. Ships that came too near in hyperdrive would disappear."

"No," said AusfaHer.

"No single mass could have caused all of the disappearances. Charter or not, a planet is bounded by gravity and inertia.

We ran computer simulations. It would have taken at least three large masses, all unknown, all moving into heavy trade routes, simultaneously."

"How large? Mars size or better?"

"So you have been thinking about this too."

Carlos smiled.

"Yah. It may sound impossible, but it isn't. It's only improbable. There are unbelievable amounts of garbage out there beyond Neptune. Four known planets and endless chunks of ice and stone and nickel-iron."

"Still, it is most improbable."

Carlos nodded. A silence fell.

I was still thinking about monsters in hyperspace. The lovely thing about that hypothesis was that you couldn't even estimate a probability. We knew too little.

Humanity has been using hyperdrive for almost four hundred years now. Few ships have disappeared in that time, except during wars. Now, eight ships in ten months, all around Sol system.

Suppose one hyperspace beast had discovered ships in this region, say during one of the Man-Kzin Wars? He'd

gone to get his friends. Now they were preying around Sol system. The flow of ships around Sol is greater than that around any three colony stars. But if more monsters came, they'd surely have to move on to the other colonies.

I couldn't imagine a defense against such things. We might have to give up interstellar travel.

Ausfaller said, "I would be glad if you would change your mind and come with us, Mr. Shaeffer."

"Um? Are you sure you want me on the same ship with you?"

"Oh, emphatically! How else may I be

sure that you have not hidden a bomb aboard?" Ausfaller laughed. "Also, we can use a qualified pilot. Finally, I would like the chance to pick your brain, Beowulf Shaeffer. You have an odd facility for doing my job for me."

"What do you mean by that?"

"General Products used blackmail in persuading you to do a close orbit around a neutron star. You learned something about their home world--I've still do not know what it was--and blackmailed them back. We know that blackmail contracts are a normal part of Puppeteer business practice. You earned their respect. You have dealt with them since. You have dealt also with

Outsiders, without friction. But it was your handling of the Lloobee kidnapping that I found impressive."

Carlos was sitting at attention. I hadn't had a chance to tell him about that one yet. I grinned and said, "I'm proud of that myself."

"Well you should be. You did more than retrieve known space's top Kdatlyno touch-sculptor: you did it with honor, killing one of their number and leaving Lloobee free to pursue the others with publicity. Otherwise the Kdatlyno would have been annoyed."

Helping Sigmund Ausfaller had been the farthest thing from my thoughts for these

past eight years; yet suddenly I felt damn good. Maybe it was the way Carlos was listening. It takes a lot to impress Carlos Wu.

Carlos said, "If you thought it was pirates, you'd come along, wouldn't you, Bey? After all, they probably can't find incoming ships."

"Sure."

"And you don't really believe in hyperspace monsters."

I hedged.

"Not if I hear a better explanation. The thing is, I'm not sure I believe in

supertechnological pirates either. What about those wandering masses?"

Carlos pursed his lips, said, "All right. The solar system has a good number of planets--at least a dozen so far discovered, four of them outside the major singularity around Sol."

"And not including Pluto?"

"No, we think of Pluto as a loose moon of Neptune. It runs Neptune, Persephone, Caïna, Antenora, PtoleMEA, in order of distance from the sun. And the orbits aren't flat to the plane of the system. Persephone is tilted at a hundred and twenty degrees to the system, and retrograde. If they find another planet out

there they'll call it Judecca."

"Why?"

"Hell. The four innermost divisions of Dante's Hell. They form a great ice plain with sinners frozen into it."

"Stick to the point," said Ausfaller.

"Start with the cometary halo," Carlos told me.

"It's very thin: about one comet per spherical volume of the Earth's orbit. Mass is denser going inward: a few planets, some inner comets, some chunks of ice and rock, all in skewed orbits and still spread pretty thin. Inside Neptune

there are lots of planets and asteroids and more flattening of orbits to conform with Sol's rotation. Outside Neptune space is vast and empty. There could be uncharted planets. Singularities to swallow ships."

Ausfaller was indignant.

"But for three to move into main trade lanes simultaneously?"

"It's not impossible, Sigmund."

"The probability--"

"Infinitesimal, right. Bey, it's damn near impossible. Any sane man would assume pirates."

It had been a long time since I had seen Sharrol. I was sore tempted.

"Ausfaller, have you traced the sale of any of the loot? Have you gotten any ransom notes?" Convince me!

Ausfaller threw back his head and laughed.

"What's funny?"

"We have hundreds of ransom notes. Any mental deficient can write a ransom note, and these disappearances have had a good deal of publicity. The demands were all fakes. I wish one or another had been genuine. A son of the Patriarch of Kzin was aboard Wayfarer when she

disappeared. As for loot--hmm. There has been a fall in the black market prices of boosterspice and gem woods. Otherwise-" He shrugged. "There has been no sign of the Barr originals or the Midas Rock or any of the more conspicuous treasures aboard the missing ships."

"Then you don't know one way or another."

"No. Will you go with us?"

"I haven't decided yet. When are you leaving?"

They'd be taking off tomorrow morning from the East End. That gave me time to

make up my mind.

After dinner I went back to my room, feeling depressed. Carlos was going, that was clear enough. Hardly my fault... but he was here on Jinx because he'd done me and Sharrol a large favor. If he was killed going home...

A tape from Sharrol was waiting in my room. There were pictures of the children, Tanya and Louis, and shots of the apartment she'd found us in the Twin Peaks arcology, and much more.

I ran through it three times. Then I called Ausfaller's room. It had been just too futzy long.

I circled Jinx once on the way out. I've always done that, even back when I was flying for Nakamura Lines; and no passenger has ever objected.

Jinx is the close moon of a gas giant planet more massive than Jupiter, and smaller than Jupiter because its core has been compressed to degenerate matter. A billion years ago Jinx and Primary were even closer, before tidal drag moved them apart. This same tidal force had earlier locked Jinx's rotation to Primary and forced the moon into an egg shape, a prolate spheroid. When the moon moved outward its shape became more nearly spherical; but the cold rock surface resisted change.

That is why the ocean of Jinx rings its waist, beneath an atmosphere too compressed and too hot to breathe; whereas the points nearest to and furthest from Primary, the East and West Ends, actually rise out of the atmosphere.

From space Jinx looks like God's Own Easter Egg: the Ends bone white tinged with yellow; then the brighter glare from rings of glittering ice fields at the limits of the atmosphere; then the varying blues of an Earthlike world, increasingly overlaid with the white frosting of cloud as the eyes move inward, until the waist of the planet/moon is girdled with pure white. The ocean never shows at all.

I took us once around, and out.

Sirius has its own share of floating miscellaneous matter cluttering the path to interstellar space. I stayed at the controls for most of five days, for that reason and because I wanted to get the feel of an unfamiliar ship.

Hobo Kelly was a belly-landing job, three hundred feet long, of triangular cross section. Beneath an up-tilted, forward-thrusting nose were big clamshell doors for cargo. She had adequate belly jets and a much larger fusion motor at the tail, and a line of windows indicating cabins. Certainly she looked harmless enough; and certainly there was deception involved.

The cabin should have held forty or fifty, but there was room only for four. The rest of what should have been cabin space was only windows with holograph projections in them.

The drive ran sure and smooth up to a maximum at ten gravities: not a lot for a ship designed to haul massive cargo. The cabin gravity held without putting out more than a fraction of its power. When Jinx and Primary were invisible against the stars, when Sirius was so distant I could look directly at it, I turned to the hidden control panel Ausfaller had unlocked for me. Ausfaller woke up, found me doing that, and began showing me which did what.

He had a big X-ray laser and some smaller laser cannon set for different frequencies. He had four selfguided fusion bombs. He had a telescope so good that the ostensible ship's telescope was only a finder for it. He had deep-radar.

And none of it showed beyond the discolored hull.

Ausfaller was armed for Bandersnatchi. I felt mixed emotions. It seemed we could fight anything, and run from it too. But what kind of enemy was be expecting?

All through those four weeks in hyperdrive, while we drove through the

Blind Spot at three days to the lightyear, the topic of the ship eaters reared its disturbing head.

Oh, we spoke of other things: of music and art, and of the latest techniques in animation, the computer programs that let you make your own holo flicks almost for lunch money. We told stories. I told Carlos why the Kdatlyno Lloobee had made busts of me and Emil Home. I spoke of the only time the Pierson's Puppeteers had ever paid off the guarantee on a General Products hull, after the supposedly indestructible hull had been destroyed by antimatter. Ausfaller had some good ones a lot more stories that he was allowed to tell, I

gathered, from the way he had to search his memory every time.

But we kept coming back to the ship eaters.

"It boils down to three possibilities," I decided. "Kzinti, Puppeteers, and Humans."

Carlos guffawed.

"Puppeteers? Puppeteers wouldn't have the guts!"

"I threw them in because they might have some interest in manipulating the interstellar stock market. Look: our hypothetical pirates have set up an

embargo, cutting Sol system off from the outside world. The Puppeteers have the capital to take advantage of what that does to the market. And they need money. For their migration."

"The Puppeteers are philosophical cowards."

"That's right. They wouldn't risk robbing the ships, or coming anywhere near them. Suppose they can make them disappear from a distance?"

Carlos wasn't laughing now.

"That's easier than dropping them out of hyperspace to rob them. It wouldn't take more than a great big gravity generator..."

and we've never known the limits of Puppeteer technology."

Ausfaller asked, "You think this is possible?"

"Just barely. The same goes for the Kzinti. The Kzinti are ferocious enough. Trouble is, if we ever learned they were preying on our ships we'd raise pluperfect hell. The Kzinti know that, and they know we can beat them. Took them long enough, but they learned."

"So you think it's Humans," said Carlos.

"Yah. If it's pirates."

The piracy theory still looked shaky.

Spectrum telescopes had not even found concentrations of ship's metals in the space where they have vanished. Would pirates steal the whole ship? If the hyperdrive motor were still intact after the attack, the rifled ship could be launched into infinity; but could pirates count on that happening eight times out of eight?

And none of the missing ships had called for help via hyperwave.

I'd never believed pirates. Space pirates have existed, but they died without successors. Intercepting a spacecraft was too difficult. They couldn't make it pay.

Ships fly themselves in hyperdrive. All a pilot need do is watch for green radial lines in the mass sensor. But he has to do that frequently, because the mass sensor is a psionic device; it must be watched by a mind, not another machine.

As the narrow green line that marked Sol grew longer, I became abnormally conscious of the debris around Sol system. I spent the last twelve hours of the flight at the controls, chain-smoking with my feet. I should add that I do that normally, when I want both hands free; but now I did it to annoy Ausfaller. I'd seen the way his eyes bugged the first time he saw me take a drag from a cigarette between my toes. Flatlanders

are less than limber.

Carlos and Ausfaller shared the control room with me as we penetrated Sol's cometary halo. They were relieved to be nearing the end of a long trip. I was nervous.

"Carlos, just how large a mass would it take to make us disappear?"

"Planet size, Mars and up. Beyond that it depends on how close you get and how dense it is. If it's dense enough it can be less massive and still flip you out of the universe. But you'd see it in the mass sensor."

"Only for an instant... and not then, if it's

turned off. What if someone turned on a giant gravity generator as we went past?"

"For what? They couldn't rob the ship. Where's their profit?"

"Stocks."

But Ausfaller was shaking his head.

"The expense of such an operation would be enormous. No group of pirates would have enough additional capital on hand to make it worthwhile. Of the Puppeteers I might believe it."

Hell, he was right. No Human that wealthy would need to turn pirate.

The long green line marking Sol was almost touching the surface of the mass sensor. I said, "Breakout in ten minutes."

And the ship lurched savagely.

"Strap down!" I yelled, and glanced at the hyperdrive monitors. The motor was drawing no power, and the rest of the dials were going bananas.

I activated the windows. I'd kept them turned off in hyperspace, lest my flatlander passengers go mad watching the Blind Spot. The screens came on and I saw stars. We were in normal space.

"Futz! They got us anyway." Carlos sounded neither frightened nor angry, but

awed.

As I raised the hidden panel Ausfaller cried, "Wait!" I ignored him. I threw the red switch, and Hobo Kelly lurched again as her belly blew off.

Ausfaller began cursing in some dead flatlander language.

Now two-thirds of Hobo Kelly receded, slowly turning. What was left must show as what she was: a Number Two General Products hull, Puppeteer-built, a slender transparent spear three hundred feet long and twenty feet wide, with instruments of war clustered along what was now her belly. Screens that had been blank came to life. And I lit the

main drive and ran it up to full power.

Ausfaller spoke in rage and venom.

"Shaeffer, you idiot, you coward! We run without knowing what we ran from. Now they know exactly what we are. What chance that they will follow us now? This ship was built for a specific purpose, and you have ruined it!"

"I've freed your special instruments," I pointed out.

"Why don't you see what you can find?" Meanwhile I could get us the futz out of here.

Ausfaller became very busy. I watched

what he was getting on screens at my side of the control panel. Was anything chasing us? They'd find us hard to catch and harder to digest. They could hardly have been expecting a General Products hull. Since the Puppeteers stopped making them the price of used GP hulls has gone out of sight.

There were ships out there. Ausfaller got a closeup of them: three space tugs of the Belter type, shaped like thick saucers, equipped with oversized drives and powerful electromagnetic generators. Belters use them to tug nickel-iron asteroids to where somebody wants the ore. With those heavy drives they could probably catch us; but would they have

adequate cabin gravity?

They weren't trying. They seemed to be neither following nor fleeing. And they looked harmless enough.

But Ausfaller was doing a job on them with his other instruments. I approved. Hobo Kelly had looked peaceful enough a moment ago. Now her belly bristled with weaponry. The tugs could be equally deceptive.

From behind me Carlos asked, "Bey? What happened?"

"How the futz would I know?"

"What do the instruments show?"

He must mean the hyperdrive complex. A couple of the indicators had gone wild; five more were dead. I said so. "And the drive's drawing no power at all. I've never heard of anything like this. Carlos, it's still theoretically impossible."

"I'm... not so sure of that. I want to look at the drive."

"The access tubes don't have cabin gravity."

Ausfaller had abandoned the receding tugs. He'd found what looked to be a large comet, a ball of frozen gasses a good distance to the side. I watched as he ran the deep-radar over it. No fleet of

robber ships lurked behind it.

I asked, "Did you deep-radar the tugs?"

"Of course. We can examine the tapes in detail later. I saw nothing. And nothing has attacked us since we left hyperspace."

I'd been driving us in a random direction. Now I turned us toward Sol, the brightest star in the heavens. Those lost ten minutes in hyperspace would add about three days to our voyage.

"If there was an enemy, you frightened him away. Shaeffer, this mission and this ship have cost my department an enormous sum, and we have learned

nothing at all."

"Not quite nothing," said Carlos.

"I still want to see the hyperdrive motor. Bey, would you run us down to one gee?"

"Yah. But... miracles make me nervous, Carlos."

"Join the club."

We crawled along an access tube just a little bigger than a big man's shoulders, between the hyperdrive motor housing and the surrounding fuel tankage. Carlos reached an inspection window. He looked in. He started to laugh.

I inquired as to what was so futzy funny.

Still chortling, Carlos moved on. I crawled after him and looked in.

There was no hyperdrive motor in the hyperdrive motor housing.

I went in through a repair hatch and stood in the cylindrical housing, looking about me. Nothing. Not even an exit hole. The superconducting cables and the mounts for the motor had been sheared so cleanly that the cut ends looked like little mirrors.

Ausfaller insisted on seeing for himself. Carlos and I waited in the control room. For a while Carlos kept bursting into fits

of giggles. Then he got a dreamy, faraway look that was even more annoying.

I wondered what was going on in his head, and reached the uncomfortable conclusion that I could never know. Some years ago I took IQ tests, hoping to get a parenthood license that way. I am not a genius.

I knew only that Carlos had thought of something I hadn't, and he wasn't telling, and I was too proud to ask.

Ausfaller had no pride. He came back looking like he'd seen a ghost.

"Gone! Where could it go? How could it

happen?"

"That I can answer," Carlos said happily.

"it takes an extremely high gravity gradient. The motor hit that, wrapped space around itself and took off at some higher level of hyperdrive, one we can't reach. By now it could be well on its way to the edge of the universe."

I said, "You're sure, huh? An hour ago there wasn't a theory to cover any of this."

"Well, I'm sure our motor's gone. Beyond that it gets a little hazy. But this is one well-established model of what

happens when a ship hits a singularity. At a lower gravity gradient the motor would take the whole ship with it, then strew atoms of the ship along its path till there was nothing left but the hyperdrive field itself."

"Ugh."

Now Carlos burned with the love of an idea.

"Sigmund, I want to use your hyperwave. I could still be wrong, but there are things we can check."

"If we are still within the singularity of some mass, the hyperwave will destroy itself."

"Yah. I think it's worth the risk."

We'd dropped out, or been knocked out, ten minutes short of the singularity around Sol. That added up to sixteen light-hours of normal space, plus almost five light-hours from the edge of the singularity inward to Earth. Fortunately hyperwave is instantaneous, and every civilized system keeps a hyperwave relay station just outside the singularity. Southworth Station would relay our message inward by laser, get the return message the same way and pass it on to us ten hours later.

We turned on the hyperwave and nothing exploded.

Ausfaller made his own call first, to Ceres, to get the registry of the tugs we'd spotted. Afterward Carlos called Elephant's computer setup in New York, using a code number Elephant doesn't give to many people.

"I'll pay him back later. Maybe with a story to go with it," he gloated.

I listened as Carlos outlined his needs. He wanted full records on a meteorite that had touched down in Tunguska, Siberia, USSR, Earth, in 1908 AD. He wanted a reprise on three models of the origin of the universe or lack of same: the Big Bang, the Cyclic Universe, the Steady State Universe. He wanted data on collapsars. He wanted names, career

outlines, and addresses for the best known students of gravitational phenomena in Sol system. He was smiling when he clicked off.

I said, "You got me. I haven't the remotest idea what you're after."

Still smiling, Carlos got up and went to his cabin to catch some sleep.

I turned off the main thrust motor entirely. When we were deep in Sol system we could decelerate at thirty gravities. Meanwhile we were carrying a hefty velocity picked up on our way out of Sirius system.

Ausfaller stayed in the control room.

Maybe his motive was the same as mine. No police ships out here. We could still be attacked.

He spent the time going through his pictures of the three mining tugs. We didn't talk, but I watched.

The tugs seemed ordinary enough. Telescopic photos showed no suspicious breaks in the hulls, no hatches for guns. In the deep-radar scan they showed like ghosts: we could pick out the massive force-field rings, the hollow, equally massive drive tubes, the lesser densities of fuel tank and life-support system. There were no gaps or shadows that shouldn't have been there.

By and by Ausfaller said, "Do you know what Hobo Kelly was worth?"

I said I could make a close estimate.

"It was worth my career. I thought to destroy a pirate fleet with Hobo Kelly. But my pilot fled. Fled! What have I now, to show for my expensive Trojan Horse?"

I suppressed the obvious answer, along with the plea that my first responsibility was Carlos' life. Ausfaller wouldn't buy that. Instead, "Carlos has something. I know him. He knows how it happened."

"Can you get it out of him?"

"I don't know." I could put it to Carlos that we'd be safer if we knew what was out to get us. But Carlos was a flatlander. It would color his attitudes.

"So," said Ausfaller.

"We have only the unavailable knowledge in Carlos' skull."

A weapon beyond human technology had knocked me out of hyperspace. I'd run. Of course I'd ran. Staying in the neighborhood would have been insane, said I to myself, said I. But, unreasonably, I still felt bad about it.

To Ausfaller I said, "What about the mining tugs? I can't understand what

they're doing out here. In, the Belt they use them to move nickel-iron asteroids to industrial sites."

"It is the same here. Most of what they find is useless: stony masses or balls of ice; but what little metal there is, is valuable. They must have it for building."

"For building what? What kind of people would live here? You might as well set up shop in interstellar space!"

"Precisely. There are no tourists, but there are research groups, here where space is flat and empty and temperatures are near absolute zero. I know that the Quicksilver Group was established here

to study hyperspace phenomena. We do not understand hyperspace, even yet. Remember that we did not invent the hyperdrive; we bought it from an alien race. Then there is a gene-tailoring laboratory trying to develop a kind of tree that will grow on comets."

"You're kidding."

"But they are serious. A photosynthetic plant to use the chemicals present in all comets... it would be very valuable. The whole cometary halo could be seeded with oxygen-producing plants--" Ausfaller stopped abruptly, then, "Never mind. But all these groups need building materials. It is cheaper to build out here than to ship everything from Earth or the

Belt. The presence of tugs is not suspicious."

"But there was nothing else around us. Nothing at all."

Ausfaller nodded.

When Carlos came to join us many hours later, blinking sleep out of his eyes, I asked him, "Carlos, could the tugs have had anything to do with your theory?"

"I don't see how. I've got half an idea, and half an hour from now I could look like a halfwit. The theory I want isn't even in fashion any more. Now that we know what the quasars are, everyone seems to like the Steady State

Hypothesis. You know how that works: the tension in completely empty space produces more hydrogen atoms, forever. The universe has no beginning and no end." He looked stubborn "But if I'm right, then I know where the ships went to after being robbed. That's more than anyone else knows."

Ausfaller jumped on him.

"Where are they? Are the passengers alive?"

"I'm sorry, Sigmund. They're all dead. There won't even be bodies to bury."

"What is it? What are we fighting?"

"A gravitational effect. A sharp warping of space. A planet wouldn't do that, and a battery of cabin gravity generators wouldn't do it; they couldn't produce sharply bounded a field."

"A collapsar," Ausfaller suggested.

Carlos grinned at him.

"That would do it, but there are other problems. A collapsar can't even form at less than around five solar masses. You'd think someone would have noticed something that big, this close to Sol."

"Then what?"

Carlos shook his head. We would wait.

The relay from Southworth Station gave us registration for three space tugs, used and of varying ages, all three purchased two years ago from IntraBelt Mining by the Sixth Congregational Church of Rodney.

"Rodney?"

But Carlos and Ausfaller were both chortling.

"Belters do that sometimes," Carlos told me.

"It's a way of saying it's nobody's business who's buying the ships."

"That's pretty funny, all right, but we still don't know who owns them."

"They may be honest Belters. They may not."

Hard on the heels of the first call came the data Carlos had asked for, playing directly into the shipboard computer. Carlos called up a list of names and phone numbers: Sol system's preeminent students of gravity and its effects, listed in alphabetical order.

An address caught my attention:

Julian Forward, #1192326 Southworth Station.

A hyperwave relay tag. He was out here, somewhere in the enormous gap between Neptune's orbit and the cometary belt, out here where the hyperwave relay could function. I looked for more Southworth Station numbers. They were there:

Launcelot            Starkey,            #1844719  
Southworth Station.

Jill   Luciano,   #1844719   Southworth  
Station.

Mariana   Wilton,   #1844719   Southworth  
Station.

"These people," said Ausfaller.

"You wish to discuss your theory with one of them?"

"That's right. Sigmund, isn't 1844719 the tag for the Quicksilver Group?"

"I think so. I also think that they are not within our reach, now that our hyperdrive is gone. The Quicksilver Group was established in distant orbit around Antenora, which is now on the other side of the sun. Carlos, has it occurred to you that one of these people may have built the ship-eating device?"

"What?... You're right. It would take someone who knew something about gravity. But I'd say the Quicksilver Group was beyond suspicion. With

upwards of ten thousand people at work, how could anyone hide anything?"

"What about this Julian Forward?"

"Forward. Yah. I've always wanted to meet him."

"You know of him? Who is he?"

"He used to be with the Institute of Knowledge on Jinx. I haven't heard of him in years. He did some work on the gravity waves from the galactic core... work that turned out to be wrong. Sigmund, let's give him a call."

"And ask him what?"

"Why... ?" Then Carlos remembered the situation.

"Oh. You think he might--Yah."

"How well do you know this man?"

"I know him by reputation. He's quite famous. I don't see how such a man could go in for mass murder."

"Earlier you said that we were looking for a man skilled in the study of gravitational phenomena."

"Granted."

Ausfaller sucked at his lower lip. Then, "Perhaps we can do no more than talk to

him. He could be on the other side of the sun and still head a pirate fleet--"

"No. That he could not."

"Think again," said Ausfaller.

"We are outside the singularity of Sol. A pirate fleet would surely include hyperdrive ships."

"If Julian Forward is the ship eater, he'll have to be nearby. The, uh, device won't move in hyperspace."

I said, "Carlos, what we don't know can kill us. Will you quit playing games--" But he was smiling, shaking his head. Futz.

"All right, we can still check on Forward. Call him up and ask where he is! Is he likely to know you by reputation?"

"Sure. I'm famous too."

"Okay. If he's close enough, we might even beg him for a ride home. The way things stand we'll be at the mercy of any hyperdrive ship for as long as we're out here."

"I hope we are attacked," said Ausfaller.

"We can outfight--"

"But we can't outrun. They can dodge, we can't."

"Peace, you two. First things first." Carlos sat down at the hyperwave controls and tapped out a number.

Suddenly Ausfaller said, "Can you contrive to keep my name out of this exchange? If necessary you can be the ship's owner."

Carlos looked around in surprise. Before he could answer, the screen lit. I saw ash-blond hair cut in a Belter crest, over a lean white face and an impersonal smile.

"Forward Station. Good evening."

"Good evening. This is Carlos Wu of Earth calling long distance. May I speak

to Dr. Julian Forward, please?"

"I'll see if he's available." The screen went on HOLD.

In the interval Carlos burst out: "What kind of game are you playing now? How can I explain owning an armed, disguised warship?"

But I began to see what Ausfaller was getting at. I said, "You'd want to avoid explaining that, whatever the truth was. Maybe he won't ask. I--" I shut up, because we were facing Forward.

Julian Forward was a Jinxian, short and wide, with arms as thick as legs and legs as thick as pillars. His skin was almost

as black as his hair: a Sirius suntan, probably maintained by sunlights. He perched on the edge of a massage chair.

"Carlos Wu!" he said with flattering enthusiasm.

"Are you the same Carlos Wu who solved the Sealeyham Limits Problem?"

Carlos said he was. They went into a discussion of mathematics--a possible application, of Carlos' solution to another limits problem, I gathered. I glanced at Ausfaller--not obtrusively, because for Forward he wasn't supposed to exist--and saw him pensively studying his side view of Forward.

"Well," Forward said, "what can I do for you?"

"Julian Forward, meet Beowulf Shaeffer," said Carlos. I bowed.

"Bey was giving me a lift home when our hyperdrive motor disappeared."

"Disappeared?"

I butted in, for verisimilitude.

"Disappeared, futzy right. The hyperdrive motor casing is empty. The motor supports are sheared off. We're stuck out here with no hyperdrive and no idea how it happened."

"Almost true," Carlos said happily.

"Dr. Forward, I do have some ideas as to what happened here. I'd like to discuss them with you."

"Where are you now?"

I pulled our position and velocity from the computer and flashed them to Forward Station. I wasn't sure it was a good idea; but Ausfaller had time to stop me, and he didn't.

"Fine," said Forward's image.

"It looks like you can get here a lot faster than you can get to Earth. Forward Station is ahead of you, within twenty

a.u. of your position. You can wait here for the next ferry. Better than going on in a crippled ship."

"Good! We'll work out a course and let you know when to expect us."

"I welcome the chance to meet Carlos Wu." Forward gave us his own coordinates and rang off.

Carlos turned.

"All right, Bey. Now you own an armed and disguised warship. You figure out where you got it."

"We've got worse problems than that. Forward Station is exactly where the

ship eater ought to be."

He nodded. But he was amused.

"So what's our next move? We can't run from hyperdrive ships. Not now. Is Forward likely to try to kill us?"

"If we don't reach Forward Station on schedule he might send ships after us. We know too much. We've told him so," said Carlos.

"The hyperdrive motor disappeared completely. I know half a dozen people who could figure out how it happened, knowing just that." He smiled suddenly.

"That's assuming Forward's the ship

eater. We don't know that. I think we have a splendid chance to find out, one way or the other."

"How? Just walk in?"

Ausfaller was nodding approvingly.

"Dr. Forward expects you and Carlos to enter his web unsuspecting, leaving an empty ship. I think we can prepare a few surprises for him. For example, he may not have guessed that this is a General Products hull. And I will be aboard to fight."

True. Only antimatter could harm a GP hull... though things could go through it, like light and gravity and shock waves.

"So you'll be in the indestructible hull," I said, "and we'll be helpless in the base. Very clever. I'd rather run for it myself. But then, you have your career to consider."

"I will not deny it. But there are ways in which I can prepare you."

Behind Ausfaller's cabin, behind what looked like an unbroken wall, was a room the size of a walk-in closet. Ausfaller seemed quite proud of it. He didn't show us everything in there, but I saw enough to cost me what remained of my first impression of Ausfaller. This man did not have the soul of a pudgy bureaucrat.

Behind a glass panel he kept a couple of dozen special-purpose weapons. A row of four clamps held three identical hand weapons, disposable rocket launchers for a fat slug that Ausfaller billed as a tiny atomic bomb. The fourth clamp was empty. There were laser rifles and pistols; a shotgun of peculiar design, with four inches of recoil shock absorber; throwing knives; an Olympic target pistol with a sculpted grip and room for just one .22 buffet.

I wondered what he was doing with a hobbyist's touch-sculpting setup. Maybe he could make sculptures to drive a Human or an alien mad. Maybe something less subtle: maybe they'd

explode at the touch of the right fingerprints.

He had a compact automated tailor's shop.

"I'm going to make you some new suits," he said. When Carlos asked why, he said, "You can keep secrets? So can I."

He asked us for our preference in styles. I played it straight, asking for a falling jumper in green and silver, with lots of pockets. It wasn't the best I've ever owned, but it fitted.

"I didn't ask for buttons," I told him.

"I hope you don't mind. Carlos, you will

have buttons too."

Carlos chose a fiery red tunic with a green-and-gold dragon coiling across the back. The buttons carried his family monogram. Ausfaller stood before us, examining us in our new finery, with approval.

"Now, watch," he said.

"Here I stand before you, unarmed"

"Right."

"Sure you are."

Ausfaller grinned. He took the top and bottom buttons between his fingers and

tugged hard. They came off. The material between them ripped open as if a thread had been strung between them.

Holding the buttons as if to keep an invisible thread taut, he moved them on either side of a crudely done plastic touch-sculpture. The sculpture fell apart.

"Sinclair molecule chain. It will cut through any normal matter, if you pull hard enough. You must be very careful, it will cut your fingers so easily that you will hardly notice they are gone. Notice that the buttons are large, to give an easy grip." He laid the buttons carefully on a table and set a heavy weight between them.

"This third button down is a sonic grenade. Ten feet away it will kill. Thirty feet away it will stun."

I said, "Don't demonstrate."

"You may want to practice throwing dummy buttons at a target. This second button is Power Pill, the commercial stimulant. Break the button and take half when you need it. The entire dose may stop your heart."

"I never heard of Power Pill. How does it work on crashlanders?"

He was taken aback.

"I don't know. Perhaps you had better

restrict yourself to a quarter dose."

"Or avoid it entirely," I said.

"Here is one more thing I will not demonstrate. Feel the material of your garments. You feel three layers of material? The middle layer is a nearly perfect mirror. It will reflect even X-rays. Now you can repel a laser blast, for at least the first second. The collar unrolls to a hood."

Carlos was nodding in satisfaction.

I guess it's true: all flatlanders think that way.

For a billion and a half years, humanity's

ancestors had evolved to the conditions of one world: Earth. A flatlander grows up in an environment peculiarly suited to him. Instinctively he sees the whole universe the same way.

We know better, we who were born on other worlds. On We Made It there are the hellish winds of summer and winter. On Jinx, the gravity. On Plateau, the all-encircling cliff edge, and a drop of forty miles into unbearable heat and pressure. On Down, the red sunlight, and plants that will not grow without help from ultraviolet lamps.

But flatlanders think the universe was made for their benefit. To them, danger is unreal.

"Earplugs," said Ausfaller, holding up a handful of soft plastic cylinders.

We inserted them. Ausfaller said, "Can you hear me?"

"Sure." "Yah." They didn't block our hearing at all.

"Transmitter and hearing aid, with sonic padding between. If you are blasted with sound, as by an explosion or a sonic stunner, the hearing aid will stop transmitting. If you go suddenly deaf you will know you are under attack."

To me, Ausfaller's elaborate precautions only spoke of what we might be walking

into. I said nothing. If we ran for it our chances were even worse.

Back to the control room, where Ausfaller set up a relay to the Alien Affairs Bureau on Earth. He gave them a condensed version of what had happened to us, plus some cautious speculation. He invited Carlos to read his theories into the record.

Carlos declined.

"I could still be wrong. Give me a chance to do some studying."

Ausfaller went grumpily to his bunk. He had been up too long, and it showed.

Carlos shook his head as Ausfaller disappeared into his cabin.

"Paranoia. In his job I guess he has to be paranoid."

"You could use some of that yourself."

He didn't hear me.

"Imagine suspecting an interstellar celebrity of being a space pirate!"

"He's in the right place at the right time."

"Hey, Bey, forget what I said. The, uh, ship-eating device has to be in the right place, but the pirates don't. They can just leave it loose and use hyperdrive ships

to commute to their base."

That was something to keep in mind. Compared to the inner system this volume within the cometary halo was enormous; but to hyperdrive ships it was all one neighborhood. I said, "Then why are we visiting Forward?"

"I still want to check my ideas with him. More than that: he probably knows the head ship eater, without knowing it's him. Probably we both know him. It took something of a cosmologist to find the device and recognize it. Whoever it is, he has to have made something of a name for himself."

"Find?"

Carlos grinned at me.

"Never mind. Have you thought of anyone you'd like to use that magic wire on?"

"I've been making a list. You're at the top."

"Well, watch it. Sigmund knows you've got it, even if nobody else does."

"He's second."

"How long till we reach Forward Station?"

I'd been rechecking our course. We were decelerating at thirty gravities and

veering to one side.

"Twenty hours and a few minutes," I said.

"Good. I'll get a chance to do some studying." He began calling up data from the computer.

I asked permission to read over his shoulder. He gave it.

Bastard. He reads twice as fast as I do. I tried to skim, to get some idea of what he was after.

Collapsars: three known. The nearest was one component of a double in Cygnus, more than a hundred light years

away. Expeditions had gone there to drop probes.

The theory of the black hole wasn't new to me, though the math was over my head. If a star is massive enough, then after it has burned its nuclear fuel and started to cool, no possible internal force can hold it from collapsing inward past its own Swartzchild radius. At that point the escape velocity from the star becomes greater than lightspeed; and beyond that deponent sayeth not, because nothing can leave the star, not information, not matter, not radiation. Nothing--except gravity.

Such a collapsed star can be expected to weigh five solar masses or more;

otherwise its collapse would stop at the neutron star stage. Afterward it can only grow bigger and more massive.

There wasn't the slightest chance of finding anything that massive out here at the edge of the solar system. If such a thing were anywhere near, the sun would have been in orbit around it.

The Siberia meteorite must have been weird enough, to be remembered for nine hundred years. It had knocked down trees over thousands of square miles; yet trees near the touchdown point were left standing. No part of the meteorite itself had ever been found. Nobody had seen it hit. In 1908, Tunguska, Siberia must

have, been as sparsely settled as the Earth's moon today.

"Carlos, what does all this have, to do with anything"

"Does Holmes tell Watson?"

I had real trouble following the cosmology. Physics verged on philosophy here, or vice versa. Basically the Big Bang Theory--which pictures the universe as exploding from a single point-mass, like a titanic bomb--was in competition with the Steady State Universe, which has been going on forever and will continue to do so. The Cyclic Universe is a succession of Big Bangs followed by contractions. There

are variants on all of them.

When the quasars were first discovered, they seemed to date from an earlier stage in the evolution of the universe... which, by the Steady State hypothesis, would not be evolving at all. The Steady State went out of fashion. Then, a century ago, Hilbury had solved the mystery of the quasars. Meanwhile one of the implications of the Big Bang had not panned out. That was where the math got beyond me.

There was some discussion of whether the universe was open or closed in four-space, but Carlos turned it off.

"Okay," he said, with satisfaction.

"What?"

"I could be right. Insufficient data. I'll have to see what Forward thinks."

"I hope you both choke. I'm going to sleep."

Out here in the broad borderland between Sol system and interstellar space, Julian Forward had found a stony mass the size of a middling asteroid. From a distance it seemed untouched by technology: a lopsided spheroid, rough-surfaced and dirty white. Closer in, flecks of metal and bright paint showed like randomly placed jewels. Airlocks, windows, projecting antennae, and things less identifiable. A lighted disk

with something projecting from the center: a long metal arm with half a dozen ball joints in it and a cup on the end. I studied that one, trying to guess what it might be... and gave up.

I brought Hobo Kelly to rest a fair distance away. To Ausfaller I said, "You'll stay aboard?"

"Of course. I will do nothing to disabuse Dr. Forward of the notion that the ship is empty."

We crossed to Forward Station on an open taxi: two seats, a fuel tank and a rocket motor. Once I turned to ask Carlos something, and asked instead, "Carlos? Are you all right?"

His face was white and strained.

"I'll make it."

"Did you try closing your eyes?"

"It was worse. Futz, I made it this far on hypnosis. Bey, it's so empty."

"Hang on. We're almost there."

The blond Belter was outside one of the airlocks in a skin-tight suit and a bubble helmet. He used a flashlight to flag us down. We moored our taxi to a spur of rock the gravity was almost nil-and went inside.

"I'm Harry Moskowitz," the Belter said.

"They call me Angel. Dr. Forward is waiting in the laboratory."

The interior of the asteroid was a network of straight cylindrical corridors, laser-drilled, pressurized and lined with cool blue light strips. We weighed a few pounds near the surface, less in the deep interior. Angel moved in a fashion new to me: a flat jump from the floor that took him far down the corridor to brush the ceiling; push back to the floor and jump again. Three jumps and he'd wait, not hiding his amusement at our attempts to catch up.

"Doctor Forward asked me to give you a tour," he told us.

I said, "You seem to have a lot more corridor than you need. Why didn't you cluster all the rooms together?"

"This rock was a mine, once upon, a time. The miners drilled these passages. They left big hollows wherever they found air-bearing rock or ice pockets. All we had to do was wall them off."

That explained why there was so much corridor between the doors, and why the chambers we saw were so big. Some rooms were storage areas, Angel said; not worth opening. Others were tool rooms, life-support systems, a garden, a fair-sized computer, a sizable fusion plant. A mess room built to hold thirty actually held about ten, all men, who

looked at us curiously before, they went back to eating. A hangar, bigger than need be and open to the sky, housed taxis and powered suits with specialized tools, and three identical circular cradles, all empty.

I gambled. Carefully casual, I asked, "You use mining tugs?"

Angel didn't hesitate.

"Sure. We can ship water and metals up from the inner system, but it's cheaper to hunt them down ourselves. In an emergency the tugs could probably get us back to the inner system."

We moved back into the tunnels. Angel

said, "Speaking of ships, I don't think I've ever seen one like yours. Were those bombs lined up along the ventral surface?"

"Some of them" I said.

Carlos laughed.

"Bey won't tell me how he got it."

"Pick, pick, pick. All right, I stole it. I don't think anyone is going to complain."

Angel, frankly curious before, was frankly fascinated as I told the story of how I had been hired to fly a cargo ship in the Wunderland system.

"I didn't much like the looks of the guy who hired me, but what do I know about Wunderlanders? Besides, I needed the money." I told of my surprise at the proportions of the ship: the solid wall behind the cabin, the passenger section that was only holographs in blind portholes. By then I was already afraid that if I tried to back out I'd be made to disappear.

But when I learned my destination I got really worried.

"It was in the Serpent Stream--you know, the crescent of asteroids in Wunderland system? It's common knowledge that the Free Wunderland Conspiracy is all through those rocks.

When they gave me my course I just took off and aimed for Sirius."

"Strange they left you with a working hyperdrive."

"Man, they didn't. They'd ripped out the relays. I had to fix them myself. It's lucky I looked, because they had the relays wired to a little bomb under the control chair." I stopped, then, "Maybe I fixed it wrong. You heard what happened? My hyperdrive motor just plain vanished. It must have set off some explosive bolts, because the belly of the ship blew off. It was a dummy. What's left looks to be a pocket bomber."

"That's what I thought."

"I guess I'll have to turn it in to the goldskin cops when we reach the inner system. Pity."

Carlos was smiling and shaking his head. He covered by saying, "It only goes to prove that you can run away from your problems."

The next tunnel ended in a great hemispherical chamber, lidded by a bulging transparent dome. A man-thick pillar rose through the rock floor to a seal in the center of the dome. Above the seal, gleaming against night and stars, a multi-jointed metal arm reached out blindly into space. The arm ended in what might have been a tremendous iron puppy dish.

Forward was in a horseshoe-shaped control console near the pillar. I hardly noticed him. I'd seen this armand-bucket thing before, coming in from space, but I hadn't grasped its size.

Forward caught me gaping.

"The Grabber," he said.

He approached us in a bouncing walk, comical but effective.

"Pleased to meet you, Carlos Wu. Beowulf Shaeffer." His handshake was not crippling, because he was being careful. He had a wide, engaging smile.

"The Grabber is our main exhibit here. After the Grabber there's nothing to see."

I asked, "What does it do?"

Carlos laughed.

"It's beautiful! Why does it have to do anything?"

Forward acknowledged the compliment.

"I've been thinking of entering it in a junk-sculpture show. What it does is manipulate large, dense masses. The cradle at the end of the arm is a complex of electromagnets. I can actually vibrate masses in there to produce polarized gravity waves."

Six massive arcs of girder divided the dome into pie sections. Now I noticed that they and the seal at their center gleamed like mirrors. They were reinforced by stasis fields. More bracing for the Grabber? I tried to imagine forces that would require such strength.

"What do you vibrate in there? A megaton, of lead?"

"Lead sheathed in soft iron was our test mass. But that was three years ago. I haven't worked with the Grabber lately, but we had some satisfactory runs with a sphere of neutronium enclosed in a stasis field. Ten billion metric tons."

I said, "What's the point?"

From Carlos I got a dirty look. Forward seemed to think it was a wholly reasonable question.

"Communication, for one thing. There must be intelligent species all through the galaxy, most of them too far away for our ships. Gravity waves are probably the best way to reach them."

"Gravity waves travel at lightspeed, don't they? Wouldn't hyperwave be better?"

"We can't count on their having it. Who but the Outsiders would think to do their experimenting this far from a sun? If we want to reach beings who haven't dealt with the Outsiders, we'll have to use

gravity waves ...once we know how."

Angel offered us chairs and refreshments. By the time we were settled I was already out of it; Forward and Carlos were talking plasma physics, metaphysics, and what are our old friends doing? I gathered that they had large numbers of mutual acquaintances. And Carlos was probing for the whereabouts of cosmologists specializing in gravity physics.

A few were in the Quicksilver Group. Others were among the colony worlds ...especially on Jinx, trying to get the Institute of Knowledge to finance various projects, such as more expeditions to the collapsar in Cygnus.

"Are you still with the Institute, Doctor?"

Forward shook his head.

"They stopped backing me. Not enough results. But I can continue to use this station, which is Institute property. One day they'll sell it and we'll have to move."

"I was wondering why they sent you here in the first place," said Carlos.

"Sirius has an adequate cometary belt."

"But Sol is the only system with any kind of civilization this far from its sun. And I

can count on better men to work with. Sol system has always had its fair share of cosmologists."

"I thought you might have come to solve an old mystery. The Tunguska meteorite. You've heard of it, of course."

Forward laughed.

"of course. Who hasn't? I don't think we'll ever know just what it was that hit Siberia that night. It may have been a chunk of antimatter. I'm told that there is antimatter in known space."

"If it was, we'll never prove it," Carlos admitted.

"Shall we discuss your problem?" Forward seemed to remember my existence. "Shaeffer, what does a professional pilot think when his hyperdrive motor disappears?"

"He gets very upset."

"Any theories?"

I decided not to mention pirates. I wanted to see if Forward would mention them first.

"Nobody seems to like my theory," I said, and I sketched out the argument for monsters in hyperspace.

Forward heard me out politely. Then,

"I'll give you this, it' be hard to disprove. Do you buy it?"

"I'm afraid to. I almost got myself killed once, looking for space monsters when I should have been looking for natural causes."

"Why would the hyperspace monsters eat only your motor?"

"Um ...futz. I pass."

"What do you think Carlos? Natural phenomena or space monsters?"

"Pirates," said Carlos.

"How are they going about it?"

"Well, this business of a hyperdrive motor disappearing and leaving the ship behind--that's brand new. I'd think it would take a sharp gravity gradient, with a tidal effect as strong as that of a neutron star or a black hole."

"You won't find anything like that anywhere in Human space."

"I know." Carlos looked frustrated. That had to be faked. Earlier he'd behaved as if he already had an answer.

Forward said, "I don't think a black hole would have that effect anyway. If it did you'd never know it, because the ship would disappear down the black hole."

"What about a powerful gravity generator?"

"Hmmm." Forward thought about it, then shook his massive head.

"You're talking about a surface gravity in the millions. Any gravity generator I've ever heard of would collapse itself at that level. Let's see, with a frame supported by stasis fields... no. The frame would hold and the rest of the machinery would flow like water."

"You don't leave much of my theory."

"Sorry."

Carlos ended a short pause by asking,

"How do you think the universe started?"

Forward looked puzzled at the change of subject.

And I began to get uneasy.

Given all that I don't know about cosmology, I do know attitudes and tones of voice. Carlos was giving out broad hints, trying to lead Forward to his own conclusion. Black holes, pirates, the Tunguska meteorite, the origin of the universe--he was offering them as clues. And Forward was not responding correctly.

He was saying, "Ask a priest. Me, I lean toward the Big Bang. The Steady State

always seemed so futile."

"I like the Big Bang too," said Carlos.

There was something else to worry about. Those mining tugs: they almost had to belong to Forward Station. How would Ausfaller react when three familiar spacecraft came cruising into his space?

How did I want him to react? Forward Station would make a dandy pirate base. Permeated by laser-drilled corridors distributed almost at random.. could there be two networks of corridors, connected only at the surface? How would we know?

Suddenly I didn't want to know. I wanted to go home. If only Carlos would stay off the touchy subjects--

But he was speculating about the ship eater again. "That ten billion metric tons of neutronium, now, that you were using for a test mass. That wouldn't be big enough or dense enough to give us enough of a gravity gradient."

"It might, right near the surface." Forward grinned and held his hands close together.

"It was about that big.

"And that's as dense as matter gets in this universe. Too bad."

"True, but... have you ever heard of quantum black holes?"

"Yah."

Forward stood up briskly.

"Wrong answer."

I rolled out of my web chair, trying to brace myself for a jump, while my fingers fumbled for the third button on my jumper. It was no good. I hadn't practiced in this gravity.

Forward was in mid leap. He slapped Carlos alongside the head as he went past. He caught me at the peak Of his jump, and took me with him via an iron

grip on my wrist.

I had no leverage, but I kicked at him. He didn't even try to stop me. It was like fighting a mountain. He gathered my wrists in one hand and towed me away.

Forward was busy. He sat within the horseshoe of his control console, talking. The backs of three disembodied heads showed above the console's edge.

Evidently there was a laser phone in the console. I could hear parts of what Forward was saying. He was ordering the pilots of the three mining tugs to destroy Hobo Kelly. He didn't seem to know about Ausfaller yet.

Forward was busy, but Angel was studying us thoughtfully, or unhappily, or both. Well he might. We could disappear, but what messages might we have sent earlier?

I couldn't do anything constructive with Angel watching me. And I couldn't count on Carlos.

I couldn't see Carlos. Forward and Angel had tied us to opposite sides of the central pillar, beneath the Grabber. Carlos hadn't made a sound since then. He might be dying from that tremendous slap across the head.

I tested the line around my wrists. Metal mesh of some kind, cool to the touch...

and it was tight.

Forward turned a switch. The heads vanished. It was a moment before he spoke.

"You've put me in a very bad position."

And Carlos answered.

"I think you put yourself there."

"That may be. You should not have let me guess what you knew."

Carlos said, "Sorry, Bey."

He sounded healthy. Good.

"That's all right," I said. "But what's all the excitement about? What has Forward got?"

"I think he's got the Tunguska meteorite."

"No. That I do not." Forward stood and faced us.

"I will admit that I came here to search for the Tunguska meteorite. I spent several years trying to trace its trajectory, after it left Earth. Perhaps it was a quantum black hole. Perhaps not. The Institute cut off my funds, without warning, just as I had found a real quantum black hole, the first in history."

I said, "That doesn't tell me a lot.",

"Patience Mr. Shaeffer. You know that a black hole may form from the collapse of a massive star? Good. And you know that it takes a body of at least five solar masses. It may mass as much as a galaxy--or as much as the universe. There is some evidence that the universe is an infalling black hole. But at less than five solar masses the collapse would stop at the neutron star stage."

"I follow you."

"In all the history of the universe, there has been one moment at which smaller black holes might have formed. That moment was the explosion of the monoblock, the cosmic egg that once contained all the matter in the universe.

In the ferocity of that explosion there must have been loci of unimaginable pressure. Black holes could have formed of mass down to two point two times ten to the minus fifth grams, one point six times ten to the minus twenty-fifth Angstrom in radius."

"Of course you'd never detect anything that small," said Carlos. He seemed almost cheerful. I wondered why... and then I knew. He'd been right about the way the ships were disappearing. It must compensate him for being tied to a pillar.

"But," said Forward, "black holes of all sizes could have formed in that

explosion, and should have. In more than seven hundred years of searching, no quantum black hole has ever been found. Most cosmologist have given up on them, and on the Big Bang too."

Carlos said, "Of course there was the Tunguska meteorite. It could have been a black hole of, oh, asteroidal mass--"

--and roughly molecular size. But the tide would have pulled down trees as it went past--"

--and the black hole would have gone right through the Earth and headed back into space a few tons heavier. Eight hundred years ago there was actually a search for the exit point. With that they

could have charted a course--"

"Exactly. But I had to give up that approach," said Forward.

"I was using a new method when the Institute, ah, severed our relationship."

They must both be mad, I thought. Carlos was tied to a pillar and Forward was about to kill him, yet they were both behaving like members of a very exclusive club... to which I did not belong.

Carlos was interested.

"How'd you work it?"

"You know that it is possible for an asteroid to capture a quantum black hole? In its interior? For instance, at a mass of ten to the twelfth kilograms--a billion metric tons," he added for my benefit, "a black hole would be only one point five times ten to the minus fifth angstroms across. Smaller than an atom. In a slow pass through an asteroid it might absorb a few billions of atoms, enough to slow it into an orbit. Thereafter it might orbit within the asteroid for aeons, absorbing very little mass on each pass."

"So?"

"If I chance on an asteroid more massive than it ought to be... and if I contrive to

move it, and some of the mass stays behind..."

"You'd have to search a lot of asteroids. Why do it out here? Why not the asteroid belt? Oh, of course, you can use hyperdrive out here."

"Exactly. We could search a score of masses in a day, using very little fuel."

"Hey. If it was big enough to eat a spacecraft, why didn't it eat the asteroid you found it in?"

"It wasn't that big," said Forward.

"The black hole I found was exactly as I have described it. I enlarged it. I towed

it home and ran it into my neutronium sphere. Then it was large enough to absorb an asteroid. Now it is quite a massive object. Ten to the twentieth power kilograms, the mass of one of the, larger asteroids, and a radius of just under ten to the minus fifth centimetres."

There was satisfaction in Forward's voice. In Carlos' there was suddenly nothing but contempt.

"You accomplished all that, and then you used it to rob ships and bury the evidence. Is that what's going to happen to us? Down the rabbit hole?"

"To another universe, perhaps. Where does a black hole lead?"

I wondered about that myself.

Angel had taken Forward's place at the control console. He had fastened the seat belt, something I had not seen Forward do, and was dividing his attention between the instruments and the conversation.

"I'm still wondering how you move it," said Carlos. Then, "Uh! The tugs!"

Forward stared, then guffawed.

"You didn't guess that? But of course the black hole can hold a charge. I played the exhaust from an old ion drive reaction motor into it for nearly a month. Now it holds an enormous charge. The

tugs can pull it well enough. I wish I had more of them. Soon I will."

"Just a minute," I said. I'd grasped one crucial fact as it went past my head.

"The tugs aren't armed? All they do is pull the black hole?"

"That's right." Forward looked at me curiously.

"And the black hole is invisible."

"Yes. We tug it into the path of a spacecraft. If the craft comes near enough it will precipitate into normal space. We guide the black hole through its drive to cripple it, board and rob it at

our leisure. Then a slower pass with the quantum black hole, and the ship simply disappears."

"Just one last question," said Carlos.

"Why?"

I had a better question.

Just what was Ausfaller going to do, when three familiar spacecraft came near? They carried no armaments at all. Their only weapon was invisible.

And it would eat a General Products hull without noticing.

Would Ausfaller fire on unarmed ships?

We'd know, too soon. Up there near the edge of the dome, I had spotted three tiny lights in a tight cluster.

Angel had seen it too. He activated the phone. Phantom heads appeared, one, two, three.

I turned back to Forward, and was startled at the brooding hate in his expression.

"Fortune's child," he said to Carlos.

"Natural aristocrat. Certified superman. Why would you ever consider stealing anything? Women beg you to give them children, in person if possible, by mail if not! Earth's resources exist to keep you

healthy, not that you need them!"

"I may startle you," said Carlos, "but there are people who see you as a superman."

"We bred for strength, we Jinxians. At what cost to other factors? Our lives are short, even with the aid of boosterspice. Longer if we can live outside Jinx's gravity. But the people of other worlds think we're funny. The women... never mind." He brooded, then said it anyway.

"A women of Earth once told me she would rather go to bed with a tunneling machine. She didn't trust my strength. What woman would?"

The three bright dots had nearly reached the center of the dome. I saw nothing between them. I hadn't expected to. Angel was still talking to the pilots.

Up from the edge of the dome came something I didn't want anyone to notice. I said, "Is that your excuse for mass murder, Forward? Lack of women?"

"I need give you no excuses at all, Shaeffer. My world will thank me for what I've done. Earth has swallowed the lion's share of the interstellar trade for too, long."

"They'll thank you, huh? You're going to tell them?"

"I--"

"Julian!" That was Angel calling. He'd seen it... no, he hadn't. One of the tug captains had.

Forward left us abruptly. He consulted with Angel in low tones, then turned back.

"Carlos! Did you leave your ship on automatic? Or is there someone else aboard?"

"I'm not required to say," said Carlos.

"I could--no. In a minute it will not matter."

Angel said, "Julian, look what he's doing."

"Yes. Very clever. Only a human pilot would think of that."

Ausfaller had manoeuvred the Hobo Kelly between us and the tugs. If the tugs fired a conventional weapon, they'd blast the dome and kill us all.

The tugs came on.

"He still does not know what he is fighting," Forward said with some satisfaction.

True, and it would cost him. Three unarmed tugs were coming down

Ausfaller's throat, carrying a weapon so slow that the tugs could throw it at him, let it absorb Hobo Kelly, and pick it up again long before it was a danger to us.

From my viewpoint Hobo Kelly was a bright point with three dimmer, more distant points around it. Forward and Angel were getting a better view, through the phone. And they weren't watching us at all.

I began trying to kick off my shoes. They were soft ship-slippers, ankle-high, and they resisted.

I locked the left foot free just as one of the tugs flared with ruby light.

"He did it!" Carlos didn't know whether to be jubilant or horrified.

"He fired on unarmed ships!"

Forward gestured peremptorily. Angel slid out of his seat. Forward slid in and fastened the thick seat belt. Neither had spoken a word.

A second ship burned fiercely red, then expanded in a pink cloud.

The third ship was fleeing.

Forward worked the controls.

"I have it in the mass indicator," he rasped.

"We have but one chance."

So did I. I peeled the other slipper off with my toes. Over our heads the jointed arm of the Grabber began to swing... and I suddenly realized what they were talking about.

Now there was little to see beyond the dome. The swinging Grabber, and the light of Hobo Kelly's drive, and the two tumbling wrecks, all against a background of fixed stars. Suddenly one of the tugs winked blue white and was gone. Not even a dust cloud was left behind.

Ausfaller must have seen it. He was turning, fleeing. Then it was as if an

invisible hand had picked up Hobo Kelly and thrown her away. The fusion light streaked off to one side and set beyond the dome's edge.

With two tugs destroyed and the third fleeing, the black hole was falling free, aimed straight down our throats.

Now there was nothing to see but the delicate motions of the Grabber. Angel stood behind Forward's chair, his knuckles white with his grip on the chair's back.

My few pounds of weight went away and left me in free fall. Tides again. The invisible thing was more massive than this asteroid beneath me. The Grabber

swung a meter more to one side... and something struck it a mighty blow.

The floor surged away from beneath me, left me head down above the Grabber. The huge soft-iron puppy dish came at me; the jointed metal arm collapsed like a spring. It slowed, stopped.

"You got it!" Angel crowed like a rooster and slapped at the back of the chair, holding himself down with his other hand. He turned a gloating look on us, turned back just as suddenly.

"The ship! It's getting away!"

"No." Forward was bent over the console.

"I see him. Good, he is coming back, straight toward us. This time there will be no tugs to warn the pilot."

The Grabber swung ponderously toward the point where I'd seen Hobo Kelly disappear. It moved centimetres at a time, pulling a massive invisible weight.

And Ausfaller was coming back to rescue us. He'd be a sitting duck, unless-

-

I reached up with my toes, groping for the first and fourth buttons on my falling jumper.

The weaponry in my wonderful suit hadn't helped me against Julian's strength

and speed. But flatlanders are less than limber, and so are Jinxians. Forward had tied my hands and left it at that.

I wrapped two sets of toes around the buttons and tugged.

My legs were bent pretzel-fashion. I had no leverage. But the first button tore loose, and then the thread. Another invisible weapon to battle Forward's portable bottomless hole.

The thread pulled the fourth button loose. I brought my feet down to where they belonged, keeping the thread taut, and pushed backward. I felt the Sinclair molecule chain sinking into the pillar.

The Grabber was still swinging.

When the thread was through the pillar I could bring it up in back of me and try to cut my bonds. More likely I'd cut my wrists and bleed to death; but I had to try. I wondered if I could do anything before Forward launched the black hole.

A cold breeze caressed my feet.

I looked down. Thick fog boiled out around the pillar.

Some very cold gas must be spraying through the hair-fine crack.

I kept pushing. More fog formed. The cold was numbing. I felt the jerk as the

magic thread cut through. Now the wrists--

Liquid helium?

Forward had moored us to the main superconducting power cable.

That was probably a mistake. I pulled my feet forward, carefully, steadily, feeling the thread bite through on the return cut.

The Grabber had stopped swinging. Now it moved on its arm like a blind, questing worm, as Forward made fine adjustments. Angel was beginning to show the strain of holding himself upside down.

My feet jerked slightly. I was through. My feet were terribly cold, almost without sensation. I let the buttons go, left them floating up toward the dome, and kicked back hard with my heels.

Something shifted. I kicked again.

Thunder and lightning flared around my feet.

I jerked my knees up to my chin. The lightning crackled and flashed white light into the billowing fog. Angel and Forward turned in astonishment. I laughed at them, letting them see it. Yes, gentlemen, I did it on purpose.

The lightning stopped. In the sudden

silence Forward was screaming, "Do you know what you've done?"

There was a grinding crunch, a shuddering against my back. I looked up.

A piece had been bitten out of the Grabber.

I was upside down and feeling heavier. Angel suddenly pivoted around his grip on Julian's chair. He hung above the dome, above the sky. He screamed.

My legs gripped the pillar hard. I felt Carlos' feet fumbling for a foothold, and heard Carlos' laughter.

Near the edge of the dome a spear of

light was rising. Hobo Kelly's drive, decelerating, growing larger. Otherwise the sky was clear and empty. And a piece of the dome disappeared with a snapping sound.

Angel screamed and dropped. Just above the dome he seemed to flare with blue light.

He was gone.

Air roared out through the dome--and more was disappearing into something that had been invisible. Now it showed as a blue pinpoint drifting toward the floor. Forward had turned to watch it fall.

Loose objects fell across the chamber, looped around the pinpoint at meteor speed or fell into it with bursts of light. Every atom of my body felt the pull of the thing, the urge to die in an infinite fall. Now we hung side by side from a horizontal pillar. I noted with approval that Carlos' mouth was wide open, like mine, to clear his lungs so that they wouldn't burst when the air was gone.

Daggers in my ears and sinuses, pressure in my gut.

Forward turned back to the controls. He moved one knob hard over. Then--he opened the seat belt and stepped out and up, and fell.

Light flared. He was gone.

The lightning-colored pinpoint drifted to the floor, and into it. Above the increasing roar of air I could hear the grumbling of rock being pulverized, dwindling as the black hole settled toward the center of the asteroid.

The air was deadly thin but not gone. My lungs thought they were gasping vacuum. But my blood was not boiling. I'd have known it.

So I gasped, and kept gasping. It was all I had attention for. Black spots flickered before my eyes, but I was still gasping and alive when Ausfaller reached us carrying a clear plastic package and an

enormous handgun.

He came in fast, on a rocket backpack. Even as he decelerated he was looking around for something to shoot. He returned in a loop of fire. He studied us through his faceplate, possibly wondering if we were dead.

He flipped the plastic package open. It was a thin sack with a zipper and a small tank attached. He had to dig for a torch to cut our bonds. He freed Carlos first, helped him into the sack. Carlos bled from the nose and ears. He was barely mobile. So was I, but Ausfaller got me into the sack with Carlos and zipped it up. Air hissed in around us.

I wondered what came next. As an inflated sphere the rescue bag was too big for the tunnels. Ausfaller had thought of that. He fired at the dome, blasted a gaping hole in it, and flew us out on the rocket backpack.

Hobo Kelly was grounded nearby. I saw that the rescue bag wouldn't fit the airlock either... and Ausfaller confirmed my worst fear. He signaled us by opening his mouth wide. Then he zipped open the rescue bag and half-carried us into the airlock while the air was still roaring out of our lungs.

When there was air again Carlos whispered, "Please don't do that any more."

"It should not be necessary any more."  
Ausfaller smiled.

"Whatever it was you did, well done. I have two well-equipped autodocs to repair you. While you are healing, I will see about recovering the treasures within the asteroid."

Carlos held up a hand, but no sound came. He looked like something risen from the dead: blood running from nose and ears, mouth wide open, one feeble hand raised against gravity.

"One thing," Ausfaller said briskly.

"I saw many dead men; I saw no living

ones. How many were there? Am I likely to meet opposition while searching?"

"Forget it," Carlos croaked.

"Get us out of here. Now."

Ausfaller frowned.

"What--"

"No time. Get us out."

Ausfaller tasted something sour.

"Very well. First, the autodocs." He turned, but Carlos' strengthless hand stopped him.

"Futz, no. I want to see this," Carlos whispered.

Again Ausfaller gave in. He trotted off to the control room. Carlos tottered after him. I tottered after them both, wiping blood from my nose, feeling half dead myself. But I'd half guessed what Carlos expected, and I didn't want to miss it.

We strapped down. Ausfaller fired the main thruster. The rock surged away.

"Far enough," Carlos whispered presently.

"Turn us around."

Ausfaller took care of that. Then, "What

are we looking for?"

"You'll know."

"Carlos, was I right to fire on the tugs?"

"Oh, yes."

"Good. I was worried. Then Forward was the ship eater?"

"Yah."

"I did not see him when I came for you. Where is he?"

Ausfaller was annoyed when Carlos laughed, and more annoyed when I joined him. It hurt my throat. "Even so,

he saved our lives," I said.

"He must have turned up the air pressure just before he jumped. I wonder why he did that?"

"Wanted to be remembered," said Carlos.

"Nobody else knew what he'd done. Ahh--"

I looked, just as part of the asteroid collapsed into itself, leaving a deep crater.

"It moves slower at apogee. Picks up more matter," said Carlos.

"What are you talking about?"

"Later, Sigmund. When my throat grows back."

"Forward had a hole in his pocket," I said helpfully. "He--"

The other side of the asteroid collapsed. For a moment lightning seemed to flare in there.

Then the whole dirty snowball was growing smaller.

I thought of something Carlos had probably missed. "Sigmund, has this ship got automatic sunscreens?"

"Of course we've got--"

There was a universe-eating flash of light before the screen went black. When the screen cleared there was nothing to see but stars.

## There Is a Tide

THEN, THE PLANET had no name. It circles a star which in 2830 lay beyond the fringe of known space, a distance of nearly forty light-years from Sol. The star is a G3, somewhat redder than Sol, somewhat smaller. The planet, swinging eighty million miles from its primary in a reasonably circular orbit, is a trifle cold for human tastes.

In the year 2830 one Louis Gridley Wu happened to be passing. The emphasis on accident is intended. In a universe the size of ours almost anything that can happen, will. Take the coincidence of his meeting-

But we'll get to that.

Louis Wu was one hundred and eighty years old. As a regular user of boosterspice, he didn't show his years. If he didn't get bored first, or broke, he might reach a thousand.

"But," he sometimes told himself, "not if I have to put up with any more cocktail parties, or Bandersnatch hunts, or painted flatlanders swarming through an

anarchy park too small for them by a factor of ten. Not if I have to live through another one-night love affair or another twenty-year marriage or another twenty-minute wait for a transfer booth that blows its zap just as it's my turn. And people. Not if I have to live with people, day and night, all those endless centuries."

When he started to feel like that, he left. It had happened three times in his life, and now a fourth. Presumably, it would keep happening. In such a state of anomie, of acute anti-everything, he was no good to anyone, especially his friends, most especially himself. So he left. In a small but adequate spacecraft,

his own, he left everything and everyone, heading outward for the fringe of known space. He would not return until he was desperate for the sight of a human face, the sound of a human voice.

On the second trip he had gritted his teeth and waited until he was desperate for the sight of a Kzinti face.

That was a long trip, he remembered. And, because he had only been three and a half months in space on this fourth trip, and because his teeth still snapped together at the mere memory of a certain human voice ... because of these things, he added, "I think this time I'll wait till I'm desperate to see a Kdatlyno. Female, of course."

Few of his friends guessed the wear and tear these trips saved him. And them. He spent the months reading, while his library played orchestrated music. By now he was well clear of known space. Now he turned the ship ninety degrees, beginning a wide circular arc with Sol at its center.

He approached a certain G3 star. He dropped out of hyperdrive well clear of the singularity in hyperspace which surrounds any large mass. He accelerated into the system on his main thruster, sweeping the space ahead of him with the deep-radar. He was not looking for habitable planets. He was

looking for Slaver stasis boxes.

If the pulse returned no echo, we would accelerate until he could shift to hyperdrive. The velocity would stay with him and he could use it to coast through the next system he tried, and the next, and the next. It saved fuel.

He had never found a Slaver stasis box. It did not stop him from looking.

As he passed through the system, the deep-radar showed him planets like pale ghosts, light gray circles on the white screen. The G3 sun was a wide gray disk, darkening almost to black at the center. The near-black was degenerate matter, compressed past the point where

electron orbits collapse entirely.

He was well past the sun, and still accelerating when the screen showed a tiny black fleck.

"No system is perfect, of course," he muttered as he turned off the drive. He talked to himself a good deal out here where nobody could interrupt him.

"It usually saves fuel," he told himself a week later. By then he was out of the singularity, in clear space. He took the ship into hyperdrive, circled halfway round the system, and began decelerating. The velocity he'd built up during those first two weeks gradually left him. Somewhere near where he'd

found a black speck in the deep-radar projection, he slowed to a stop.

Though he had never realized it until now, his system for saving fuel was based on the assumption that he would never find a Slaver box. But the fleck was there again, a black dot on the gray ghost of a planet. Louis Wu moved in.

The world looked something like Earth. It was nearly the same size, very much the same shape, somewhat the same color. There was no moon.

Louis used his telescope on the planet and whistled appreciatively. Shredded white cloud over misty blue ... faint continental outlines ... a hurricane whorl

near the equator. The ice caps looked big, but there would be warm climate near the equator. The air looked sweet and non-carcinogenic on the spectrograph. And nobody on it. Not a soul!

No next door neighbours. No voices. No faces.

"What the hell," he chortled.

"I've got my box. I'll just spend the rest of my vacation here. No men. No women. No children." He frowned and rubbed the fringe of hair along his jaw.

"Am I being hasty? Maybe I should knock."

But he scanned the radio bands and got nothing. Any civilized planet radiates like a small star in the radio range. Moreover, here was no sign of civilization, even from a hundred miles up.

"Great! Okay, first I'll get that old stasis box... He was sure it was that. Nothing but stars and stasis boxes were dense enough to show black in the reflection of a hyperwave, pulse.

He followed the image around the bulge of the planet. It seemed the planet had a moon after all. The moon was twelve hundred miles up, and it was ten feet across.

"Now why," he wondered aloud, "would the Slavers have put it in orbit? It's too easy to find. They were in a war, for Finagle's sake! And why would it stay here?"

The little moon was still a couple of thousand miles away, invisible to the naked eye. The scope showed it clearly enough. A silver sphere ten feet through, with no marks on it.

"A billion and a half years it's been there," said Louis to himself, said he.

"And if you believe that, you'll believe anything. Something would have knocked it down. Dust, a meteor, the solar wind. Tnuctip soldiers. A magnetic

storm. Nah." He ran his fingers through straight black hair grown too long.

"It must have drifted in from somewhere else. Recently. Wha--"

Another ship, small and conical, had appeared behind the silvery sphere. Its hull was green, with darker green markings.

"Damn," said Louis. He didn't recognize the make. It was no human ship.

"Well, it could be worse. They could have been people." He used the comm laser.

The other ship braked to a stop. In

courtesy, so did Louis.

"Would you believe it?" he demanded of himself. "Three years total time I've spent looking for stasis boxes. I finally find one, and now something else wants it too!"

The bright blue spark of another laser glowed in the tip of the alien cone. Louis listened to the autopilot-computer chuckling to itself as it tried to untangle the signals in an unknown laser beam. At least they did use lasers, not telepathy or tentacle-waving or rapid changes in skin color.

A face appeared on Louis's screen.

It was not the first alien he had seen. This, like some others, had a recognizable head: a cluster of sense organs grouped around a mouth, with room for a brain. Trinocular vision, he noted; the eyes set deep in sockets, well protected, but restricted in range of vision. Triangular mouth, too, with yellow, serrated bone knives showing their edges behind three gristle lips.

Definately, this was an unknown species.

"Boy, are you ugly," Louis refrained from saying. The alien's translator might be working by now.

His own autopilot finished translating

the alien's first message. It said, "Go away. This object belongs to me."

"Remarkable," Louis sent back.

"Are you a Slaver?" The being did not in the least resemble a Slaver, and the Slavers had been extinct for eons.

"That word was not translated," said the alien.

"I reached the artefact before you did. I will fight to keep it."

Louis scratched at his chin, at two week's growth of bristly beard. His ship had very little to fight with. Even the fusion plant which powered the thruster

was designed with safety in mind. A laser battle, fought with comm lasers turned to maximum, would be a mere endurance test; and he'd lose, for the alien ship had more mass to absorb more heat. He had no weapons per se. Presumably the alien did.

But the stasis box was a big one.

The Tnuctipun-Slaver war had wiped out most of the intelligent species of the galaxy, a billion and a half years ago. Countless minor battles must have occurred before a Slaver-developed final weapon was used. Often the Slavers, losing a battle, had stored valuables in a stasis box, and hidden it against the day they would again be of

use.

No time passed inside a closed stasis box. Alien meat a billion and a half years old had emerged still fresh from its hiding place. Weapons and tools showed no trace of rust. Once a stasis box had disgorged a small, tarsierlike sentient being, still alive. That former slave had lived a strange life before the aging process claimed her, the last of her species.

Slaver stasis boxes were beyond value. It was known that the Tnuctipun, at least, had known the secret of direct conversion of matter. Perhaps their enemies had too. Someday, in a stasis

box somewhere outside known space, such a device would be found. Then fusion power would be as obsolete as internal combustion.

And this, a sphere ten feet in diameter, must be the largest stasis box ever found.

"I too will fight to keep the artifacts" said Louis.

"But consider this. Our species has met once, and will meet again regardless of who takes the artifact now. We can be friends or enemies. Why should we risk this relationship by killing?"

The alien sense-cluster gave away nothing.

"What do you propose?"

"A game of chance, with the risks even on both sides. Do you play games of chance?"

"Emphatically yes. The process of living is a game of chance. To avoid chance is insanity."

"That it is. Hmmm." Louis regarded the alien head that seemed to be all triangles. He saw it abruptly whip around, flick, to face straight backward, and snap back in the same instant. The sight did something to the pit of his stomach.

"Did you speak?" the alien asked.

"No. Won't you break your neck that way?"

"Your question is interesting. Later we must discuss anatomy. I have a proposal."

"Fine."

"We shall land on the world below us. We will meet between our ships. I will do you the courtesy of emerging first. Can you bring your translator?"

He could connect the computer with his suit radio. "Yes."

"We will meet between our ships and play some simple game, familiar to

neither of us, depending solely on chance. Agreed?"

"Provisionally. What game?"

The image on the screen rippled with diagonal lines. Something interfering with the signal? It cleared quickly. "There is a mathematics game," said the alien. Our mathematics will certainly be similar."

"True." Though Louis had heard of some decidedly peculiar twists in alien mathematics.

"The game involves a screee--" Some word that the autopilot couldn't translate. The alien raised a threeclawed hand,

holding a lens-shaped object. The alien's mutually opposed fingers turned it so that Louis could see the different markings on each side.

"This is a screee. You and I will throw it upward six times each. I will choose one of the symbols, you will choose the other. If my symbol falls looking upward more often than yours, the artifact is mine. The risks are even."

The image rippled, then cleared.

"Agreed," said Louis. He was a bit disappointed in the simplicity of the game.

"We shall both accelerate away from the

artifact. Will you follow me down?"

"I will," said Louis.

The image disappeared.

Louis Wu scratched at a week's growth of beard. What a way to greet an alien ambassador! In the worlds of men Louis Wu dressed impeccably; but out here he felt free to look like death warmed over, all the time.

But how was a Trinoc supposed to know that he should have shaved? No, that wasn't the problem.

Was he fool or genius?

He had friends, many of them, with habits like his own. Two had disappeared decades ago; he no longer remembered their names. He remembered only that each had gone hunting stasis boxes in this direction and that each had neglected to come back.

Had they met alien ships?

There were any number of other explanations. Half a year or more spent alone in a single ship was a good way to find out whether you liked yourself. If you decided you didn't, there was no point in returning to the worlds of men.

But there were aliens out here. Armed. One rested in orbit five hundred miles

ahead of his ship, with a valuable artifact halfway between.

Still, gambling was safer than fighting. Louis Wu waited for the alien's next move.

That move was to drop like a rock. The alien ship must have used at least twenty gees of push. After a moment of shock, Louis followed under the same acceleration, protected by his cabin gravity. Was the alien testing his maneuverability?

Possibly not. He seemed contemptuous of tricks. Louis, trailing the alien at a goodly distance, was now much closer to the silver sphere. Suppose he just

turned ship, ran for the artifact, strapped it to his hull and kept running?

Actually, that wouldn't work. He'd have to slow to reach the sphere the alien wouldn't have to slow to attack. Twenty gees was close to his ship's limit.

Running might not be a bad idea, though. What guarantee had he of the alien's good faith? What if the alien "cheated"?

That risk could be minimized. His pressure suit had sensors to monitor his body functions. Louis set the autopilot to blow the fusion plant if his heart stopped. He rigged a signal button on his suit to blow the plant manually.

The alien ship burned bright orange as it hit air. It fell free and then slowed suddenly, a mile over the ocean.

"Showoff," Louis muttered and prepared to imitate the maneuver.

The conical ship showed no exhaust. Its drive must be either a reactionless drive, like his own, or a kzin-style induced-gravity drive. Both were neat and clean, silent, safe to bystanders and highly advanced.

Islands were scattered across the ocean. The alien circled, chose one at seeming random and landed like a feather along a bare shoreline.

Louis followed him down. There was a bad moment while he waited for some unimaginable weapon to fire from the grounded ship, to tear him flaming from the sky while his attention was distracted by landing Procedures. But he landed without a jar, several hundred yards from the alien cone.

"An explosion will destroy both our ships if I am harmed," he told the alien via signal beam.

"Our species seem to think alike. I will now descend."

Louis watched him appear near the nose of the ship, in a wide circular airlock. He watched the alien drift gently to the

sand. Then he clamped his helmet down and entered the airlock.

Had he made the right decision?

Gambling was safer than war. More fun, too. Best of all, it gave him better odds.

"But I'd hate to go home without that box," he thought. In nearly two hundred years of life, he had never done anything as important as finding a stasis box. He had made no discoveries, won no elective offices, overthrown no governments. This was his big chance.

"Even odds," he said, and turned on the intercom as he descended.

His muscles and semicircular canals registered about a gee. A hundred feet away waves slid hissing up onto pure white sand. The waves were green and huge, perfect for riding; the beach a definite beer party beach.

Later, perhaps he would ride those waves to shore on his belly, if the air checked out and the water was free of predators. He hadn't had time to give the planet a thorough checkup.

Sand tugged at his boots as he went to meet the alien.

The alien was five feet tall. He had looked much taller descending from his ship, but that was because he was mostly

leg. More than three feet of skinny leg, a torso like a beer barrel, and no neck. Impossible that his neckless neck should be so supple. But the chrome yellow skin fell in thick rolls around the bottom of his head, hiding anatomical details.

His suit was transparent, a roughly alien-shaped balloon, constricted at the shoulder, above and below the complicated elbow joint, at the wrist, at hip and knee. Air jets showed at wrist and ankle. Tools hung in loops at the chest. A back pack hung from the neck, under the suit. Louis noted all these tools with trepidation; any one of them could be a weapon.

"I expected that you would be taller,"

said the alien.

"A laser screen doesn't tell much, does it? I think my translator may have mixed up right and left, too. Do you have the coin?"

"The screee?" The alien produced it.

"Shall there be no preliminary talk? My name is screee."

"My machine can't translate that. Or pronouce it. My name is Louis. Has your species met others besides mine?"

"Yes, two. But I am not an expert in that field of knowledge."

"Nor am I. Let's leave the politenesses to the experts. We're here to gamble."

"Choose your symbol," said the alien, and handed him the coin.

Louis looked it over. It was a lens of platinum or something similar, sharp-edged, with the three-clawed hand of his new gambling partner stamped on one side and a planet, with heavy ice caps outlined, decorating the other. Maybe they weren't ice caps, but continents.

He held the coin as if trying to choose. Stalling. Those gas jets seemed to be attitude jets, but maybe not. Suppose he won? Would he win only the chance to be murdered?

But they'd both die if his heart stopped. No alien could have guessed what kind of weapon would render him helpless without killing him.

"I choose the planet. You flip first."

The alien tossed the coin in the direction of Louis's ship. Louis' eyes followed it down, and he took two steps to retrieve it. The alien stood beside him when he rose.

"Hand," he said.

"My turn." He was one down. He tossed the coin. As it spun gleaming, he saw for the first time that the alien ship was gone.

"What gives?" he demanded.

"There's no need for us to die," said the alien. It held something that had hung in a loop from its chest.

"This is a weapon, but both will die if I use it. Please do not try to reach your ship."

Louis touched the button that would blow his power plant.

"My ship lifted when you turned your head to follow the scree. By now my ship is beyond range of any possible explosion you can bring to bear. There is no need for us to die, provided you do not try to reach your ship."

"Wrong. I can leave your ship without a pilot." He left his hand where it was. Rather than be cheated by an alien in a gambling game--

"The pilot is still on board, with the astrogator and the screee. I am only the communications officer. Why did you assume I was alone?"

Louis sighed and let his arm fall.

"Because I'm stupid," he said bitterly.

"Because you used the singular pronoun, or my computer did. Because I thought you were a gambler."

"I gambled that you would not see my

ship take off, that you would be distracted by the coin, that you could see only from the front of your head. The risks seemed better than one-half."

Louis nodded. It all seemed clear.

"There was also the chance that you had lured me down to destroy me." The computer was still translating into the first person singular.

"I have lost at, least one exploring ship that flew in this direction."

"Not guilty. So have we." A thought struck him and he said, "Prove that you hold a weapon."

The alien obliged. No beam showed, but sand exploded to Louis's left, with a vicious crack! and a flash the color of lightning. The alien held something that made holes.

So much for that. Louis bent and picked up the coin. "As long as we're here, shall we finish the game?"

"To what purpose?"

"To see who would have won. Doesn't your species gamble for pleasure?"

"To what purpose? We gamble for survival."

"Then Finagle take your whole breed!"

he snarled and flung himself to the sand. His chance for glory was gone, tricked away from him. There is a tide that governs men's affairs... and there went the ebb, carrying statues to Louis Wu, history books naming Louis Wu, jetsam on the tide.

"Your attitude is puzzling. One gambles only when gambling is necessary."

"Nuts."

"My translator will not translate that comment."

"Do you know what that artifact is?"

"I know of the species who built that

artifact. They traveled far."

"We've never found a stasis box that big. It must be a vault of some kind."

"It is thought that that species used a single weapon to end their war and all its participants."

The two looked at each other. Possibly each was thinking the same thing. What a disaster, if any but my own species should take this ultimate weapon!

But that was anthropomorphic thinking. Louis knew that a Kzin would have been saying: Now I can conquer the universe, as is my right.

"Finagle take my luck!" said Louis Wu between his teeth.

"Why did you have to show at the same time I did?"

"That was not entirely chance. My instruments found your craft as you backed into the system. To reach the vicinity of the artifact in time, it was necessary to use thrust that damaged my ship and killed one of my crew. I earned possession of the artifact."

"By cheating, damn you!" Louis stood up...

And something meshed between his brain and his semicircular canals.

One gravity.

The density of a planet's atmosphere depended on its gravity, and on its moon. A big moon would skim away most of the atmosphere, over the billions of years of a world's evolution. A moonless world the size and mass of Earth should have unbreathable air, impossibly dense, worse than Venus.

But this planet had no moon. Except--

The alien said something, a startled ejaculation that the computer refused to translate.

"Secree! Where did the water go?"

Louis looked. What he saw puzzled him only a moment. The ocean had receded, slipped imperceptibly away, until what showed now was half a mile of level, slickly shinning sea bottom.

"Where did the water go? I do not understand."

"I do."

"Where did it go? Without a moon, there can be no tides. Tides are not this quick in any case. Explain, please."

"It'd be easier if we use the telescope in my ship."

"In your ship there may be weapons."

"Now pay attention," said Louis.

"Your ship is very close to total destruction. Nothing can save your crew but the comm laser in my ship."

The alien dithered, then capitulated.

"If you have weapons, you would have used them earlier. You cannot stop my ship now. Let us enter your ship. Remember that I hold my weapon."

The alien stood beside him in the small cabin, his mouth working disturbingly around the serrated edges of his teeth as Louis activated the scope and screen. Shortly a starfield appeared. So did a conical spacecraft, painted green with

darker green markings. Along the bottom of the screen was the blur of thick atmosphere.

"You see? The artifact must be nearly to the horizon. It moves fast."

"That fact is obvious even to low intelligence."

"Yah. Is it obvious to you that this world must have a massive satellite?"

"But it does not, unless the satellite is invisible."

"Not invisible. Just too small to notice. But then, it must be very dense."

The alien didn't answer.

"Why did we assume the sphere was a Slaver stasis box? Its shape was wrong; its size was wrong. But it was shiny, like the surface of a stasis field, and spherical, like an artifact. Planets are spheres too, but gravity wouldn't ordinarily pull something ten feet wide into a sphere. Either it would have to be very fluid, or it would have to be very dense. Do you understand me?"

"No."

"I don't know how your equipment works. My deepradar uses a hyperwave pulse to find stasis boxes. When something stops a hyperwave pulse, it's

either a stasis box, or it's something denser than degenerate matter, the matter inside a normal star. And this object is dense enough to cause tides."

A tiny silver bead had drifted into view ahead of the cone. Telescopic foreshortening seemed to bring it right alongside the ship. Louis reached to scratch at his beard and was stopped by his faceplate.

"I believe I understand you. But how could it happen?"

"That's guesswork. Well?"

"Call my ship. They would be killed. We must save them!"

"I had to be sure you wouldn't stop me."  
Louis Wu went to work. Presently a light  
glowed; the computer had found the  
alien ship with its comm laser.

He spoke without preliminaries.

"You must leave the spherical object  
immediately. It is not an artifact. It is ten  
feet of nearly solid neutronium, probably  
torn loose from a neutron star."

There was no answer, of course. The  
alien stood behind him but did not speak.  
Probably his own ship's computer could  
not have handled the double translation.  
But the alien was making one two-armed  
gesture, over and over.

The green cone swung sharply around, broadside to the telescope.

"Good, they're firing lateral," said Louis to himself. "Maybe they can do a hyperbolic past it." He raised his voice.

"Use all the power available. You must pull away."

The two objects seemed to be pulling apart. Louis suspected that that was illusion, for the two objects were almost in line-of-sight.

"Don't let the small mass fool you," he said, unnecessarily now.

"Computer, what's the mass of a ten-foot

neutronium sphere?--Around two times ten to the minus six times the mass of this world, which is pretty tiny, but if you get too close... Computer, what's the surface gravity?--I don't believe it."

The two objects seemed to be pulling together again. Damn, thought Louis. If they hadn't come along, that'd be me.

He kept talking. It wouldn't matter now, except to relieve his own tension.

"My computer says ten million gravities at the surface. That may be off. Newton's formula for gravity. Can you hear me?"

"They are too close," said the alien.

"By now it is too late to save their lives." It was happening as he spoke. The ship began to crumble a fraction of a second before impact. Impact looked no more dangerous than a cannonball striking the wall of a fort. The tiny silver bead Simply swept through the side of the ship. But the ship closed instantly, all in a moment, like tinsel paper in a strong man's fist. Closed into a bead glowing yellow with heat. A tiny sphere ten feet through or a bit more.

"I mourn," said the alien.

"Now I get it," said Louis.

"I wondered what was fouling our laser messages. That chunk of neutronium was

right between our ships, bending the light beams."

"Why was this trap set for us?" cried the alien.

"Have we enemies so powerful that they can play with such masses?"

A touch of paranoia? Louis wondered. Maybe the whole species had it.

"Just a touch of coincidence. A smashed neutron star."

For a time the alien did not speak. The telescope, for want of a better target, remained focused on the bead. Its glow had died.

The alien said, "My pressure suit will not keep me alive long."

"We'll make a run for it. I can reach Margrave in a couple of weeks. If you can hold out that long, we'll set up a tailored environment box to hold you until we think of something better. It only takes a couple of hours to set one up. I'll call ahead."

The alien's triple gaze converged on him.

"Can you send messages faster than light?"

"Sure."

"You have knowledge worth trading for. I'll come with you."

"Thanks a whole lot." Louis Wu started punching buttons.

"Margrave. Civilization. People. Faces. Voices. Bah." The ship leapt upward, ripping atmosphere apart. Cabin, gravity wavered a little, then settled down.

"Well," he told himself.

"I can always come back."

"You will return here?"

"I think so," he decided.

"I hope you will be armed."

"What? More paranoia?"

"Your species is insufficiently suspicious," said the alien.

"I wonder that you have survived. Consider this neutronium object as a defense. Its mass pulls anything that touches it into smooth and reflective spherical surface. Should any vehicle approach this world, its crew would find this object quickly. They would assume it is an artifact. What other assumption could they make? They would draw alongside for a closer examination."

"True enough, but that planet's empty.  
Nobody to defend."

"Perhaps."

The planet was dwindling below. Louis  
Wu swung his ship toward deep space.