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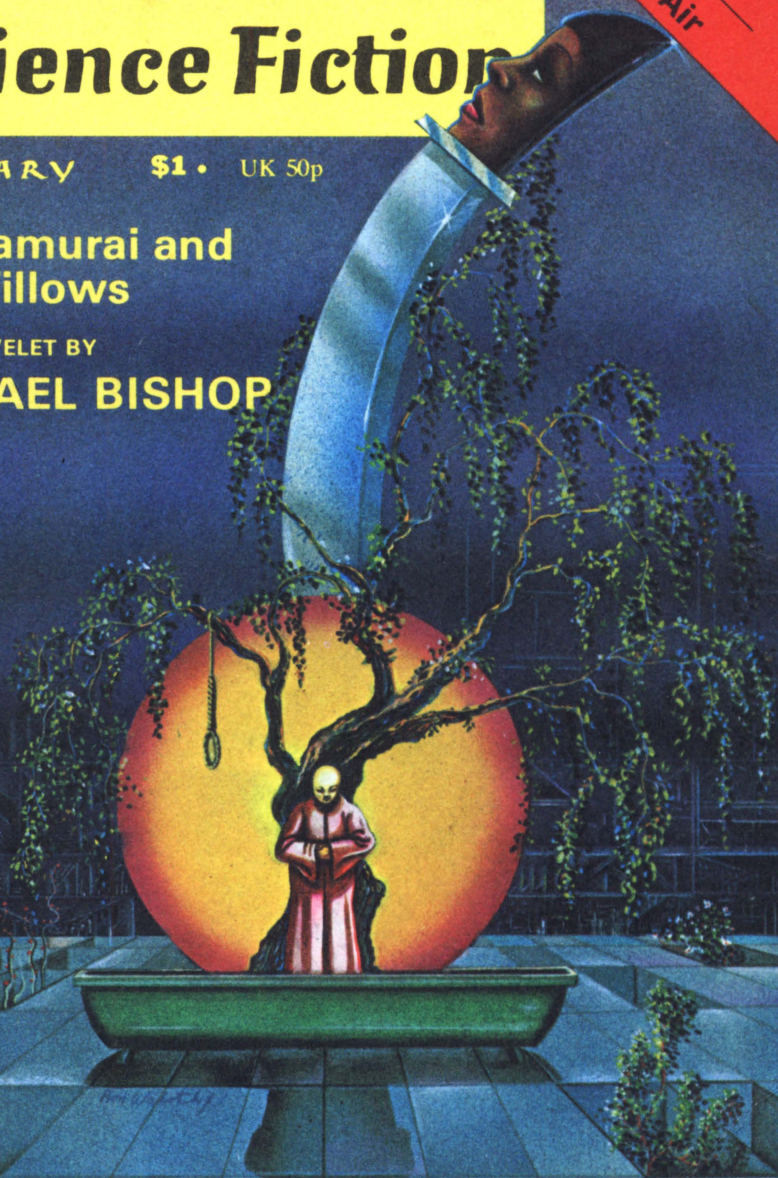
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FEBRUARY • 27th YEAR OF PUBLICATION

NOVELETS

THE SAMURAI AND THE WILLOWS	MICHAEL BISHOP	5
THE MACHINES THAT ATE TOO MUCH	JACK WILLIAMSON	65

SHORT STORIES

DERMUCHE	MARCEL AYME	54
THE SERVICE	JERRY SOHL	105
THE FACE ON THE TOMBSTONE	GUY OWEN	125
THE VOLCANO	PAUL CHAPIN	145

ARTICLE

THE SEARCH FOR SUPERMAN	L. SPRAGUE DE CAMP	112
-------------------------	--------------------	-----

DEPARTMENTS

BOOKS	ALGIS BUDRYS	46
CARTOON	GAHAN WILSON	53
FILMS: <i>Space: 1949</i>	BAIRD SEARLES	62
SCIENCE: <i>Change of Air</i>	ISAAC ASIMOV	134
ACROSTIC PUZZLE	PAUL NOVITSKI	158

Cover by Ron Walotsky for "The Samurai and the Willows"

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The Magazine of Fantasy and Science Fiction, Volume 50, No. 2, Whole No. 297, Feb. 1976. Published monthly by Mercury Press, Inc. at \$1.00 per copy. Annual subscription \$10.00; \$11.00 in Canada and Mexico, \$12.00 in other foreign countries. Postmaster: sent form 3579 to Fantasy and Science Fiction, Box 56, Cornwall, Conn. 06753. Publication office, Box 56, Cornwall, Conn. 06753. Second class postage paid at Cornwall, Conn. 06753 and at additional mailing offices. Printed in U.S.A. Copyright © 1975 Mercury Press, Inc. All rights, including translations into other languages, reserved. Submissions must be accompanied by stamped, self-addressed envelopes. The publisher assumes no responsibility for return of unsolicited manuscripts.

Michael Bishop is perhaps not the most prolific of the best new writers of sf. (seven stories here during the past five years), but it would be hard to think of another who has produced high quality work so consistently (e.g. "The White Otters of Childhood," "Death and Designation Among the Asadi," "Cathadonian Odyssey"). We think this new story stands out even among that group.

The Samurai And The Willows

by MICHAEL BISHOP

1 / basenji and queequeg

She called him Basenji because the word was Bantu but had a Japanese ring, at least to her. It was appropriate for other reasons, too: he was small, and doglike, and very seldom spoke. No bark to him at all; not too much bite, either. And he, for his part, called her Queequeg (when he called her anything) because at first he could tell that the strangeness of it disconcerted her, at least a little. Later her reaction to this name changed subtly, but the significance of the change escaped him and he kept calling her by it. After a time, Basenji and Queequeg were the only names they ever used with each other.

"Basenji," she would say, harping on her new subject, "when you gonna bring one of them little bushes down here for our cyoob'cle?"

"They're not bushes," he would

answer (if he answered). "They're bonsai: B.O.N.S.A.I. Bonsai."

More than likely, she would be standing over him when she asked, her athletic legs spread like those of a Nilotic colossus and her carven black face hanging somewhere above him in the stratosphere. Small and fastidious, he would be sitting on a reed mat in his sleeper-cove, where she intruded with blithe innocence, or in the wingback chair in the central living area. He would be reading on the reed mat (a pun here that she would never appreciate) or pretending, in the wingback, to compose a poem, since ordinarily she respected the sanctity of these pastimes. In any case, he would not look up — even though Queequeg's shadow was ominous, even though the smell coming off her legs and stocking-clad body was annoyingly carnal. By the Forty-Seven Ronin, she was big. Did she have to stand in front

of him like that, her shadow and her smell falling on him like the twin knives of death and sex? Did she?

"Well," she would say, not moving, "they cute, those bushes. Those bonsai." And then she would grin (though he wouldn't look up to see it), her big white teeth like a row of bleached pinecone wings.

They shared a cubicle on Level 9 in the domed city, the Urban Nucleus of Atlanta. Basenji was Simon Fowler. Queequeg was Georgia Cawthorn. They were not related, they were not married, they were not bound by religious ties or economic necessity. Most of the time they didn't particularly like each other.

How they had come to be cubicle mates was this: Simon Fowler was thirty-eight or -nine, a man on the way down, a nisei whose only skills were miniature landscaping and horticulture. Georgia Cawthorn was eighteen and, as she saw it, certainly only a temporary resident of the Big Bad Basement, the donjon keep of the Urban Nucleus. Fowler, it seemed, was trying to bury himself to put eight levels of concrete (as well as the honeycombing of the dome) between himself and the sky. She, on the other hand, was abandoning the beloved bosom of parents and brothers, who lived in one of those pre-Evacuation "urban renewal"

slums still crumbling into brick dust surfaceside. And thus it was that both Simon Fowler and Georgia Cawthorn had applied for living quarters *under*, he perversely specifying Level 9 (having already worked down from the towers and four understrata), she ingenuously asking for whatever she could get. A two-person cubicle fell vacant on Level 9. The computer-printed names of Georgia Cawthorn and Simon Fowler headed the UrNu Housing Authority's relocation list, and the need for a decision showered down on them like an unannounced rain (the sort so favored by the city's spontaneity-mad internal meteorologists). Georgia didn't hesitate; she said yes at once. Simon Fowler wanted an umbrella, a way out of the deluge; but since the only out available involved intolerable delay and a psychic house arrest on the concourses of 7, he too had said yes. They met each other on the day they moved in.

They had now lived together for four months. And most of the time they didn't like each other very much, although Queequeg had tried. She tried harder than he did. She had taken an interest in Basenji's work, hadn't she? She had asked about those little trees he nurtured, wired, shaped, and worried over in his broken-down greenhouse surfaceside. And they

were pretty, those bonsai: Basenji really knew how to wire up a bush. Queequeg had first seen them about two months ago, when she had gone into the shop to discover her cubiclemate in his "Natch'l environment." Which was more than Basenji had ever done. He didn't give gyzym, he didn't, that she was a glissador, one of those lithe human beings who cruised the corridors of the hive on silent ball bearings inset in the soles of their glierboots. No, sir. He didn't give gyzym.

"How come, Basenji, you don' come see me, where I work?"

This time he answered, almost with some bite: "Dammit, Queequeg, you're in this corridor, then in that. How would I find you?"

"You could come to H.Q. To glizador-dizpatch."

A foreign language she spoke. And he said, "Not me. Your rollerskating friends close in on me."

"Which ones? Ty?"

"All of them. You're rink-refugees, Queequeg, fugitives from a recess that's never ended." And then he wouldn't answer anymore, that would be all she could pull from him.

It was probably lucky that the shiftchanges kept them apart so much. They weren't really compatible, they weren't the same sort of people at all. Being cubiclemates

was an insanity that they usually overcame by minor insolences like calling each other Basenji and Queequeg. That was their communication.

In fact, though the name had at first hurt and bewildered her (she had had to ask Ty Kosturko, a white boy apprenticing with her, what it meant). Georgia Cawthorn now knew that it was the only thing that kept her from falling on Simon Fowler's diminutive person and pounding his head against the floor a time or two. But for Queequeg, but for that insulting, mythopoeic nickname, she would have long ago harpooned her sullen little florist.

2 / *the kudzu shop*

Georgia/Queequeg, two days after the argument (if you could call it an argument) during which she had protested his never looking in on *her*, tried again. After the glissadors' shiftchanging, after a sprayshower in their otherwise empty cubicle, she rode a lift-tube surfaceside and angled her way through the pedestrain courts leading to Basenji's shop.

Why I makin' myself a fool? she wondered. She didn't have any answers, she just let her long body stride past the ornamental fountains and the silverblue reflecting windows of the New Peachtree. Distractedly swinging the end of her chain-loop belt, she examined

herself in the windows: a woman, Zuluesque maybe, but no less a female for her size.

Simon Fowler's hothouse lay beyond New Peachtree in an uncleared tenement section much like the one she had grown up in (Bondville, across town). It was a shabby structure wedged between collapsing ruins, some of the useless glass panels in the roof broken out or crazed with liquescent scars. No wonder that her doggy little man kept moving down. Who'd walk into a place like Basenji's to buy a hydroponic rose for their most favorite bodyburner, much less something expensive like a ceiling basket or a gardenia bouquet? She didn't even know why *she* was punishing herself by seeking out the little snoot. Hadn't she already done this once? Wasn't that enough?

Maybe it was the willow he'd shown her. She wanted to see it again as much as she wanted to see him. Shoot, she didn't want to see him at all. *Tang*, the bell went: *ting tang*.

Moist flowers hung from the walls; ferns stuck out their green tongues from every corner; potted plants made a terra cotta fortress in the middle of the floor. And the last time she had come in, Basenji's vaguely oriental face had hung amidst all this greenery like an unfired clay plate, just that brittle

and brown. He had been at the counter fiddling with the bonsai willow. But today Queequeg found no one in the outer shop, only growing things and their heavy fragrances.

"Basenji!" she called. "Hey, you, Basenji!"

He came, slowly, out of the long greenhouse behind the shop's business area. He was brushing dirt from his hands, dirt and little sprigs of moss.

"You again," he said. "What do you want?"

"You sweet, Basenji. You damn sweet."

"What do you want?" He didn't call her Queequeg. That wasn't a good sign; no, sir. Not a good sign at all.

She thought a minute, hand on hip, her green wraparound clinging to the curve of her stance. She was a head taller than he. "I wanna see that little bush you had out here last time."

"You saw it last time, you know. I'm busy."

"You busy. You also ain' no easy man to do bidness with, Basenji. I thinkin' 'bout buying' that bush. What you think of that?"

"That you probably won't be able to afford it."

"I a saver, Basenji. Since I come on bidness, you boun' to show me what I come to see. You has to."

"That willow's worth —"

"Uh-huh," she said. "No, sir. I gonna see it before you sen' me packin' with yo' prices."

What could he do? A black Amazon with grits in her mouth and something a little, just a little, more substantial than that beneath her scalp cap of neo-nostalgic cornrows: elegant, artificial braid-work recalling an Africa that probably no longer existed. (The same went for his mother's homeland, the very same.) Poor Basenji. These were the very words he thought as he stoically motioned Queequeg around the counter: Poor Basenji. He had even begun to call himself by the name she had given him.

3 / pages from a notebook

This docility, this acquiescence, he despised in himself. Earlier that morning he had taken out the notebook in which he sometimes recorded his responses to the stimuli of his own emotions; he had opened it to a pair of familiar pages. On the top shelf of the counter around which he had just led Queequeg, the notebook lay open to these pages. This is what, long before moving to Level 9, Simon Fowler had written there:

o *Bushido is the Way of the Warrior. But our own instinctive bushido has been bred out of us.*

Most of us have forgotten what horror exists outside the dome to keep us inside. Whatever it is, we have not fought it.

o *Seppuku is ritual suicide, reserved for warriors and those who have earned the right to die with dignity. Hara-kiri (belly cutting) is a vulgarity; to commit it, and to think of it as belly cutting, one must be either a woman or a losel.*

o *My father died as a direct result of alcoholism. "Insult to the brain," said the final autopsy report. This is the same meaningless euphemism doctors listed as the cause of Dylan Thomas' death, over 90 years ago in the city that is now the Urban Nucleus of New York.*

o *The ancient Japanese caste of the samurai despised poetry as an effeminate activity. Sometimes I view it that way too; especially when I am writing it. A samurai would also despise the sort of introspection I practice in this notebook.*

o *Maybe not. The great shogun Iyeyasu (1542-1616) attempted a reformation of the habits of the samurai; he encouraged them to develop their appreciation of the arts. Iyeyasu died in the same year that William Shakespear died.*

- o *Witness the example of that 20th century samurai and artist, Yukio Mishima. Can he not be said to be the latter-day embodiment of Iyeyasu's attempts at gentling his nation's warriors? Or was he instead the embodiment of the militarization of the poet?*
- o *Bonsai is the art of shaping seedlings that would grow to full size to an exquisite, miniature environment. Bonsai is also the name of any tree grown by this method. I am an expert at such shaping.*
- o *Each citizen of the Urban Nucleus is an artifact of a bonsai process more exacting than the one I am master of. Our environment is a microcosm. We are little. We are symmetrical. But wherein are we beautiful?*
- o *Seymour Glass, who loved the haiku, who lived when a man could let a cat bite his left hand while gazing at the full moon, is the patron saint of suicides. He was not, however, a samurai.*
- o *Although no courtesan, my mother was mistress of the geisha graces: poetry, dance, song, and all the delicate works of hand. Kazuko Hadaka, a Japanese. Kazuko gave me a gentleness not in my father. And my docility.*
- o *I gave my mother to a monolithic institution, where she failed and died. Cause of death: "Insult to the heart." Day 53 of the Month Winter, Year 2038 in the New Calendar designation.*
- o *Yukio Mishima: "To samurai and homosexual the ugliest vice is femininity. Even though their reasons for it differ, the samurai and the homosexual do not see manliness as instinctive but rather as something gained only from moral effort."*
- o *I have heard bonsai spoken of as "Slow sculpture." That it is. But so is the process by which the dome shapes its inhabitants. Are we any more aware of the process than my bonsai are conscious of their protracted dwarfing? Or do my sculptures, as do I, think and feel?*
- o *And what of those who are neither warriors nor gayboys? Does it not also require of them moral effort to establish the certainty of their manhood? If so, what regimen must these others undertake?*
- o *Easier than discovering the answer, much easier, is to sink through the circles of our Gehenna. Can the willow ignore its wiring?*
- o *Bushido, seppuku, samurai, bonsai, haiku, geisha. In this*

catalogue, somewhere amid the tension among its concepts: the answer. How to sort it out? how to sort it out?

All of this was written in Simon Hadaka Fowler's tight, up-and-down cursive in black ink. A roll of florist's tape lay on the corner of the right-hand page of the open notebook. Thumb prints and smudges covered the two pages like official notations on a birth certificate. No one but Basenji, of course, would have supposed the notebook to be there.

4 / layering a willow

So Basenji, that doggy little man, and Queequeg, the lady harpoonist, went on through the greenhouse, whose various counters and table trays were all overhung by fluorescent lights, and out to the open patio between the collapsing buildings: Queequeg unaware of what was going on in her cubiclemate's hangdog head, Basenji uncertain as to what this persistent Zulu wanted of him. He led her to the rough wooden table where he had been working when she came in. He sat down. She looked around, noticing the shelves against the patio's shoulder-high walls and the little potted trees sitting on these shelves. In spite of the rusted fire escapes and hovering brick dust outside, everything in

the patio compound was spick-and-span.

Then she saw the bonsai on the table. "That the one," she said, letting her shadow drop on him like a weight. "That the one I saw out front last time I come. Hey, what you doin' to it?"

"Layering it."

"You took it outa that pot, that blue shiny one," she accused, leaning over his shoulder. Then: "What this layerin', Basenji?"

He explained that he was trying to establish two more of the sinuously stunted trees before the year was out and that you couldn't leave the mother tree in an expensive ornamental Chinese pot such as she had last seen it in; not, anyhow, if you were tying off tourniquets of copper wire below the nodes where you wanted the new roots to develop. Since Queequeg, for once, kept silent, he finished the last tourniquet and began wrapping the willow's layered branches in plastic.

"That the one," Queequeg said, "I wanna buy."

"Can't now, Missy Queequeg, even if you could afford it. This is going to take a while. But next year we'll have three trees instead of one, all of them fine enough for pots like the blue Chinese one."

"We?"

"The shop," he corrected. "The Kudzu Shop."

"I see." Her shadow, however she had managed to drape it over him, suddenly withdrew. She stopped by the shelves against the back wall, and he looked up to see her in front of them. "You got more of them bushes right here," she said. "Five of 'em."

"Only one of them's a willow, though." Skipping the willow, he named the trees across the top shelf. "The others are a maple, a Sargent juniper, a cherry tree, and another juniper." He had potted each one in a vessel appropriate to the shape and variety of the tree it contained. Or, rather, had repotted them into these new vessels after taking the bonsai over from his mother's care.

"Well, you sell me this other one, then. This willow like the first one."

"What you want with that bush?" he said, mocking her. "What you want with a runty ole willow, Queequeg? You gonna rollerskate with a bush in yo' arms?" — He could bite if he wanted.

It wasn't a bite to her; she ignored it. "Man, I gonna bring that tree into our cyoob'cle where you won' let me bring it. When it mine, I do with it what I want."

"These are bonsai," he told her then, as if she were a customer instead of his annoying, cobblemate. "They're real trees, not toys.

Don't be deceived by their size. Just like any real tree, they belong outside. You can't keep them in any of the understrata and expect them to survive, much less the ninth one. That's why they're usually outside on the patio here, instead of in the shop or greenhouse."

"Look up," she said contemptuously.

He stared at her without comprehension.

"I say look up, Basenji, look up."

He did what she asked and saw a faintly golden honeycombing of plexiglass and steel; no sky, just the underside of the dome. All the tumble-down buildings seemed to funnel his gaze to this astonishing revelation.

"What you call *outside*? When you *ever* been outside?"

"Nobody's been outside," he said. "Nobody who was born here, anyway. Not outside the tunnels between cities. The requisite, Missy Queequeg, is *weather*, and that we've got. Underneath there's only air conditioning or dry heat. In three days you'd kill any bonsai you took down there, maybe that willow especially."

"Well, I don' have to keep it down there all the time, you know. So I ready now. How much you axin'?"

"Two hundred dollars."

"What kind dollars?"

"UrNu dollars. Two hundred UrNu dollars."

"You crazy. You think this bush a money tree, Basenji?" Incredulous, she canted her hip, leaned forward, and looked at the willow as if to determine if its bark were gold plate.

"I've had that tree thirteen years. My mother started it, and she had it as least twenty before that. The others — the junipers, the cherry, the maple — are that old, or older. One or two of them may have been started even before there was a dome. Handed down to my mother from —"

"If hand-me-downs precious, I a millionaire, Basenji." She moved to the greenhouse entrance. "You mighty right," she said from the doorway. "Without I auction off all my brothers' ole socks and nightshirts, I can't afford that bonsai."

She left him on the patio sitting over the unpotted and clumsily trussed willow. When he heard the *ting-tang* of the bell in the outer shop, he began to whistle.

5 / *the interpretation of dreams*

Simon/Basenji sometimes had a bad dream, not frequently but often enough. Before he had moved down to Level 9, the dream had been persistent about rubbing down his nervous limbs with

night-sweat: every three or four days the images would get a screening. But in the last four months, having reached bottom, he had apparently developed a degree of immunity to the dream. Once a week, no more.

Anyhow, here is the dream:

Always he finds himself on the floor of his greenhouse, under one of the table trays filled with fuchsia or rose geraniums. Like Tom Thumb, he has no more height than a grown man's opposed digit. When he looks up, the bottom of the wooden table seems as far away as the honeycombing of the dome when he is awake. Always he realizes that he has been hiding under the table waiting for night. And as the city's artificial night slides into place, he creeps out of the hothouse and onto the patio where we have just seen him layering a willow and talking with Queequeg.

A small orange moon hangs under the dome, and the "sky" behind and around it is like a piece of velvet funeral bunting. No glow at all from the ordinarily fluorescent buildings beyond both his own patio and the collapsed tenements surrounding it.

Basenji wears silken robes, a kind of kimono. He resembles a musician or a poet. The robes are cumbersome, and he would like to discard them but discovers that the

material is seamless.

He stands on a piece of brick tile and stares at the wooden shelves ranged above him against the back wall of the patio. So small is he, the shelves look to him like stone ledges on a mountain face. On the highest shelf sit the willow trees in their glazed pots; not only the willows, the other bonsai besides. The orange moon (how did it come to be there?) provides just enough light to make this monumental undertaking possible. The seamless kimono, cinched at his waist with a golden strip of silk, several times almost sends him tripping over its skirts to the patio stones. This fate is what comb-crawlers and hoisterjacks refer to as the "glory of splatterdom." Incongruous as it is, this phrase comes to Basenji's dreaming mind and offends by its slangy graphicness.

Not solely because it mocks death, though that has its part.

Shaking and damp on the topmost shelf of his patio, the arduous climb at last done, Basenji turns and surveys his holdings. How meager they are, even for a man the stature of his dream self. Now his robes seem even more ridiculous, sweat soaked as they are, and he tries again to tear them off. They won't come, they bind him in.

He succeeds, however, in tearing away from his garment the

golden sash about his waist. This he wraps several times about his hands. The sash has tassels at regular intervals along its bottom edge: an overpretty belt. Basenji, perhaps sunning energy from his sleeping body, tries to rend it to pieces.

Thwarted, he ceases and begins walking back and forth along the shelf, looking at the miniature trees.

Finally he settles upon the older of the two willows, the one with the more artfully sculpted form, and expends his last reserves of strength and will getting into the Chinese pot and knotting the sash in a way he thinks appropriate to his purpose.

After which, using the sash, he hangs himself from the willow: a little man dangling unnoticed beneath foliage so delicate and veil-like that a picture of impact-upon-concrete rises before his backward-rolling eyeballs as if in reproach. What warrior has ever killed himself in so womanish a way? It is too painful, this thought. He is a Judas to himself.

But then the limb of the bonsai snaps: Basenji falls on his kimono-clad backside into the pot he sweated so hard to clamber over, just to get to a place where he could hang himself. Now this. Lying there bruised, the broken willow branch attached to him by a golden

umbilical, he finds himself shamelessly weeping, whether out of frustration or out of remorse at having disfigured the bonsai he cannot tell. He hopes that a robin or a cardinal (species officially sheltered inside the dome) will come along to sever his bond to the willow and to devour him, piece by grateful piece.

High overhead, through cascading leaves, the little orange moon blanks out: an extinguished jack-o-lantern.

After this, Basenji invariably woke up, sweating his inevitable sweat. It happened less often now that he had hit bottom, but it still happened. What he needed was a Joseph or a Sigmund Freud to unravel the symbolism. Not really. He could do it himself, he was fairly sure, if he genuinely wanted to. But he didn't. He genuinely didn't want to. It frightened him too much, the image-ridden virus of his nightmare.

Nevertheless, two or three pages in his battered notebook were devoted to an account very much like the one given here.

6 / *ty kosturko*

Outside the Kudzu Shop, she thought, Two hundred UrNus, that baa-ad news. And Basenji, he crazy.

Well, she wasn't going to go

back down to their cubicle to wait until he came dragging in with the next shift change (which he could observe or not observe as he liked, anyway). If she didn't have 200 earnies to squander on a potted fancy-pants bush, she at least had pay-credits to go shopping with, and she was sure enough going to prom a few of them for some kind of brightener; a compensatory purchase, something to make up for Basenji's nastiness. Then, afterwards, there was eurythmics for all the glissadors in the Level 9 coenotorium. She just might go. It was pretty good sometimes, though about an hour of it was enough for her.

Georgia/Queequeg got back to New Peachtree as quickly as she could. Lizardly fellows, more evil-mean than the hoisterjacks in the hive, hung out in the city's crumble-down corners, and she didn't like the looks of some of the stoopsitters she was seeing sidelong. Basenji, in a rare moment, had told her once that he had been beaten up one evening leaving the Kudzu Shop; but since he never carried any money or kept any in his greenhouse building, the stoop-jockeys and thugboys didn't bother him anymore. That anecdote, related off handedly, had impressed Queequeg: no bite maybe, but ballsy enough to go in and out of a neighborhood worse than Bond-

ville. In fact, she'd never been scared in Bondville, not the twitchy, uneasy way she was here.

Even so, she'd come to see Basenji twice, hadn't she? Right through the brick dust, and the potholes, and the unemployable street lizards (both black and white) "sunning" themselves on old porches. But no more. No, sir, not never again.

Back on New Peachtree, Queequeg slowed down. Her long stride turned into a kind of graceful baby-stepping as she turned this way and that in front of the store windows, looking at the merchandise on display behind the tinted glass, looking at her own tall body superimposed on the merchandise, a beautiful gaudy phantom about to strut sensually through the glass. Yoo-rythmics, she thought bitterly. Well, hell, she'd probably go anyhow. She was just getting used to it. Shopping first, though.

Queequeg went into the colossal, perfume-scented escalator lobby of the Consolidated Rich's building, the city's biggest department store and one of the few still in operation from pre-Evacuation times. The Urban Nucleus owned it now, though, and the building didn't look very much like the original one, a huge picture of which hung in a revolving metal frame over the shoppers crowded into the escalator lobby. Queequeg

glanced at it perfunctorily, then picked her escalator and rode up to a mezzanine level high enough over the lobby to give her a good view of two of the adjacent pedestrian courts outside.

People preening and strutting like pigeons, which, once, the city had almost got rid of.

Standing at the mezzanine rail, Queequeg noted the tingling in her feet: high, high up. And she lived down, down, down, almost forty meters under the concrete. Not forever, though; one day she was going to ride an escalator right out of there.

When she turned around, she saw a willowy white boy leaning back on a doodad counter and grinning at her like a jack-o-lantern.

"Ty!"

"Hey, Queequeg," Ty Kosturko said. He had called her that, too, ever since explaining about Herman Melville and white whales. He was wearing a matching trousers and shirt, with cross-over-color arms and legs: pink and white: apple blossoms. Loose and gangly, he was as tall and as athletic as she, but less visibly muscular.

They had been glissadors for about the same period of time, seven or eight months, though he was one of the few whites in their ranks and had got his appointment by badgering his father, an

influential ward representative, to exercise his influence. The boy had bragged of, or elaborated on, his threatening his old man with going hoisterjack if he, Ty, couldn't put on glierboots: it was all he wanted. And so the old man had capitulated; better his son a menial than a maniac.

"What you doin' here, Ty?"

"Same as you, I'd imagine."

"Yeah? What you think I up to, then?"

"Down-chuting your pay-credits, since you're so much like me. That's what I'm doing, getting out from under my money."

She showed her wide teeth. "Oh, I tryin', I tryin'. But I ain' got so much I can prom for anythin' I want." She told him of attempting to buy Basenji, her cubicle mate's, miniature willow. "No way I gonna down-chute 200 earnies, Ty. I savin' for to say good-by to 9."

Ty was one of the only three or four glissadors to live surfaceside, an amenity owing to the fact that he rented from his parents. Therefore, the boy commiserated. "I know what you need, then. Come with me."

He took her hand and led her through the many counters on the mezzanine, moving so gracefully that she had to look at his feet to convince herself that he wasn't wearing glierboots even now. They climbed a stairway hidden behind

the men's and women's lounges, and she tried to strangle her mirth as Ty Kosturko, leading her through the tie-dyed ceiling drapes and batik wall banners, affected the sleazy nonchalance of a dick on shoplifter lookout. Finally, Queequeg giggling, Ty nonchalantly rubbernecking, they got to a room with a rounded portal over which were these words: Paintings & Prints. Into this make-believe kingdom he led her, a gallery of white wallboards and simulated mahogany parquetry.

"If you can't get a tree for your cubicle," Ty said. "Try a print. One of the Old Masters. Nothing better for flinging off a funk. Every two or three months I buy or trade one in."

And Georgia/Queequeg, who had never before been in the Paintings & Prints gallery of Consolidated Rich's, walked in awe among the wallboards. Here since abstract expressionism had fallen into disrepute, were all the Old Masters of pre-Evacuation representational art: Whistler, Homer, Cassat, Albert Ryder, Remington, Thomas Hart Benton, Grant Wood, Edward Hopper, the three Wyeths, and others whom even Ty had no knowledge of. Even so, he dropped all the names he could and impressed Queequeg by telling her who had painted what, even when she covered with her hand the title

plates on the frames. Only two or three times did he miss, and each miss he accompanied with gargoyle-like grimaces.

"Damn," Queequeg said. "You good, Tyger."

Ty Kosturko bowed. Then he took her hand again and led her to another of the partitionlike wallboards. "Now this," he said, a sweep of the hand indicating the prints on display here, "is what you're looking for, Queequeg, this is what you can't take downstairs to homey up your humble abiding place."

Queequeg, she didn't say him nay.

7 / appreciating norman rockwell

About four hours after Queequeg visited him, Simon/Basenji left the Kudzu Shop, locked its doors, and made his way to the central lift terminal on New Peachtree. It was the weekend, Friday evening, and he carried with him his battered notebook. A false twilight was descending, by design, on the towers of the Urban Nucleus, towers looming over Basenji like shafts of frozen air. People were crowding toward the transport terminal, and he added himself to the flow of pedestrians, virtually riding the current they made into the vault of the terminal.

In the hall fifteen crystal lift tubes went up and down the

levels of Atlanta. The air was smoky here, wine colored. Every upturned face shone with nightmarish radiance. Pandemonium, Basenji thought. He half expected Beelzebub and a few of his cohorts to start pitchforking people into the lift tubes, whose gliding capsules glowed with red emergency lights. Up and down the capsules went, packed with shadows instead of human beings.

Basenji found his way into a cordoned lane to a descent capsule and at last got aboard, with nearly a dozen others. "Sardine time," two teen-agers sang, "sardine time." Then Basenji felt the catacombs rise up around him like a hungry mouth. "Sardine time," the boys sang. They were all being swallowed. Like little fish.

Once down, it took Basenji, threading his way among disembarked passengers from other lift tubes, almost ten minutes to reach his own cubicle. Standing outside it, he heard Queequeg laughing and an adolescent male voice saying, "That's right, you know. Absolutely on-target. I'm the foremost expert on pre-Evacuation magazine art in the whole cruisin' glissador corps, Atlanta or anywhere else."

Ty Kosturko. Friday night, and he had to share it with Ty Kosturko, the 21st Century's Kenneth Clark of popular culture.

A boy who, when he wasn't wearing glierboots and uniform, dressed like a department store mannequin; who oohed and ahed over his, Basenji's, Japanese figurines like a gourmet over well-simulated lobster Newburg. And his voice was so self-assuredly pontifical you could hear him right through the walls. Good-by, Friday night.

Basenji put his thumb to the electric eye beside his entrance panel, which promptly slid back, admitting him. He stopped in the middle of the spartanly furnished central room. He placed his notebook on the back of the upholstered chair beside the door.

"Hey, Basenji," Queequeg said, turning from the opposite wall. She grinned at him.

"Hello, Mr. Fowler," Ty Kosturko said. He called Georgia Queequeg but he didn't call Mr. Fowler Basenji. Self-proclaimed expert or no, son of a ward rep or no, he at least had that much sense. But look at his clothes: pink and white: a lanky harlequin in drag.

"Look what I prommed for at Rich's today, Basenji. Ty, he help me pick 'em out. Not too spensive, either." *Holp*. Plantation English, which was enjoying an unaccountable renaissance among the city's blacks. "Come on now," Queequeg insisted. "Come look at 'em."

So Basenji crossed to the formerly naked wall and looked at

the three prints they had affixed there, matted but unframed, with transparent wall tape. The prints were Norman Rockwells. They filled the cubicle with children, and loving parents, and the Apollo II Space team.

"Jes' ten earnies each," Queequeg said. "Which mean I don' have to auction off my brothers' ole socks. It all be paid for in two months, and you, you stingy Basenji, you gonna get to look at 'em too."

With Queequeg and Ty Kosturko on either side of him, Basenji felt like a matchbook between two tall, carven bookends. The lanky boy said, "The print on the left is called *New Kids in the Neighborhood*. It was commissioned by *Look* magazine in the late 1960's. The interesting thing about it is the way the composition's balanced, the moving van in the back kind of tying together the three white kids over here," pointing them out, "and the black boy and his little sister over here," sweeping his hand over to the black children. "Look at the way Rockwell's given the little girl a *white* cat, while the white kids have this *black* puppy sitting in front of them. That way, the confrontation's mirrored and at the same time turned around by the pets the children have."

"And what's the point of that?" Basenji asked.

"To show that the *color* on the two sides shouldn't make any difference. The painting has sociological significance for that period, you know. Rockwell was making a statement."

Basenji stared up at the print. "Cats and dogs," he said, "are completely different kinds of animals. Was the artist trying to suggest an innate ... antipathy ... between the children, as between cats and dogs?"

"Antipathy?" Queequeg said.

"No, Mr. Fowler, you're trying to read too much into it now. The animals are just animals, a cat and a dog. An interpretation like yours would probably lead you to misconstrue Rockwell's intentions."

Basenji was silent. Then: "Well, go ahead. Tell me about the others."

"The one in the middle is from the Four Freedoms series: *Freedom from Fear*. The one on the right shows you the first men to land on the moon, with the NASA engineers and the American people behind them."

"But no cats or dogs," Basenji said. "Those men walked on it, and we can't even see it."

"Let's sit down so we can look at 'em easy," Queequeg said. "Forget bout the moon." She and Ty Kosturko sat down on throwrugs while her cubicle mate lowered

himself into the wingback. The notebook balanced on top slid down the chair's cushion. Basenji retrieved it and held it in his lap. Then the three of them stared, without speaking, at the prints.

Good-by, Friday night. He hadn't been planning to do much with it, though. Go to his visicom console and read. Or try to make sense, in his notebook, of how he had come to a place where his privacy could be so effortlessly violated. Or maybe just sit and stare at a wall, a blank one.

Then Ty Kosturko said, "Come to the eurythmics with us, Mr. Fowler. It's for glissadors, but you'll be our guest."

"Yeah," said Queequeg, touching his leg. "Otherwise, you jes' sit here all night thinkin' gloominess."

"No," Basenji said, earnestly shaking his head.

"Well, if you don't go," Ty Kosturko said, "we're not going to go either. We aren't going to let you sit here in solitary on Friday night. That's inhuman, Mr. Fowler."

"No, it's all right."

"Inhyooman," Queequeg echoed her companion. "You ain' gonna sit here doin' nothin' on a Friday night. We won't let you."

So Simon/Basenji, not understanding why he had allowed himself to be so bullied, went with them to the Friday night eurythmics in the Level 9 coenatorium.

8 / *eurythmics*

In the Level 9 coenatorium, which lay (it seemed) an infinity of concourses away from their cubicle, a hundred or so people moved about under shoddy Japanese lanterns: little orange moons, like decorations for a high-school dance. Most of the people were black since most of the glissadors were black, and the lanterns filled the hall with a dismal orange smoke similar to the quality of light in the New Peachtree lift terminal.

At the far end of the hall Simon/Basenji saw an elevated platform on which a man in white leotards demonstrated the proper eurythmic responses to the music of his accompanists, a flute player and a man sawing on a highly lacquered bull fiddle. The music had just enough melody to prevent its being censured as neo-avant-garde (a term even more ludicrous, Basenji thought, than the activities it was supposed to squelch). Ripples from the flute, reverberations from the bass.

Ty Kosturko led Queequeg and Basenji into the middle of the floor, where variously attired dancers surrounded them. Arms, legs, hips, bellies, and buttocks moved past Basenji in a stylized and regimented choreography. In fact, everything about these languidly swaying body parts was too damn deliberate. Planned. Everyone kept

an eye cocked on the white ghost on the far platform, aping his well-tutored spasms.

"Is this eurythmics?" he asked Queequeg.

"Yeah. It ain' much, but it better than sitting' home. Some of 'em here even *likes* it. Come on now, you do it too." She began snaking her arms around her body, bending and then lengthening out her smooth naked legs. Ty, without touching or looking at her, did the same, his harlequin's body assuming and relinquishing so many odd postures that he, Basenji, was intimidated by its mechanicalness. "Come on," Queequeg insisted.

"I don't know —"

Ty Kosturko revolved toward him, very nearly brushing one of the ubiquitous paper lanterns. "Anybody can do this, Mr. Fowler, it's all just mental, you know, and almost anyone can think." He did a premeditated butterflying movement with his arms and swam back to the little florist. "My father remembers the days of fission opera, renaissance swing, even terror-rock, when you could let the beast out and explode all over yourself without worrying about where the pieces'd land."

"Shoot, my brothers and me were *livin'* that a few months back. We'd jes' go out in the street and close if off and splode to somebody's ole records till the slum

trolls and spoil-it squad come along and tell us to silent down." Without ceasing to gyrate, Queequeg chuckled. That was a human memory; you could almost feel homesick for old Bondville. Almost. "Us and the neighbors. Too many for the ole spoil-it squad to junk up in their jails."

"Yeah," Ty said. "Raggy music, abstract art, and free verse. Gone with the wind, my queen McQueequeg."

"I don' like that, that McQueequeg bidness, Ty. Anyhow, yo' own daddy, who say he 'member what it used to be, he one of them what voted it all out the door. He one good reason we got yoo-rythmics instead of music."

"I know that. And that's one good reason I'm a glissador instead of an accountant or an aspiring ad executive."

Basenji, forgotten in this exchange, walked over to a folding table in front of the hall's concessions booth and sat down. Bodies continued to hitch and snake and revolve past him, without any real expenditure of energy. No one threw back his head, no one pumped his knees, no one shimmied as if possessed. It was like watching a ballet performed by graceful wind-up toys, if that were possible. And Ty Kosturko looked like a sure choice to dance the part of Oberon, even

though his competition was not inconsiderable.

Rock music, and atonal music as well. Abstract art. Free verse. And free-form video-feedback compositions. All gone with the wind.

Basenji didn't miss too many of these; his tastes ran in other directions. Nevertheless, he remembered when you couldn't walk down a surfaceside concourse without going by a row of imitation Mondrians and Pollocks. The Mondrians were there for their symmetry, the Pollocks for their vigor. Outside, in the parks and pedestrian courts, you could listen to people reciting Baraka, or Ishmael Reed, or maybe even their own unstructured verses; whereas today, if you dialed for the works of such people on your visicom console, the word PROSCRIBED rolled into place, and you could be sure that your key number had gone into the belly of a surfaceside computer. As for music, the Urban Nucleus itself had once sponsored, in the Omni, free retrospectives of artists like Schonberg and the virtually deified Allman Brothers. Though never crushingly attended, these performances had always summoned genuine enthusiasts, and Basenji himself, on two different occasions, had gone to the atonal and dodecaphonic concerts. He remembered, too, a time when the dome's citizens had access to

the works of such early video experimenters as Campus and Emshwiller; programmed tapes to feed into your own visicom console. No more.

About eleven years ago — five years after the assassination of Carlo Bitner, a charismatic demagogue, and just one year after the disappearance of Bitner's wife — the Urban Council and the Conclave of Ward Representatives had together voted to remove the abstract paintings from public concourses, halt the outdoor poetry readings, and cease the funding of free concerts, except for those of designated classical works and contemporary popular music. There were simultaneous crack-downs on hand-operated duplicating machines, distributors of underground comix, wielders of portable video equipment, and unchartered, "Fringe-riding" religious groups. Only the Hari-Krishna sect and the Orthodox Muslims, with histories of influence in the city going back to preEvacuation times, secured legal exemptions from this last stricture of the Council/Conclave's sweeping decree.

The year of these "Retrenchment Edicts" had been 2035, the same year that Simon Hadaka Fowler committed his mother to an UrNu geriatrics program. Three years later she had died.

Since then, he had worked himself down from tower housing, surface-side, to his cubicle on Level 9 under: it averaged out to a little better than a level a year. And now he was sitting at a folding table in the hive-people's coenatorium watching the glissadors move about eurythmically under Japanese lanterns. Amazing, this turn in his life.

Although the bull fiddle continued to throb in a subsonic hinterland that he was dimly aware of, the flute abruptly stopped. Queequeg found him, and Ty (all fluttering apple blossoms) came trailing along behind her.

"You lef' us, Basenji," Queequeg said.

"I didn't know how to do that."

"Do you want to learn, Mr. Fowler?"

"No," he said, looking up into the stratosphere where their heads always seemed to reside. "There are too many important things that I haven't learned yet." Implacably young, they stared down at him. "I'm more than twice as old as you two are," he added: a kind of apology.

Queequeg leaned down and pecked him on the cheek. "You right, Basenji," she said. "Anyhow, you done seen it. And I tired of it. Let's go on home. I fix us a drink."

Ty Kosturko tried to persuade them to remain, but, much to

Basenji's quiet pleasure, Queequeg refused to be persuaded. "OK," Ty said. "Call me *manana*, Miz Cawthorn."

Out in the murky corridors they walked side by side, she striding smooth and silent, he newly self-conscious about his lack of stature, in a more acute way than he had been when all three of them had walked to the coenotorium. Then the boy had balanced things a little.

But Queequeg, the lady harpoonist! Didn't the terrible fragrance of her, the smell of sweat-touched cologne and untrammelled woman, break over him like a *tsunami*? A tidal power set in motion not by the moon, but by the passions of vulcanism and earthquake! Anyhow, Queequeg's presence, her aura, diminished him to a cipher; he could not speak, even though their mutual silence, as much as her size and smell, was disarming. In the bleak corridors of Level 9, he was a samurai without a sword.

9 / *soulplaning*

Georgia/Queequeg, she was damn glad to get away from that flute and fiddle, from the posturing zombie on the grandstand. It was OK for a while, but she didn't have Tyger-boy's knack of making what was "just mental" into a kinetic showplace for her instincts. She

kept looking at what she was doing and wishing she could shake off her skin and emerge into an unclad rioting of the blood. To let the beast out, like even Ty said. Because he understood the other even if he could almost manage to bury his brain with the Friday night eurythmics. Shoot, they *all* understood the other, they were glissadors. And Ty, he could be sweet, he certainly could.

"You ain' sayin' much, Basenji," she said, after they had turned into a concourse perpendicular to the one to the coenotorium.

"You aren't either, Queequeg."

"No, *I* was thinkin'. What you been up to, down there?" She grinned at him; he appeared to wince, just in the muscles of his face. So sensitive-crawly he couldn't take a bit of juicing, which was what he accused her of when she didn't whicker her nose off at one of his infrequent intellectual puns. Shoot, he only made them so she wouldn't get them, that was the point of his doing it. Whereas she wasn't trying to be nasty a bit. "I mean you been thinkin' too. What 'bout, Basenji?"

"About being a basenji, a little dog."

"No you ain'. I bet you wonderin' why I axed you to come to somepin I don't like myself."

"All right," he said agreeably.

"Well, I didn' ax you. Ty did. I

jes' say Yeah to what he already axed. But I know why *he* done it."

"Why?" Now Basenji was just being polite, saying Why? because it was easier than jumping down on her with some rudeness. Well, she was going to tell him anyhow, he needing telling.

"Ty worried 'bout you, Basenji. He say you workin' nigger-hard to get as far down as you can, and you done got as far unner as this city gonna let you. Nex' step: the waste converters over on Concourse 13. But how and when you get there, that up to you, Ty say."

Basenji laughed; a sort of snort.

"So he axed you along. When we home, you make me splain why we keep goin' to them sickly yoo-rhythmic. You hear?"

They walked the rest of the way to their cubicle without saying a word to each other, although Queequeg softly scatsang a bit and, once, wished out loud for her glierboots. Since a few of the apartments along the way had their panels slid back, she waved at the people she knew. Solidarity against hoisterjacks and down-from-up spoil-it squads.

Home, she fixed toddies (the air conditioning made it cool enough) and made Basenji sit down in his chair. A throwrug for her, her legs straight out before her like pillars of polished oak. Basenji was letting her determine his evening as he had

never let her manipulate his time before. It was all guiltiness about the bonsai, she decided, that and maybe a little dose of the big head. After four months she had finally got him curious about something — even if, to be specific, it was only himself.

With the mug of hot liquor between his hands, he said, "You told me to make you explain why you and young Kosturko go to the eurythmics even though you're not enamored of it." He had a tic in one moist, narrow eye.

"You wanna hear that, Basenji?" If he did, maybe he wasn't so dragged out on himself after all.

And he said, "Please": a surprise.

"OK, then. Because we glizadors. They only twelve or fourteen of us on each level, you know that? Yeah. The city pick up 'cause we good — even Ty, whose daddy help him get set up in the corps. They wouldna a-took him *only* because of who his daddy was. He can fly, Ty can. He belong on glierboots.

"Anyhow, we keep the unner-city, the down-beneath part of it, together. We the Pony Express and the 707 airmail combined, we the fleet elite of New Toombsboro.

"In four months, jes' since I come down here, I been to the boondocks of this level and out again. I done run letters and packages 'tween ever' concourse. I

been in on the dumpin' of twenny or so deaders down the waste converters, includin' one ole woman dressed like all in tinfoil and holdin' a baton so it wouldn' come loose. I skated through at least four gangs of them sock-headed hoisterjacks, and I gone up to substitute on other levels, too. We all do that, Basenji, and we fine at doin' it." Look at that Basenji, she thought; he listenin' to me, eye tic and all.

"Then one day the councilmen and ward reps, even the house niggers sittin' upstairs with 'em, say *No more tomtoms down there, no more axes and ivories*, and give us a yoo-rythmics program to chew on. Shoot, that don' kill us, we glizadors. We keep our heads on.

"Now, by we I really mean them what was glizadors in 2035. You know, them 'Trenchment E-dicts.' But that don' make no difference: a glizador's a glizador. Even 'eleven years later. So we — all of us, then and now — we went to what they gave us to go to. And some of us wooleye those council fellows by learnin' to like the bullshit they sen' down here for music."

Basenji said, "Are you sure they didn't 'wooleye' you, inducing you people to like the eurythmics? Wasn't that what the councilmen and ward reps wanted?"

"Nah. It may seem like it, but it ain'. They never want us to like it

all, they jes' want us to *do* it. But we knew what they up to, we all the time knew — so we done beat their plan by likin' that stuff when we sposed to jes' do it."

"But you *don't* like it, Queequeg." Damn, he was listening almost closer than she wanted him to. A starved little slant-eye drinking his toddy and eating up her words: *smack, smack*.

"No. But it's tollable. I can stan' it 'cause I know I a glizador. That make up for the music they done stole from us in '35."

"You were seven then," Basenji said. They were quiet. A moment later he leaned forward, and she could see the grey in his otherwise jet-black sideburns. "Don't you ever get tired?" he said. "Don't you ever get sick of going up and down the same ugly hallways? As if you were a rink-refugee forever?" He was asking about himself, really. About himself and her, too.

"No," she said. "No, I don'. You know what *volplane* mean?"

He shook his head.

"Use to, it mean what a airplane do when its motor quit. Down here, we *volplanin'* after a good run down a concourse, when the balls in our boots get rollin' like rounded-off dice. Yeah. That real *volplanin'*. Jes' yo' whole body slippin' through air like a rocket or a arrow, with you goin' head up and flat out, gamblin' on the brains in

yo' muscles to keep you from headin' over inna heap. Soulplanin', we call it when ever'thin's smooth and feathery, and it make livin' sweet, Basenji. It beat liquor and new peaches and a lovin' tongue, it beat mos' anything I can think of. Doin' it, you forget 'bout concrete and levels and how no one see the moon no more. That the truth. That real soulplanin'. And Ty, he'd tell you the same thin', Basenji. That why we glizadors."

Queequeg stopped talking and examined her cubicle mate's face. He was blushing a little, red seeping into his pale brown cheeks. Shoot, she'd embarrass him again, then. The air conditioning had leached away at her toddy's warmth, had put a chill on her legs. She drew them up under her, without a great deal of attention to the arrangement of her skirt. Another surprise: he didn't hurry to look away.

Good for him, he was usually prim as a prufrock, whatever that meant, Ty always used that expression, and somehow it was just right for Basenji. In a three-room cubicle, with the bath booth between two sleepers, you couldn't practice or pretend any bodyshame, ritualistic or real, unless you were an expert. Which Basenji was. He was never anything but dressed, and if she dropped a

towel in front of him or strolled nighty-clad out of her sleeper, *zup!* he was right out the door: prim as a prufrock.

But tonight, his cheeks looking like somebody brutish had pinched them over, he didn't let the drawing up of her Zulu's legs at all befuddle him. His eyes swept across her whole body, they flashed with a toddy-fed humor. He said, "And what will you do when you're too old to volplane?"

"I gonna las' till I forty at leas'. We got glizadors been lacin' on glierboots since ten years fo' I was bone."

"Then what? After forty? You could live sixty more years."

"I gonna do it, too. Die in the wunnerful year 2128, when they won' be no more dome and the earth will have done took us back."

"But before that happens? And after you're through with the glissadors?"

"Babies. I have my babies to raise up. Then when I feeble, I got 'em to talk at and to baby me. If I need it. Which I won'."

"How do you know you won't, Queequeg?"

"I jes' like my mamma, and she don' need nobody but my daddy and not him all that much. She love us all, I mean, but she ain' gonna fall over if somepin happen to us. A quittin' streak don' run in her. Or me neither."

"Maybe." He said that cocky-like and lifted his eyes from her. Whispering, he breathed out the word, "Babies," as if he didn't believe it.

Queequeg fixed Basenji another drink, which he accepted and slowly sipped off. But he wouldn't talk anymore, even though she plopped herself immodestly down in front of him. He went to sleep in the wingback. Thank you, thank you for a stimulating evening. Well, it had been: stimulating, that is. Moreso than any evening she had ever shared with him in the cubicle. He was sweet too, Basenji was.

Queequeg took the heavy mug out of his lap and removed his shoes. Then, mug in hand, she stood in front of her Rockwell prints. It hit her that she was almost like the parents in the *Freedom from Fear* painting, tucking in the children while thugboys beat up the citizens surfaceside and hoisterjacks terrorized pedestrians in the understrata. In their cubicle, though, it was cozy: air-conditioned cozy. A sad-making peacefulness suffused Queequeg, and shuddering with the ache of it, she put the mug on the kitchen board, dialed down the lights, shed her clothes, and lay in her sleeper cove gazing into the impenetrable darkness. Her hands she rested on the planes of her

lower abdomen, the tips of her fingers pressing into the wiry margin of her pubic hair. How still and big the world was. She felt connected to everyone in it, a deliverer of universal amity. And she was a long time going to sleep.

10 / in the descent capsule

Simon Hadaka Fowler, alias Basenji, woke up and lifted himself out of the chair where Queequeg had left him. He had slept dreamlessly: no visions of a tiny incarnation of himself climbing the shelves on his patio. Ordinarily, he did not go into the Kudzu Shop on Saturdays, at least not to open it; if he did go, it was to secure the plants for the Sabbath. Then he would retire back into the hive and his own private cell. This morning, though, he quietly changed his clothes and prepared to leave for surfaceside, two hours before the city's meteorological technicians would dial up daylight.

Outside her sleeper he paused. "Queequeg," he said.

No movement, and the glowing clock on the kitchen board didn't give him enough light to see into her room. Very well.

Off Basenji went. Out of the cubicle, through the Level 9 concourses, up the lift-tube shaft (in a capsule by himself), across the pedestrian courts, and into that faintly inimical district where the

Kudzu Shop tried to bind a collapsing empire together with flower chains.

On his door he put a sign reading OPEN. Then by the fluorescents in the greenhouse, he worked until the artificial dawn gave him enough light to move out to the patio.

The morning went by. He even had a few customers. Queequeg stayed on his mind. Occasionally he shook his head and said, "Babies." Was that what she thought you relied on when your own strength ran out: your grown-up babies? Not altogether, apparently. She trusted her own resources too; she was just like her mamma. So she said.

At the noon shift change Basenji looked at the newly layered willow in its covered stand; in two warm, sealed-over wombs of sphagnum moss it was beginning to generate new life. He hoped. A year it would take.

He watered the other plants on the patio shelves, then picked up the bonsai willow he had not altered and carried it straight out the shop door. The locking up was made clumsy by his holding the miniature tree in its shallow oriental pot while he struggled with his key.

Then he walked all the way to the New Peachtree lift terminal with the willow swooning in his arms, half concealing his face.

Aboard a descent capsule, seven or eight black men and women surrounding him, Basenji tried to pretend that he wasn't clutching a pot to his stomach, a willow to his chest. Not really. Grins on every side. The Big Bad Basement was swallowing them all, rising like irresistible water around them.

"What you got there, man?"

Basenji started to answer.

"A bush. He carryin' that bush home."

"That ain't no bush. That a tree, Julie-boy."

"Well, it don' got a proper growth, anybody tell you that."

A woman asked him, "What do you wanna take a pretty tree like that into the basement for? It doesn't belong down here, not that one."

Basenji started to answer.

"He takin' that bush to his dog," Julie-boy said. "He mos' likely got a dog hid out in his cyoob'cle."

"A dog?"

"Yah. A little one that don' make much noise. So he don' get junked by the concourse trolls."

"It's for decoration," the woman said, answering her own previous question.

"He takin' it to his dog."

Speculation went on around him, entertaining, speculation. He couldn't get a word in. Then they were down: all the way down, without having stopped at any of

the other floors: the Level 9 Express. Everyone disembarked.

"Take it on home to yo' dog," Julie-boy insisted. "See to it he don' has to hike his leg on the wall."

"Fuckin' fine tree," someone else said. "You got a fuckin' fine tree."

Laughter as they dispersed, although the inquisitive woman had already taken herself out of earshot of Basenji's jovial assailants. Huffy, huffy. As the others tapped off toward various corridor mouths, a wiry man with big luminous eyes turned back to him.

"You take care of it," he said. "It could die in a place like this. You tend it now." Then those eyes, too, revolved away from him.

Basenji, balancing the plant, at last turned from the lift-tube passageway, walked down a poorly lit auxiliary hall, entered a wide concourse, and reached his own cubicle. After he shifted the willow so that he could hold his right thumb to the electric eye, the panel slid back.

11 / declaiming a poem

Queequeg, when she woke up, was surprised and disappointed to find that Basenji had gone off somewhere. Standing in her *pen-wah* at the kitchen board, she ate a bowl of cereal (fingernail-colored flakes that dissolved into a paste when she moved her spoon around)

and drank some instant orange juice. She scatsang to herself and mashed a few imaginary muscadines with her bare feet: muscadines and scuppernongs. Her daddy always called the latter *scup'nins*. Sometimes you could find both varieties of grapes in the city's supermarkets, especially in the Dixie-Apple Comestibulary on the Level 4 mall. The checkout boys and stockers didn't seem to know where they came from: they were probably growing all over the dome, right over everybody's heads, out there where nobody poked his old noggin anymore.

I bet Basenji could raise 'em up in the Kudzu Shop, Queequeg thought, if he had 'nuf room. Which he proolly ain'.

She got dressed, a body stocking. What was she going to do? Not shopping. She'd already prommed away enough pay-credits for a while. The Rockwells. She sat down in Basenji's chair to look at them. A sharp nub cut into the small of her back. "Umpf." It was the corner of a beat-up old notebook, a notebook wedged between the back of the chair and the seat cushion. Queequeg pulled it out and began thumbing through it.

Lord, look at all the soot-smudged pages. Basenji wrote as teeny-tiny as anyone she'd ever seen, as if this was all the paper

there was in the world and he wasn't going to waste none of it. As she flipped along, the notebook opened out flat, of its own accord, to two pages where his little handwriting was even tighter than elsewhere. She read:

*o Bushido is the way of the warrior.
But our own instinctive bushido has
been bred out of us. Most of us
have forgotten what horror exists
outside the dome to keep us inside.
Whatever*

That was enough for her. Bushido. Boo-SHEE-doe. Whatever that was. Some of the other words on the page looked mighty funny, too. Back she flipped, leisurely thumbing. It was a journal, though not a very well-kept one. The entries went all the way back to 2039, seven years ago. A year or two in between didn't seem to be represented at all. She stopped thumbing when she saw this:

*you gave me the willow
with the loving remon-
strance
that the tree become
something other than a
decoration,
the diffident point of an
effeminate
motif;*

Whew! Queequeg was reading this out loud. It wasn't any better than the other, but it looked pretty on the page. It had that to speak for it. And her. She spoke some more:

*and though I still go
through gardens looking
askance
at the total sum
of your commands and my
hesitation,
the willow itself has become
animate:
a thief.*

*What it has taken
from the days I wear like
leaves*

A line into the second stanza, Queequeg had levered herself out of the chair and begun pacing. She was declaiming nicely by the time she got to *leaves*. Then it stopped. She had to stop too, which was too bad because she'd almost reached the volplaning stage. Actually, there was more, but Basenji had very effectively crossed out the final two stanzas: violent red slashes. He had done it so well that she couldn't read any of the words in the obliterated lines, not a one.

So she started again from the beginning, gesturing with one arm and walking back and forth in front of the Rockwells. L-O-Q-shun. Maybe it wasn't so bad, after all.

Bad enough, though. Anyhow, reading it again, she knew that it was about the bonsai she had tried to buy the day before. Or the other bonsai just like it.

At the bottom of the page Basenji had written the date, Winter 2041, and two more words: "Oedipal claptrap."

Queequeg put the notebook back in the chair, exactly as she had found it. For a few minutes she scatsang variations on the phrase *you gave me the willow*, still pacing. What had he gone off for? Maybe just to close up for Sunday. Anyhow, if he hadn't gone off, he'd probably be scrunched over his visicom console tapping into the *Journal/Constitution* newstapes. Last night was a fluke, one big fluke.

The clock on the kitchen board said 11:10. Queequeg went into her own sleeper cove and dialed Ty Kosturko surfaceside, up in the towers.

His mother answered: very, very politely. Finally Ty was on.

Queequeg said, "Meet you for lunch, Level 4 ma'il."

"Sleepy." He sounded it, too.

"How long you stay?"

"Till it was over. It got good then. Everybody talked."

"Well, I hungry, Tyger."

"Where on the mall?"

"The Dixie-Apple."

"OK. Thirty minutes."

"Bye."

Quick, quick: a spray shower, which she should have taken last night. Then, a summer dress, orange and yellow.

Maybe they'd have scup'nins in the produce department, shipped in from the Orient or Madagascar (ha,ha) or the kudzu forests where no one supposedly ventured anymore. If they did, she'd buy her daddy some. Besides, it had been a couple of weeks since she'd been over to Bondville. She'd take Ty with her, turn him loose on her mamma.

Out of the cubicle she went, fifteen minutes ahead of the Saturday shift change. And up to Level 4 before the crowds came waterfalling down.

12 / simon hadaka fowler

The cubicle was empty. But he found a cereal bowl and a juice glass on the kitchen board, both wearing the lacy residue of their contents. Staring through the branches of the willow, he saw that the clock behind the breakfast dishes said 12:40. Which had to be right: it was linked to a strata-encompassing system tying it into The Clock, a computerized time-keeper housed in a tower on New Peachtree. So what? He was disappointed that Queequeg wasn't in (an unusual response, he knew), but mildly gratified that the time

didn't make any difference to him. The disappointment and the gratification canceled each other out: quasi serenity.

Put the bonsai down, Simon.

Holding it, he turned around. Where? In a place where it would be displayed to advantage. Fine. But the central room of their cubicle didn't offer that many possibilities. Beside his chair? Under the Rockwells? Either side of the kitchen board? Not good, any of them.

Well, it was evident to him why he had brought the willow down to Level 9, it would be evident to Queequeg as well. Why not let its placement say unequivocally what, just by exchanging a glance, they would both know?

Very good. Therefore, Simon Hadaka Fowler carried the pot into Queequeg's sleeper cove (the first time he had been through that door) and set it at the foot of her bed. She had thrown her nightgown, he noticed, over her pillow. Meanwhile, her presence, her aura, hung in the room like a piquant incense, not yet completely burned off. That was all right, too.

But an unmade bed didn't do much for the miniature tree, and he wasn't going to touch her nightgown so that he could remedy the bed's rumpledness. He moved the tree to the back wall of the cove. Then he went into his own room

and came back with a rolled bamboo mat and a small scroll of rice paper, also rolled. He put the bamboo mat under the glazed vessel containing the tree and affixed the scroll to the wall with the same sort of tape Ty and Queequeg had used for the Rockwells. He went out and came back again. This time he stood a bronze ornament on the mat next to the bonsai: an Oriental warrior, sword upraised.

Scroll, tree, figurine: the display formed a triangle. Good. That's what it was supposed to do. The scroll bore a poem that he had written as a boy:

*The moon and the mountain
Mailed themselves letters:*

*These were the flying
clouds.*

His father had criticized him for messing up the syllable count and for writing about inaccessible phenomena: moon, mountain, clouds. His mother had said it was OK, very nice. He had never tried to straighten it out.

Simon Fowler went again to his own sleeper cove, shed his trousers and tunic, and performed his daily regimen of exercises, which he had forgotten to do that morning. Afterwards, he took a spray shower, conscious of the cool droplets clinging to the cabinet from its

previous use. A smell of scrubbed flesh trembled in these droplets.

Fowler fixed himself lunch at the kitchen board. He decided, knowing Queequeg, that he would have the entire afternoon ahead of him. Maybe the evening, too. All right. His soul was at rest. Heaven would accept Simon Hadaka Fowler: moon, mountain, and clouds. For the first time in eleven years it seemed certain to him inevitable. Only the demands of conscience and honor remained. After lunch, he sat down at the visicom console and tapped into the *Journal/Constitution* newstapes.

13 / wedding bells

Ty Kosturko and Queequeg came in a little after eight, laughing and punchy-hysterical. They had been at each other in Georgia's old bedroom in the surfacese side Bondville tenement and hadn't really pulled either themselves or their clothes together even yet. The boy's long, neo-Edwardian shirt, embroidered flowers going up and down the sleeves, might have been on backwards: its design made it difficult to tell. And Queequeg's flaming scarf of a dress looked like an old facial tissue, everywhere crumpled.

Fowler, when he came out of his room to greet them, took all of this in at once, even the sexual compact between them. Especially the

sexual compact. It had shone in their gestures and lineaments before, but then he had been either pre-emptively indifferent or unbelieving. Now he was neither: he smiled.

"Basenji," Queequeg said, putting an arm over his shoulder, "we gonna get married, Ty and me."

"That's right," the boy said, and dropped, grinning, into Fowler's wingback. He shifted uncomfortably, pulled a smudged notebook from behind him, and lowered it to the floor as if it were an incunabulum.

Fowler said, "Very good. Congratulations. Congratulations, both of you."

"After Quee —" Ty broke off and nodded deferentially to the girl. "After *Miz Georgia Cawthorn* called me this morning, my mother gave me the mail. The UrNu Housing Authority says I can have a cubicle of my own. They said —"

"His daddy done help him again, that what it was. How long we have to wait, Basenji, how long it take *us* to fine a place?"

"Well, my daddy, *Miz Cawthorn*, wanted me out of the house. As far as that goes, I think my mother did too. But I digress. The Housing Authority said the cubicle was two-person only, Mr. Fowler, up on Level 3, but that the double-occupancy requirement could be waived since the requisi-

tioner's father was T. L. Kosturko. I didn't want that, but I didn't want to roost forever with mommy and daddy either.

"So when I met Queequeg at the Dixie-Apple — Miz Cawthorn, I mean —, I said, 'Move up with me' She said, 'I got a cubicle mate.' I said, 'You haven't got a bona-fide, signed-and delivered bodyburner.' 'No,' she said jes' a bodyburner.' So I said, 'Well, let's sign and bind, with options, durations, and special clauses to get worked out between now and the wedding.'"

"Which gonna be nex' Sattidy."

"She said OK. Which'll leave you without a cubicle mate, Mr. Fowler, but the Housing Authority won't toss you out because of a wedding. You'll have a grace period and a chance to screen the first five people on the relocation list for the one you most want to move in with you. Which neither you or Queequeg got to do when you were thrown together from the top of the lists. So I hope you aren't upset with me for stealing your cubicle mate."

The boy had never seemed so earnest, not even while explaining the Rockwell prints or instructing him in the theory and practice of eurythmics. Maybe his shirt was on frontwards.

"No, that's fine," he told them. "But I want a clause permitting me

visiting privileges."

"Yeah," Queequeg said. "You 'member that one, Ty."

The boy nodded and wrote a make-believe message to himself on the palm of his hand. "Anyway, Mr. Fowler, we've already told Georgia's parents and you. But I've got to break the news to Ward Rep Kosturko and his lady, who'll be," rippling his wrist in demonstration, "determinedly delighted." He laughed, that incongruous falsetto. Then, looking at Queequeg, "Tomorrow's Sunday. I've met yours, you gotta meet mine. Come up in the afternoon, three or so. All right?"

"OK. You tell 'em who I am: a glizador, jes' like you." She reached down and pulled Ty out of Fowler's chair. "Only better." They kissed, decorously, though he didn't believe the decorousness was for his benefit; they were simply expressing the calm their affection had come to.

"Goodnight, Mr. Fowler," Ty Kosturko said. And he went out into the concourse, where he was at once absorbed by the red fog hanging there.

14 / *georgia cawthorn*

She was high, high, high. Like yesterday at the mezzanine rail in the Consolidated Rich's before meeting Ty. Like looking down on the pedestrian courts, out through

the tinted glass. The world spread out like a map, the flat kind like they used in geography: Africa on one side, America on the other. So that you could fall off either end, right into the chalk tray. Well, she was volplaning back and forth across that whole landscape.

"Hey, Basenji," she said, walking toward her sleeper cove, "what you think? You 'prove?'"

"I approve," he said, right behind her. In fact, he was following at her heels, which never happened: he didn't do that. But when she turned toward him from the darkened cove, he was right there. Like a little dog that's been left shut up all day, eyes begging, tail ticktocking. Except Basenji had his arms folded self-composedly and was standing straight and still at the edge of the shadow just inside her door.

Facing him, she dialed up her light. "Hey," she said again, smiling. Prim as a prufrock, he looked, but devilish too, a little bit of witchman in his Japanese eyes. Last night had not been a fluke; he was somehow turned around, wrinkles fallen out of his soul as if he'd hung it up overnight to drip dry. Neat on the outside, neat in: that was Basenji now.

He unfolded his arms and pointed at the wall behind her.

Georgia turned to look. She saw the willow, its blue ceramic pot

glinting with highlights. Saying, "Oh, Basenji," she crossed the room and knelt beside the tree. "You givin' it to me?"

"No," he said.

Her head jerked up, her mouth turned down, before she could stop either of these involuntary responses. Damn.

"I can't. If it isn't outdoors most of the time, it will die. As I said yesterday, it needs weather. But we can keep it down here for the weekend. *You* can keep it."

"It won' die?"

"It shouldn't. Not because of two days downstairs." Straight and still he stood; a trifle stiff, too.

"Take you a seat, Basenji." She pointed him to the bed. He was going to protest, she could see it coming. "Go on now. Ty, he plonk down in yo' chair, you plonk down right there. An res'."

"Oh, I've had plenty of rest." But he did what she'd told him to. And he watched her as she picked up the bronze samurai. "The bonsai display is very formal," he said, "if you bother to do it right. There are always three points of focus, and the tree isn't necessarily the main one, although it always represents the corner of the triangle standing for Earth."

"Well, that seem natch'l enough. What this one?" She waved the sword-wielding warrior at him, then set it down in its place.

"A figurine representing Man." He pointed: the wall over her head. "The scroll stands for Heaven. Those are the three principal aspects of the universe. Heaven, Earth, Man. In the Shinto formulation, I think. I can't really remember anymore."

Georgia stood up to examine the rice-paper scroll. She read: "*The moon and the mountain/ Mailed themselves letters: These were the flying clouds.*" That was OK. Nice. It beat the poem in his notebook all up and down. She looked at him sitting on the bed. His shirt was open at the collar, dark hair curled below his throat. (Ty's chest was as bald as a baby's.) Too, he smelled like soap.

"Each point of the triangle," Basenji said, "also represents a vital human attribute. Heaven is soul, Earth is conscience, Man is honor. You have to fulfill the requisites of all three." His eyes were merry, like the eyes of a preacher who didn't mind taking a nip now and again. A nip for a Nip. She grinned at him as he finished talking. "And that's not Shinto, or Muslim, or Ortho-Urbanism. That's my own formulation."

She sat down beside him. They looked at the display together. No nervousness in him at all, not even the teeniest blush under the almost translucent planes of his high cheeks. Serenity was riding him like

a monkey. It was about damn time. For four months he'd been shooting up a jillion cc's of crotchiness a day and staying together by making sure his clothes were straight. Then, last night. Now, today. Sitting in *her* sleeper cove, on *her* bed, with his collar open. OK.

Georgia Cawthorn took Basenji's left hand, which was calloused from his work in the Kudzu Shop, and bit it gently in the webbing between thumb and forefinger. Then she lowered the unresisting hand to her thigh and helped it push the hem of her crumpled yellow dress upward to her hip. His hand seemed to know what to do. Leaving it there, she began to unbutton his shirt.

"You ain' tired, are you?"

"No," he said. "Are you?" It was a sweet question, not sarcastic. She could tell by the way his eyebrows went up to a little *v* when he asked her.

"Well, I ain' gonna think 'bout it right now." She moved a kiss across his mouth and let her hands come down to his waist. He, in turn, pressed her backward, slowly, like a gentleman, so that her cast-aside nightgown lay under her head.

Everything else happened just like it was supposed to, although she had to wait until the first round was over to get her dress all the way off. Then she got up, dialed down the light, and quickly came back to

the hard muscular, curly-chested Basenji. They lay together in her bed, her head on that chest. She could certainly feel her tiredness now, weights in her arms and legs.

After a while she said, "You invited to the wedding, Basenji."

"Next Saturday?"

"If Ty and me get the papers set up."

"Well, I hope you do." He did, too. He was thinking of something else, though, just like she was thinking of going up to the tower tomorrow and sitting down with Ty to figure out options and whatnots. Maybe they could finagle authorization to go glissadoring on the same level, so long as it didn't take Ty's daddy to finagle it.

After a while she said, "The way you dress, you been hidin' all them muscles you got." She touched one.

"I do push-ups," he said. Then, like a naughty boy: "And yoga."

She laughed. "Bet you could glizador. Bet you could even fine out how to soulplane, jes' you get started."

15 / *the geriatrics hostel*

Putting his arm over the girl's bare shoulder, Simon Fowler said, "I want to tell you a story, Queequeg, something that happened eleven years ago." All his life since then, he had been looking for someone to tell it to; the notebook had been the only listener he'd

found. "It's a confession, I suppose."

"Well, if it happen 'leven years ago, it ain' gonna have to do with me."

He was silent. Did she want to hear it?

She recognized his hesitation. "No, that *good*. I don' *wan'* it to. You go ahead, Basenji."

And so he confessed, doing for his conscience what Queequeg and Ty Kosturko and the bonsai had somehow managed to do for his soul. "Eleven years ago I gave my mother to the UrNu Geriatrics Hostel. Do you know what that is?"

"I think so."

"Well, it's a place for old people, a hospital and nursing home. Some of the old people there aren't sick at all and live in a separate wing, almost a hotel. Most who go there, though, are waiting to die. Geriatrics Hostel. The name itself is a contradiction, meant to inspire hope when you know you shouldn't have any."

"I don' know what's hope-in-spirin' 'bout a buildin' full of hostile ole people," the girl said. She waited for him to laugh. Which he didn't. "That a joke, Basenji. One of yo' snooty *puns*. You ain' the only one smart 'nuf to make 'em, whatever you think." She chuckled. "Good one, too."

"Touche." It had stopped him, he had to admit. To save face, he

pinched her nipple. "May I finish?"

"Ouch. Yeah. Don' do that."

Georgia Cawthorn listened while he told her about taking his mother, Kazuko, who had been born in reconstructed Hiroshima in 1970, to the UrNu Geriatrics Hostel. His mother was only sixty-five, but he had been taking care of her as if she were a child for six or seven years, since Zachary Fowler's death in 2028 (the year she, Georgia, was born) of "insult to the brain."

Kazuko had taught him everything he knew about horticulture, bonsai, and miniature landscaping; and he, after he was old enough to run it himself, had taken her with him every day to the Kudzu Shop, even though this had entailed pushing a wheelchair through the corridors of the tower complex, into and out of lift tubes, and across spotless pedestrian courts and pitted, unrepaired asphalt. The medicaid physicians told him that they could find no measurable deterioration in her legs; perhaps her condition derived from an irresistible and ongoing loss of neurons, nerve cells, in the brain, a failure owing to oxygen deprivation. "Premature senescence," they said. Perhaps. In any case, they didn't know what to do about it since they had no long-range methodology for reversing vein constriction in the

brain or for increasing her blood's oxygen payloads.

"One of them said *payloads*," Simon Fowler said. "Aerospace jargon. The men in the descent craft *Eagle* were part of its payload."

"They talk like they has to, Basenji." She could see him nosediving into bitterness. But he pulled out.

"Finally, I went and talked to the people at the Geriatrics Hostel. They were soliciting tenants, patients for the hospital section, residents for their quasi hotel. Part of a study, all of it. The director told me that my mother's apparent 'premature senescence' might in reality be a response to alterations in her life over which she had no control.

"'Look,' he said. 'Your mother was born in Hiroshima. She came to this country with your father before the turn of the century. She watched a dome go up over Atlanta, actually saw the steel gridwork — over a ten-year period — blot out the sky. The United States turned into the world's only Urban Federation before she was even granted American citizenship. So instead she had to apply for enfranchisement under the new Urban Charter. You were born only after she and your father had obtained that enfranchisement. That made her what? I thirty-seven

years old? — when you were born, Mr. Fowler, no small adjustment in its own right. Twenty years devoted to raising you, then, while the Urban Nuclei cut themselves off from all contact with their own countrysides, not to speak of foreign nations, and your father degenerated into alcoholism. Then your father, the one person she knew who had seen her homeland, who could talk about it with her, was cruel enough to desert her. By dying. Mr. Fowler, your mother's time sense has been upended, her cultural and her emotional attachments pulled out from under her. Her psychological metabolism has sped up to keep pace with the alterations she sees occurring in the external world. She is aging because she feels intuitively that she must, that it would be a chronometric impossibility for her *not* to be aging. Physiologically she is neither older nor younger than any reasonably healthy woman of sixty-five. We have other victims of the same malaise here, some barely into their fifties. The roots of this syndrome, in fact, are a century old. Older. Leave your mother with us, Mr. Fowler, and we'll try to help her. That's all I can promise.'

"I said, 'All of her emotional attachments haven't been pulled out from under her. She has a son, you know.'

"'Yes,' the director said (I can't

even remember his name), 'and from what you've told me, you've been castigating yourself for not being your father. Or an improved version of your father: all the strengths, none of the weaknesses. Your own sense of guilt runs very deep in this matter, Mr. Fowler, as if you blame yourself for being both a late *and* an only child, neither of which conditions you had any control over. And you've done well to seek help here.'

"You don't still feel that guilt, do you?" Georgia asked.

"I don't think so. If I ever felt it. But I'm not through confessing. The greater guilt is ahead.

"I gave — *sold* — my mother to the Geriatrics Hostel. They had been soliciting tenants, as I said, as subjects for a gerontological study, and they offered me a considerable sum to submit my mother to them. I did. They promised that she, along with the others, would be a recipient of intensive care and treatment, not simply a guinea pig for their researches. And in that, I think, the director told me the truth.

"During the first year I visited the Geriatrics Hostel every week, usually twice a week. Wednesday evenings and Sundays. They were working to alter my mother's time sense, to bring it in line with that of a normal woman in her sixties, maybe even to slow it down below

the so-called normal threshold. The director did not believe in the biochemical approach, though, and that seemed good to me. No untested repressants or hallucinogens. Instead, they placed my mother in a controlled environment, a room in which everything took place at leisurely, but prescribed, intervals. They encouraged the reintroduction of Japanese motifs into her life, in the decorations of her room and in the material available for her to read. I brought a different bonsai with me each time I came; when it had been indoors for two or three days, an attendant carried it to the balcony outside my mother's window — which, on the director's orders, they kept curtained. But she still had scenery. A false window in the room opposite the curtained balcony, ran hologramic movies of the Japanese gardens in San Francisco; my mother could watch the people come and go, come and go. Or she could wheel herself over to the wall and let a curtain drop into place here, too. More, they permitted her company from among the Hostel's other 'guests,' and they didn't shut her off from news of the city and the other Urban Nuclei; they just monitored and restricted its content.

"The first month, no progress. Not much the second one, either — though by the third month she had

begun trying to walk, supporting herself on a movable aluminum frame they had kept in her room since the beginning. This didn't last. The director went by tunnel to a conference on aging research in the Washington Nucleus. While he was gone, someone proposed a room adjustment; patients were shuffled around. That did it. We *think* that's what did it; the results of this bungling didn't begin to show for a while. In fact, the new room my mother was given was exactly like the other, down to the false window and the hologramic movies of the Frisco botanical gardens, except that the floor plan was a mirror-image of the other. Even the adjustment's having been made in its entirety during my mother's sleep couldn't compensate for this; the director later said it may have even complicated matters, since if my mother had witnessed the shuffling, her sense of disorientation would not have been so great."

"Thoughtlessness, Basenji. The program don' soun' bad, the director don' soun' bad."

"No, they weren't. But that's not the point. This is a confession, not an indictment. May I finish?"

"Go on. But let's pull up that sheet." The air conditioning, the interminable, almost imperceptible droning of the air conditioner. They adjusted themselves against each

other under the rumpled drifts of linen.

“From that point on, my mother failed. When I came to visit her, we sat opposite each other and, more often than not, stared. She had scores on her legs and arms from lying so long in bed. She scratched the sores and the skin came away. The attendants left the sores undressed so that they’d be open to the air and the prospect of healing. I found myself fixing obsessively on these raw wounds; it was like I expected on one visit to see her shin bone or elbow joint peeping through the worn flesh. And her eyes, the skin around them was sagging and red, falling into pouches. Queequeg, I expected — I was afraid — that one Sunday afternoon her eyes would roll out of her sockets into the little bags on her cheeks.”

“Hey now!” She drew away from him, a reprimand.

“Come back,” he said, and she did. “I wouldn’t admit to myself the horror I felt, I still don’t completely admit it. Later when I went to visit her I had to introduce myself; I had to tell Kuzuko Hadaka Fowler, my mother, who I was. It was just her eyesight, the director told me, not her memory. But then she would ask questions about my father, who she seemed to think was still living in the tower complex with me. Or she would

speak in Japanese, which I had never learned. In English she would reminisce about what it had been like to survive the A-bomb blast of August 6, 1945, although not even her own parents had been alive when that first bomb was dropped. Even so, after the reversal in her progress, it was the key to almost everything she talked about. She once described for me the photographic images of human shadows burned into the sides of Hiroshima’s buildings by the blast. Maybe she saw a few of them when she was a little girl, three or four years old, I don’t know. One or two such images may still have existed then.

“At the end of the first year in the hostel she wasn’t even talking about that, just sitting in her wheelchair and nodding, or asking me every ten minutes or so what time it was. Which I wasn’t supposed to tell her. I had been seeing a woman quite frequently during this time, but I finally stopped. The visits to my mother had started to tell on me: a depression I couldn’t exorcise.

“I went three weeks without going to see her, my very first break in a year-long routine. Then, on a Wednesday evening, I rode a lift tube from street level to the floor of her ward in the Geriatrics Hostel. When I came out into the hall, I heard an old woman’s voice saying

over and over, 'Please, please help me.' I saw her, my mother, in her wheelchair at the end of the corridor: nothing terrible seemed amiss. She looked all right. But she kept begging for someone to come to her aid.

"They were mopping out the rooms along the corridor, and several other 'guests' shared the hallway with her, all of them deaf, maybe even literally, to her pleas. I threaded my way through the wheelchairs, and when she heard me coming, knowing that I was neither a patient nor one of those who ordinarily tended to her, she stopped begging. She held her head up and started nodding and smiling.

"'How do you do,' she said. 'How do you do.'

"I said, 'Mother, it's Simon, it's your son.'

"'How do you do,' she said. 'How do you do.' In the past my introducing myself had gained me at least a slow-coming acceptance. This time, only her grin and those terrible nods of the head. I waited. That was all I got. 'How do you do, how do you do.'

"Then I saw that the skirts of her robe — a hideous robe I had never seen before, kimonolike, with Mount Fujiyama embroidered over her left breast and the name of the mountain stitched across the right — well, the drape of this hideous

robe was drenched. A pool of urine lay under my mother's wheelchair, droplets hung from the frame on which her feet rested. 'How do you do,' she said. She wasn't going to let a stranger, even if he had just introduced himself as her son, help her with something as personal as a bladder she could no longer control.

"'Courtesy, dignity, self-reliance.'

"'I'm your son,' I said. 'Mother, let me —'

"'How do you do.'

"'Someone help this woman!' I shouted. 'Someone help her!' Four or five time-savaged faces revolved toward me. An attendant came out of one of the rooms.

"I backed away from my mother, I turned and walked up the hall. Waiting for the lift tube, I heard my mother saying again, 'Please, please help me.' The attendant took care of her, I think: I didn't look back to see. Then I left the Geriatrics Hostel and never went back again until almost two years later when they notified me that my mother had died."

Beneath drifts of linen Simon Fowler and Georgia Cawthorn lay against each other. He was thinking, Heaven is soul, Earth is conscience. These I have salvaged.

16 / the samurai and the willows
It was the Saturday of the

wedding. The clock on the kitchen board said 1:20. She kissed him. "You come on up now, the Ortho-Urban chapel. You hear? We both gonna be late, Ty gonna kill me."

"Go on, then."

"You comin', Basenji? You better come." He was smiling, the way a quiet little dog smiles. And you never find out what it's thinking.

"In time," he said.

"On time," she said, "you be on time." Enough. She went out the door into the concourse, her shoulder capes, intense burgundy, twirling with the power of her stride. No need for glierboots, he thought.

Simon Hadaka Fowler went to his sleeper. He took his notebook out of the drawer in the cabinet compartment of the visicom console. He tore out two blank pages toward the back. Then, pulling a metal waste can toward his chair, he dropped the notebook in and set it afire with a pipe lighter from the console. He pushed the waste can away from him with his foot.

This done, he began to write on the first of the two pages he had saved back from the miniature holocaust in the waste can:

"Ty, Queequeg: I am leaving the Kudzu Shop to you. Here is the name of a man who may offer you a

good price for it, should you not wish to keep it." He wrote the name and level station of the man. "The bonsai on the patio I hope you will keep, especially the willows. Under the counter in the main shop I have left instructions for completing the layering and transplanting processes of the willow now putting forth new roots. It should not be too difficult if you follow them to the letter. They are good instructions."

He leaned back in his chair and thought. Then he wrote:

"My mother once told me a story of two young Japanese men who recklessly stormed the home of a great lord who they believed had impugned the good name of their father. Perhaps the lord had been responsible for their father's death. (My memory fails me here.) In any case, the two young men — neither of them yet twenty — were captured.

"The lord whom they had tried to kill, however, was impressed by the young men's courage and refused to condemn them to death. Instead, he commuted their sentence to the mercy of committing seppuku, ritual suicide.

"To a Japanese, my mother tried to explain, the distinction between execution and seppuku is by no means a fine one. On the one hand, disgrace. On the other, the satisfaction of one's honor. An Occidental mind struggles with this

distinction, attempts to refute it with reasoning altogether outside the context of its origin. It is only in the last two or three weeks that I have recognized this myself.

"To return to my story, which I am almost done with: The gracious lord whose home the young men had attacked even went so far as to include in this commuted sentence the six-year-old brother of the attackers, even though the boy had been left at home during their mission. Nevertheless, on the appointed day he sat between the two brothers and watched carefully as each one of them performed the exacting ceremony. Then, with no hesitation at all, he took up his knife and did likewise."

Fowler set this page aside.

On the second sheet he wrote: "Queequeg, I go in joy. This is no

execution. You have commuted my sentence."

The equation in his mind he did not write down. Heaven, Earth, Man: soul, conscience, honor. Shortly, he thought, I will have salvaged all three.

Much later, when Georgia Kosturko-Cawthorn could weigh with some degree of objectivity what had happened, she told Ty: "He changed a lot. The blessed part is, he started axin' himself questions 'bout who he was. He got a long way. But he jes' never axed the last question, Ty, he jes' never axed it." In the spring of the year that followed, working from Basenji's directions, Georgia and Ty began two new trees from the layered bonsai willow. Both trees took.

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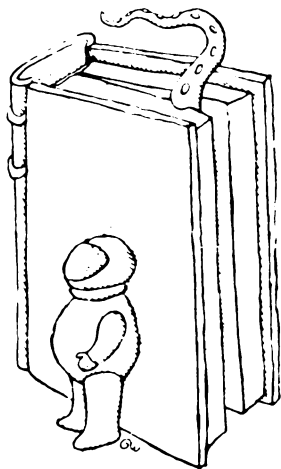
ALGIS BUDRYS

The Early Williamson, Jack Williamson Doubleday, \$5.95

James Blish in my memory

The SF Rediscovery Series, Equinox, \$1.95 ea.

The Best of Cordwainer Smith, edited and with an introduction and notes by J. J. Pierce, Ballantine, \$1.95



Jack Williamson holds the Pilgrim Award for his critical work, *H.G. Wells, Critic of Progress*, so we know he is a scholar. You may take it from those who have ever had the slightest contact with him, he is in addition a gentleman. He is also a notable contributor to the progress of scientifiction toward SF, and with *The Early Williamson*, (199 pp, \$5.95), Doubleday and Company now affords us the opportunity to follow that progress and that contributor.

I cannot say enough good about this series, or about this volume which follows on *The Early del Rey* and *The Early Asimov*. I am no antiquarian for its own sake, and if we ever arrive at *The Early Nelson Bond*, sharp questions will be raised here. But the device of going to a carefully selected writer and asking him to do biographical essays in connection with his work is such an excellent one, and so revelatory of what we actually were and did, that it shines and sings in a universe otherwise composed of plasticized nostalgia verging on libel against ourselves.

To read of how Jack Williamson lived on the southwestern US frontier, deprived of sustenance of any significant sort, is to understand just how much a man can find within himself, and what he must do with it so that his passage

from 1908 to 1975 is of some worth in the world. While he starved and wandered through his teens, the world went from the handbuilt Wright flyer to the Model T car; the southwest went from the ox and the plough to the Fordson tractor, radio went from spark-gap wireless telegraphy to the A&P Gypsies, the universe rotated from Newton to Einstein, and the proud individual rural American was conveyed into the gears of World War I and the Great Depression. One of the stories in this book, "We Ain't Beggars" (from *New Mexico Quarterly*, August, 1933), is not SF. It's a firsthand, expert account of how to jump a moving freight when you're out of your head with hunger. I wonder what Professor Williamson's students make of that in the airconditioned classrooms at Eastern New Mexico University while the tall man discusses English with them in his deep, slow voice.

By 1933, Williamson had been a published author some five years, having begun with a guest editorial in *Amazing Stories Quarterly*. So he has been with us about fifty years, and in that time he has gone from tyro to giant in his field, to comfortably mentionable Grand Old Man. He will bite you if you mistake him for a fogey, and he will be as gentle as only a giant can be while he does it. No one has yet suggested he be called The Dean of

Science Fiction — that title seems to have passed from the late Will Jenkins to Lester del Rey, a curious transposition but never an apt moniker in any event. To paste it on Jack Williamson would be curiouser still; he is a person of unflinching modesty, and he would tell you he got this from Abe Merritt, and that from Miles J. Breuer, and Giles Habibbula from Bill Shakespeare, and he and his friend Ed Hamilton took this houseboat trip down the Mississippi and

How golden the days! "I never made as much as \$2000 a year until I became an Air Corps weatherman in 1942." "When revolution came, in 1910, we moved from Mexico to an irrigated farm near Pecos, Texas, and went broke there. The year I was seven, we moved again by covered wagon to the acrid sandhill homestead in eastern New Mexico where I grew up." You just bet he did.

The stories in this book date from 1928 through 1933. They are not modern science fiction — Williamson is the author of "The Metal Man," "The Girl from Mars," "Through the Purple Cloud," "The Plutonian Terror," etc. No writer today, now that Will is gone, traces more clearly the evolution of SF from a sort of clumsy hobby, through the slam-bang pulp era, and into something

with aspirations toward permanence. These are generally not stories to be taken quite seriously anymore as things in themselves, although there is some surprisingly good reading and solid entertainment here; the past is not a wasteland, even by our current high standards, uh-huh. These are stories which, taken together with the interpolated essays, form a literary narrative; an adventure of creativity; of a man making himself better able to communicate what is essentially he to what is essentially us.

The thing that waits in the back of all our minds has gotten my friend, Jim Blish. He is dead in his mid-50's with a great deal left undone. The AP obituary headline in the Chicago Daily News described him as "Star Trek Author," which not only fails to distinguish him from Alan Dean Foster but fails to distinguish him from so many other things he was not.

He was not, for instance, lovable unless knife loves whetstone. Clambering into the same room with him was that sort of intellectual experience. Nor was he consistent. He was perfectly willing to write Star Trek novelizations and basketball stories for sports pulps while incubating such works as *A Case of Conscience*. It is not

sufficient to say he had mouths to feed; there were plenty of occasions on which he was offered feasible ways of feeding them better and more easily. He simply did not see that what James Blish wrote on any given occasion was at all relevant to what James Blish wrote on another, or that either was necessarily relevant to what James Blish was. He could be three or six or eighteen different people inside and still be recognizable, not only recognizable, but totally in character. I'll be amazed if he stays quietly in his grave.

Others will list his works for you and describe him, more accurately for SF purposes, as the Hugo-winning author of *Conscience* and the Oakie series, and the truncated but seminal Waterworld series, and dozens of other highly intellectualized, insightful constructs not only of the future but of the mind-workings of people grappling with it. It is possible to cite his historical novel, *Doctor Mirabilis*, (a fictionalized but very scholarly biography of Roger Bacon), as evidence that one of his two major literary preoccupations was with Man as Scientist, and that the other was with Man as Creature. His later work — *Black Easter* comes to mind — is an attempt to close with the problem this poses. If Man through Scientific Method strives for omniscience and omnipotence,

what of the day he brings his intellect unalterably to bear upon He who made him?

But I will tell you no more than that about Blish the SF writer. It's all on record ... the thin, pale, pencil-moustached figure, terrified, whispering his Guest of Honor speech into a convention microphone; the sudden waspish rise of voice out of a corner discussion group — "Damn it, you ass, if you mean you're lazy, say so!" So much for one of the founders of the Milford Science Fiction Writers Conference.

He was an expert musician; he was one of the founders not only of the Vanguard Amateur Press Association and Vanguard Science Fiction Magazine but of Vanguard Records, and once came within a producer's promise of scoring a movie I came within a producer's promise of writing.

He was a PR man for Hill & Knowlton, Inc., which was a little like being a photographer for *Life*. He was one of the English-speaking world's top medical writers, and the creator of prestigious international symposia on immunology, fermentation antibiotics, and a number of other topics in which his clients had an interest. It is a way of being brilliant, underpaid at high salaries, and totally obscure outside one's profession. (And in terms of dollars and time spent over the

years, that was his profession).

He rode this dumb little Lambretta motor scooter from New York City to Milford, Pa., every Friday night. I saw him come barrelling out of the Lincoln Tunnel one such evening, headed for the potholed lanes of Route 46 with its shopping center traffic, the mile-long hill west of Dover, NJ, and the blind twists and hurtling teenage Chevrolets of Route 202 beyond Hopatcong, and he looked like an outrider for the Bonus Army. Out of his Madison Avenue clothes, he wore ragged sweaters, baggy pants, an early-model Romer helmet, and bubble goggles with the corners cut out to accommodate the temples of his eyeglasses. All of that brought his weight up to nearly 120 pounds. He stopped in a diner in Dover, halfway along his 85-mile ride to his house on the bank of the Delaware, and a kid sucking a Coke asked him in all sincerity if he was the Man from Morse.

He could drink — Oh, my, what he could do to a case of Ballantine Beer quarts! After Edna and I were married and living on 23rd and 8th in Manhattan, and he was living weeknights in a cold water flat in Little Italy, he would come visit once or twice a week, bringing the delicious cardboard box under his arm. I'd have a quart or two and he'd have the rest, while we settled the preferable nature of the world,

he'd tip his hat and leave, apparently little different. Somewhat jauntier, I suppose.

Once he showed me his latest poem, shyly printed in the literary quarterly on the page opposite the new poem from Ezra Pound. The way I wrote the last chapter of *Rogue Moon* comes from that sestina. He was surprised when I told him.

He was a Ph. D. limnobiologist, a chef, a man who made noises like a kitten when within range of a beautiful woman, a critic, a sometimes clumsy and dull writer and often a heart stoppingly exciting one. You cannot put him in one file under one label.

Look what has been taken.

Avon's *Equinox* series of large-format paperback SF Rediscovery reprints — (5¼" by 7¾", more or less, all about 5/8" thick, in essentially uniform covers, all \$1.95, all supposedly available at your "quality" paperback outlet) — are perking up after a rocky second effort.

The series — which purports to make "important and influential works of science fiction available once more" and to keep them in print — was and is a good idea from many standpoints. The price is right, because *Equinox* uses the original edition's big typesetting, the packages are attractive, and the

books are out there forgotten in all but name, waiting to be brought forward.

The series began well, in late 1974, with titles such as Cyril Kornbluth's *Syndic*, which everyone knew was good, and John T. Sladek's *The Reproductive System*, which not enough people knew about. Philip Jose Farmer's *Strange Relations* and *Inside Outside* were early entries, and any Farmer title deserves reprinting. It doesn't necessarily deserve its first printing, but if it survives into publication at all, it's often an interesting piece of work to the additional Farmer fans who have been created meanwhile. Another early jobbie was *Rogue Moon*, a 1961 Hugo nominee by Algis Budrys who, think of him what you will, usually works hard if he works at all.

In early-to-mid-1975, however, we saw a sudden troughing. Having produced Norman Spinrad's *The Iron Dream*, a tour de force of major dimensions, the series began to tend more and more toward *The Great Explosion*, which is the dreary thing made from Eric Frank Russell's Hall of Fame novella "... And Then There Were None," and Chad Oliver's *The Winds of Time*. Oliver is an engaging person, one assumes from reading his fiction, and is known to be a pretty good anthropologist. But he has no idea of the difference between a

novel and a short story 60,000 words long, which would not be so bad for us all if Equinox hadn't made the same mistake.

But now we have had, in swift succession, John Christopher's *No Blade of Grass* and Edgar Pangborn's *A Mirror for Observers*, both of which represent basic events in SF, and Harry Harrison's *Bill, The Galactic Hero*, which is almost as funny as *The Reproductive System*, and a very wicked book into the bargain.

All is not yet perfect. Also in the recentmost bundles are *Ultimate World* by Hugo Gernsback, which is supposed to be funny, insightful, awe-inspiring, adult, and yummy, and Kenneth Bulmer's *City Under the Sea*. The latter work is blurred thus:

"Set in the far future, when mankind owes its survival to a vast network of ocean farms, CITY UNDER THE SEA tells the shattering story of a man doomed to mindless, anonymous serfdom in a colony of underwater slaves. Jeremy Dodge knows he must escape — yet in a twilight world filled with ... squadrons of man-controlled killer fish, escape seems impossible. But Jeremy Dodge is a man driven to survive — for the only alternative is living death."

Perhaps conscious that someone might then mistake Bulmer for a

thud-and-blunder writer, Equinox describes this as a "classic novel which was the first to incorporate the ideas of undersea farming," an assertion which will be of some interest to Arthur C. Clarke, the obscure, mute author of *The Deep Range*.

The SF Rediscovery series must struggle against the realities of low budget acquisition and production, and a tendency toward eccentric editing. Nevertheless, it is a Good Thing, and furthermore a Good Thing now staggering back from the edge of going wrong. One hereby nominates Kornbluth's *Not This August*, should the Christopher prove to be a good seller, and William Sloane's *To Walk the Night and Edge of Running Water* in any event. Then there's a lot of good stuff on the Ace backlist, including some early Phil Dick, Mark Geston's apocalyptic novels, D.G. Compton's *Synthajoy* and its successors It's out there and it's by-and-large available. A lot of very good work popped into brief life as newsstand paperback originals and has vanished. Now that we no longer have Walker going back into it and producing hard cover reprints, we can at least move some of that stuff one notch further up the scale toward permanent incorporation in the literature.

J. J. Pierce, bless his stubborn

hide, rarely relinquishes a notion, one of which in recent years has been the idea that Cordwainer Smith may be forgotten if someone doesn't do something.

I wonder if the premise really holds water. Some artists live forever in the fame of being unknown — I think Mary Cassatt will keep being rescued forever; by now there are many people convinced that James Branch Cabell is still alive; who remembers that *Esquire* was supposed to fold in 1964? — but although one might say Cordwainer Smith had too much impact on the field and fostered too many legends to be lost from sight, still the wheel turns, things grind away, and John Jeremy may have a point.

Be that as it be, *The Best of Cordwainer Smith*, from Ballantine, gives us 400 pages of Smith's fiction "in the correct order," (Pierce), beginning with the dynamite "Scanners Live in Vain" and moving on, step by chronological ("correct") step, through such somewhat less hurtlesome but yet maniacally fascinating stories as "The Lady Who Sailed the Soul" and "The Dead Lady of Clown Town" to "A Planet Named Shayol."

Smith was a wild talent; under the square name of Paul Line-

barger, he lived a prosaic life as Sun Yat Sen's godson and a specialist in counterinsurgency, escaping from this humdrum existence by creating a future history peopled, animalled and robotted by as various a cast of driven, poignant creatures as ever screamed defiance at cold death. When, at Bob Silverberg's suggestion, I published and Earl Kemp edited some of this material as a collection called *You Will Never Be The Same*, (Regency Books, 1963) we meant it. We were also afraid, I think, that not enough people knew about Smith as yet.

Pierce's introduction and notes are too portentous for my taste. I am certain Sam Moskowitz would not agree, yet I can see clearly that a certain native SF essayist tradition has passed unto the second generation. But I can understand the motive. A lot of years have passed since Fred Pohl retrieved "Scanners Live in Vain" from its first dustbin and republished it, and many a hand has passed it along since. Yet the work is so incredible that it is new each time, and, though he bursts upon us each time as if an angel speaking, he is so new, so much not like anything else, that we are afraid he may be fragile. He was not.



"You any idea what these stains are, sir?"

Thanks go to Mr. Boldt for bringing to our attention this superior fantasy by the French novelist and short story writer, Marcel Ayme. Suggestions for out of the ordinary reprint items are always welcome.

Dermuche

by MARCEL AYME

Translation by R. A. Boldt

He had murdered a family of three people to possess a music box that he had desired for several years. The passionate eloquence of M. Leboeuf, the prosecutor, was superfluous, and the defense attorney, Maitre Bridon's, was useless. The accused was condemned, unanimously, to have his head sliced off. No voice pitied him, neither in the courtroom nor elsewhere. His massive shoulders gave him a bull-like appearance. His face was huge and flat, heavy-jawed and with little forehead. His small, narrow eyes were dull. If there could have been any doubt as to his guilt, an impressionable jury would have condemned him because of his animal appearance. All during the pleading of the case,

he remained motionless on his bench, with an indifferent and uncomprehending air.

"Dermuche," the presiding judge asked him. "Do you regret your crime?"

"Yes and no, Monsieur le Président," answered Dermuche. "I regret without regretting."

"Explain yourself more fully. Have you any remorse?"

"Pardon me, M. le Président?"

"Remorse, don't you know what remorse is? Well, do you happen to suffer when you think about your victims?"

"I feel fine, M. le Président, thanks very much."

The only moment of the case during which Dermuche showed any interest was when the prosecu-

tion produced the music box. Hunched over the edge of his dock, he didn't glance away from it; and when the music box, wound up carefully by the bailiff, played its tune, a smile of surpassing gentleness passed over his animal face.

While waiting for the sentence to be carried out, he occupied a cell in the condemned prisoners quarters, and he awaited there, calmly, the day when it would end. That day, moreover, did not seem to disturb him. He never opened his mouth to the guards who entered his cell. He never felt the need to speak to them and contented himself with answering their questions politely. His only pursuit was the humming of the offensive tune that had driven him to the crime, and he didn't know it very well. Cursed with a very slow memory, it was perhaps the irritation of not being able to remember the melody which had led him, one September evening, to the villa of those retired folk of Nogent-sur-Marne. They were two old maids and an uncle sensitive to cold weather and who had been decorated with the Legion of Honor. Once a week, on Sundays, during midday dessert, the elder of the two sisters would wind up the music box. In good weather, their dining room window was open and, for three years, Dermuche had

known enchanted summers. Crouched at the foot of the villa wall, he used to listen to the Sunday melody which he tried, throughout the rest of the week, to recapture in its entirety, without ever being completely successful. From the first hours of autumn, the uncle would have the dining room window closed, and the music box played only for them. For three years in succession, Dermuche had known these long months of deprivation without music and without joy. The tune gradually fled from him, disappearing from day to day; and, at the end of the winter, he had nothing left but the regret. The fourth year, he couldn't get used to the idea of another period of waiting and he entered the old people's home one evening. The next morning, the police found him busy listening to the song of the music box, three bodies lying beside him.

For one whole month he knew the song by heart, but, the day before the trial began, he had forgotten it. Now, in his condemned man's cell, he remembered the snatches that the court had just put back in his mind and which were getting more uncertain every day. And the man condemned to death hummed from morning till night.

The prison chaplain came to visit Dermuche and found him full of good will. He would have wished,

however, that the unfortunate man was a little more open-minded and that his good words would reach his heart. Dermuche listened with the docility of a tree, but his brief responses bore no more indication than did his enigmatic face that he was interested in saving his soul, nor even that he had one. However, one day in December when he was speaking of the Virgin and the angels, the priest thought he saw a light flash in those dull eyes, but so fleetingly that he doubted that he had seen properly. After the conversation, Dermuche asked abruptly, "And the tiny Jesus, does he still exist?" The chaplain didn't hesitate one second. Certainly, he should have said that the baby Jesus had existed and that, since he died at the age of 33, it wasn't possible to speak of him as living now. But Dermuche had such a thick skull that it was difficult to make him understand. The fable of the baby Jesus was more accessible to him and could open his soul to the light of the holy truths. The priest told Dermuche how the Son of God had chosen to be born in a stable, between the ox and the donkey.

"You understand, Dermuche, it was to show that he was with the poor, that he came for them. He could just as well have chosen to be born in a prison, amid the most unfortunate of men."

"I understand, M. le Curé. In short, little Jesus could have been born in my cell, but he wouldn't have agreed to come into the world in a house of retired people."

The priest contented himself with nodding his head. Dermuche's logic was unassailable, but it was adapting itself a little too much to his own particular case and seemed unlikely to incline him toward repentance. Having thus nodded halfway between yes and no, he carried on with the three Magi, the massacre of the innocents, the flight; and he told how the baby Jesus, when his beard had grown, died crucified between two thieves, in order to open the portals of Heaven to mankind.

"Think of it, Dermuche, the soul of the good thief must have been the first of all the souls of the world to enter into Paradise, and this wasn't just by chance, but because God wanted to show us what every sinner can expect from his mercy. For him, the greatest crimes are only accidents of life...."

But for a long time, Dermuche had not been following the priest, and the story of the good thief seemed to him to be as hard to understand as those of the miraculous fish and of the multiplication of the loaves of bread.

"So then, the little Jesus had returned to his stable?"

He was only interested in the

baby Jesus. While leaving the cell, the priest thought that this murderer understood as much as a child did. He even came to doubt that Dermuche was responsible for his crime and prayed to God to take him out of pity.

"He has the soul of a child in the body of a moving man; he killed the three old people without any maliciousness, as a child rips open the belly of his doll or tears off its limbs. He is a child who doesn't know his own strength; he is a child, a poor child, and nothing but an infant, and the proof is that he believes in the child Jesus."

A few days later, the priest was visiting the condemned man. Of the guard who accompanied him to open the door, he asked, "Is he the one who's singing?"

Like the sound of a subdued bell could be heard the male voice of Dermuche singing without stopping, ding, ding, ding.

"He's been going on all day. If it still resembles anything, it certainly isn't a tune now."

This carefree air of a man condemned to death and who had not yet made peace with heaven did not fail to trouble the chaplain. He found Dermuche more lively than usual. His animal face had an expression of alert gentleness, and in the slit of his eyelids shone a laughing light. At last, he was almost talkative.

"What's the weather like outside, M. le Curé?"

"It's snowing, my son."

"That doesn't matter, after all, snow isn't going to stop him. He doesn't care about the snow."

Once again the chaplain spoke to him of the mercy of God and of the enlightenment of repentance, but the condemned man interrupted him at each sentence to talk to him of the little Jesus, with the result that his recommendations had no effect.

"Does the child Jesus know everybody? Do you believe that tiny Jesus is in authority in Paradise? M. le Curé, do you think that little Jesus is in favor of music?"

At the end, the chaplain couldn't get a word in. As he was going to the door, the condemned man slipped a piece of paper folded in four into his hand.

"This is my letter to the little Jesus," he said, smiling.

The chaplain accepted the message and learned its contents a few seconds later.

"Dear little Jesus," said the letter. "The present letter is to ask a favor of you. My name is Dermuche. Christmas is coming. I know you won't hold it against me for having bumped off those three old fogies in Nogent. You couldn't have come into the world at the house of those stinkers. I'm not asking you for anything here,

seeing as how I won't be long in kicking the bucket. What I'd like is that, once I'm in Paradise, for you to give me my music box. I thank you in advance, and I wish you good health, Dermuche."

The priest was appalled by the contents of this message which showed too clearly how far the murderer was from repenting.

"Of course," he thought, "he is an innocent who has no more discernment than a newborn babe, and this confidence that he has placed in the child Jesus is sufficient proof of his childlike honesty, but when he presents himself to the judgment with three murders on his conscience and without any sign of repentance, God Himself won't be able to do anything for him. And yet, he has a tiny soul as clear as a water spring."

That evening he went to the prison chapel and, after praying for Dermuche, placed his letter in the cradle of the plaster infant Jesus.

At dawn on December 24, the eve of Christmas, a group of well-dressed gentlemen, along with the guards, entered the cell of the man condemned to death. Eyes heavy with sleep, stomachs queasy and mouths agape from yawning, they stopped a few steps from the bed. In the light of the day just being born, they tried to pick out the form of a body stretched out

under the cover. The bedclothes moved weakly and a soft wail came from the bed. The prosecutor, M. Leboeuf, felt a chill pass along his back. The prison director straightened his black tie and moved away from the group. He tugged on his cuffs, achieved the proper angle for his head and, his head and shoulders drawn back, his hands joined together against his fly, declared, in a theatrical voice,

"Dermuche, be courageous, your plea for commutation has been rejected."

A wail answered him, stronger and more insistent than the first, but Dermuche did not move. He seemed to be hidden up to his hair, and nothing emerged from the bedclothes.

A guard came near to shake the condemned man and bent over the bed. He straightened up and turned toward the director in astonishment.

"What's the matter?"

"But I don't know, M. le Directeur, it's moving, and yet...."

A prolonged wail of surpassing tenderness escaped from under the covers. The guard, with a sudden gesture, uncovered the bed completely and uttered a cry. The aides, who had moved forward, uttered cries of stupefaction, each in his turn. Instead of Dermuche on the bed thus uncovered, rested a child of recent birth, or at most a few

months old. He seemed happy to be in the light and, smiling, surveyed the group calmly.

"What's the meaning of this?" screamed the director of the prison as he turned to the chief guard. "You've let the prisoner escape?"

"Impossible, M. le Directeur, it wasn't more than three quarters of an hour ago that I made my last round, and I'm sure I saw Dermuche in his bed."

Red-faced, the director abused his subordinates and threatened them with the most severe penalties possible. However the chaplain had fallen to his knees and was thanking God, the Virgin Mary, St. Joseph, Providence and the Child Jesus. But no one paid him any attention.

"In the name of God!" exclaimed the director, who had bent over the infant. "Look there! On the baby's chest. He has the same tattoos that Dermuche had."

Each aide bent over in turn. The infant bore on his chest two tattoos that were symmetrical, the first showing a woman's head, the other, a dog's head. No doubt at all, Dermuche had exactly the same ones, of more or less the same size. The guards were sure of it. There was a prolonged silence while they assimilated the news.

"Perhaps I'm mistaken," said M. Leboeuf, "but I find that the baby looks like Dermuche, as much

as a child of this age can resemble a man of 33. Look at that large head, that flattened face, the low forehead, those thin little eyes, and even the shape of the nose. Don't you think so?" he asked, turning toward the condemned man's lawyer.

"Obviously, you have something there," agreed Maitre Bridon.

"Dermuche had a coffee-colored mark on the back of his thigh," stated the chief guard.

They examined the thigh of the newborn baby and found the mark there.

"Go and get the physical chart of the condemned man," ordered the director. "We're going to compare the fingerprints."

The chief guard hurried off. While awaiting his return, each man began to look for a rational explanation for the transformation of Dermuche, for no one doubted it any more. The prison director did not take part in the discussions and nervously paced the cell. As the babe, frightened by the noise of the voices, began to cry, he approached the bed and said menacingly,

"Just you wait, my friend, and I'll give you good reason to weep."

The prosecutor Leboeuf, who was seated beside the infant, stared at the director, perplexed.

"Do you really believe that this is your murderer?" he asked.

"I think so. At any rate, we'll

find out soon enough."

Faced with this delightful miracle, the chaplain couldn't stop thanking God, and his eyes grew wet with tenderness as he regarded this semidivine infant that was lying between Leboeuf and the director. He wondered with some concern what was going to happen and concluded confidently,

"It will happen just as the Child Jesus has decided."

When the examination of the fingerprints confirmed the extraordinary metamorphosis, the prison director gave a sigh of relief and rubbed his hands together.

"And now, let's get on with it," he said. "We've already wasted too much time. Come on, Dermuche, let's go."

A murmur of protest burst forth in the cell, and the condemned man's lawyer cried out indignantly,

"Now really! You can't tell us that you're going to have a baby executed! That would be a horrible act, a monstrous one! While I admit that Dermuche is guilty and that he deserved to die, do I have to go about proving the innocence of a newborn babe?"

"I don't worry about details like that," replied the director. "Tell me yes or no. Is this Dermuche? Did he kill the three pensioners in Nogent-sur-Marne? Was he condemned to death? The law is made for everyone, and as far as I'm con-

cerned, I don't want any stories. The laws are there, and the guillotine has been up and ready for over an hour. You make me tired with your 'innocence of a newborn babe.' Is it sufficient then to be changed into a baby to escape justice? That would be just too, too convenient."

Maitre Bridon, with a maternal gesture, had put the covers back over the plump little body of his client. Happy now that he was warm, the infant began to laugh and gurgle. The director glanced slantwise at him, feeling this fit of gaiety to be quite out of place.

"Look there," said the director, "how cynical. He intends to bluster it out to the end."

"M. le Directeur," intervened the chaplain, "don't you perceive the hand of God in this affair?"

"Possibly, but that doesn't change anything. In any case, it doesn't concern me. It isn't God who gives me my orders, nor is he concerned with my advancement. I have received orders, I'll carry them out. Look here, Mr. Prosecutor, aren't I absolutely right?"

Prosecutor Leboeuf hesitated to commit himself and made a decision only after serious thought.

"Obviously you have logic on your side. It would be quite unjust for the murderer to have the privilege of beginning life again instead of receiving the death he so

deserves. It would be a dreadful precedent. On the other hand, the execution of an infant is a rather delicate matter, and it seems to me that you would be wise to consult your superiors."

"I know them, and they'd be upset with me for placing them in this awkward situation. But...I'm going to phone them all the same."

The higher officials hadn't yet arrived at the ministry. The director had to call them at their homes. Half awake, they were in very bad humor. The transformation of Dermuche seemed like a treacherous ruse directed at them personally, and they felt great anger towards him. The fact remained that the condemned man was a baby, but, with the times being not in favor of gentleness, they feared for their promotions if they were suspected of being kind. Having consulted one another, they decided that... "the fact that the murderer had become a little shorter under the weight of remorse or for any other cause could in no way circumvent the disposition of justice."

They went ahead and prepared the condemned man; that is to say, they wrapped him in swaddling clothes and shaved off the light blond down covering his neck. The

chaplain then took the precaution of baptizing him. And it was he who carried him in his arms to the apparatus erected in the prison yard.

Coming back from the execution, he told Maître Bridon the course that Dermuche had taken concerning the Infant Jesus.

"God couldn't welcome into Paradise a murderer who had not been even faintly touched by remorse. But Dermuche had going for him hope and his love of the Infant Jesus. God erased his life as a sinner and returned him to the age of innocence."

"But if his sinner's life has been wiped out, Dermuche committed no crime and the pensioners in Nogent weren't murdered."

The lawyer wanted to get to the bottom of it and went to Nogent-sur-Marne immediately. Upon arriving, he asked a grocer in the street where the house of the crime was, but no one had heard of any crime. He was shown without any problem the house where the Bridaine sisters and the uncle were living. The three retired people greeted him with some distrust but soon, reassured, complained that during that very night someone had stolen a music box that had been left on the dining room table.

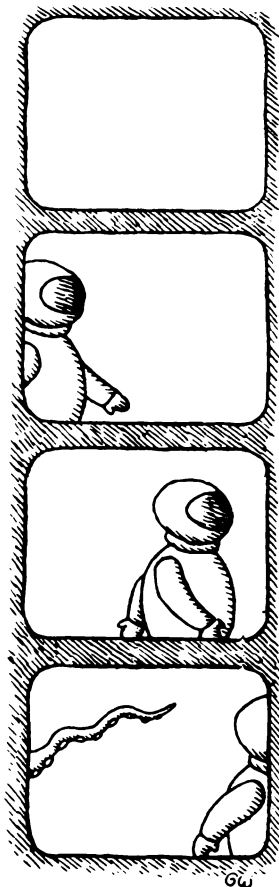


The most eagerly awaited science fiction series since *Star Trek*, that was this season's *Space: 1999*. Noisy fanfares of publicity, guest appearances on TV by the stars, and a great deal of jockeying for position by the stations that bought it (it is a syndicated program, not a network offering) preceded its premiere; all this served to raise hopes even in those viewers soured by an endless stream of turkeys such as *Lost in Space* and *Planet of the Apes*.

This review is written on the basis of two episodes; I had hoped to get in more, but scheduling problems preclude. Also, I have just seen episode two and have a strong smell of Thanksgiving dinner in my nostrils — I won't say I've lost *all* hope, but there will have to be an extraordinary change for me to reconsider what I'm about to say. However, let me hedge a little and say that I will keep watching and report faithfully any charges in attitude.

In episode 1 ("Breakaway"), a radioactive waste disposal area on the Moon runs amuck due to unforeseen changes in the magnetic fields; this forces the Moon to be "pushed out of Earth's orbit" (not to mention its own; I don't think they knew it had one). Going along

BAIRD SEARLES Films



for the ride, willy or nilly, are the 311 men and women residing in Moonbase Alpha, an international settlement of scientists. For some reason, despite tons of interplanetary hardware to hand, they can't get off, though there's some hope that they can make a jump for Meta, some planet or other which just happened to be wandering through the Solar System at the time.

Episode two ("Dragon's Domain") opens 877 days later, and apparently Meta was a bust, because nobody mentions it. They are, in fact, in "intergalactic" space — that must have been one *hell* of a garbage dump. *Flashback*. In 1994, there had been an "Ultraprobe" which was not a new toothpaste, but a manned probe of a newly discovered trans-Plutonian planet called "Ultra," from which only one man returned. He had run into a *monster* — with tentacles, yet — in a graveyard of lost ships on the other side of Ultra.

Meanwhile, back in 1999 (or I guess it's 2000 by now) and intergalactic space, that same astronaut starts twitching, and, by golly, they run into that very graveyard and that very monster, tentacles and all. Needless to say, it is done in, and the Moon and its unwilling passengers are off to another episode.

Are we discouraged? Yes!

Now one of the hardest things to take — for me — is the s/f fan that demands absolute scientific verisimilitude. I believe that there can be some license in the field, a little dramatic give, as it were. After all, the coincidences in Shakespeare's works defy the laws of chance, don't they, but that doesn't lessen our enjoyment of them. And the nit-picker that has to have every sprocket, rocket, pocket and locket scientifically justified to 15 decimal points is just ruining his own enjoyment of some good writers.

But one of the skills of the good s/f writer is simply to *make* us suspend our disbelief — OK, maybe by a little fudging or subtle semantic gobbledy-gook, or maybe just with a story so good that we don't want to pick nits. But there's a lower limit of scientific simple-mindedness that even *I* won't buy, particularly when accompanied by simple-minded stories. *Space: 1999*, as you can tell from the above synopses, hits that lower limit.

There's *dramatic* simple-mindedness, also, alas, present here. The mere fact that they must rely on a flashback device for the second episode indicates a poverty of invention. Hell, I'd go along with the Moon travelling at intergalactic speeds *if* I were offered a story that was interesting enough (to make the last paragraph's point from the other side).

With some notable exceptions, s/f on film and TV has always been about 25 years behind the literary genre; *Space 1999* would not have been out of place in one of the less sophisticated magazines of the late '40s, say *Amazing Stories*. Now this is because TV/films s/f is made by outsiders to the genre; the results are what usually happens when a *writer* from outside the genre attempts it, i.e. a work that is typical of what the general public *thinks* science fiction is rather than one containing the traditions of coherence and intelligence (generally) that the field has built up within itself. In other words, there is a sort of culture lag between inside and outside, and I, for one, place a positive value on the inside view, if only because from the outside we get idiocies such as this show.

(This whole question of genre-ghetto or contrariwise is a big one, which I have only touched on here. But it is *not* as simple as some authors who have publicly moaned about being ghettoized would make it; I feel their moaning is prompted by lack of fame and money — not

necessarily in that order — and valid so far as that goes.)

I may have digressed because I'm more interested in the above question than I am in the show to hand, but in all fairness, is there anything positive to say? Well, the show *looks* good, though almost entirely derived visually from *2001*; sometimes embarrassingly so, as in the space shuttle scene. Probably my favorite aspect is the costumes. The Alpha uniforms are the basic tee shirt and tights that seem obligatory for video s/f, but are neatly individualized by being asymmetrical; one sleeve a different color (presumably denoting rank) and a zipper from wrist to neck on one side only, which must make getting into them an interesting problem in contortionism.

As for that least important of TV qualities, the acting, the less said, the better. I can only note that Barbara Bain's expression is exactly the same under 10 Gs as it is in Lunar G — absolutely blank.

I will, indeed, continue to watch this show; depending on what results, this review may be ... *continued next month*



The final, and the most exciting, novelet about Blacklantern, who here joins the Galactic agents known as Benefactors. Jack Williamson's most recent book is *The Early Williamson* (see this month's *Books*).

The Machines That Ate Too Much

by JACK WILLIAMSON

1.

He had been dozing through a long seminar on culture clash and cosmopolitics when the signal ring stung his finger. The three quick tingles meant "Report to Benefactor Thornwall — now!"

Outside, he paused in the cool green hexangle to shake himself awake. Lean and straight and black, he stood there a moment, enjoying the clean bright plant scents of Xyr, until a needle of unease pierced his pleasure.

The last time, old Thornwall had called him violence prone. Too savage to become a Benefactor. What would it be today?

With a supple shrug he breathed deep and hurried on. The blind tly of time stung men at random. With Nggonggan fatalism he was ready for whatever came.

"To you, Blacklantern!" In the high tower office Thornwall surprised him with the two-fingered

ritual salute of the Benefactors. "You are now a lunar fellow."

"But, sir —"

Unbelief checked his voice. He wanted to be a Benefactor — wanted it so hard his blood was pounding now. But the semester wasn't over. His training wasn't done. He couldn't help suspecting some ugly trick of circumstance.

"Come." In the control alcove, from which he directed agents of the Fellowship on a hundred scattered planets, Thornwall waved him into a seat and bent gravely to siphon hot black liquid into two ruby cups that were inlaid with the golden sunburst of a stellar fellow. "Stonevine tea," he murmured. "From my own home world. Let's drink to your mission."

"Where?" Blacklantern peered at the red-robed Benefactor, not quite daring to hope. "To Old Earth?"

"Not yet." Smiling soberly,

Thornwall tossed back his long silver hair. "When you ask for that adventure, you'll have to be at least a planetary fellow. But all that's still far-off. Our station ship hasn't yet arrived in Earth orbit. You're needed now on Nggongga."

He had learned to love the stern old man, but a restless impatience gnawed at him now while Thornwall moved with a ceremonial deliberation to seal the siphon and savor the tea.

"Needed to deal with something strange," Thornwall told him at last. "A report of something hard to believe. Big metal worms, eating up the planet!"

He was about to grin, but the Benefactor's face reflected no amusement.

"I think you know our resident agent there. A planetary fellow named Snowfire."

"*Dzanya Dzu?*" He breathed the sounds of her name in her own native tongue. "I loved her once," he said. "Till I found that the meaning of love is not the same in our two cultures." Alarm struck him. "Has anything happened to her?"

"We don't know." The old man shrugged. "She's our only fellow there. She called last night, Xyr time. She was on her way to find the native who encountered the planet-eating worms. A clan chief named —" He leaned to touch a

computer terminal, glanced at the flicker of green symbols. "— Flintbreaker. Elder Huntsman of the Game clan."

"Old Tlongga Tlong." Blacklanter nodded. "I've seen him. He keeps his own striker tly and he used to visit the arena. His clan claims half the planet — the waterless highlands in the dry hemisphere. Beyond the reach of progress. They still hunt nearmen. Sometimes men. Do they —" His breath caught. "Do they have Snowfire?"

"I hope not." Thornwall sipped his scalding tea. "No word today — her ensign is dead. I talked just now to a native office clerk. He's incoherent. Afraid of something. That's all we really know. You're to replace Snowfire and clear up the situation."

"I can't replace her." He sat for a moment staring at his own image of Snowfire's lean yellow loveliness. "She's too — different. From a world unlike Nggongga. One where the old starmen never slid back into darkness the way we did. I could never understand her. She's delicate, sensitive — everything I'm not."

"That's why you're to skip the graduation ceremonies." Thornwall told him. "I suspect that she's in trouble precisely because she's too high cultured to cope with the primitive. You aren't."

"Must I go alone?"

"We nearly always work alone. We're too few. Needed too much on too many planets."

"I wish —" The complex duties of a Benefactor seemed suddenly appalling. "I wish you were coming too, sir."

"Nonsense!" Thornwall lifted the crystal cup as if to toast him. "You're a fellow, now. Perhaps, before you go, I should remind you what we are."

Silently, he bent to listen.

"We aren't a government. Galactic man has outgrown government. We're volunteers, with no authority not freely given us. We maintain ourselves, without demanding taxes. We aid and advise, but we cannot coerce. When our agents get into trouble, it's commonly because people aren't ready for us."

"I'm afraid Nggongga isn't —"

The console chimed softly, calling for Thornwall's attention, but he touched a key to quiet it and swung in his chair to open a safe.

"Your ensign." As formally as if they stood before the graduating class, the old man rose and bowed to present the small oval plaque. "On worlds where we are recognized, it will sometimes get you aid. Anywhere within range of a portal relay, it is your link with us here."

At the touch of his thumb the symbol of his lunar fellowship

glowed within its gleaming blackness — a tiny golden crescent inside a galactic spiral of silver frost. He held it silently, trembling a little before all it stood for.

"It is sensitized to your fingers and your voice and your call word," Thornwall added. "For this mission, the word will be *wildworm*."

He had to hush the impatient console.

"On arrival you must register with the Nggonggamba police, but I'm afraid you can't expect much help from them. As otherworlders, we're suspect. Until you find Snowfire, you'll be our resident agent."

With a quick salute, as if to end the meeting, he turned toward the red-flashing console.

"Sir!" A painful uncertainty shook Blacklantern's voice. "Can't you tell me — tell me what to expect?"

"Trouble." Smiling bleakly, the old man paused. "I'm afraid your black brothers never really liked us. They accuse us now of destroying their ancient culture. Even of importing those metal worms!"

"You think the worms do exist?"

"That's your problem." Thornwall shrugged. "Snowfire found facts hard to get, and she has been too busy for long reports. Now go along."

Blacklantern went along, elated to be a Benefactor and haunted

with Snowfire's smiling image: the red-gold hair and pale-gold skin, the green-gold eyes that reflected every puzzling mood. That afternoon, as he packed and stored what he wanted to keep, he twice found himself standing motionless, whispering the syllables of her untranslated name. They had been in love — until he discovered how much their cultures clashed. That was too painful to remember; yet he couldn't forget.

"You want to possess me." She had raised one long yellow finger in her odd little gesture of negation. "Among my people, nobody is owned."

When he tried to explain what she meant to him, she refused to understand. Laughing at him, she told him to change his ways if he wanted her. In his hurt bewilderment he told her that she would never see him again. Now, with that old pain awake again, he wasn't certain what he wanted.

The things he kept were few. The dagger and the binding rope from his last adventure in the tly arena. A few books and spools of tape. The formal crimson robe, woven with the golden crescent of his lunar fellowship, that now he would not be wearing at graduation.

Along with those few articles, he felt that he was storing his youth and all his years of training in the

locker. Three friends walked with him across the hexangle to the glideway. He left them, with his new two-fingered salute, and rode to the portal. His doubts began to fade before a growing eagerness. He was a lunar fellow now.

A traffic officer beside the ticket vendor warned him that tourists were advised to avoid Nggongga because of a cosmopolitical crisis. One flash of his ensign changed the protest into affable aid. The officer waved him on into the dome.

The glideway swept him into the enormous midnight pupil of the staring eye and out again instantly. He almost felt that he was still on Xyr, until he began inhaling the muskweed pungence that awakened all his recollections of his native world.

Near the exit, he found a police officer.

"No good." The squat black inspector squinted at his ensign and stared blankly back at him. "The city elders want no more Benefactors."

"But we have an office here. I'm to be the new agent —"

"Your office has been closed. The elders have withdrawn their recognition. Xyr is being informed."

"Why?" He studied the flat black face. "What's wrong?"

"I think some of the elders

don't like the way you Benefactors claim to be above our laws." The officer frowned at his face. "You look native. You should understand."

"I'm a Benefactor now. But we don't ask favors. We got our rights here in a fair exchange. In return for what we brought. We never defied your laws."

"Then you have nothing to fear." Impassively, the officer pushed his ensign back across the desk. "With this for a passport, you may enter Nggongga. But only as a private tourist. If you break our law, you are subject to our justice."

A thick black hand waved him on.

"One more question." He stood where he was, searching that dark stolid face. "Our former agent here is missing. Benefactor Snowfire —"

"That has been reported." The officer shrugged. "A hundred people disappear in Nggonggamba every day. Commonly for reasons of their own. They are seldom traced. If we do find this woman, Xyr will be informed."

"But — please!" He tried not to show a jolt of anger. "I want your help to find her. She came here as a Benefactor. Under the treaty of entry you have obligations to aid and protect —"

"The elders have revoked those obligations," the black man

growled. "Wherever she is, her special rights are gone. Like you, she is subject to the justice of Nggongga."

The black man waved again, as if to brush a fly away. He picked up his dishonored ensign and walked outside. On Xyr, it had been sunset. Here, he emerged into the scorching noon of Nggongga's thirty-hour day. Under the "white night" of the traditional siesta the whole city slept.

Only the freightways were moving, locked containers creeping past the ramp. He was still waiting for a passenger float, bathed in the hot fragrant brightness of his boyhood, when a high-pitched voice spoke beside him.

"— newcomer?" His translator took a moment to uncode the alien speech. "I said, are you a stranger her?"

"Not quite." He turned to face a huge copper-colored man in a blue cooler suit. "I was born here."

Through pale wisps of condensation, yellow cat-eyes scanned him. "What's your clan?"

"I have no clan."

"Then you're in trouble." The big man swayed clumsily forward, his voice falling familiarly. "No clan, no job. No clan, no girls. No clan, nothing. These clumsy natives don't like otherworlders."

Blacklantern edged cautiously back along the empty ramp. The

blue giant shambled after him, grinning without mirth. When the arrival gong sounded, he swung off the ramp into a roofless passenger float. The big man followed.

The lone passenger on the float was the big man's twin, cloaked in a fog-veiled black. Both had the same massive angularity, the same copper skin, the same raw-boned alien face.

"Got a twenty, friend?" Bargaining to meet him with the same tipsy-seeming arrogance, the second man thrust a horny red paw out of his cooling cloudlet. "For portal fare —"

Caught between the two, Blacklantern moved warily aside. He sniffed the cold mist. High as they seemed, he got no scent of drink or drugs.

"Where to, friend?" the blue cloak was whining.

"Anywhere." The other answered with the same alien nasals. "Away from the worms. I hear they're boring under the city. I want to get away before it all caves in."

His yellow eyes flickered at his twin. Glancing behind him, Blacklantern found the blue cloak reeling oddly backward. Silence exploded in the blinding heat, and the stifling air had a sudden sour taint. Struck with a real alarm, he stopped breathing and reached for the buckle of his heavy belt.

"Listen, friend!" The black cloak's squeak turned frantic. "D'you want to feed the worms —"

That was all he heard. The narrow float had become a sun-washed arena, and the identical giants were un milked tlys. He knew what to do. Spinning, he found the one behind him tossing back the stiff blue cloak to pull an odd, thick-tubed handgun.

He slashed with the belt. Like a tly-binding rope, it whipped around the gun hand. He hauled on it, grabbed the gun, twisted the muzzle upward. The gun coughed softly. The giant yelped and folded to the deck, the mist from his cloak soiled with a spreading cloud of yellow paragas.

Still not breathing, Blacklantern whirled out of the gas cloud. His eyes stung and blurred, caught the hot glint of sun on steel.

The dagger became the sting of a tly. He lunged and grasped and thrust, to make the tly sting itself. A cleated boot kicked at his hand, but he ducked as if it had been a tly's hard claw. With all his will he fought the need to breathe. With all his strength he wrestled the descending blade.

His eyes streamed scalding tears. His lungs caught fire. The float began to tilt and spin. But the giant faltered first. Blacklantern heard him gasp for breath, felt his muscles slacken to inhaled paragas.

The twisted dagger slid home.

With a dying moan the giant wilted down. In Blacklantern's blurry eyes his blue shadow dissolved into the spreading yellow cloud. Side by side, the alien twins lay very still.

Blacklantern had to breathe. With one last savage act of will, he vaulted out of that sour cloud, over the wall of the float. He came down on his feet, staggered into the empty passenger way, stopped at last to gasp for air.

When his burning eyes could see again, he looked for the float. It had glided on, followed by a string of big containers. He saw no movement from it. Stumbling on to the wall of a wine bar, he leaned weakly against it, drinking great gulps of clean air.

Before he could go on, brakes squealed beneath the freightway. The line of containers rumbled to a halt. Police sirens began screaming in the brassy sky. Dazzled men and women began straggling into the street, squinting at the police flyers dropping.

He pushed past an off-duty street cleaner, into the dark tunnel of the bar. Folded in its thick scents of alcohol and seed spittle and sour piss, he felt safe until he reached for a coin and felt his belt missing.

He had left it on the float with the gassed giant and the dead one. Dismay chilled him. On the orna-

mental buckle the police would find the fire-drill emblem of his college on Xyr. If they caught him now, he could suffer Nggonggan justice.

2.

He found a dark booth in the barroom and ordered a beaker of sea-berry wine. When the waitress had gone, he thumbed his ensign and whispered, "Wildworm."

Instantly, his golden crescent lit the sleek black oval. Leaning to whisper his report, he waited for the computer signal that Xyr was standing by. What he heard was the dull drone of a recorded voice: "Portal relay service suspended by order of the elders."

He sat a long time staring into the dark beaker. After all, he reflected wryly, he really had nothing to report. He had failed to learn who those identical otherworlders were or what lay behind their paragas attack.

A blind musician in the entry hall was chanting the saga of the starman who tamed the first tly. Beside the complex hazards of his own mission, those ancient heroics seemed childish. Abruptly, impatient with himself, he gulped the wine and walked back into the street.

The white night was ending. Though the hot air held a bitter hint of paragas, the police were gone. The passenger ways were

moving again, still nearly empty. He boarded the radial way, changed to an arc strip that took him toward the Fellowship office.

The agency was on the top floor of an old stone tower in the inter-world sector, built in an earlier era of insecurity. As he swung to the unloading ramp, he saw two white-kilted police officers inspecting people at the street door.

Feeling tly-stung, he jumped back to the moving strip. If the police were here, they would also be watching the residential compound where Snowfire lived. Shut out of the office and that compound, he knew only one way to turn — to Flintbreaker.

From his own boyhood he knew the Game clan sector. A radial way carried him out of the central city toward a range of bare brown hills. The lower slopes were lined with native markets and rock-walled compounds, but the clan elders camped like nomads on the high flat mesa beyond.

He left the glideway at the last dusty terminal. When two sleepy lancers in the dust-colored kilts of the clan came out of a tent, he asked to see the Elder Huntsman. They searched him for weapons and sent him up a rocky trail.

No longer used to the cruel Nggonggan sun, he was breathing hard when he came to a low flat building, just below the mesa rim.

High barred windows overlooked the trail. He heard the animal grunts and squeals of stabled nearmen, hurried on through their foul smell.

A sudden whistled bellow triggered responses he had learned in the arena. He crouched and ducked aside, snatching for his missing belt, and felt a little foolish when he couldn't see the screaming tly. In a moment, though, it squalled again.

Beyond the bend he found it perched above the trail on a lancegrass log between two upright posts. Though its five eyes were hooded with nearman skin, it had sensed him. Red armor blazed when its black wings spread, and the hot air was thick with the odor of its fury.

He walked on beneath it, avoiding the green slime of its droppings. The mesa beyond lay open and flat, scattered with a few white tents. He waited at the gate, curse on us all, brought by the greedy men who sold our world to meet him, saddled on flexing poles between two trotting nearmen.

In his boyhood the treaty of entry had outlawed the use of nearmen inside the city, as well as all traffic in their hides and flesh. The first he remembered were a mangy pair in the park zoo, hardly equal to the horrifying tales of their cannibalistic ferocity. Still fascin-

ated by their dark-furred half-human strangeness, he stood staring until the clansman asked what he wanted.

"I beg water from the Elder Huntsman." Bowing, careful to use the Game clan dialect, he recited the formalities he had learned long ago. "I beg shadow. I beg wisdom."

"The Huntsman is admired for wisdom, loved for generosity." The clansman bowed with an equal formality. "His proper name is Tlongga Tlong, which means Flintbreaker. He will ask for yours."

"He knew me in the tly arena, before I had a name."

"Come."

The clansman flicked the lead nearman with his whip. Blacklantern followed across the rocks to a long white tent. Its skirts lifted against the heat, it was empty.

"Wait."

The clansman trotted his nearmen away. Blacklantern entered the tent, grateful for shade. Bedrolls were laid for seats around a worn brown carpet of nearman hair. He sat down to wait, wondering what to say. Flintbreaker was chief of the Game clan, which roamed and claimed the barren vastness of all the upland hemisphere. Living on their nearmen hunts and the profits from their traditional games of justice, his followers had never welcomed

the interstellar culture. He seemed unlikely to be helpful.

Three nearman teams came clattering across the rocks. Two armed riders remained in their saddles. Unarmed, Flintbreaker walked into the tent with a wary readiness, almost as if Blacklantern were some dangerous prey. Ridged and seamed with clan tattoos, his face wore an appalling scowl, until suddenly his white teeth flashed.

"The nameless challenger!" His formal bow held a sudden respect. "We saw you in the arena. You worked your tly well, till the accident when you were stung. We welcome you to shade and water."

They sat on the bedrolls. His eyes still searched, but he asked no questions until one of the clansmen had brought a ritual water-skin. When they had drunk, Blacklantern bowed his thanks and asked if Benefactor Snowfire had come to speak with the leaders of the clan.

The tattooed mask stopped trying to smile.

"We don't converse with women out of the clan." The voice turned as bleak as the mask. "It's true the female otherworlder came here. She spoke with one of our women. We are told that she asked impertinent questions about the justice of the hunt, which has been our law for five thousand years."

"Do you know where she went?"

"She came to beg permission to visit the sacred game grounds. We denied that permission. We also sent her a warning. If she is caught in Game clan territory, she will be subject to Game clan justice."

Blacklantern blinked.

"She was investigating —" A sense of absurdity checked him. "Some wild tale of big worms! Eating up the planet —"

"We ourself have seen the worms," Flintbreaker shivered, his black eyes dilating. "We do not wish to see them again." A bitter violence shook him. "They're a curse on us all, brought by the greedy men who sold our world to strangers."

He paused to offer a little pouch of nearman leather. Blacklantern declined, with a bow of thanks. He rolled a small purple seed into his palm, licked it into his mouth, crunched it hungrily. The sweetish odor filled the hot tent.

The lips of his mask turned savagely purple. "Our own foolish elders! Back in our grandfathers' time, when the portal was new. For a few guns and toys and tales of other worlds, they sold mining rights to all our lands. The buyer was a clever otherworlder named Ironforge. They thought he wanted gold. Now the worms are eating everything. The land itself."

"So the worms are mining machines?"

"If machines can be so large." A fearful wonder hushed his voice. "If machines can make a pit deeper than the sea. If machines can eat the world."

"Did Benefactor Snowfire know about Ironforge?"

With deliberate skill, Flintbreaker spat a bright purple jet at a rock outside the tent.

"She asked many questions. She was told about Ironforge and his heirs. His son was called Copperforge, by their queer way of naming. His grandson is Goldforge. She was told of him."

"Perhaps she went to him?"

"His ways are not ours." The mask of scars turned grimmer. "Even when he hunts, he uses neither nearmen nor tlys. Perhaps he does talk to women." He spat again, expertly. "If you wish to see Goldforge, his firm is the Deeplode Mines."

"Your water revives the body, your wisdom the spirit." Murmuring the ritual words, Blacklantern bowed and rose to go. "I'll look for Goldforge."

"You are still our guest." With a bleak black courtesy, Flintbreaker waved to detain him. "For yourself, do you desire hunting rights?"

"I have never hunted nearman," he answered. "Nor men."

"Perhaps you don't approve?"

"I grew up here," Blacklantern

answered carefully. "I knew about the hunts and I accepted them. But now I've been away to other worlds. I've learned what other peoples feel — that they are wrong and cruel."

"We affirm our ancient justice." The old huntsman stiffened with indignation. "The accused has always been remanded by preliminary trial. He is always hunted fairly, according to all the old tradition, with every right of escape to the refuge oasis."

His angry lips were stained with purple froth.

"We may seem stern to your female agent and all the prying otherworlders, but justice should be stern. The ritual of the games has been good for Nggongga. It weeded out the evil and the weak, for many hundred generations. It taught our people to fear the law and love the truth — until strangers came to corrupt them. As long as I live, the games will go on."

He offered the water skin once more, as a sign of dismissal. Under the savage sun, Blacklantern picked his way back beneath the tethered tly and down the rocky trail. The shriek of the baffled tly echoed after him.

Deeplode Mines was one of the great "first companies" that had guaranteed traffic when the new portal opened. As a boy, he had cleaned boots and sometimes picked a pocket on the narrow

ramps below the Deeplode building, a huge cube of plain stone and steel.

A gold-kilted guard stopped him now at the door, frowned haughtily, let him in at last to see a slim black girl in a bright gold skirt. With a distantly arrogant smile, she informed him that Manager Goldforge was out. He saw nobody. He accepted no messages. He made no gifts.

"I'm a Benefactor." Blacklantern decided to risk what she might tell the police. "We are investigating a report that your company is consuming the planet with big metal worms."

She nodded loftily. If he wished to discuss mining operations, he might speak to Engineer Toolsmith. A tall black boy in a stiff yellow kilt escorted him down a cavernous hall, into a huge room that didn't belong on primitive Nggongga.

The floor was crystal, nearly invisible.

Three walls were stereo tanks. One contained an enormous solid model of a planet, cut away to show its inner structure in color-coded layers, from cool blue crust down to red-glowing core.

The opposite wall was a window into space. It showed a queer machine — a bright silver disk, spinning like a slow wheel against starry darkness, sprouting black

and angular wings from its hub. It looked toylike, until he saw a space craft docking at the hub and felt a dazing sense of its immensity.

The third tank was shallower, set back behind a long computer console. It was alive with shapes and signs he didn't understand — glowing lines, sheets of color, geometric solids, luminous symbols, all appearing and vanishing in a fluid dance of bewildering information.

The crystal underfoot covered yet a fourth tank. Glancing down, he saw an enormous excavation, walled with fractured cliffs and long slopes of broken stone, floored with a thick brown haze. Its bottomless depth turned him giddy.

"Here he is, sir." The black boy pointed at a man walking across that dizzy pit from the console. "Engineer Toolsmith."

Blacklantern caught his breath and stepped out across nothing he could see. Toolsmith himself looked nearly as strange as the room. Too fair for Nggongga, he was splotted with yellow freckles and peeling from sunburn. His sparse hair was short and stiff and white. His eyes were shaded with huge blue goggles that bulged like the compound eyes of a giant insect. Yet he nodded readily when Blacklantern showed his ensign.

"Of course we recognize the

Benefactors." Though his accent was odd, he spoke fluent city Nggonggan, needing no translator. "I regret the wave of feeling against your Fellowship here. I'll help if I can."

"I do need help." Blacklantern smiled gratefully. "I'm looking for a missing agent —"

"The girl Snowfire?" He frowned with a quick concern. "She was here yesterday, asking for Manager Goldforge. I spoke to her."

"Do you know where she went?"

Toolsmith spread his sun-red-dened hands in a falling gesture that meant nothing to Blacklantern. "She was inquiring about our mining operations. She wanted to inspect the site. I told her I couldn't take her there without permission from Manager Goldforge."

Despite the air of sympathetic candor, the blue goggles still looked like insect eyes. Toolsmith began to seem a clever opponent in a strange arena. An angry tly might have been simpler to cope with.

"I'm new here, of course," he was saying. "I've taken over a good deal of routine. Manager Goldforge spends most of his time with his hobbies, but he still holds control. Without his approval, I can't do much for anybody."

"Do you think —" Blacklantern flinched from a sudden stab of

alarm. "Do you think Snowfire tried to enter Game clan territory?"

"I advised her against it." Toolsmith repeated that falling gesture. "I warned her that the natives have become pretty hostile to our whole operation, but I'm afraid she wasn't impressed. If she's caught out there, I'm afraid she'd be subject to their peculiar justice." The blue goggles stared. "I suppose you know what that is?"

"I know." But he didn't want to think of that. "One more question." His throat felt rough and dry. "Can you tell me about this — this mining operation?"

3.

Toolsmith waved a casual sunburnt hand at the cutaway planet in the stereo tank.

"Our material." He gestured toward the opposite tank and its image of that enormous black-winged silver wheel spinning against the field of stars. "Our product."

"And that?" Shaken, Blacklantern glanced into the appalling pit projected beneath their feet. "Your mine?"

"The initial excavation." Toolsmith nodded. "We're only beginning. But we're miners. We own mining rights here. We're mining the planet."

"How much of it?"

"As a matter of fact —" The

engineer hesitated, blue goggles unblinking. "All of it."

"So it's true?" With a shiver of awe, Blacklantern looked down again into the image of that bottomless chasm. "Your big metal worms are really eating up Nggongga?"

"A naive description." Toolsmith shrugged. "I know the story has disturbed the natives, but there's not much they can do about it. Their own ancestors sold us legal rights to do what we're doing. We aren't stopping now. Not even to please the Benefactors."

"Did Snowfire ask you to stop?"

"She implied that she might. She wanted to investigate. She was worried about the native population when we use up the planet. I told her we've made plans for that. We've been here for generations now, with a heavy investment in preliminary surveys and special equipment. We can't afford to quit."

"What will you do with a whole planet?"

"Because of native ignorance and superstition, we've never discussed that here." The blue goggles studied him. "Your own agent found it hard to understand. Yet, as a Benefactor, you're entitled to know. We're swarm-folk."

Blacklantern stared uneasily at

the mad dance of changing forms and fiery symbols in the computer display, but he found no meaning there.

"You appear puzzled." Toolsmith turned. "Come along. Manager Goldforge is out, but I can show you a model swarmworld in his office."

The office was enormous but Nggonggan, stifling with a heavy stale sweetness of chewed saltflower seed. A purple-splashed spittoon flanked the great desk of polished dark-red hardroot. One big window overlooked the narrow harbor and the docks. Blacklantern turned from that to the opposite wall, where tall cases held trophies of the hunt.

"Manager Goldforge is three-fourths native," the engineer commented affably. "The family has always embraced the native people and their culture." He waved at the racks of antique manguns and shrunken trophy heads. "But here's what I wanted you to see."

Opposite the spittoon, a thin pedestal was topped with a small bright globe. A tight swarm of silver sparks particles surrounded it, crawling along orbital circles. Blacklantern leaned to peer, but their shapes were too small to be distinct and their moving glitter was almost hypnotic. He looked back at the engineer.

"A model of our solar system," Toolsmith said. "It was colonized twenty thousand years ago by one of the first starships from Old Earth."

"That cloud of sparks —?" Blacklantern stared again. "Where are the planets?"

"Used up," Toolsmith said. "You see, our forebears made a lucky planetfall. With a good environment for technological progress they never fell back into savagery the way your own people did. In a few thousand years they were overcrowding all the worlds of their system and exhausting all the surface resources. Their solution was the swarmworld."

He waved at the cloudlet around the model sun.

"They discovered something that the Game clan elders are still too savage to perceive. A planet, seen as a dwelling for men, is fantastically inefficient. Most of the mass, with nearly all the useful metal, is buried out of reach. Most of the solar power is wasted, escaping past the planet into empty space."

Blacklantern blinked into the bulging goggles.

"So we turned to space. We rebuilt the moons and then the planets into space vehicles — like the one you saw back in the tank. They spin to simulate gravity. Their vanes catch solar energy. Using

them, we've multiplied our living space and our resources many thousand times. But, a few generations ago, we saw another crisis coming. Our last planet was nearly gone. That's why we're here."

"To turn all Nggongga into space machines?"

"In time." Toolsmith nodded blandly. "We look ahead. This planet was carefully chosen. An excellent mass composition, mostly nickel-iron. Light elements for water and air, in a cometary object. A stable and powerful sun. A tiny population, too backward to matter."

"But it was — ours!"

"Don't upset yourself." Toolsmith stopped to pull an elaborate bar out of the desk. "Help yourself to the manager's best and let me tell you how it is."

He waved the glittering bottles away. "Just tell me."

"We aren't demons." Toolsmith stopped to pour himself a drink. "Our excavators aren't the monsters old Flintbreaker imagines. It will take them several generations to reach any important settlements. When that time comes, we'll take care of the natives. Retrain them for survival. Subsidize migration. We'll even build vehicles for any who choose to move into space. Fair enough?"

"I don't like it."

"Look at the ethics." Toolsmith

waved his glass persuasively. "The greatest good of the greatest number. Nggongga now supports two hundred million people — most of them in miserable poverty. We can use the planet to make room for a few million times as many — each enjoying a far greater wealth of mass and energy. Is that somehow wrong?"

"I'm still Nggonggan." He backed uneasily away. "I still don't like it."

"Neither did Snowfire. She's afraid of harming the native culture." Toolsmith chuckled. "The only thing in danger during her lifetime is the ritual headhunt — which I don't value as much as she and Goldforge do."

"You say she wanted to look at your mine." He tried to see through the goggles. "Did she speak of any plans?"

Toolsmith dropped his freckled hands in that negative gesture. "When I couldn't let her use our transport system, she asked for maps and air charts. Perhaps she meant to hire a flyer."

"The agency owned one, when I was here before." Blacklantern frowned. "A battered old machine. Not fit for a flight to the highlands. I hope she didn't take off in that."

"I'm afraid Nggongga's too wild for her." Toolsmith turned to show him out. "Sorry I can't help, but Goldforge makes our policy.

My own advice would be to leave Nggongga while you can."

"I can't," he said. "Not without Snowfire."

Back on the hot street, with no other lead, he decided to try the residential compound. It was off the beach beyond the docks, in the Sea clan suburbs. Approaching on a feeder strip, he found two officers on guard outside the door. He rode on to the next terminal, walked back through alleys.

The real wall was smooth concrete, topped with steel spikes. Searching for a way to scale it, he saw fresh-turned gravel at its foot and uncovered the yellow plexoid arms of a burglar's catapult.

Some intruder was already here!

After a moment of startled thought, he bent to reset the device, stepped on the arm. It flung him skyward. He caught the spikes, guided himself over the wall, came down on a rooftop air pad. The old flyer was gone. The yard below was empty.

Listening for the burglar ahead, he heard only far street sounds. He went down an outside stair, stopped behind a fragrant clump of purple-blooming heartfruit. Under the windless heat, the yard lay hushed and empty. Across the walk a door hung open, the lock broken.

With a sense of brief elation that his boyhood skills had not

been forgotten, he crept into the house. The wide hallway was as still and empty as the garden. He peered into a pantry, the kitchen, a high-raftered dining room.

A thin sour scent of paragas led him to what must have been Snowfire's bedroom. Its lock was broken. Inside, he found a silent record of vandalism. A litter of tangled clothing, broken toiletries, scattered books and tapes, all steeped in that stale reek.

At a sound in the hallway, he ducked into a closet. The garments left there carried Snowfire's sweet-leaf scent, stronger than the fading paragas. Crouching behind them, he saw his fellow intruder at the door — and almost gasped with surprise.

Nearly naked, the man was a yellow-eyed, copper-skinned giant. One of the twins who had tried to paragas him on the float — but that couldn't be! He had left one of them dead, the other unconscious. Yet this scowling giant resembled them exactly, which made them triplets.

The giant muttered something, spurted purple spit at the torn-up bed, shambled on.

Blacklantern followed to the air pad, watched him recover the catapult, fold it into an innocent-looking case, and stride down the alley.

Sprinting in the opposite direc-

tion, he was in time to be standing on the feeder strip when the big man swung aboard. On the main way, the man bought a sea-berry ice. He let a boy clean his boots. Back in the interworld zone, he left the strip in front of a flashy new business tower. A street sign read:

BIO-TECHNIC INSTITUTE

Dr. Killbird

A dozen steps behind, he followed into an ornate lobby. The big man stalked on through an inner door. Blacklantern found himself facing a slim young black girl at a huge pale plexoid reception desk. She wore the Sun clan tattoo on her forehead, a pale blue circle rimmed with red teeth. When she spoke, he expected her to use the Sun clan dialect, but her audible voice had an alien, singsong intonation.

"— Institute." His translator caught it. "Do you wish to see Dr. Killbird?"

"I'm not quite sure." Trying to discover why people saw Dr. Killbird, he looked around the waiting room. The wall was rich imported hardwood, the carpet luxurious, the air so cool he almost shivered. A long stereo tank held a dozen tall nude dolls on rotating stands.

"Did somebody send you?" The girl's keen stare explored him. "If you're offering yourself, you'll have to see the business office."

"I need more information." He returned her searching look. "Are you native?"

"My body is." Behind the ivory desk, she rose and turned for him like one of the dolls in the tank. "Nice, don't you think? I'm certainly happy with it."

"I don't quite understand."

"I'm a transfer." She arched herself to display her bare breasts. "I came here an old woman. Ill and dying. Dr. Killbird's clones found this body for me. The girl had lived in some mud village. Her people had found no husband for her, and they sold her cheap enough. Now Dr. Killbird is letting me work out the fees."

She leaned to study him again.

"If you want a white body, I'll show you what we have." She pointed at the stereo tank. "I'm afraid our stock is always low —"

"You buy and sell bodies?" He peered again at the rotating dolls. "How can that be?"

"A bio-technic art. The last term in human progress — everlasting youth!" Again she preened her dark beauty. "Dr. Killbird learned it on a far planet. Perhaps his fees are high — but what he sells is priceless."

"I see." He nodded dazedly. "If I wanted to be white —"

"You would select a white body. In the lab he would lay you beside it. With his holographic pickup he

would scan the synaptic patterns of both brains. Exchange them all from one to the other. Your memory, your personality, your identity — all that is you would wake in the new body."

She must have seen an unconscious shudder.

"There's no pain at all," she assured him. "You begin with light anesthesia, but the process itself is anesthetic, once the scanning starts. The whole exchange takes less than an hour. When you awake, in a strong young body, it's being born again!"

"What becomes of the old ones?"

"Who cares?" She made a charming face. "The clones dispose of them somehow —"

She paused. An inner door had opened. An angry woman burst through, followed by a tall protesting man in white.

"No excuses, Doctor!" Her audible voice was high and harsh. "I've come four thousand light-years for a transfer, and I know what I want."

"Please! Most gracious Redflower!" The doctor was thin, almost cadaverous. Bright metal gleamed about him: As he came nearer, pursuing his indignant client, Blacklantern saw that his whole body was supported by an elaborate mechanical exoskeleton as if the gravity of Nggongga was

too much for him. "You must see the difficulties —"

"You can't con me!" Her voice rose higher. "I won't be black!"

"But the planet's black." The doctor spoke in hissing alien sibilants, assisted by an amplifier. "We can get fine black bodies. Now and then a splendid hybrid. But light skins are rare here —"

"I want the one your people showed me," the woman shrieked. "That one!"

She strode toward the stereo tank, pointing at a pale nude doll. Blacklantern moved after her, staring. With its pale-gold skin and red-gold hair, the doll looked suddenly familiar. As it turned on the stand, he recognized its green-gold eyes, its haunting smile.

It was Snowfire!

The woman stood wagging her finger at it. Closer to her now, he saw the wasted flesh and wrinkled skin beneath her cosmetics. She reached as if to snatch the doll with her red-enameled talons, whirled back to face the doctor with terror and fury in her haggard eyes.

"That's my body!" she shrieked. "The one they promised me!"

"Most gracious Redflower, please let me explain." His amplified sibilants hissed through the waiting room. "You must understand that such a specimen is never easy to obtain, even here on Nggongga. The arrangements are

troublesome, ethically and financially and legally. When this model was prepared, my people expected to have the original available, but they've had difficulties."

"If you want my money, find that body!"

"We'll make every effort, but I can promise nothing." As the doctor swung to face him, Blacklantern could hear the tiny whine of of motors. Staring from a nearly fleshless skull, deep-sunk eyes measured him shrewdly. "Sir, what's your problem?"

"It's too hard for you," Blacklantern told him. "I'll just keep the body I have."

Turning toward the doorway, he froze. Two black policemen were entering. Between them, they supported a reeling copper-skinned giant. One of them called to the girl at the desk:

"This man was gassed on a freightway passenger float. An otherworlder clone. He says he's employed by Dr. Killbird —"

The giant broke from the officers, lunged suddenly at Blacklantern.

"The killer!" his alien voice squealed. "He murdered my clone brother!"

Blacklantern bent to dart for the street door, saw the officers pulling their guns. He turned to dash for the inside door, met the third clone plunging out. He spun

to look for another escape, faced a thin-tubed gun in the doctor's power-aided hand. It clicked.

He felt the string of a dart —

4.

The cage was shaped like a thin barrel, just large enough to hold him. Two dun-furred nearmen carried it, hung between them on springy lancegrass poles. To keep his balance, he had to clutch the yellow bars.

A whip-cracking warden ran behind, cursing the nearmen. They carried him out of the cell block, down a wide arcade of hunting-gear shops, past the offices of the sacred game, at last into the crowd-packed courtroom.

The nearmen dropped his cage on the floor of a gloomy pit. Steep tiers of seats rose all around, packed with the hunters and the curious. The heat was stifling. Sweating blacks chewed their saltflower seed and spat into the pit. Fanning big hats, they mixed the sharp sweetness of their spittle with the stale ammoniac reek of the nearmen stabled in the basement.

Alien voices trilled. They meant nothing, because his translator was gone. Squirming to turn in the coffin-sized cage, he found tourists shuffling past. White wisps of condensation veiled their cooler suits, and his naked skin felt a momentary chill. Their guide

herded them on into a reserved bank of seats to watch this traditional bit of Nggonggan justice. The nearmen barked again. The crowd buzzed and the guide pointed. Twisting around, he found Snowfire.

Stripped, she was streaked with sweat and grime. Her pale hands gripped the lancegrass bars. Yet she stood proudly straight. Her green-gold eyes swept the gazing crowd, level and aloof, still somehow brave.

"Dzanya!" he called. "Dzanya Dzu!"

She cried out with startled joy before she found him in the cage. Her voice fell then. He could hear her dazed emotion, but the words meant nothing. Trying to answer, he watched her first elation fade into new despair.

Pity swept him. He thought she was too clean and fine and fragile, too highly cultured, to endure the primitive cruelties of Nggongga. But he couldn't tell her anything. Her translator, like his own, had been taken away.

On a platform a bailiff banged the floor with the butt of his lancegrass spear. The pit fell silent. The lean old Elder Huntsman mounted his high official stool, and the bailiff began a droning chant.

Oppressed with his sense of Snowfire's sick bewilderment, Blacklantern heard only occasional

phrases in the archaic legal dialect. "...alleged trespass upon the sacred gamelands ... accused killer of a certain otherworlder, a clone called Ooth Ansk..." Searching the high rows of faces for some hint of aid of hope, he found only staring curiosity, blank apathy, the bright-eyed lust for blood.

"...prisoners." The bailiff's spear had thumped the floor again. He twisted in the cage to find Flintbreaker's tattooed snarl fixed upon him. "You stand accused of high crimes against the peace of Nggongga and the immemorial justice of the Game clan. Do you wish to speak to the court?"

"I do." Gripping the bars, he peered up at the black clan elder. "We came here as agents —" Hoarse from the reeking stable dust, he tried to raise his voice. "We are lawful agents of the Benefactors. In exchange for our aid to Nggongga, we were promised safety here. I demand —" His voice broke again. "For Agent Snowfire and myself, I demand our rights under the treaty of entry."

A ripple of interest had spread through the crowd, and the lean old huntsman waited for the bailiff to drum again for silence.

"Fellow Blacklantern, we hear your appeal. We are reminded that all our clans once granted extraordinary rights and immunities to your Fellowship. Unfortunately,

you have forced their cancellation.”

The standing of an elder came as much from oratory as from skill on the trail, and his fustian phrases rolled melodiously across the pit.

“When we allowed the opening of the portal, you otherworlders promised us great good things. Instead, you have brought us only evil. We have therefore withdrawn all your immunities. You stand accused of capital offenses, and your appeal lacks merit.” He signaled the bailiff to thump again. “These two prisoners are remanded to the justice of the clan.”

“You can’t do that!” Blacklantern saw the black scars harden, and he tried to smooth his tone. “We have been cut off from Xyr. May we relay a message to our own leaders there?”

Old Flintbreaker waited for the ritual thump.

“Request denied,” he rapped. “Until your ordeal has been concluded. If it happens that you are able to reach the sanctuary with your heads untaken, the court will then uphold your innocence. Your lives will be protected. You will be allowed to go in peace. But the ritual of justice will now continue.”

“Mercy, sir!” Blacklantern shouted. “I was born here. I’ll take my own chances on the sacred uplands, but I beg mercy for Agent Snowfire. A tender girl. From a cultured world, where life is

sheltered. The justice of Nggongga is too cruel for her. I beg mercy!”

“If our ways are too cruel for her, hers are too cruel for us.” Flintbreaker’s strong teeth glinted through his mask of scars. “Her white kindred opened the portal with promises of all good things — and came through to steal our sacred treasures and profane our holy places, to buy our bodies and blight our souls, to scatter the eggs of monstrous worms to eat our world. We have no mercy left.”

Approval echoed around the pit.

“But we do pledge justice,” he boomed again. “The game may be hard, but we play fair. We limit the huntsmen to three. We allow you a whole day to run, before the first takes your trail. We promise you freedom, if you reach Nggooth alive.”

A sardonic grin twisted his tattoos.

“If you find our own world-eating worms in your path, before you reach the refuge oasis, then I beg you not to blame the ancient justice of the Game clan for deeds you yourselves have done.”

At his signal, the bailiff drummed.

“Gather, huntsmen!” his rich voice lifted again. “Prepare to place your bids for the right to take these heads.”

“Sir!” Blacklantern begged

desperately. "May we just have our translators back —"

The bailiff banged the floor till he fell silent. Bidders filed down from the seats, to peer and poke through the lancegrass bars. One huge slow pale bald man stopped to squint at both of them. He reached a huge yellow hand to tweak Snowfire's nipple, splattered Blacklantern's penis with a hot squirt of purple spit.

Toolsmith, the sunburnt mining engineer, shuffled along behind him, dripping sweat, looking uncomfortable and apologetic behind the bulging purple goggles. He murmured something in his own alien tongue and hurried guiltily on. The pale cold man, Blacklantern decided, must be Goldforge.

Dr. Killbird marched stiffly by, a gaunt puppet hung upon his humming exoskeleton, escorting his impatient age-wasted client. Blacklantern understood nothing they said, but he saw purpose enough in the way they both inspected Snowfire's firm golden flesh.

Old Flintbreaker auctioned the hunting rights, his lilting chant as strange to Blacklantern as another alien tongue. He was clinging to the yellow bars, weak from heat and strain and stable stink, before the bailiff banged for quiet and announced the order of the hunt.

The respected Manager Goldforge, as highest bidder, would hunt first. Dr. Killbird had bought the next place for his client, the respected Redflower. Flintbreaker himself, as chief huntsman of the clan, had claimed the third day's hunt.

And the auction was over. Whips cracked as the wardens brought howling nearmen to carry off the cages. Shuffling out of the pit, the spectators raised foul dust. After a fit of sneezing, Blacklantern twisted around inside his bars and tried to smile at Snowfire.

Though she faced him, her greenish eyes were staring blankly past, as if she had gone blind. Little rivulets of sweat had traced narrow ivory streaks down the dark grime that covered her. Yet, beneath the filth, she was still lovely. A pang of helpless pity clouded his eyes with tears.

The nearmen carried them swaying back through the arcade of huntman's shops, toward the cells. They passed a little kiosk where an aged black woman, withered and toothless and blind in one eye, was hawking trophy heads more hideous than her own.

He hoped Snowfire wouldn't see.

Progress of a sort had come to Tlootl Tloo, the mythical nesting place of the fire-winged tly of

justice. A high stone wall, topped with electrical barbed wire, had replaced the thornbrush barriers that had guarded its sacred springs and lancegrass groves since history began. A new tourist hotel stood beside the central pool, with its own air pad and a tall observation tower for the hunters.

The prisoners for the game no longer came by nearman caravan, but by flyer. The old prison pit had given way to a long special cell that ran like a tunnel through the new wall. Blacklantern and Snowfire were released from their handling cages into that cell.

Behind them, inside the wall, he could see graceful plumes of green-and-golden lancegrass nodding above the wide blue pool. Ahead, beyond another wall of bars, bare red shale and black flows of ancient lava sloped sharply up toward the savage desert and the far-off sanctuary.

When the wardens were gone, Snowfire turned toward him slowly, moving as if in a dream of horror. She started to speak but saw that her words had no meaning for him. Trembling, she checked herself and stood looking at him in tragic inquiry. Slow tears welled out of her terror-darkened eyes, but she didn't sob.

He wanted to tell her that he was not altogether without hope. In his hard apprenticeship for the

arena he had lived with the primitive Sand clan people, hunting wild tlys and evading wild nearmen in country almost as dry and bleak as this. But all he could do was to murmur the music of her name and gesture for her to rest.

Worn dead, she was soon asleep, relaxed on the bare stone floor. He sat propped against the hot wall, watching her sweet and undefended nudity, now and then brushing off a biting fly, dozing a little, watching the sinking sun turn slowly red with dust.

The wardens came back at last with a pail of water and their last meal, a generous tray of ripe fruit and sun-cured meat. He woke her then. She smiled at his touch and murmured something in a child's happy voice, before the shadow of terror returned.

She watched like a child, with huge frightened eyes, waiting to see what she must do. She ate at his signal, stopped at once when he had finished. After they had drunk, he raised the pail and poured water for her to wash away the prison filth. She stopped him with a low pleased sound, held the pail while he bathed himself.

When the blood-colored sun was grazing the rock-toothed black horizon, the wardens came back for the empty pail and the tray. The three selected hunters came down from the hotel to watch through the

inner bars, while the outer door grated open.

Snowfire clung to Blacklantern's arm, mutely watching his face. He turned to look back at the three. At Goldforge, roughly clad in tanned nearmen hide and a broad white hat, belted with manguns, Toolsmith trailing uneasily behind him. At Redflower, standing with Dr. Killbird, holding a thick-barreled paragas gun and eyeing Snowfire with a fierce hawk-face. At Flintbreaker, the Elder Huntsman, tattooed and impassive and black.

Only Flintbreaker spoke.

"You have one day to run." He gestured toward the desert and far-off sanctuary with the lancegrass whistle he used to call his striker tly. "But we'll meet before you reach Nggooth."

"We'll meet."

Blacklantern made the slashing sign used by a contender in the arena to show that he was ready for the tly. He turned his back on the three. With a nod for Snowfire to follow he walked out of the dark tunnel cell, into the desert.

Though his feet had once been tough from running barefoot in the alleys of Nggonggamba, now he had to pick his way with care across the unkind rocks. Snowfire was already limping when he looked back, her face taut with pain.

He climbed the nearest barren

hill. In the dry ravine behind, where hunters watching from the hotel tower couldn't see, he turned downslope to follow the dry stream-bed below the oasis. Snowfire kept close behind, and he heard no whimper from her.

Inspecting the cruel-edged rocks, he picked up and carried a few choice bits of flint. Now and then he paused to scan the blood-washed sky, but he saw neither aircraft nor tlys. Listening, he heard no nearmen baying. With a bleak little nod of satisfaction, he decided that the Elder Huntsman was really playing fair.

The red dusk faded fast into moonless night, but the Nggonggan sun belonged to a dense swarm in a tight galactic arm. The blazing constellations gave light enough to show his way.

Snowfire had more trouble. Once he heard her calling after him in a stifled, childish voice. He went back and found that she had fallen. When he picked her up, she flung her arms around him. She was suddenly sobbing for her breath, her tender softness hot against him, searching for his mouth.

Lust swept him. For one reeling instant, he wanted to stop here, to give up escape and enjoy sex with her and wait for the hunters. Her alien notions of marriage no longer mattered now, when he had no possible rival. But he checked that

hot impulse and let the moment go.

She had skinned her knees and hurt her ankle. When she could walk again, he led her on. The splendid stars rose ahead and set behind. The air grew cool enough to dry their sweat. Twice he stopped to let her rest. At last he caught a faint scent of moisture. In the still gray dawn, they came to a tiny clump of lancegrass, watered perhaps by underground seepage from the oasis behind.

While Snowfire slept on a bed of fallen fronds, he chipped flint for a blade and carved dry stalks to make two spears and a throwing stick. He tipped the spears with flint. When she woke, he showed her how to scrape the dead leaves into long skeins of fiber that he braided into a sling and a little pouch for projectile stones.

Hammering strips of the tough inner bark between two rocks to soften them, he made bindings for Snowfire's bleeding feet and his own. He found fireweed blooming in the shade and smeared both their bodies with its milky sap, which turned to an ink-black pigment against the deadly sun.

It was burning noon by then, and they were both parched with thirst. He used a sharpened stick to dig in the old stream bed for water, but all he found was dry bedrock and pulpy lancegrass roots that gave a bitter juice when chewed.

Through half the incandescent afternoon, they hid beneath the golden plumes, plaiting strips from them into broad Nggonggan hats. Now and then he paused to look outside, but all he saw was the high black fleck of a carrion tly. Flint-breaker had kept his pledge, but their day of grace was nearly done.

Snowfire watched while he caught a bit of weary sleep, dreaming that he was back outside the tunnel cell at the oasis, with only its bars to keep him from a tantalizing pile of juice-rich fruits and a brimming pail of water.

She shook him awake to point at a tower of red dust creeping across the lifeless land behind. He thought it must be only a whirlwind, but still the time to move had come. As they gathered up their crude new gear, he saw a change in Snowfire.

Though they lacked words, he heard a dawning hope in the even tones of her voice. He saw courage in the straightness of her black-smeared body. He thought she had begun to find herself.

With a sudden ache of feeling, he wanted to kiss her again, yearned to take her to bed on the pile of dead fronds. Instead, he nodded toward the desert. She caught his hand with a child's trust, smiling so bravely that he was almost glad they had no translators, glad he couldn't tell her that

Nggooth was still a dozen days away, across the cruelest highlands of the planet.

Leaving those dry ravines that long-vanished floods must have cut, they climbed a rocky slope where he thought their trail would be hard to follow. Though they started strongly, he soon had to slow his pace for Snowfire. Before sunset, their crude bark foot bindings had begun to wear out, and he knew they were leaving traces of blood for the huntsmen.

When the sharp horizon began to shear away the dust-dulled sun, he paused to look back. Their day of grace was gone. The first hunter would be starting. He glanced at Snowfire. Silently, she gripped his hand. They plodded bleakly on.

Before the blood-colored dusk had fully faded, he heard a droning in the sky behind. At first he hoped for the night to hide them, but that high drumming grew steadily louder, nearer, till the hot darkness quivered with it.

With a stifled cry of fear, Snowfire touched his arm. He saw her teeth and eyes shining strangely. When she bent to point at a rock, he saw glints of fluorescence brighter than the starlight.

The first place, he recalled, had gone to Goldforge, who scorned the use of trailing nearmen or striker tlys. Instead, the swarmworlder was following with a flyer equipped

with black light and perhaps body-heat sensors.

Snowfire studied his face in the starlight and suddenly turned to wave her clumsy spear defiantly at that roaring in the sky.

5.

All night they stumbled on. All night the droning flyer followed, and the rocks about their bleeding feet darted glints of colored fire.

Once Snowfire tugged him toward a dark ravine, as if she wanted to take cover, but he knew the rules of the game would not allow any actual air attack. Goldforge himself would have to follow on the ground.

In the fiery dawn, they topped a knife-edged ridge and found a sea of golden dunes beyond. While he stood searching for a way across it, Snowfire made a sound and pointed back. Beneath the thrumming in the sky, he heard a deeper rumbling, rising and falling as the hunter's surface vehicle met the hills and ravines they had crossed.

Scowling at the flame-streaked sky, frowning at that waste of billowed sand, peering into Snowfire's blackened face, he groped for a plan. When at last he moved, he scooped out a shallow hollow in the sand. He made her lie in it, buried her body. He backed away, brushing out their footprints with his hat. He walked out a bold new

trail from the rocks to the rim of the first yellow dune. He backed again, now on tiptoe to make prints small enough for Snowfire's. Finally, he buried himself near that trail, leaving only a narrow peephole concealed with the brim of his sand-sprinkled hat.

There he waited.

He tasted dry sand in his mouth, and the bitterness of thirst. He contemplated the trust he had seen in Snowfire's green-golden eyes, so strangely pale in her darkened face. He surveyed all the infinities of rock and sand and savage sun ahead.

He listened. The drone of the flyer rose and fell and rose again, as if the baffled pilot was circling to search for them. The growl and snort of the land vehicle grew louder, louder, till at last it lurched over the ridge, squat and dark in the red sunrise.

Armored, mottled gray and rust and dun, it ran on cleated tracks and sought its game with a complex sensor array and turret-mounted guns. After a momentary pause on the rise, it came grumbling down the trail he had prepared, passing so near him that the hard sand shivered.

At the lip of the dune, where his false trail ended, it hesitated again. The flat turret swung back and forth, sensors searching. It groaned backward, turned, stopped. A steel

door clanged open. Goldforge jumped out.

A giant in motley, his nearman-skin jacket belted with otherworlder weapons, he peered warily right and left. He frowned skyward, toward his wheeling flyer. Wearing a yellow scowl, he came slowly back along the trail. His own machine had crushed out most of those careful footprints, but he bent at last to study the traces that remained.

Blacklantern slid upright, shaking sand from spear and throwing stick. He flexed his arm twice, while Goldforge squinted at the double row of prints. He braced himself, caught his breath.

"Your last hunt," he said.

Goldforge straightened, yelping. He hauled a mangu from his belt. It crashed once, as Blacklantern threw the lancegrass spear. Unaimed, the bullet whined away into the sky. The flint point struck home. The mangu whirled across the sand.

The big swarmworlder toppled slowly backward, grabbing at the crude spear with both hands. It slipped free without the point. Blood spurted after it, darker than the purple drool on his mouth.

Blacklantern was over him by then, slashing at his yellow throat with his own hunting knife. He quivered and lay still. Blacklantern stooped again to scour the knife in

the sand. Swaying with a sudden unexpected weakness, he stumbled back to uncover Snowfire.

The flyer was wheeling low by then, so near that he could see the pilot's blue-goggled head in the observation bubble. He bent for his hat, fanned it triumphantly to wave the flyer off. It left at last, droning away toward the oasis of justice. Toolsmith, he thought, would soon be reporting the game still alive for the second hunter.

Snowfire had Goldforge's mangu when he turned back, standing over the dead swarmworlder as if she thought he might come back to life. Ruefully, he showed her the thumbplate that keyed the gun to its owner alone.

She watched outside, while he explored the vehicle. All its controls were thumb-keyed, too. He failed to start it, or to activate its equipment. Yet that hardly seemed to matter, for his own hands could open the canteens of sweet water, the hampers of ripe fruit, the freezer of gourmet food.

They rinsed the bitterness from their swollen mouths, sipped and drank, tasted and ate. When he dared feast no more, he went out to strip the hunter's corpse. The boots were too large, but he padded them with looted cloth. He cut moccasins for Snowfire out of the fringed hunting jacket. He took the translator.

Suddenly, wonderfully, they could talk.

"You're as strange as Nggongga." She stared at him with red-rimmed eyes, leaning close to the translator in his hand. "You could have gone a long way alone. Why do you wait for me?"

"Sometimes I wonder." His grin hurt his sunburnt lips. "I guess it's because I'm still Nggonggan."

He saw her flush beneath the fireweed sap. Her pale gaze fell to the corpse and fled toward the hot horizon.

"What now?" she whispered. "What will happen to us now?"

"That old she-tly named Redflower will have her chance next, starting when the sun goes down. She'll be using nearmen to trail us, instead of mechanical sensors. Paragas to take us. She wants your body."

"Can we —" Snowfire shuddered, shrinking away from the humming flies above the corpse. "Can we get away?"

"We're still on foot," he told her. "Nggooth is still ten days ahead. Tomorrow night, old Flintbreaker will be joining Redflower on our trail. He hunts with a striker tly, and he likes to boast that nobody has ever escaped his last day of justice."

She stood looking at him solemnly.

"You are honest," she said at last. "I like you for that. I like you for many things." Impulsively she reached her dark-smearred hands to touch his face. "If we are going to be killed," she breathed, "I think we should have love first."

A tremor of old emotion shook him.

"I — I'm sorry! She drew quickly back. "I never understand you."

"Why not?" he muttered. "Now there'll never be anybody else."

In the cushioned comfort of the air-conditioned vehicle, they made love. They slept and woke, ate and drank again. She found a medical kit, used it to clean and dress their damaged feet.

By then the sun was low. Laden with canteens and fruit and dried food, with binoculars and compass from Goldgorge's survival kit, with his hunting knife and translator, they left his bloating corpse beside his vehicle and plodded on across the wind-billowed sand.

Al that endless night, they toiled on. By day, each sand hollow became a solar furnace, and still they labored on. In the fiery sunset they paused at the top of a crescent dune.

"We've a chance?" Snowfire whispered. "Haven't we a chance?"

He pointed back down the long yellow slope they had climbed so

laboriously, at their footprints lying like two wavering trails of ink-black dots.

"We're still alive." He kissed her dust-caked lips. "We'll keep on trying."

But he stood a long time staring into the reddened sky. Another sunset. Old Flintbreaker would be joining Redflower, and their trail was impossible to hide.

They came out of the dunes late that night, into a flow of old lava so rough they stopped to wait for daylight. When dawn broke, they found a salt flat beyond the volcanic ridge, a dry lake bed so wide they couldn't see across it. Snowfire shrank back from its empty level immensity, but he grinned hopefully.

"Maybe —" he whispered. "Maybe we do have a chance."

They struck boldly out across the white waste of hardened brine, circled slowly to the right, doubled back at last toward the lava cliffs.

"Our tracks on the salt are hard to see," he said. "And the heat should kill our scent."

They slept through the afternoon in a shallow lava cave. When the hot dark had fallen, to hide them from Flintbreaker's striker tly, they drank half the water in their last canteen and pushed out again across the salt.

Snowfire seemed strong at first, rested and hopeful. She kept

glancing at the blazing constellations, trying to place her own home world and the white sun of Xyr and the farther star of Old Earth. But the lava had shredded her moccasins, and the salt now burned her bleeding feet. Though she uttered no complaint, her limping became so painful that at last he let her stop.

He cleaned her feet with the ointment from Goldforge's kit and tried to repair the moccasins. They lay on the hardened brine. Though he hadn't meant to sleep, dead exhaustion overcame him. Dawn had dulled the stars when he woke. Their salt bed had cooled, and Snowfire had snuggled against him. He was turning gently to draw her closer when he heard the nearmen baying.

It was a faint, far wailing, as tiny as the stifled screaming of a hatchling tly in an egg not yet pipped. To Blacklantern, it sounded sad as death. Snowfire sprang up to run when she heard it, but he called her back.

"Nowhere to go." He gestured into the snowy flatness that reached unbroken into the red sunrise, as far as they could see. "We'll wait."

They drained the last sips of water. He leaned down to hone his looted hunting knife on the nearman leather of his looted boots. Gravely, Snowfire kissed him.

"The Fellowship of Benefactors is a well-intended undertaking." He tried to grin into her tragic face. "But, for a planet so primitive, with progress so hard, I think we need a few more fellows."

He felt her quiver, heard a tiny laugh that became a sob. They waited. The baying pealed across the sunlit salt, broken now and then when the increasing heat dimmed their trail, but always flowing nearer, wilder, higher, its somber melancholy breaking into yells of fierce elation when the nearmen found a stronger scent. Snowfire gasped and clutched her spear when the first fleet gray shape burst out of the milky glare.

"They are trained not to touch us," he told her. "Unless we try to run."

Shuddering, she stared at the pale-furred creatures racing around them, running sometimes erect, sometimes on all four limbs, sniffing after their blood, peering with strange wild bone-hooded eyes, baring bright fangs to bay. Their odor fouled the cool dawn air.

"Are they —" Her troubled voice caught. "Aren't they — men?"

"Their ancestors were," he said. "But the old starships were poorly shielded. The passengers got a lot of radiation, and the nearmen sprang from mutations. The real

men settled and stayed in the north hemisphere. In the great depression around the sea. The nearmen fell heir to this dry hemisphere, which nobody wanted. They've been evolving here for a thousand generations. Roving like wild tlys. Often hunted. Sometimes domesticated."

"Aren't they protected?"

"The early Benefactors got a token agreement written into the treaty of entry. The clans promised to keep them out of Nggonggamba — along with their flesh and their hides. But it's hard to change the ways of a world."

"Do you mean —" She turned to stare at the gray howling things. "People *ate* them?"

"They've always been game." She had moved too far from the translator, and he had to repeat. "Except for the tlys, they're the only big animals here. I guess neither will last long now, since Goldforge's excavators are eating up their lands."

"We must look into that. If we live —"

"If we live." He looked at the baying beasts and thoughtfully back at her dark-stained face. "Which is better, on the scales of the Benefactors? A handful of nearmen, fighting off the wild tlys and feeding on carrion? Or the billions of civilized spacemen who might live richer lives in swarm

vehicles built from all the miles of metal in the core of the planet beneath us —"

The howl of the manpack was suddenly hushed, and they turned to find Dr. Killbird and his client emerging from the blinding whiteness. Each was carried by a pair of loping nearmen. Both wore wide flat Nggonggan hats and steaming cooler suits.

The doctor's fleshless body sagged against the rods and straps of his metal exoskeleton, as if the hunt had been too much for him, but he was leaning from his saddle to hand the woman a stubby paragas gun. He slowed his bearers, and Redflower came on alone. At his hissed command, she dismounted to shoot.

Blacklantern saw Snowfire standing silent, simply watching him. Her utter trust seemed suddenly ironic. He knew the range was impossibly great, but he fitted a pebble into his lancegrass sling. It whistled three times around his head. As he let fly, something exploded at their feet. He caught the sour stink of paragas.

Snowfire gasped and clutched at him and slid slowly down.

Exhaling, Blacklantern reeled two steps toward the cool dawn wind and dropped on his face. The salt pitched beneath him, and a freezing numbness washed him. Grimly, he fought not to breathe.

He made his dead hand grasp his knife. Clumsily, he gouged into the crusted brine beneath his head. When he couldn't help breathing, he forced his face into the stinging alkali, inhaled its bitter dust.

Lying still, he listened.

Set for Snowfire and himself, the translator was dead. He heard Redflower's alien squalling, loud with elation and quavery with age. He heard Dr. Killbird's rasping sibilants, more distant, more cautious. He heard the nearmen growling, their hard feet thudding on the salt, at last the hurried crunch of Redflower's boots.

The salt dust was tainted with her synthetic scent, and her shadow fell across him. He knew she was bending to contemplate the fair new body she was claiming for herself. He heard the doctor's anxious hiss, knew it must be a warning to make sure of him.

Rolling upright, he threw the knife.

It missed!

Alerted by the doctor's hiss, the woman had spun when he moved. He watched her raising the slim mangun she clutched in her red-taloned claw. The gun wavered and dropped. She was crumpling toward the salt before his flung blade flashed by her face. By the time he reached her body, diving for her scrawny throat, she was already dead.

He twisted the mangun out of her relaxing talons and whirled back to face Dr. Killbird. The fleshless otherworlder sat in his swinging saddle, drooping against his humming supports, weakly clutching the paragas gun the woman had used. His skull-face scowled uncertainly.

"Careful, sir!" Blacklantern bent to snatch the translator from behind Snowfire's ear. "Break the rules and you make yourself fair game."

His haggard eyes blinked. He hissed something the translator failed to catch. His motors whined suddenly, and his skeletal fingers clutched for a whip. His nearmen yelped and clattered away. The respected Redflower was left where she had fallen. Her old heart had simply failed, before she got the new one.

Now her own nearmen snorted and ran, dropping her saddle and all her gear. The whole pack howled away behind the departing doctor. Snowfire and her dead hunter lay side by side on the hard-caked brine.

6.

The first effect of paragas was close to death. Blacklantern was a long time finding Snowfire's pulse, and it was noon before she woke. Even when the hot evening fell, she was still too weak to walk.

Yet they went on. Blacklantern put her in Redflower's saddle and carried one end of the flexing poles, letting the other slide on the glassy salt.

Redflower they left for the tlys or nearmen to scavenge. They took her translator, canteen, and food pack. Blacklantern tried and left her mangun, which was thumb-keyed and useless, but her boots were a fair fit for Snowfire's swollen feet.

He had been half blind from the savage dazzle of the salt, but at sunset he saw one high black dot against the dusty crimson. A wild tly, he wondered, seeking carrion? Or the Elder Huntsman's striker, already on their trail?

To confuse the pursuit, he veered left till dark, then right again. When they stopped to rest at midnight, Snowfire refused to ride again. They limped on and on together.

Scattered boulders began to break the starlit level, and at last the starlit salt gave way to darker sand. Beyond the old lake shore they climbed a rough slope of weathered granite. The scarlet blaze of another dawn found them stumbling across a high plateau of bare red rock. Suddenly it ended.

He heard Snowfire's gasp. In his own dead fatigue he had been aware of nothing beyond the next painful step. When he looked up,

all he could see was a dozen yards of wind-worn sandstone, broken off with a jagged fracture line.

Beyond was the pit.

It jolted him wide awake. Beyond that broken edge he saw the same chasm he had seen in the tank beneath the crystal floor of Toolsmith's office — but the reality was unbelievably vaster than its projected image. To right and left, the jagged lip ran on as far as he could see. He couldn't find the farther side.

Creeping fearfully closer, they dropped flat to look over the edge. The sheer rock face dropped straight down, so far it made him giddy. Broken rubble sloped on down from its foot, down and down into the thick brown haze that hid the bottom of the excavation.

"Mechanical maggots!" Snowfire peered at him, her eyes dark with shock. "The metal worms! I was coming to investigate them when the clansmen caught me."

He inched forward to look where she was pointing and saw two great bright worm-shapes creeping side by side along a wide rock shelf that broke the rubble slide. As they devoured boulders, more broken stone ran down around them, veiling them in thick gray dust. Even at that vast distance they looked enormous.

After a long time he gave Snowfire a shaken glance.

"The Deeplode pit." He was hoarse with awe. "Back in Nggonggamba, I talked to an engineer. The company is digging here for metal to build space vehicles. Toolsmith says they own the mining rights. He says everything is legal."

"You can imagine how the natives feel!" She laughed bitterly. "Mechanical maggots eating up their planet!"

"Toolsmith says the job will take ten thousand years. I wish we had that sort of time." He shoved himself and turned to look behind them, searching the dusty air for the striker tly. Snowfire lay flat, still staring into the pit.

"I've found another — *thing!*" she gasped. "It isn't eating, like the others. It's climbing the rock slides. Listen! You can hear it coming."

Leaning toward the pit, he heard a far sound, faint but deep. If all the flying, humming, stinging things of Nggongga had been rolled into one immense monster, he thought, this would have been its roaring.

"It's climbing straight toward us!" Her voice turned sharp. "Do you think it saw us?"

"I don't think we could matter —"

He had bent to search the pit, when something rumbled in the wounded world beneath them. The rock shuddered. A sudden shock

topped him toward the brink. He was reeling on the rim, fighting for his balance, going over, when Snowfire caught him.

They fled back across the quaking rock. It shivered and pitched. It rang like a world-sized gong, as if to deep explosions. Black fissures opened all around them, spitting dust. A widening crack spread open ahead. Snowfire stumbled into it, almost swallowed. He snatched her up, jumped desperately.

Beyond the crack, they fell face down and lay there limp and gasping. The hard rock shivered and boomed beneath them. A vast thundering came out of the pit behind, swelling and swelling until it battered them with an avalanche of sound, cresting incredibly, sinking slowly back into that impossible abyss.

When they found breath and strength to stand, they were on a new brink. The rock where they had stood beyond the crack caved away. Daring to look down, they found a new rubble slope far, far beneath, with an enormous apron of orange-colored dust still spreading down from its foot into that thick brown haze.

Those three great bright worms were gone. For a moment he thought the rockfall had buried them. But then, as that distant thunder kept on dying, he heard

the monstrous bellow of the nearest worm, undiminished. Rolling onward, that orange cloud uncovered all three worms. Two were still consuming talus. The third still climbed.

"It has seen us!" Snowfire trembled. "It's after us!"

"Not likely," he muttered. "We aren't that important."

They retreated beyond the risk of another rockfall and sat together on a sandstone ledge. Snowfire looked up at him, her face sick with dread.

"We've come so far." Her dust-roughened whisper wavered. "We've tried so hard." Tears welled out of her sun-reddened eyes. "What now?"

"I don't think we'll ever reach Nggooth," he said. "I'm not even sure it still exists — it may have already fallen into the pit. But still we're going on. I guess that's all we can do, with old Flintbreaker and his striker tly behind us."

His painful lips tried to grin.

"We'll follow around the rim of the pit — Flintbreaker won't come too close. We'll try to stay alive. Our captured supplies are pretty well gone, but we can hope for more. With luck enough, we'll find a waterhole, or perhaps a wild tly's nest."

She searched his face, abruptly leaned to kiss him. Suddenly busy, he opened the last frozen meal from

Redflower's coldpack and set it on a rock for the sun to warm. He inspected their footgear, retied the flint point on a spear. Carefully, he kept himself from looking at Snowfire, or up at the dust-hazed sky where Flintbreaker's striker would be flying.

It struck that afternoon.

They had shared that final meal and a few measured sips of water, had slept till the sun's blue fury goaded them on. They were stumbling down a red-walled canyon that a lost stream had cut in some kinder time, when the hot sky howled.

Blacklantern swung drunkenly and saw the diving tly. Sunlight glanced on arrowed black wings, burned on crimson armor. The five-jawed mouth was a wide black chasm, five great bright fangs unsheathed to strike. The tapered tail was whipping into a graceful curve, already reaching to poison them.

Lovely, deadly! All the emotions of his arena-struck youth came flooding back, as intoxicating as a great draught of sea-berry wine. Filled and lifted with it, he felt all the wonder and terror of his first step upon the raked and patterned sand. His dead fatigue fell away.

"Drop!" he called to Snowfire. "Flat!"

Dancing away from her, he loosened his braided sling. Twirling it like a binding rope, he stood

balanced on the balls of his feet, waiting breathlessly. That five-angled mouth howled again, its yell meant to paralyze its prey.

With all his old cunning, he measured its dive. Deftly, at the ultimate instant, he flicked the sling to draw its black-tipped sting aside. He crouched to bring it lower, sprang to meet it. With both hooked hands, he caught the tendons at the base of its slanted wings. Its own reflex lifted him, twirled him to its armored back.

Clinging there, where the sting couldn't reach, he plied his knife, ripping at the seams between the hard red plates, seeking the double heart beneath. The sting exploded behind him. A thin jet of venom spurted past. Recoiling from its acrid reek, he was suddenly afraid.

A single yellow drop...

All his long exhaustion washed over him again, as deadly as that agonizing venom. His old skill was gone. That fierce elation died. In this lonely bleak arena he had lost his last contest.

Closing, the powerful wings broke the grip of his knees. Slippery with the tly's bright blood, the knife flew out of his useless hands. He lost his seat. The slashing tail struck him in the air. He fell on hard rock.

Snowfire was tenderly washing his face with the last few drops of

their water. He sat up groggily. His bruised head throbbed, but all the hardening blood had been the tly's. It lay nearby, entirely dead.

Like carrion nearmen, they lapped its last blood from a darkening pool in a rock hollow and devoured hot raw strips of its liver. He cut long slices of its white wing muscle to cure in the sun and ripped out its full water stomach, which they could carry like a new canteen.

"I wouldn't have believed —" Snowfire looked up with its bright blood on her blackened face. Her pale green eyes held a dazed expression. "We've come a strange way together."

Later, beneath a cliff that made a narrow strip of shade, they slept. Blacklantern dreamed that he was an apprentice binder again, facing a bigger tly than he had ever seen. When he flicked his rope to turn it, it became a gigantic silver worm, diving at him, whining like a trillion thirsty blood-flies.

Snowfire woke him.

"It's coming," she whispered. "Listen!"

That droning bellow was real. It came from the direction of the pit. They fled from it, down the canyon, till Blacklantern caught the rank reek of nearmen. With a gesture for Snowfire to stay behind, he crept around a rocky bend and found Flintbreaker.

The scar-masked hunter stood upright in his stirrups, cursing and whipping his nearmen. His bearers had balked. The trailers huddled on all fours around him. The odor of their terror poured down the canyon like a fetid river.

"It seems we have a choice." Blacklantern looked bleakly back for Snowfire. "The mining machine behind us. Old Flintbreaker ahead —"

She was gone. Back around the bend, he found her on her feet, staring up the canyon toward the pit. Beyond her, above the time-worn sandstone, a wide curve of bright metal was thrusting upward like a huge moon rising.

He forgot Flintbreaker. Snowfire was reaching blindly for him, her eyes still fixed on that unbelievable reach of shining metal. He caught her clutching hand. Like two frightened children, they stood watching that unending loom obscure the dusty sky. The dry rock began to tremble under them.

"Can it see us?" Its growing roar was deafening now; she had to shout. "Should we hide?"

He stood paralyzed, as if the tly's sting had found him.

"If —" With a convulsive tremor he broke free. "If we can find a cave."

They ran on around the bend. Though an evil nearman scent still edged the air, the creatures had

fled. They found Old Flintbreaker where his bearers had thrown him, wandering dazedly to gather his saddle and whip, his weapons and packs.

"Wake up, hunter!" Blacklantern shouted. "Guard yourself!"

The old black clansman drew himself up painfully, as if to recover his broken dignity, and slowly turned to face the lifted spear.

"Kill me if you like." He spread his empty hands. "I don't care what you do."

"You were hunting our heads —"

"No longer." His lean frame sagged again, to a crushing load. "You ran cunningly and fought well. In all the history of the hunts, none have done better. You have won your heads and your freedom — but you have destroyed the justice of Nggongga."

He unsheathed the lancegrass whistle he had used to call his tly, scowled at it sadly, tossed it away.

"I don't expect to hunt again." He was screaming hoarsely now, against that rolling thunder note that shook the canyon walls. "What is the meaning of justice, when our whole world is eaten?"

His stricken eyes lifted toward that bright moon still ballooning above the rust-red canyon walls.

"You call yourselves Benefactors?" His strained voice turned

bitterly sardonic. "Do you call that a benefaction?"

With a glance at Snowfire's troubled face, Blacklantern laid his spear aside. He tried the water in a skin the nearmen had dropped, found it good, shared it with her. Ignoring them now, Flintbreaker sat on a sandstone ledge, staring blankly up the canyon. They stood beside him, hands joined, watching that monstrous metal curve that swelled and swelled above them.

"A maggot!" Snowfire whispered. "A planet-eating maggot!" Her haggard eyes looked at him. "Why is it after us?"

Once he hoped it might pass by, but it turned again, following the bend of the canyon. Its deep thunder battered them. It covered half the brassy sky. Its rock-scarred jaws were straight above them.

Never looking down, Flintbreaker found the small brown pouch hung from his belt, fingered out two slick saltflower seeds, crunched them hungrily. He chewed, his mask of scars flexing stiffly. A sudden bright defiant purple jet spurted toward the great machine.

It had stopped. Now it slowly sank. Beneath its sinking mass, the red cliffs spit and crumbled. The rock boomed and quaked. A cloud of dry dust rolled down the canyon, hotter than the savage sun.

At last it lay motionless. A mile-long metal worm, worn bright from its work in the pit. Its roaring dropped into a sudden shocking silence. Its long shadow had covered them, and a welcome coolness came after that suffocating gust.

Still they waited.

At the top of its strange-shaped head armored jaws spread open. A thin black tongue darted out, shot toward them. Its tip was a glittering point which became a shining dome as it swept near. The dome touched the canyon floor. A door slid open.

A man jumped out.

A lean otherworlder, in an odd brief garb with no wide hat or cooler suit to shield him from the sun of Nggongga. Huge yellow freckles splotched his sunburnt skin. Striding briskly toward them, he put on purple goggles.

"Toolsmith!" Blacklantern shook his head, only half believing what he saw. "Aren't you Engineer Toolsmith?"

"Now Manager Toolsmith. Goldforge's replacement, as resident director of Deeplode mines." Beneath the goggles, his lean face looked apologetic. "My pursuit no doubt alarmed you. Sorry. When you were detected here, we had no vehicle available except the excavator."

"We were alarmed." Blacklantern grinned with relief. "We

weren't expecting anything good."

"You Benefactors will find us more cooperative now," Toolsmith promised, almost humbly. "Of course our official policy has always been to preserve the native people and their culture, but I'm afraid Manager Goldforge had become a bit eccentric. As for myself, I never enjoyed the hunt. I'm more inclined to subsidize a great museum to preserve endangered cultural values and to found new educational institutions to prepare the natives for transition —" He looked at Snowfire, his bland smile fading. "Don't you think that would be commendable?"

"I'm not sure," she said. "The Benefactors will hope to be helpful. Anyhow, it was good of you to pick us up."

Toolsmith shrugged uncomfortably.

"The rules of the hunt didn't allow us to try an earlier rescue," he said. "But I had instructed our crew here to watch out for you. Medical aid is standing by, and we have restored your relay service to Xyr. We'll soon have you safe in Nggonggamba — assuming the Elder Huntsman's permission."

Inquiringly, he turned to Flintbreaker.

The black hunter had risen unsteadily from his seat on the rock. He looked up solemnly at the armored immensity of the excavator, and down again at them. His thin old hands folded together, and his scarred head dipped in a ritual bow.

"We had appealed to the justice of the hunt, and we accept the outcome." Grave emotion quavered through the roll of his formal intonations. "But don't hurry me."

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Toolsmith was urging them all into his crystal cage, but Flint-breaker hung stubbornly back. Tall with his tribal dignity, he turned to look down the widening canyon into the shimmer of heat upon limitless desolate horizons beyond the bare red cliffs.

"Your iron worms have eaten Nggooth, and I'm afraid our ancient hunts have ended." His mellow voice rolled again. "If the Benefactors say that our old lands must go to make new world-machines in space, let that be. For myself, I need one more moment, to swallow the sorrow that swells my throat. I think I'll never see our sacred lands again. But the old must break to make the new — so you have taught us."

He came unsteadily at last and

let the engineer help him into the waiting elevator.

Blacklantern followed, feeling both elation and sadness. He and Snowfire had earned new recognition for the Benefactors. They would be getting honors and rewards and exciting new missions. Under their guidance, Nggongga would now be moving into a future more splendid than its primitive past.

Yet, when Toolsmith gave his freckled hand to Snowfire, his open admiration and her green-eyed smile left him longing for the days and nights of cruel danger and narrow victory when she had been his alone. He thought he would recall them as the happiest of his life.

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**A surprising and moving story in the form of a dialogue between
an extraordinary photographer and a representative of
"the Service."**

The Service

by JERRY SOHL

- Mr. Cade?

What?

- Mr. Dexter Cade?

Yes. Who the devil are you?

- I'm sorry if I've startled you,
sir.

How long have you been
standing there like that?

- Not long.

How did you get in?

- With this key.

Oh! ... Then — you must be the
one

- Yes, Mr. Cade, I am.

Oh, my God!

- There's no need to be upset
sir. There's no rule that says I have
to stay.

It's not that. It's — it's — I
didn't think he meant it. I didn't
think he meant it even after he
asked me for the key and I gave it
to him.

- If it pains you, sir

I thought he was just trying to
placate me, make me feel good, get

me to cling to something.

- They're good at that, Mr.
Cade. But then that's their job.

It was so unbearable, so
hopeless ... I tried to make him see
that.

- You don't have to worry about
it now, sir.

I still can't believe it!

- And, as I said, I don't have to
stay, but I must warn you that if
you ask me to leave no one else
from the Service will be coming
back. You must understand that.
Do you, Mr. Cade?

Yes, yes.

- We want you to be happy with
us.

Oh, I am! I am!

- And you must want to go
through with it.

I do ... but since it's going to be
— well, there are certain things I'd
like to know more about first.

- There's nothing more to know,
sir. It's what it is and that's all. I've

been told it's been explained to you, and the Service is never wrong. Is it that you want me to leave?

Have you done this sort of thing before?

- Certainly, Mr. Cade. It's my job.

Many times?

- Oh, many times.

When will it — happen?

- Whenever you're ready, sir.

You know, you're not what I expected.

- They all say that. Most of them do, anyway. They expect a sadist or a maniac or something vile. Actually, we are very ordinary persons ... with a specialty.

You're certainly different from the people who've been taking care of me, if you can call it that.

- In what way, sir?

With them I could always see what was coming in their eyes, in their faces, in the way they said things to me and to each other. Sometimes they thought I couldn't hear them, but I did. And then there was the way I felt. I know why they've let me come home.

- An increase in hearing acuity is not at all unusual in people in your situation. And I believe home is best, if I may say so, Mr. Cade.

You know, I like you. I can't say I see anything at all deceptive or ulterior about you.

- Thank you. We in the Service like to think of ourselves as truth —

the final truth, if you will — the truth that the others won't admit, even to themselves. The reason is obvious, of course. It contravenes what they stand for. And it shakes them, shakes them to their very foundations. That's why there is such a need for the Service.

Yes, I can see that. I suppose one could even feel sorry for them, for the stance they have to take.

- The human animal is a complex thing, Mr. Cade. In vain effort he sometimes pushes and pulls at the same time.

May I ask you something?

- Of course.

Doesn't this bother you at all?

- No. We're trained for it. I'm sure you were told that.

I was, but I should think it would bother you anyway.

- Not when you consider that pain no longer lays upon those whom we visit, if I may paraphrase Aeschylus. The Service has its dedication, too, you see; and with it comes its own blessings, its own rewards.

I wish I were able to get up.

- It's all right, sir, if by that you were thinking of the amenities. It is considerate of you, but I can manage. It should not be any trouble for you. Can I get you some coffee? Some tea?

Tea would be fine. You will find everything in the kitchen.

- Here is your tea, Mr. Cade.

Thank you.

- Can I prop you up?

If you would, please.

- There.

Thank you. Good tea. Why didn't they ever offer me tea?

- They never do.

Very good tea, indeed.

- Thank you.

You know, I don't even know your name. What should I call you?

- Friend.

Just "friend"?

- It fits better than any given name, Mr. Cade. Are you comfortable?

Oh, yes.

- What did you do, what was your profession, if you don't mind my asking?

I was a photographer. I'd have thought you'd heard of me. I was a photographer of women.

- Yes, come to think of it, I have heard of you. One of the world's foremost, if memory serves.

I like to think so. Or let's say I wanted to be the very best at the beginning. In the end it didn't matter.

- I don't quite understand, Mr. Cade.

Well, I was in later years not driven so much by power and money as I was by beauty. I loved every woman I photographed.

- It shows in the photographs.

I don't mean that in a carnal

sense. I — transcended that.

- Could you explain that?

Let's say that I drew my subjects to me through the lens and in that way I coveted them, for what walked out through the studio door after the session was in no way as perfect and beautiful as what I had captured on film.

- Would you say you gave them life?

I would say that through the magic of the camera's eye I evoked rather than described. I added a dimension or two, made them more than what they were. Even the ordinary models I gave a presence to, an immortality, so to speak. Yes, I guess you could say I breathed into them and gave them life.

- You possessed a kind of divine power. Would you say that?

I suppose one could say that. Strobes popping constantly, banks of electronic flash units going off all the time, all of it mechanical, artificial. Yet what came out of it was anything but inanimate or sterile. People said I had a unique gift for creating essence, and I did. I guess it was because I talked to the girls while shooting, said things to them I'd never say even over cocktails. I was able to create a kind of mysterious balance, an enchanting mood that was impossible to achieve in any other way. Claudia Frakes was nothing

before she came to me. Neither was Penelope Wykoff, Susan Harrison or Calla Parrish.

- They are beautiful women still, but I realize when I visualize them that I am only seeing them as you photographed them.

I was able to do what I did by virtue of contrast. Put a beautiful woman in the harsh, angular reality of a rocky creek bed at high noon, and she becomes more beautiful that she would be reclining on a soft chaise longue. Of course the lighting, dress and pose must be exactly right.

- Mr. Cade, of all your models, who was your favorite?

Why do you ask me that?

- You seem to hesitate now and then, choose your words so. It's as if you're seeing someone you're not talking about.

They train you well in the Service, friend.

- We try not to miss anything, Mr. Cade. Who was she?

Elena Cassell.

- She was your first model, wasn't she?

She was. Her real name was Helen Chassell. Abigail Lasson sent her to me when I said I wanted to photograph people rather than ash trays and table settings and draped cloth. She was inexperienced; rather, she was born to that half of the world in front of the camera's eye. She should not have been

named Helen. I knew that the moment I saw her, that instant she stepped into my studio and brightened it with her presence the way no one else had before or since. So I make her Elena. The fair Elena. She was a woman, friend. There has never been another like her.

- You have photographs of beautiful women hanging on the walls of this room, but I see none of Elena Cassell.

Just as one could not live with Puccini twenty-four hours a day one could not live with the face of Elena peering out at you. Or at least I could not.

- But you do have photographs of her, do you not?

Yes. I used to get them out and look at them, but it always made me sad when I did.

- Where do you keep them?

In that closet over there. I have them in a pack on the top shelf. But I don't think —

- You loved her.

Yes ... where are you going?

There they are, Mr. Cade, the six you say you like the best, each on an easel.

Oh, God, what memories those bring back!

- Follow them.

Elena had that rare quality of influencing her surroundings. For example, it was as if the room

darkened when she let her head drop forward. Do you see it there in that first one? Look at the way she sits on that old stool, so pensive, yet so alive. I set this one up in an abandoned barn on some rolling farmland near Frederick, Maryland. As you can see, the barn is bright with sun; yet there is darkness there because Elena has made it so with her bent back, her arched neck, and her lowered eyes staring so moodily at the straw strands on the old wood floor. The pose makes you want to cry out to her, doesn't it? It makes you want her to look at you ... and she did, you know, right after the sitting. It was like an electric shock. Or should I say electrocution, for I was struck dumb by what her eyes could do to me. I was in awe of her.

- She is truly beautiful, sir.

You see her rushing across that meadow in the second one, running toward you? That was taken at Haypress Meadows, high in the desolation wilderness near Lake Tahoe. There is a fresh, wild gaiety in the way she moves, something she always had. She was like an uncaged animal sometimes, the way she moved, and she could always draw you into moods with her. See her yellow hair splashing, her blue skirt billowing?

- She is like a young doe.

And the third there, at the edge of the forest. The photo's like

something out of Eadward Muybridge or Carleton Emmons Watkins because it was like many they had taken so many years ago near Fort Bragg. The way she stands so quiet, listening to voices we can't hear, her beautiful eyes closed. So like the old photographs worn and browned with time. Seeing Elena this way was like sipping gamay beaujolais; it was just as uplifting. I was so taken with her this day that I ran out of film here. When I told her I had, she grinned impishly and darted into the redwood forest behind her. So enchanted was I that I followed her, leaving my expensive equipment behind. I just didn't care. I had to have her, be where she was, for when she left where she'd been, all that was life would go with her. She was light and fast on her feet, and her laughter drifted back to me as I ran, and soon she emerged into a meadow, a beautiful place full of daisies. She laughed when she saw me so near.

- You caught her.

Yes, I caught her and held her. It was the first time I'd done that. She trembled, whether with excitement or fear or desire, I didn't know then. But when she drew away I saw in her eyes the dream I know she must have seen in mine ... and then she took my hand and we — we said not a word but lay down together in the meadow in midday.

It was — it was —

- If you can't go on, sir

No, no. I'll be all right. Let me get to the fourth picture. It's in the same general area — we loved Sonoma and Mendocino — only it is some weeks later. She is stepping out of a willow thicket. What would you say is the look in her face?

- Rapture.

Yes.

- It is the look of a women well loved, Mr. Cade.

And she was. Sometimes I could not believe she was real and found myself looking to see if she cast a shadow. Elena had no awkward moments. Her arms flowed with her body, and she always looked at things as if seeing them for the first time. She was marvelous. Everything was always new and beautiful and wonderful with Elena.

- She projects an ethereal air.

Yes. It's as if at any moment she might evaporate, she was that rare. Now look at the fifth one. Do you see how, though the shutter has caught her and frozen her in motion as she runs up that hill, she looks at if she is flowing on anyway, like some animal made of amber?

- Yes. And the last one. Is that grief?

In her most ordinary gesture there was grandeur, and so it was with her weeping. It was as if she were crying for the world, for all humanity.

- How did you get her to do it?

I told her I loved her. She always cried when I told her that. When I asked her why that should make her weep, she said it was because she loved me so much and all she needed to do was imagine life without me and the tears came.

- She is grieving for you, then.

It was strange. Just as she could read into ordinary events, see things that weren't there, so she somehow knew. I had decided that a vibrant, high-strung young gazelle like Elena must have had access to the higher reaches, don't ask me how. Her eyes were tragic those last few days. I had no idea why. It was a prescience, an intimation of her mortality, I suppose. A week later she was dead, drowned with fifty-three others when her plane went down in the Mediterranean near Crete, where I was to follow in a few days on assignment. It was — horrible.

- Don't dwell on it, Mr. Cade.

The last photographs I'd taken of her I could never develop. I destroyed them.

- But you did go on.

Yes. I didn't know then I would never find another Elena. So I set out to find her. In my lifetime I must have photographed five thousand other women. I saw parts of Elena in the twist of this wrist, the flicking of that eye, a turn of an ankle, and I loved them all, as I've

said, but no one ever came close to Elena. Even now I'm not sure she ever existed, except that I know she must have because of these stills.

- I know what you must feel, Mr. Cade.

I have never told anyone how it was ... now suddenly I'm very tired, my friend.

- Of course.

And I know now I'm ready. Or was it already in the tea?

- A little in the tea, sir. If you are really sure you're ready now ...

Yes, I am sure. How long will it take?

- It will be intravenous and I will control it. You will feel nothing, as you have already felt nothing.

Dr. Hedron was right about all this. He said —

- Just relax now, sir. Tell me

what you see, what you think ... There.

Ah ... I hadn't ... I didn't expect ...

- What is it, Mr. Cade?

I could swear I saw Elena move! Yes, she *is* moving — there at the edge of the woods! But how is it possible?

- All things are possible now, sir.

Elena! Wait for me!

- Easy, sir.

I love you, Elena! Let me hold you! Oh, God, how I've missed you! Come, take my hand ...

- Take her into the meadow.

Elena ...

- Now, sir, la mort douce ...

Ah ...

- ... the sweet death.

Thank you ... thank you ... very ... much ...



The Search For Superman

ARTICLE

by L. SPRAGUE DE CAMP

Men have long played with the idea of a superman — one as superior to the average man as the latter is to cripples and half-wits. While the term “Superman” was popularized by the nineteenth-century German philosopher Nietzsche, the idea was much older than he.

Some have sought Superman in the past, some in the present, and some in the future. When men could not find a Superman in the flesh, they dreamed about him and wove him into their stories. Most people, I suppose, have wanted at some time to be a Superman (or Superwoman). Stories of such a Superperson, from Achilles through Sigurd and Lancelot to Conan and James Bond, have enabled the reader vicariously to enjoy, if only for a moment, the Superman’s might and omnicompetence.

Ancient myths told of Super-

men like Herakles who, begotten by gods on mortal women, were naturally superior. Judaeo-Christians thought of Adam as perfect (how could he help being, seeing who made him?). If Adam showed all-too-human weaknesses, there was still Samson.

In 1672, John Dryden published a verse drama, *The Conquest of Granada*. At the start, one of his characters declaims:

“I am as free as Nature first made man,

Ere the base laws of servitude began,

When wild in woods the noble savage ran.”

The phrase “noble savage” was taken over by critics of Jean Jacques Rousseau, when that weepy Swiss philosopher praised primitive life. So far as I know, Rousseau did not himself use the term; neither did he ever know any

savages, noble or otherwise.

In 1755, Rousseau published a *Discourse on the Origin and the Foundations of Inequality among Men*. He headed the second chapter: "That Nature has made man happy and good, but that Society depraves him and makes him wretched." "Man," he declared, "Is naturally good," but civilization, especially private property, renders him evil. Seven years later, Rousseau developed the same argument in *The Social Contract*.

When Rousseau wrote, scientific anthropology hardly existed. Philosophers speculated about the "state of nature" by analogies with Genesis and with living primitives. European navigators in the South Sea Islands were sending home idyllic but fanciful accounts of Polynesian life. These descriptions were taken as portraying "noble savages" in actual fact. Fiction writers made Supermen out of American Indians and other barbarians.

In 1791, one of these writers, Francois Rene de Chateaubriand, as a young man came to America to see the noble savage in his native haunts. In the Mohawk Valley in upstate New York, he was enchanted by the forest primeval until he heard music coming from a shed. Inside he found a score of Iroquois bucks and squaws solemnly dancing a fashionable

French dance to the tune of a violin in the hands of a small, powdered-wigged Frenchman. This Monsieur Violet had come to America with Rochambeau's army in the Revolution, stayed on after his discharge, and set himself up as a dancing teacher among the Indians. He was full of praise for the terpsichorean abilities of *Messieurs les Sauvages et Mesdames les Sauvages*. Chateaubriand's disillusionment did not prevent him later from writing an Amerind novel, *Atala*, which became a classic of romantic primitivism.

Rousseau was not the utter fool that selected quotations can make him appear. Sometimes he even made sense. Like many men, he became more conservative with age, as experience with his fellow-men eroded his youthful idealism. But inconsistency was a basic element in his character. He wrote a revolutionary treatise on how to bring up children, but put his own four offspring in foundling homes. His reasoning powers, while not negligible, were usually overridden by his intense emotionality.

Rousseau explained that his "state of nature ... perhaps never existed, and probably never will"; it was an ideal to shoot for. He did not mean the hypothetical state of bestial savagery, when the "war of all against all" prevailed and, as

Hobbes had said, "the life of Man [was] solitary, poor, nasty, brutish, and short."

Rousseau had in mind a "patriarchal" culture, when people lived in families and clans and had begun to enjoy the fruits of husbandry, but before private property. It now looks as if there was never any such time; but Rousseau lacked our advantage of living after Darwin, Mendel, Freud, Lewis H. Morgan, and their successors.

The search for the "state of nature," when all men were peaceful and good, continued through the Romantic Era, fathered by Rousseau and dominant roughly 1790-1840. The movement continued afterwards, for example in the utopian colonies formed in the nineteenth-century United States.

The Romantic Illusion of a primitive Golden Age has, in fact, flourished down to the present. It influenced Rudyard Kipling, Jack London, Edgar Rice Burroughs, and Robert E. Howard; hence the Supermanly qualities of Mowgli, Tarzan, and Conan. It is not dead, as witness the commune movements of the so-called Counterculture of the 1960s. (The only such cults or colonies that have shown viability are those like the Hutterites, which, recruited from the stolid German peasantry,

combine intense religious convictions, puritanical austerity, and a passion for hard work. Would-be founders of contemporary communes may take note.)

The search for Superman in the past was thwarted by the progress of anthropology and archaeology. It was found that contemporary savages and barbarians, when one got to know them, were much like other people, with the usual virtues and faults. Today's civilized men turned out to be descendants of similar primitives, who had dwelt in that state for hundreds of thousands of years. There was no hope for a Golden Age, either in modern Polynesia or in prehistoric Europe.

Could there be materials for building a Superman among the existing breeds of mankind? The word "Superman" was popularized by Friedrich Wilhelm Nietzsche (1844-1900). Nietzsche, however, declared: "What guagmires and mendacity must there be about if it [Superman] goest to women? Forget not thy whip!" but was himself a shy, timid little man who had almost no intimate contacts with women. Like Lovecraft later, he railed at the Jews for giving rise to Christianity, which he hated; but elsewhere he described the Jews as "beyond all doubt the strongest, toughest, and purest race at present

living in Europe." He lauded "the dominant blonds, namely, the Aryan conquering race," but also declared: "What guagmires and mendacity must there be about if it is possible, in the modern European hotch-potch, to raise questions of 'race!'"

Nietzsche hoped that the Superman was about to appear in Europe, break the shackles of the Judaeo-Christian "slave morality," bring the masses under proper discipline, and unite Europe. As to how this ruling caste should arise, he was vague, except for the suggestion that the mating of German military officers with Jewish women might engender Supermen.

Nietzsche's mention of the "Aryan conquering race" put him on the fringes of the Aryanist movement, although he avoided its worst absurdities. Another form of Supermanism, Aryanism sought the superman in the present. Aryanists held that we already had Supermen in the Aryans. The problem was to purify them of taints of non-Aryan blood and to stop further admixture and "mongrelization" of this noble breed.

Early in the nineteenth century, scholars discovered that most of the languages of Europe belonged to the same linguistic family as those of Iran, Afghanistan, and India.

During the next hundred years, history, linguistics, and archaeology have revealed that, before 2000: a cattle-raising, seminomadic folk in Poland or the Ukraine tamed the horse. These people and their descendants set out in their rattling chariots and, with this terrifying new weapon, conquered their neighbors, made themselves a ruling class, imposed their language, customs, and beliefs on their subjects, and intermarried with them. Their descendants conquered more adjacent tribes, until they had spread their language, their horses, their bronze swords, and their sky gods from Portugal to Ceylon. The original language split up into many related tongues.

The conquerors of Iran and India, about 1500 B.C., called themselves *Arya*, "Nobles." When scholars realized the kinship of languages as far apart as Icelandic, Armenian, and Bengali, they called this group of languages the Aryan family. Later linguists preferred the term "Indo-European," limiting "Aryan" to the eastern or Indo-Iranian branch.

We do not know the physical type of the original Aryans, meaning the horse tamers and their near descendants. Since the Alpine type — stocky, broad-headed, with medium to dark coloring — predominates where the taming probably took place, it is a fair

guess that they were Alpines. For all anyone knows, the original Aryan may have looked like Leonid Brezhnev. The Aryans created no civilizations, although they overthrew several in their path. As far as science can tell, there is not and probably never has been an "Aryan race."

Whatever the Aryans' physical type, it soon disappeared by intermarriage with the more numerous conquered. In those days, the migrating conquerors must have been small bands of warrior aristocrats and their henchmen, since there was not enough surplus food to feed large nonfarming populations. So the distribution of racial types in Europe and Asia must have been much the same at the start of recorded history as it is now, since all the conquests and migrations have only slightly affected the racial types of the sedentary populations.

The greatest of the scholars who solved the Indo-European problem was the German philologist Max Muller (1823-1900). In a careless moment, Muller spoke of the "Aryan race." He later corrected himself, saying: "To me, an ethnologist who speaks of an Aryan race, Aryan blood, Aryan eyes and hair, is as great a sinner as a linguist who speaks of a dolichocephalic dictionary or a brachycephalic grammar If I say

Aryans, I mean neither blood, nor bones, nor hair, nor culture. I mean simply those who speak an Aryan language."

The harm, however, had been done. A French diplomat and writer, Comte Arthur Joseph de Gobineau, seized upon the "Aryan race." In the 1850s, Gobineau wrote *Essai sur l'inegalite des races humaines* (*The Inequality of Human Races*). He argued that the white race was the only one with creative ability and that the Aryan, which he identified as the tall, long-headed, blond, blue-eyed Nordic type of northern Europe, was the best kind of white. Its superiority was proved, he said, by its beauty, compared with the "ugly" Mongoloids and Australoids.

Gobineau naturally classed himself as one of the Aryans, who, as the Germanic Franks, had conquered Gaul around A.D. 500 and made themselves the French aristocracy. France had ruined herself, he said, by destroying or exiling these "best people" in the French Revolution. It was no coincidence that Gobineau was himself a French aristocrat. (In contrast with many later Aryanists, however, Gobineau also praised the Jews and the Armenians as "superior" peoples.)

While Gobineau's anthropology was pre-Darwinian, tracing all men

from Adam, others soon adapted Gobineau's theses to evolutionary theory. All deemed themselves Aryans, since nobody has ever written a book to prove his own ethnos inferior. Some Frenchmen agreed with the idea of Aryan civilizers but averred that the Aryans had been, not Nordics, but sturdy Alpines like most Frenchmen. In Italy, Sergi said that both were wrong; the Aryans had been gifted Mediterraneans like Sergi.

Gobineau was followed by Houston Stewart Chamberlain (1855-1927), who in 1899 published a 1,200-page treatise, *Grundlagen des Neunzehnten Jahrhunderts*. In 1912, an English translation appeared as *Foundations of the Nineteenth Century*.

The son of a British admiral, Chamberlain was educated in Switzerland and Germany and became a German citizen. A frail little neurotic with hallucinations of being pursued by demons, he also became a son-in-law of Richard Wagner and a friend of Kaiser Wilhelm II. Shortly before his death, Chamberlain met Adolf Hitler, then an obscure rabble-rouser, and hailed him as the coming savior of Germany.

Chamberlain's *Foundations* was quite influential; for example, it converted H. P. Lovecraft to Aryanism. Lovecraft never completely escaped from Aryanist

doctrines, although in his last years he otherwise dropped nearly all his ethnic phobias and animosities. Alfred Rosenberg, Hitler's ideologist, took *Foundations* as his gospel.

For all that, *Foundations* is a dreadful farrago of windy, rambling, tendentious, vebalistic nonsense. The author undertakes to prove the superiority of the "Teutonic Aryan" by a circular argument. Anybody he likes, such as Julius Caesar (a brunette) or Jesus (appearance unknown) is proved a Teutonic Aryan by his virtues, and the virtues of all these Teutons prove Aryan superiority. While "mixtures" like the Germans are good, "mongrels" like the Jews are bad, and one tells the difference by "spiritual divination." Little Teutonic girls know the difference by instinct and cry when a Jew enters the room. If science disagrees, so much the worse for science:

What is clear to every eye suffices, if not for science, at least for life...One of the most fatal errors of our time is that which impels us to give too great weight in our judgments to the so-called "results" of science.

These delusions were popularized in the United States by Madison Grant (*The Passing of the*

Great Race, 1916), who hated Jews with Hitlerian passion; and Lothrop Stoddard (*The Rising Tide of Color against White World Supremacy*, 1920), who inveighed against "race treason" and "Levantine mongrels." These writers accepted the division of Europeans, worked out by Ripley and others into Nordics, Alpines, and Mediterraneans. The Nordics — tall, long-headed, blond, and blue-eyed — dwelt in the North; the Alpines — broad-headed, of medium height and stocky build, and of medium to dark coloring — in the central and eastern parts; and the Mediterraneans — short, slight, long-headed, and dark of eyes and hair — in the South. Other types occur in southern and southwestern Asia; the other major races likewise fall into various types.

Grant and Stoddard argued that Alpines were stolid, stupid, cowardly peasants. Mediterraneans were artistic and intellectual but frivolous and untrustworthy. Only Nordics were brave, wise and true. The bloodstream of the Nordic Aryans must be guarded against intermixture with the lesser breeds, lest civilization, whereof the Nordic was the founder and prime mover, perish from the earth.

Although utterly unscientific, these books influenced the immigration law of 1924. An Anti-Immigration League saw to it that their

claims received wide circulation. An epidemic of unsolved bomb outrages in 1920-21 and the resulting Red scare convinced millions of Old Americans that the Republic and its civilization were about to go down before the attacks of a horde of depraved and sinister non-Aryan foreign revolutionaries. The Franco-British antiscientific Catholic writer Hilaire Belloc satirized the beliefs of the Nordicists or Aryanists:

Behold, my child, the Nordic man

And be as like him as you can;
His legs are long, his mind is slow,
His hair is lank, and made of tow.

And here we have the Alpine race:

Oh! What a broad and foolish face!

His skin is of a dirty yellow.
He is a most unpleasant fellow.

The most degraded of them all
Mediterranean we call.

His hair is crisp, and even curls,
And he is saucy with the girls.

History and anthropology tell another story. Northern Europe, the Nordic homeland, was a backward, barbarous place down to a thousand years ago. All the main

advances of civilization had theretofore been made by swarthy southerners or yellow-skinned easterners. Only in the last few centuries have circumstances, such as possession of large stores of coal and iron at the time of the Industrial Revolution, enabled the northern Europeans to catch up with and sometimes to surpass their southern neighbors in culture and power. And there is no reason to think that the recent northern European preeminence will prove any more lasting than the earlier dominance of the Arabs or the Mongols.

The Nordic-Aryan myth had already been debunked by the American economist William Z. Ripley in *The Races of Europe* (1899). Ripley divided the white or Caucasoid race into the Teutonic, Alpine, and Mediterranean sub-races or types. ("Nordic" was later substituted for "Teutonic," because "Teutonic," like "Celtic," "Slavic," and "Semitic," is properly a linguistic, not a racial, term.) Ripley's classification is still valid if we remember that all three types occur in differing proportions throughout Europe, that most Europeans do not fit any one ideal type but show a mixture of traits, and that one can divide up Europe's population along different but equally plausible lines.

So far as is known, there has

never been a truly "pure-blooded" race. The different populations of mankind have never, with trivial exceptions like the Easter Islanders, been completely isolated, one from the other, for many centuries at a time. Hence some mixing has always gone on.

There is no reason to think that the subdivisions of the Caucasoid race have ever existed in pure form; nor that there has ever been a pure blond race. All that happened was that blondness — an evolutionary adaptation to the sunless clime of northern Europe — became much commoner there, where under primitive conditions the pale coloring associated with it helped in survival, than it did elsewhere, where it was harmful.

Ripley pointed out that the "purest" racial types are in backward, isolated areas, since people migrate out of, not into, such places. The Italian Renaissance, cited for the supposed inherent Mediterranean artistic bent, proves no such thing. Most of the artists came from the North of Italy, which is as Alpine as Mediterranean, and not from the more purely Mediterranean South.

Up to now, nobody has demonstrated any consistent mental differences among the different types of one of the major race — e.g., between Nordic and Alpine. As for the major races themselves

— the white or Caucasoid, the black or Negroid, and the yellow or Mongoloid — there is some inconclusive evidence for average inherent differences among them. But such differences, if they exist, tell us practically nothing about any individual, because the score curves overlap. It is like saying "Swedes are taller than Italians." So they are, on the average; but millions of Italians are still taller than millions of Swedes. Moreover, this evidence suggests that the most gifted race is not the Caucasoid but the Mongoloid.

Since there was no hope for a Superman in the past or the present, what about the future? If the fellow did not exist, could we make him? At the end of his *The Descent of Man* (1871), Darwin hopefully said:

Man may be excused for feeling some pride at having risen, though not through his own exertions, to the very summit of the organic scale; and the fact of his having thus risen, instead of having been aboriginally placed there, may give him hope for a still higher destiny in the distant future.

The cautious Darwin did not speculate how this superior being

would come to be. In the late nineteenth and early twentieth centuries, some evolutionists clung to a vitalistic explanation; that is, they supposed that there was a built-in urge to evolve towards a certain goal. They assumed that man's evolution had such a goal. Some thought that this *elan vital* would automatically transform man into Superman. Others foresaw future men with enormous brains, tottering about on puny, toothless, hairless bodies.

Later discoveries scotched these ideas. There appears to be no such evolutionary drive. A species evolves from the interaction of the chance mutations that take place in its germ plasm and the selective effect of its surroundings, it may, like the lamp shell, the horseshoe crab, and the opossum, continue almost unchanged for millions of years.

Darwin's cousin Francis Galton (1822-1911) was less cautious than Darwin. In the 1870s and 80s, Galton launched the eugenics movement. Having studied the tendency of high intelligence to run in upper-class British families, he proposed to encourage the "fit" to breed and to hinder the "unfit" from doing so. The latter goal was to be achieved by persuasion or, if that did not work, by isolation or sterilization. After Galton died, the movement was carried on by the

mathematical geneticist Karl Pearson and later by Darwin's grandson, Charles Galton Darwin, an authority on the earth's magnetism.

Some early eugenists made such inflated claims as to discredit their movement. If only, they said, breeding were limited to the better sort of people, like us, all crime, vice, and folly would soon be banished and man made into Superman. Similar rosy predictions had been made in the French Revolution by Rousseau's disciple Robespierre. He promised to make France into a Roussellian paradise if only he were allowed to cut off the heads of everyone so wicked as to disagree with him. Similar promises were made later in the United States by advocates of Prohibition.

During the last half-century, eugenics has suffered from an equally unscientific obloquy. Many well-meaning people reject with horror the idea that one man (or, worse yet, one human race) may be inherently brighter and abler than another. It would be unfair and undemocratic, they say, and therefore it must be untrue.

This unpopularity has several sources: a reaction against the exaggerated claims made for genetics and eugenics early in this century and against the pseudo-scientific doctrines of Hitler and his followers; and the spread of

Marxism, which for nonscientific reasons of political expediency is dogmatically egalitarian and environment, there is also an element of self-interest on the part of sociologists and social psychologists. One said: "If we didn't believe that you can do anything to a child by manipulating its environment, there wouldn't be a job for us."

Other critics of eugenics protested that, instead, the world should practice euthenics — improving people's living conditions. There is, however, no conflict between these aims. The health and intelligence of many millions in backward lands could be raised by giving them enough to eat and a chance at education, at least up to a point.

We hear a lot about the disastrous effects of poverty on the growing young. In extreme cases, as that of a girl reared in an attic by a deaf-mute mother, this is true. Many, however, now classed as "poor," lead more affluent lives than those of most people before the Industrial Revolution. Many brought up in this modern "poverty" turn out successfully, while many reared in affluence do not. It would seem that, once people get enough to eat, regular exercise, normal human contacts, and a chance at all the education they are willing and able to take,

they will not advance much further in strength and wisdom with their present genetic equipment. To think that such advances can be effected by a change in educational methods, political organization, or economic systems is sentimental utopianism.

For all this, improving a species is not easy. Men have bred dogs into a bizarre variety of shapes and sizes; but most of these breeds, however admired by men, are unfit as dogs. They could not survive as wild animals.

To speak in a crude, unscientific way, heredity is two to four times as important as environment in making a man what he is. More precisely, the Newman-Freeman-Holzinger tests, around 1935, indicated that children of different heredity (different parents) reared in the same environment (the same family) differed among themselves in IQ, on the average, about twice as much as children of the same heredity (identical twins) reared in different environments (different families). Subsequent tests of twins, siblings, and adopted children have not only confirmed these findings but have also implied that heredity is even more powerful than was shown by the original tests. To speak crudely again, whereas the Newman-Freeman-Holzinger tests showed a person's mentality to be

65% to 70% the product of his heredity, the later tests imply a figure of 75% to 80%.

There is no reason to think that a eugenic program could produce a Superman. Should we try for the body of a Herakles or the brain of an Einstein?

This argument is irrelevant, because we can only encourage such combinations of genes as actually occur. We cannot — at least, not yet — tailor the genes themselves. No telepathic race is likely, because there are no known human mutations in that direction. Nothing in the human body could be developed into a radio-broadcasting apparatus. To breed such an organism, we should have to start with something like the electric eel, with built-in electrical equipment.

In practice, the vast majority of mutations — probably over 99% — are dysgenic or harmful. They dim our vision, disturb our digestion, give us allergies, and subject us to countless other ills. Every species is thus under *degenerative mutation pressure*. Among wild animals and the most primitive human beings, these mutations are counteracted by selection, which eliminates those who carry them.

Civilization, however, enables people with such defects to live and breed as well as the rest. If their sight is dim, they wear glasses; if

their arches fall, they wear arch supports. Since the harmful mutations continue, the long-term effect of civilization is to increase the load of genetic defects. Male color-blindness, for instance, runs around 1% among primitives like Eskimos and Papuans, but over 7% among the long-civilized Europeans and Chinese. It will be small consolation to our descendants if they have to work only one day a week but must spend the rest of the week at the clinic being patched up. Luckily, these effects take place very slowly; so there is ample time for mankind to decide what to do about degenerative mutation pressure.

In practice, rather than making Conans to order, eugenics is more like running as fast as we can to stay in the same place. There should be no trouble in deciding what defects to eliminate. It is hard to see what good hemophilia or diabetes do anybody. In a very few cases, people with a defect (at least in recessive form) have advantages under some conditions. Thus carriers of recessive sickle-cell anemia resist malaria. But such cases are rare.

Even if everybody agrees to banish a trait, getting rid of it is not simple. Since most mutations are Mendelian recessives, even if all the homozygotes — the people who show the defect — were stopped

from breeding, there would be a much larger number of heterozygotes, in whom the trait was hidden. These would produce a new crop of defectives in the next generation.

Calculations show that the fewer people have a recessive gene, the longer it takes to reduce its frequency still further. If we decided that a recessive that appeared in homozygous (active) form in a quarter of our people was bad, it could be brought down to 11.1% in one generation. But if, at the start, it occurred in only .1% it would take ten generations to reduce it to .06%.

The real problem in eugenics is not that of deciding what traits should be fostered or eliminated, but the time factor. The human generation is about a thousand times as long as that of the vinegar fly *Drosophila*, the geneticist's favorite experimental animal. Hence, if degenerative mutation pressure acts slowly, so would efforts to counteract it. If we decided to eliminate albinism by sterilizing all albinos, it would take about 1,450 years to cut the present percentage of albinism in half, and 5,000 years more to halve it again. No human government has ever lasted so long, let alone followed a consistent policy so long.

Furthermore, the defect could never be wholly extirpated, since

new mutations would give rise to it again. The best we could hope for would be to keep the frequency of the defect down to what it would be under wild conditions.

Could we not quickly reduce such defects as poor eyesight? Most people have imperfect eyes; look at the eyeglasses.

"Poor eyesight," however, is not a single genetic trait. It is the sum of at least a hundred different possible eye defects. Each, taken alone, is fairly rare and so could only be halved by centuries of genetic control.

The prospects of eugenics are not really so dim. Some recessive genes can be detected by faint, telltale traces, and further research may make it possible to detect still others. Then they could be eliminated much more quickly than if we knew about them only when they manifested themselves in homozygotes.

There is also speculation that our successors may be able to modify the genes of sex cells to eliminate genetic defects before conception and encourage the development of real Supermen. Perhaps, it is said, new genes can be introduced into these cells by

means of viruses acting as messengers.

Well, perhaps. In its present state, this idea is more useful as a science-fiction plot than as a program for research. But we shall see. Practically speaking, we shall have to face up to the crisis involving the *quantity* of human beings long before any of the factors or programs that I have discussed could have an appreciable effect on their *quality*. Before the 1,450 years that it would take to reduce by half the incidence of albinism, the population of the world, at its present rate of increase, would have passed the point at which there is one person for every two square feet of land surface. That is, literally, standing room only. Obviously, something has to give long before that point is reached; and the outbreaks of mass starvation in Asia and Africa, of which we have heard much lately, are just the first few raindrops of the coming storm.

When the problem of human quantity has been mastered (if it ever is), then, perhaps, we shall be in a position to do something about human quality.



Guy Owen ("The House of Yellow Pain," December 1974) offers an entertaining new story about a reporter who is sent to investigate some graveyard vandalism and uncovers a baffling local legend.

The Face On The Tombstone

by GUY OWEN

When my editor, Jay Munger, told me he was sending me out on another graveyard assignment, I almost exploded. "For Pete's sake, Jay! Pretty soon they'll be calling me Tombstone Charlie."

As usual, he waited me out patiently. "Look, there might be something very interesting here. Something you can really sink your teeth into." Wryly, I thought of the time he had lectured us on avoiding clichés "like the plague." To emphasize the point, he bit down on the stem of his unlit pipe. His alert editorial eyes had caught a brief story in a badly printed newspaper, *The Cape Fear Journal*. A tombstone in an abandoned churchyard, it seems, had been dynamited; all the pieces had apparently disappeared.

Even so, I remained underwhelmed. In the last year I had written features on Thomas Wolfe's famous simpering angel, which had

been pushed over and broken, and Tom Dooley's vandalized "grave-rock" in Wilkes County. (Up there they spell the name Dula.) I had even written a piece on a wife who placed a monument at her husband's grave which was shaped, appropriately, like a whiskey flask. I was beginning to feel like a fugitive from Gray's *Elegy Written in a Country Churchyard*.

The patient editor tapped the news item with a blunt finger. "This is not just any tombstone, you know, lad." He hesitated pointedly and I knew he was trying to pique my curiosity. I tried to remain uninterested, but when I glimpsed the name of the church, I let out my breath.

"The face on the tombstone!" we both said together, laughing. I had forgotten there was such a grave marker in North Carolina. There was even a local ballad about the mysterious face. It hadn't

caught on, perhaps because it was overshadowed by the similar "Naomi Wise."

"You know this church?"

I nodded, yes. As a usual thing I don't "collect" churches, but I knew the old Clayton meeting house. It was the oldest church in the Coastal Plains Presbytery — long ago deserted, but still standing. One of my distant cousins had married a McNeil (a descendant of Whistler's mother) and been buried there in the picturesque graveyard. I had attended the funeral as a child but recalled it only vaguely. Then I held up my hand before he could ask the inevitable question. "No, I never saw the face in question." Of course I had heard of it; most Tar Heels with coastal connections have. The abandoned church is in Cape Fear County, fifty miles inland from the seaport city of Wilmington.

"Better go down and root around, Charlie. Might be some bad blood behind this, an old family feud or something. See if you can interview some old duffer who remembers Laurel James."

Jay Munger was an incorrigible romantic.

"I doubt if we'll find a Foster-Dooley feud behind the dynamiting. This is not Appalachia, you know."

"See if you can squeeze a story

out of it, huh? If anybody can, you should. You're still our resident folklore freak, aren't you?"

Although I tried not to show it, I was secretly pleased by the assignment. Any excuse to get out of Raleigh when the legislature is in session and politicians are up to your navel.

And it was a pleasant drive down the familiar hills of the Piedmont. The leaves were nothing spectacular, but there were colorful pumpkins on stands along the highway to offset the grey of the ubiquitous tobacco sheds. Driving down, I managed to dredge up the opening stanzas of "The Ballad of Laurel James":

Come all you good people
Gentlemen and dames
And I'll sing you the sad story
Of poor Laurel James.

She married a war hero
As pretty women'll do
But he left her for another
And her choice she did rue.

I remembered only scraps of the rest of the bathetic song, though I own a Doc Watson recording of it.

When I arrived at the county seat of Cape Fear County, after lunch I put in a call to an old acquaintance, Wanda Council, who is the clerk of the court at Queen City. She is an enthusiastic history buff and I remembered that she was compiling a county history.

The local historical society had a room in the renovated courthouse, and she had been kind enough to let me use it several times when I was researching a story.

I was pleased when she recognized my voice before I could identify myself. Of course she knew the famous tombstone had been damaged or destroyed, but she hadn't driven over for a look yet. She hesitated. "Charlie, I don't know. I hope you don't open up a can of worms over there at Clayton. Look, that's our one famous legend, maybe our only claim to fame. Lord have mercy, that sounds pathetic, doesn't it?"

Had she written about the old church and cemetery yet?

"No, I haven't got that far, but our society has some stuff on file and I've done some of the preliminary digging. No pun intended." Then she invited me over to see what the historical society had on record.

On the way to the courthouse I thought of the bizarre story as Jay Munger's news item had rehashed it. Laurel James, a young woman in Clayton, had fallen in love with a handsome veteran of World War I and married him against her father's wishes. So far, so trite. I thought of all the derivative ballads I had read in the folklore course at Chapel Hill. But why had the father opposed the marriage? Was the

dashing young hero from the wrong side of the tracks? Anyway, his misgivings had been sound: after the marriage Laurel had sickened and died, soon after childbirth — and rather mysteriously, the ballad implied.

Sometime later — over a year, in fact — the outline of a man's face began to emerge on the white marble which her bereaved father had placed at her grave. A man's profile, topped by a jaunty soldier's cap, and looking remarkably like her husband, who had fallen in love with another woman. Then one night the repentant husband had returned to the churchyard and blown his brains out, sprawling across his young wife's grave. And that is where the narrative of the ballad ended, rather inconclusively. Obviously a number of strings were left dangling.

As Wanda Council, an attractive, matronly woman in her 50's, was turning the stiff pages of the scrapbook, she said, "Not long after Burke's suicide her father died, of a broken heart, they say, and the soldier's face disappeared from the tombstone — as mysteriously as it came."

"Did you ever see the suicide's face?"

Wanda laughed good-naturedly. "Charlie, that's an indelicate question. It would date me horribly." She shook her head.

"No, that was before my time, honey." She turned the page. "Yes, I thought so. Here are the pictures. Wasn't she a darling, poor thing?"

Even in the dimming photograph you could tell that Laurel James was a rare beauty, like so many women in the South who never realize, until too late, what they have to offer. There was an unexpected delicacy in her face, a mute appeal in her frank eyes, something wistful about her full lips. I could not help thinking that had her ballad been more memorable she might be famous now, at least alive in song. A kind of recompense for her suffering and short life.

Pasted beside her photograph was a drawing of Burke Hawkins, arrogant in his WW I officer's uniform. He looked dashing, with his cleft chin, straight nose and knowing eyes. He was handsome in a countrified way, and you could see why the inexperienced girl would be drawn to him. You could also guess why he might soon tire of her, a girl who had probably never left Cape Fear County.

The picture of the face on the tombstone was not very clear. In fact, you had to look hard to make out the dubious profile. The neck was abruptly truncated and there was no back to the lower part of the head. I noted only a suggestion of a soldier's cap — but no doubt the

imagination of the townspeople filled in the missing details, fleshing it out until it was a dead ringer for the faithless husband.

"All right, I suppose it's a man's face," I said, skeptical. "But what caused it? You have any idea?"

"Oh, I see. A nonbeliever. You don't believe in the supernatural, in revenants?" Wanda Council paused a moment. "Don't you think it could be her way of returning to accuse her husband publicly? Or to avenge herself for his leaving her for another woman?"

She must have sensed my skepticism. A peculiar discoloration on the marble, I thought, walking down the courthouse steps. Maybe lichen that grew in an accidental pattern suggesting the cruel husband's face. At any rate, the rest of the marker had remained immaculate, if the yellowing photo could be trusted.

Getting in the car, I thanked her for her considerable help. "I couldn't do without you, dear." She had given me a Xeroxed copy of the ballad.

"Well, I don't know. Charlie, I'm sorry to see you don't have a speck of the romantic in you." Then Wanda Council leaned forward and looked directly at me. "If you must interview someone, though, you might try Mr. Hutch

Wooten at Wooten's Grocery Store. I talked with him once. He wouldn't say much, but he has some fool wild-haired notion. He's the only one left that knew both Laurel and Burke Hawkins. But I ought to warn you: he's been known to draw the long bow."

"I'll be sure to look him up," I said gratefully. "And I'll give you credit in the story."

"Oh, there's no need to do that," she protested, waving me off.

I was relieved to see that there were no customers in Hutch Wooten's old-timey store, which would have made a pretty good feature itself. It was dilapidated and cobwebby, with WW I ads on the fly-specked walls and merchandise piled helter-skelter on the counters: hooped cheese jostling blue denim and a molasses barrel next to nail kegs and chicken feed. There were even trace chains and mule collars hanging from rusty nails and a moth-eaten deer mounted above a silent Seth Thomas clock.

Mr. Wooten was an old man, nearing eighty, with a dribble of tobacco juice on his leathery chin. He had on rimless glasses and behind them his eyes were periwinkle blue. He wore white suspenders and baggy khaki trousers. He seemed pleased to see me, yet suspicious when he discovered I was a reporter. Of

course, he knew of the dynamiting; everyone in town knew, including the dogs and cats, he said.

"You from up yonder at Raleigh?" he asked, eyeing me warily.

I nodded, my confidence ebbing. I knew that everyone in the lowlands of North Carolina looks on anyone from the capital city with suspicion. I made a feeble joke.

"Yes, sir, but I'm not a politician. I work for the *News and Observer*."

He grinned slyly. "The old 'Nuisance and Disturber,' eh?"

I opened a Dr. Pepper and picked up a moonpie to show him I might be a good old boy, in spite of working in Raleigh.

"Yes, sir, it's been called that. And worse things, to boot, I reckon." Then I tried a more direct approach. "I hear you knew Laurel James." I told him I was doing a story on her and the dynamited grave marker.

The old storekeeper seemed to smile and his pale eyes went inward. "I even sparked her a little in my time. Back before the big war. She was as pretty as a picture on the wall."

I confided that the clerk of the court has shown me a picture at the Queen City courthouse. "Did you know her husband too? Burke Dawson?"

"Burke Hawkins." He frowned. "I knew him, but I can't say as I

ever cottoned to him." They had all three been in school together at the old Clayton Academy before the war. "I don't know what Laurel ever saw in him, I don't now." I made no comment and he continued. "But anyway, Burke, he came back from France and commenced to ride around in a buggy with a team of pretty matched horses. Dapple greys they were. And he had a lot of stories, maybe lies, about what all he'd done over yonder in France and Germany, across the water. Well, he commenced calling on Laurel — though Doc James warned him off."

The story was so familiar that all but the details were hackneyed. Mr. James opposed the marriage, and so they had to run off to South Carolina and get married.

"Of course, by then it was too late to stop 'em. She was already showing with his child." After the daughter was born, Hawkins had apparently lost interest in his young bride. At any rate, he began sneaking off to see a raven-haired widow in Waccamaw County. Then when Laurel died, he had made plans to marry again before his first wife's grave had settled good.

A customer came in and the stoop-shouldered storekeeper turned away to wait on him. When he was free again he continued the story. "That's when the face

commenced to show on the tombstone, you know." He was looking at me slyly to gauge my reaction.

"You ever see the famous face?" I told him that was why I had driven down from Raleigh, to interview someone who had actually seen it.

"I reckon I have," he said laconically. "More than once."

"Did it really look like her husband?"

"The spitting image. There was nobody who'd dispute the likeness, at least not around here."

"But why, how?"

Mr. Wooten had a faint smile on his wrinkled face. "You don't believe in ghosts and the like, I take it? Folks around here said it was Laurel's way of getting back at Burke for leaving her. Maybe it was her way of breaking up his new, uh, arrangement." He chuckled. "And it worked, too."

Apparently there had been all kinds of rumors about Laurel's death, and the face on her tombstone. The pretty widow in Waccamaw had called off the engagement, moving to Wilmington.

"That's when Burke took to drinking bad and acting wild. Then one night he just got drunk and went out yonder and shot himself on her grave."

"And the face disappeared?"

"Well, there wasn't any need for it anymore, don't you see?"

It hadn't disappeared all at once. After a time, maybe two or three years, the whole monument was covered with grey lichen, and you couldn't make out the dead man's face any longer. In the meantime, Laurel's father, the town druggist, had died too.

"But you're like me," I ventured. "You don't believe in ghosts either." I took the last bite of the moonpie and washed it down with the soft drink, putting a quarter on the counter. When he gave me the change, I said casually, "Miss Wanda said you had a theory that might explain —" I saw that I'd touched a raw nerve.

The storekeeper's face reddened. "It ain't a theory, it's the God's truth. And I don't give a dang what they say at the Queen City courthouse. What do they know about it? I'm the only man alive that knew all three of them — old Doc James, too. Doc told me things before he ... he passed on."

"Mr. James —" I began.

"Yes. And I don't blame him a tad." Hutch Wooten's shaky hand was clenched in an arthritic fist. Then he blurted out his version of the bizarre story. Laurel's father had slipped out at night and sketched in Hawkins' face, then smeared the rest of the marble monument with an arsenic com-

pound from his drugstore. Apparently he had done it more than once. Of course, lichen would not grow anywhere except in the sketched-in profile, which was free of the poison.

Now it was my time to blurt in astonishment. "But why? Why would Mr. James do a thing like that? Just to start rumors that might lead to Hawkins losing his new girl? After all, they could have moved away from Cape Fear County —"

"Because he had suspicions that Burke had killed poor Laurel to get shut of her. And he was right. He'd slipped poison in her food and she took sick and died."

I didn't have to ask what poison. The old storekeeper shrugged and said, "Arsenic. What else?"

The story fell together like a lock that goes *click*. The druggist had done more than become suspicious; he had performed a secret autopsy on his daughter. There had been enough arsenic in Laurel James to kill a horse.

"Why didn't he report all this to the sheriff?"

"You don't come from around here, do you, sonny?" The old storekeeper didn't wait for a reply. "Because Burke's uncle was the sheriff, that's why. Doc tried to get the case investigated, but nobody over yonder at the courthouse

would listen. Fact is, they even threatened that he might be guilty of something himself, since everybody knew that he never liked his son-in-law in the first place." Then he added, "Of course, Doc James couldn't know that Burke would wind up killing himself over it. All he wanted" He broke off his story when a girl came in the front door. "Laurel's granddaughter," he whispered.

But he didn't have to tell me that. I studied the pretty willowy girl as he waited on her. She was only fourteen or fifteen, but she was already becoming a woman. The resemblance to her beautiful grandmother was striking. They shared the same open face and large wide-set eyes set above a perfect nose. She glanced at me shyly before she left, and I have never seen such lucid, trusting eyes. There was no hint that she had been scarred by the tragedy that shadowed her family history. Her unblemished face was an emblem of innocence and youth.

"Look — look a-here, young fellow," Mr. Hutch began when we were alone again. I sensed that he wanted to deny the story he had poured out in anger. "I don't see anything that can be gained by raking up the past like that. Maybe what all Doc James told me that night was made up. He acted sorta addled there before he died.

Sometimes he'd wander out yonder to the graveyard, sort of lost, and have to be brought back. I brought him back more than once myself."

"Very likely," I said. I assured him that I didn't plan to open old wounds, and he looked relieved.

"Then you won't write up any of that stuff I just now told you?" He chuckled again. "Folks around here wouldn't believe it nohow. They'd rather stick by that old song and say what I said was just the ramblings of a sour bachelor that had lived too long by himself."

I nodded agreement but I had one other question. "Mr. Hutch, you have any idea why Laurel's tombstone was dynamited last week?"

This time he admitted he had only a theory. There had recently been a new election, and for the first time in two generations Cape Fear County had elected a sheriff who was not a Hawkins. "It could've been some damn fool prankster. But then again it might be bad blood behind it. Somebody's way of saying it's high time to dig up Laurel James and get at the true facts of the case." The pieces of the monument had been hauled off by ghoulish souvenir hunters.

"Thank you very much, Mr. Wooten." I shook his liver-splotched hand and left before he could say anything more.

Because now I had a hunch, one

not to be suppressed. It wasn't far out of my way to the abandoned church. The sun was setting when I parked under the huge live oak, but I located Laurel James' grave without any difficulty. There was fresh clay where the dynamite had exploded, and no sign of the marble monument. But in less than ten minutes of searching I found a piece of the tombstone under a scaly barked pine in the woods. It was no larger than my cupped hands, but there was a perceptible crevice and the final *e l* of the poor woman's name. I had a friend in the Chemistry Department at North Carolina State. I was sure he could detect any arsenic — if any were present. If he could find a trace, then Hutch Wooten's story might not be the doubtful tale of a jealous suitor who had lost his girl to the handsome soldier. There would have to be some other explanation for the face on the tombstone.

For a moment I looked around the deserted graveyard and the old historic church. After a moment at my cousin's grave under a mossy oak, I got in the car and put the piece of marble on the seat beside me. There was no sign of the telltale profile now, but I patted it anyway. Already the story was taking shape in my mind; my fingers were itching to get to my typewriter.

Then suddenly I thought of the pretty, unmarked face of the granddaughter in the store. There was no hint of a face on the chunk of marble beside me, but now I had to contend with that vulnerable, trusting face. There was an appeal in her fresh beauty. What would it do to her to have the sordid story dug up again, labeling her grandfather a murderer as well as a suicide? And what if Mr. Hutch of the wary eye were really lying? After all, he had loved Laurel James and loathed the soldier who had won her.

Now I had that trusting face of flesh and blood to answer to. Without pausing, I threw the chunk of marble out the window. Immediately the car picked up speed, as if of its own volition. It seemed lighter, and so did I. I knew what I would tell my editor. There was no story there. "It was all a Halloween prank," I said aloud.

Later, I found myself humming "The Ballad of Laurel James," and I knew that my trip to Cape Fear County had not been a total loss. The situation demanded a romantic gesture. I would write a piece about the ballad itself, playing up the pathos of the young bride and the melodrama of her husband's suicide. I would leave untouched the mystery of the ambiguous face on the tombstone.

ISAAC ASIMOV

Science



CHANGE OF AIR

I seem to nonplus even my nearest and dearest on occasion. You would think they would know my peculiarities —

My wife, Janet, and I were crossing West Virginia by auto about six weeks ago, and we stopped off at a lodge that was located rather high on the side of a mountain just about in the middle of the state.

After dinner, we wandered out on the grounds and managed to make our way to a rocky ledge (well-fenced) that overlooked the gorge through which a river wound its way. Janet, who is a great admirer of natural vistas, was caught up in its beauty; while I, who am acrophobic and don't like to look down, and who prefer to have my views of nature by color photograph, stood beside her a little uneasily.

The cloudless sky was still bright, but the twilight was deepening; the vista was absolutely bursting with green; the river was silver below; and around the bend of a mountain there slowly came a long freight-train dragged by four locomotives. It crawled its way precariously along the narrow space between mountain and river, with its busy chug-chug far enough away to sound like the panting of a giant anaconda.

After a long while, Janet said, in an awed whisper, "Isn't this amazing?"

"You bet," I said, briskly. "One hundred sixty-six cars! Longest freight-train I ever saw!"

I disregarded her threat to push me off the ledge. I knew that, despite everything, she was too fond of me to make the attempt.

The trouble is, you see, that some people have a prejudice against counting and measuring and weighing. They just want to look at things qualitatively. Yet sometimes careful measuring of tiny things may prove a matter of life and death for you and me and all of us, as I will demonstrate before I am through with this article.

Two months ago, I discussed ozone (THE SMELL OF ELECTRICITY, December 1975), and one month ago, I talked about the development of the ozonosphere (SILENT VICTORY, January 1976). Now we will move into organic chemistry, and eventually make a connection.

The characteristic molecules of living matter are made up of chains and rings of carbon atoms. Almost every carbon atom is attached to one or two other carbon atoms and to one or two hydrogen atoms in addition. Occasionally, a carbon atom is attached to an oxygen atom or to a nitrogen atom, and very occasionally to a sulfur atom.

In nature, that about exhausts the kinds of atoms to which the carbon atom is attached. In the early days of organic chemistry, it was thought that other types of atoms could not be attached to carbon atoms. In particular, it seemed that atoms of the newly-discovered element, chlorine, being radically different in properties from hydrogen, could not replace hydrogen atoms along the carbon chain.

This theory was smashed in the most direct possible way. A molecule was formed in which the carbon-chlorine connection existed. In 1834, a French chemist, Jean Baptiste Andre Dumas (no relation to the novelist) formed "chloroform." The chloroform molecule contains a single carbon atom attached to one hydrogen atom and three chlorine atoms (CHCl_3).

Chloroform didn't remain an exotic laboratory product for long. The concept of chemical anesthesia arose not long after, and a Scottish physician, James Young Simpson, began using chloroform as an anesthetic in 1846. In 1853, he used it on Queen Victoria in childbirth, and it became a household word. In fact, such is the general stupidity of *Homo asinus* that people began to hold "chloroform parties." They would

sit around bowls of chloroform, inhaling the fumes till they fell over unconscious. What they got out of it aside from ruined livers, I can't imagine.

The danger of chloroform was such, in fact, that it was quickly outpaced by diethyl ether as an anesthetic. In fact, chloroform is used as an anesthetic today chiefly in books and movies of the sillier sort.

After the discovery of chloroform, all sorts of other "organic chlorides" were formed. There were even molecules in which carbon atoms were attached *only* to chlorine atoms, and which might therefore be called "chlorocarbons" in analogy to "hydrocarbons" which have molecules made up of carbon and hydrogen atoms only.

The simplest of the chlorocarbons is "carbon tetrachloride," with a molecule consisting of one carbon atom attached to four chlorine atoms (CCl_4). Another is "tetrachloroethylene," in whose molecule two carbon atoms, attached to each other by a double bond, are hooked up to four chlorine atoms ($\text{CCl}_2=\text{CCl}_2$).

Both chlorocarbons and hydrocarbons readily dissolve molecules of fat and grease, but whereas the hydrocarbon molecules are easily inflammable and present a definite fire hazard, the chlorocarbons are *not* inflammable. Indeed, carbon tetrachloride can be used in fire extinguishers. For that reason, chlorocarbons, particularly tetrachloroethylene, are used as dry-cleaners — though it is best not to breathe the vapors, which are quite poisonous.

By the time chloroform had been produced, two elements had been discovered that resembled chlorine in chemical properties. These were "bromine" and "iodine," which, with chlorine, are grouped together as "halogens" (from Greek words meaning "salt-formers"). In combination with sodium, each of these forms salt-like compounds. Chlorine, indeed, with sodium, forms sodium chloride, which is *the* "table salt" we use at our meals.

The carbon atom, it turned out, would combine with any of the halogens. Compounds analogous to chloroform are "bromoform" (CHBr_3) and iodoform (CHI_3).

Because iodoform had some disinfectant properties and wasn't too damaging to tissue, it came to be used in dressing wounds, and for a short while doctors and hospitals smelled of iodoform. They still do so, even today, in books written by writers who get their cliches from other books.

You also have "carbon tetrabromide" (CBr_4) and "carbon tetraiodide" (CI_4), which are examples of "bromocarbons" and

“iodocarbons” respectively.

There is a limit to the number of halogen atoms you can pack in around the carbon chains and rings. Hydrogen atoms are the smallest there are so that they can attach themselves to any available site on any carbon atom, no matter where in a chain or ring that carbon atom is located. There is always enough room.

Chlorine atoms, however, are considerably larger than hydrogen atoms, bromine atoms are even larger, and iodine atoms are larger still. Too many of them attached to too many carbon atoms in a single molecule tend to get in each others way. It is therefore difficult to get any very large chlorocarbons and almost impossible to get large bromocarbons or iodocarbons.

But there is a fourth halogen. For decades after the discovery of the first three, chemists were certain there was a fourth, one which they could not isolate because its atoms clung so tightly to other atoms. They called the new halogen “fluorine” even before it was isolated, and you will find the tale of that isolation in my essay **WELCOME, STRANGER** (November 1963).

Everyone was certain that once fluorine had been isolated and its chemical properties studied, it would be found to attach itself to carbon atoms to form “organic fluorides.” It was also certain that there would be cases where carbon atoms were attached *only* to fluorine atoms to form “fluorocarbons.”

The French chemist Ferdinand Frederic Henri Moissan, who had finally isolated fluorine in 1886, tested the matter at once. He found that fluorine and hydrocarbons once mixed might indeed produce fluorocarbons as the fluorine atoms replaced the hydrogen atom on the carbon chain — but he couldn’t tell because the mixture exploded at once, and disastrously, and there was no way of analyzing for fluorocarbon among the shattered equipment.

When he switched to plain carbon in place of the hydrocarbons (carbon reacts much more slowly than hydrocarbons do), he got no improvement. The fluorine reacted with powdered carbon explosively.

In 1905, Moissan had another idea. He decided to mix fluorine and methane (CH_4), but to do it at a very low temperature — at liquid air temperatures, in fact. At -185 C. with methane frozen to a solid and fluorine a liquid nearly at its freezing point, he mixed the two and got one more disastrous explosion.

It was not till forty years after the isolation of fluorine that progress in organic fluorides was made. In 1926, two French chemists, P. Lebeau and A. Damiens*, managed to burn carbon in fluorine gently enough to be able to study the products formed. They found that carbon tetrafluoride (CF_4) was formed. It was the first organic fluoride (and fluorocarbon) to be obtained in pure form.

In the early 1930's, two two-carbon fluorocarbons were obtained pure. These were hexafluoroethane (CF_3CF_3) and tetrafluoroethylene ($\text{CF}_2=\text{CF}_2$).

The study of fluorocarbons wasn't going to get much further, however, until some way was discovered of taming fluorine. Low temperatures weren't good enough, but perhaps some substance could be added to the reacting mixture, some substance that would act as a catalyst or an intermediary in the reaction, allowing it to proceed in more orderly fashion.

In 1934, for instance, the German chemist Karl Hermann Heinrich Philipp Fredenhagen found that if fluorine were introduced through a copper mesh screen to the hydrocarbon it was to react with, the reaction would be more moderate.

Then, in 1937, the American chemist Joseph H. Simons found that if powdered carbon is mixed with a small quantity of a mercury compound, that carbon would burn in fluorine more quietly and produce a variety of fluorocarbons. Simons was, in fact, able to produce and study fluorocarbons with molecules containing up to seven carbon atoms.

This was the first real indication that fluorocarbons could be formed much more easily than any of the other halocarbons and would involve long carbon chains. At that, this was not surprising. The fluorine atom is smaller than those of the other halogens, and when it is attached to a carbon atom, it takes up less room than does any other atom but hydrogen. There is, actually, room for the fluorine atom to hook onto any carbon atom, whatever its position in a chain or ring, and adjacent fluorine atoms are small enough not to get in each other's way. A fluorocarbon can be formed that is analogous to any hydrocarbon.

** I like to give the names of scientists in full, even when they have three middle names, since they so rarely get the exposure that, in our society, basketball players and country-music singers get as a matter of routine. The trouble is that I can't always locate the full name. If any of my Gentle Readers should ever recognize a friend under the initials, please let me know.*

Simons was particularly impressed with the stability of the fluorocarbons and with their inertness. The fluorine atom holds on to a carbon atom more tightly than a hydrogen atom does to begin with. What's more, as additional fluorine atoms are attached to the carbon chain, they seem to reinforce each other, and their bonds grow tighter still. By the time all the hydrogen atoms are replaced, the bonds holding the carbon and fluorine atoms together are so tight that almost nothing will budge them. Fluorocarbons will not burn, dissolve in water, or react with almost anything.

Meanwhile, as the 1930s came to a close, the American chemist Harold Clayton Urey was working with uranium and trying to isolate, or at least concentrate, uranium-235 (and you know why). If he could discover some gaseous compound of uranium, the molecules containing U-235 would move a little faster than those containing the heavier U-238, and he might manage to separate the two in that way.

The only uranium compound that would become gaseous at reasonable temperatures was "uranium hexafluoride" (UF_6), but this compound had a tendency to react with the substances used to seal and lubricate the joints of the system within which the separation was to take place.

Joseph Simons heard of this, and it occurred to him that a liquid fluorocarbon would be stable enough not to be attacked by uranium hexafluoride, and it could therefore, be used as a lubricant. He had perhaps some forty or fifty drops of what he thought might be suitable material, and he sent nearly all of it to Urey in 1940. It worked and was referred to thereafter, in elliptical fashion, as "Joe's stuff."

From then on, there came a big push to form more fluorocarbons. All sorts of elaborate schemes were used: such as using catalysts *plus* low temperatures, using metal fluorides as a source of fluorine rather than fluorine itself, using organic halides, rather than hydrocarbons, to react with fluorine, using hydrogen fluoride and an electric current, and so on.

What it amounted to was that by the end of the war, fluorocarbons were common. In fact, one could form long chains of carbon atoms, with fluorine atoms attached at every point — "fluorocarbon resins." To do this you begin with tetrafluoroethylene ($\text{CF}_2=\text{CF}_2$) which has a double bond in the middle. One of those bonds can open up, and neighboring molecules can hook together by means of that bond and thus form a long chain. Dupont called the result "Teflon," and it is most familiar to us as a lining for frying pans. It is stable enough not to be affected by the heat of

frying, and inert enough not to stick to any of the food so that it is easy to clean.

At Dupont, compounds were formed consisting of molecules in which carbon atoms were attached to both chlorine and fluorine atoms and nothing else ("fluorochlorocarbons"). It was found, rather unexpectedly, that the presence of the fluorine atoms served to tighten the chlorine-carbon bond so that these mixed organic halides were as stable and inert as fluorocarbons themselves — and cheaper because not as much fluorine had to be used. Dupont named this new class of substance "Freon."

Freon revolutionized the technique of refrigeration.

The use of ice to cool household perishables had been replaced by electric or gas refrigerators which made use of either a gas that is easily liquefied or a liquid that is easily vaporized.

In either case, the liquid is pumped through pipes in a closed container, the refrigerator, and is allowed to vaporize. The process of vaporization requires an input of heat, which the liquid absorbs from the substances inside the refrigerator. These substances therefore cool down. The gas then emerges from the container and is condensed into a liquid again, giving up the heat it had absorbed when it had vaporized. The heat is carried away by a coolant of some sort (air or water), and the cooled liquid goes through the refrigerator to vaporize again. Heat is thus steadily pumped out of the refrigerator into the open air.

Before World War II, the most common liquid used for refrigeration was ammonia. To a lesser extent, sulfur dioxide or some simple organic chloride was used. They worked very well as refrigerants, but they tended to corrode the pipes, and if leaks developed there was the distressing fact that they had choking odors and were poisonous. There was a limit, therefore, to how thoroughly refrigeration could be adapted for home use.

But then came the various Freons. Some of them were easily vaporized liquids, and some were easily liquefied gases. They were inert and wouldn't react with anything they came in contact with. If a leak did develop for any reason and Freon got into the air, there was neither smell nor damage. Freon could be inhaled with no harm to the body at all. Indeed, one of the early workers with Freon, Thomas Midgley, Jr., demonstrated its harmlessness by taking in a deep lungful and letting it trickle out over a lighted candle. The candle went out but Midgley was unharmed. (Of course, if Midgley had kept on breathing pure Freon he

would have suffocated for lack of oxygen — but not out of any direct harm the Freon had done.)

The most common Freon varieties used for refrigeration are Freon-11 (CCl_3F) and Freon-12 (CCl_2F_2), the latter particularly. It is the convenience and safety of the Freons that has resulted in the almost universal use of air-conditioning today.

Then, too, there is the matter of spray cans. It is very convenient to be able to apply certain materials in the form of a spray. One way of doing this is to force a liquid through a small hole. The liquid is divided into tiny particles suspended in air as mist and this is called an "aerosol."

Such forcing can be done by muscle power, but that would be tiring. It can be done by gas pressure, say by having a bit of solid carbon dioxide, or liquid carbon dioxide under pressure, evaporate and produce gas pressure inside the can. Such pressure will force out liquids or soft solids as mists or foams. But then you have to have a strong steel can to retain the pressure till you want the use of it.

In the 1950s, it occurred to the Dupont people that a mixture of Freon-11 and Freon-12 could be used for the purpose. The liquid mixture would develop enough pressure to produce the spray, but would build up a far smaller total pressure. It could be safely contained in a thin, light aluminum can. Of course, the Freon emerged with the spray, but it was even less dangerous than carbon dioxide would be.

What made this particularly useful was that at about this time, Robert H. Abplanalp invented a simple plastic-and-metal valve that could be manufactured cheaply and made part of the spray can. The touch of a finger would release the spray, and the removal of the finger would stop it.

At once, the spray can came into fashion and Abplanalp became wealthy enough to qualify as a great friend of Richard Nixon. In 1954, 188 million aerosol spray cans were produced in the United States. Twenty years later the annual production had passed the 3000 million mark, a 16-fold increase.

But what happens to all the Freon that is produced and used in refrigerators, air-conditioners and spray cans? In the case of the spray cans, it is obviously discharged into the air. The Freon in refrigerators and air-conditioners is also eventually discharged into the air, since these devices will sooner or later leak or break. Every bit of Freon produced, and it has been produced by the millions of tons, will be discharged into the air.

This is not, in itself, a frightening thing. The air is the common sewer for an incredible number of substances. Volcanoes spew cubic miles of materials into the air. Forest fires are almost as bad. Even so unglamorous an event as the farting of herbivorous animals discharges enough methane into the air to build up a detectable quantity.

But all these naturally-produced substances don't stay in the air. Dust particles settle out; gases are washed out by the rain and react with the soil. On the whole, what enters the air, leaves the air, and this is true, in general, even for man-made products. Sometimes human activity pushes substances into the air faster than they can be removed, so that the carbon dioxide and dust content of the air is higher than it would be if mankind lived a primitive life. However, if ever mankind does decide to live a primitive life, those impurities in the air would decline soon enough. No natural process, over the short-term, permanently changes the air. Nor does any man-made activity.

— Except one.

Freon changes the air. It enters, but it does not leave. It doesn't settle out; it doesn't wash out; it doesn't react out. It just stays in the air, and it has been accumulating for a quarter of a century. In this respect, mankind has produced a permanent and perceptible change in the chemical composition of the air, and it is continuing to intensify this change of air.

Is that bad? No, not if we consider the lower atmosphere only. Freon does us absolutely no harm, and although it has been discharged into the atmosphere by the millions of tons, the atmosphere is so voluminous that the concentration of Freon is still minuscule and will remain so for a long time.

Even if the concentration of Freon in the air becomes appreciable and we nevertheless still insist on pouring more of the stuff into the air, there is a natural limit. Eventually, there will be enough Freon in the air to make the atmosphere a practical source of the gas. We can then take the gas out of the atmosphere and pour it back again after using, and there will be a steady level which will probably still be harmless to us. (Taking the gas out and putting it back in again will cost energy of course, but so what? Everything costs energy.)

So far that sounds fine, but then, in 1973, F. Sherwood Rowland, a chemist at the University of California, began to consider the problem.

There is, after all, one way in which the Freon molecules *can* break down. Ordinary light doesn't affect Freon but ultraviolet light, which is

more energetic than ordinary light, is energetic enough to break chlorine atoms away from the Freon molecule.

Even this would not be serious down here. In the first place, thanks to the ozone layer about 25 kilometers and more above us, not much ultraviolet light gets to the lower atmosphere. Then, too, even if tiny bits of chlorine are produced, so what! They will dissolve in water, or react with other substances, and never accumulate to an amount that will be in the least harmful to us.

But what if the Freon molecules gradually diffuse upward to the ozonosphere and above? At those heights there is a great deal of energetic ultraviolet light from the unfiltered Sun and perhaps every Freon molecule that makes its way up there will then break down and produce chlorine atoms.

You might still say, so what! Very few molecules will make it up to that height, and the tiny bits of chlorine will just react with something and be consumed.

But that's the trouble! The chlorine atoms *will* react and will do so, among other things, with the ozone molecules of the ozonosphere. The chlorine atom will combine with one of the three oxygen atoms of the ozone molecule, forming chlorine oxide (ClO) and leaving the two oxygen atoms of the ordinary oxygen molecule behind.

Ought that to worry us? There is a considerable amount of ozone up there. The ozone is constantly breaking down and being re-formed, and the little bit of extra breakdown produced by an occasional chlorine atom should be an insignificant matter.

But it isn't. The chlorine oxide that is formed will eventually combine with a free oxygen atom that is occasionally formed by the natural breakdown of ozone. The chlorine oxide will give up its oxygen to the oxygen atoms so that ordinary oxygen molecules are formed. A free chlorine atom is left behind which can then attack another ozone molecule.

Each chlorine atom, as it combines with an oxygen atom and then gives it up again, can react with ozone over and over and over again. Each chlorine atom can break down not one ozone molecule but perhaps hundreds before anything happens to break the chain.

It would seem then that the amount of Freon drifting up into the ozonosphere can damage it by an amount far out of proportion to what might be expected from its mere quantity. Furthermore, there is a delayed-action effect here, because even if mankind stops using Freon

altogether at this very moment, the quantity that has already been discharged into the atmosphere, plus the amount now present in all Freon-using devices, which will eventually be discharged, will continue to diffuse upward for years to come, reaching a maximum in the upper atmosphere perhaps ten years from now.

But how much damage will there be? Will it be enough to deplete the ozonosphere seriously and to bathe Earth, for the first time in hundreds of millions of years, with markedly high concentrations of Solar ultraviolet light, producing the possible damage I mentioned at the end of last month's article?

We are not sure yet. We don't know the rate at which Freon molecules arrive in the ozonosphere, nor the exact nature of the reactions that go on there. We don't know the details of the natural processes that break down and re-form the ozone.

First reports made things look bad, but since then there has been a retreat from some of the more alarming estimates, and at the time of writing there seems a notable decline in panic over the possible disappearance of the ozonosphere.

Ignorance, however, is no substitute for security. The Freon may not do us harm, but it may, and we had better find out ways of knowing what's going on. We had better bend every effort to working out methods for measuring the density of the ozonosphere, and we had better keep it under constant monitoring. That kind of delicate and constant measuring (as I indicated at the end of my introduction to this article) could be a matter of life and death.

And, just in case, I do think we ought to moderate the use of Freon. A little inconvenience till we can make sure no harm is being done is surely better than a panic stop to its use ten years from now — when it may be too late.

Coming soon

Next month: "Piper at the Gates of Dawn," a new novelet by RICHARD COWPER and every bit as fine as his story "The Custodians," which appeared in the October issue. *Soon:* "Man Plus," the new novel by FREDERIK POHL.

Department of fictional authors No. 4: a fine story involving "murder, savagery, and physical and psychic violence," resulting from the incredible appearance of a volcano on a Catskills farm.

The Volcano

by PAUL CHAPIN

Editorial Preface:

Though no biography of Paul Chapin has yet been published, millions know of the man and his works. The most complete account of him is given in *The League of Frightened Men*, the second volume in the biography of the great detective, Nero Wolfe. We do know that Paul Chapin was born in 1891, that he early showed signs of both brilliance and a Swiftian attitude toward the world, and that he was crippled for life during a hazing incident at Harvard. The critics claim that this event markedly influenced his fictional works, which have been described as hymns to the brute beauty of violence. Chapin's first novel was published in 1929; his best known are *The Iron Heel* (dramatized on Broadway) and *Devil Take the Hindmost*. The latter was a best seller in 1934, perhaps because of the publicity caused by its

suppression during a court trial. Its alleged obscenity would seem innocuous today. It was at this time that he became a murder suspect but was proved innocent by Wolfe. Chapin repaid Wolfe by putting him in his next novel under the name of Nestor Whale and killing him off in a particularly gruesome fashion. *The Volcano* is, like all of Chapin's stories, about murder, savagery, and physical and psychic violence. But this tale differs in that it has little of the rhetoric found in his novels, and in that it may be — though we can't be sure — a fantasy.

1.

It was easier to believe in ghosts than in a volcano in a Catskills cornfield.

Curtius Parry, private detective, believed in the volcano because the newspapers and the radio stations had no reason to lie. For additional

evidence, he had a letter from his friend, the *Globe* reporter, Edward Malone. As he sat in the rear of his limousine traveling over the Greene County blacktop, he was holding in his hand the letter that Malone had sent him two days before.

It was dated April 1, 1935, and it was from Bonnie Havik.

Dear Mr. Parry,

I got to talk a few minutes with Mr. Malone without my pa and brothers hearing me. He said he'd send a note from me to you if I could slip it to him. Here it is. I don't have much time, I am writing this down in the basement, they think I'm getting some pear preserves. Please, Mr. Parry, help me. The sheriff here is no good, he's dumb as a sheep. They say Wan ran off after my pa and brothers beat him up. I don't think so, I think they did something worse to him. I don't dare tell anybody around here about Wan because everybody'd hate me. Wan is a Mexican. Please do come! I'm so afraid!

According to Malone's accompanying note, "Wan" was Juan Tizoc. He'd come up from Mexico a

few years before, probably illegally, and had wandered around the country, either begging or working on farms. When last heard of, he'd been a hired hand for the Haviks for three months. He'd slept in a little room in the loft of the barn. Malone had tried to look into it, but its door was padlocked. The sheriff, Huisman, when asked by Malone about Tizoc, had replied that he seemed to have been scared off by the volcano.

Tizoc, Parry thought. That name did not come from Spain. It was indigenous to Mexico, probably Aztec, undoubtedly Nahuatl. Bonnie's description of him had been passed on by Malone. He was short and stocky and had obviously Nahuatl features, a sharp nose with wide nostrils, slightly protruding blocky teeth, and a wide mouth. When he smiled, Bonnie had said, his face lit up like lightning in the sky.

Bonnie was crazy about him. But Tizoc must have been crazy, in the original sense, to have messed around with a white girl in this isolated Catskills community. It was only three years ago, outside a village ten miles away, that a Negro hitchhiker had been murdered because he had ridden in the front seat with the white woman who'd picked him up.

Malone had enclosed a note with Bonnie's note and a pre-

liminary report from the geologists on the scene.

This girl has been, and is being, brutalized by her father and brothers. Her mother also maltreated her, but she, as you know, was killed four days ago by a rock ejected from the volcano. Bonnie has a hideous scar on her face which local gossip says resulted from a red-hot poker wielded by her father. And I saw some bruises on her arms that looked pretty fresh.

On the other hand, some of the yokels say that she might have "it" coming. They cite the strange phenomena which allegedly took place on the Havik property when Bonnie was eleven. Apparently, spontaneous fires sprang up in the house and the barn, and she was blamed for this. She was beaten and locked up in the basement, and after a year the phenomena ceased. Or so the villagers say.

There are some here who'll tell you, whether or not you ask them, that Bonnie is at "it" again. It's plain they think that Bonnie is psychically responsible for

the volcano, that she has strange powers. And some nonlocal nuts, visitors from Greenwich Village and Los Angeles and other points south of sanity, go along with this theory. It's all nonsense, of course, but be prepared for some wild talk and maybe some wild action.

The geologists' report had been made two days after the field had cracked open and had vomited white-hot lava and white-hot steam. The report was intended for the public but would not be released until the governor had given his permission. Apparently, he did not want to have anything published which would panic downstate New York. Malone had lifted (read: stolen) a copy of it.

The report began in informing the public that the Catskills were not of volcanic origin. The underlying rock was mainly of sedimentary origin, massive beds of sandstone and conglomerates. Under the sandstone were shales.

Yet, unaccountably, the sandstone and the shale were being so heated by some fierce agency that they flowed white-hot and spewed forth from the vent in the cornfield. Pieces of sandstone, heated to a semiliquid, were being hurled outward across the field. Much of

the propulsive force seemed to be steam, water of meteoric origin, which exploded beneath the rocks and cannoned them out.

The geologists, after analyzing the gases and the ashes expelled from the cone, had shaken their heads. Based on the analysis of volcanic gases collected at Kilauea, Hawaii, in 1919, the following average composition, or something like it, should have been found: water 70.75%, carbon dioxide 14.07%, carbon monoxide 0.40%, hydrogen 0.33%, nitrogen 5.45%, argon 0.18%, sulfur dioxide 6.40%, sulfur trioxide 1.92%, sulfur 0.10%, and chlorine 0.05%.

The composition of the gases from the Havik volcano, by parts per hundredweight, was: oxygen 65, carbon 18, hydrogen 10.5, nitrogen 3.0, calcium 1.5, phosphorous 0.9, potassium 0.4, sulfur 0.3, chlorine 0.15, sodium 0.15, magnesium 0.05, iron 0.006, and other traces of elements 0.004.

Suspended in the hot H_2O ejected, which formed the bulk of the gases, were particles of sodium chloride (table salt) and sodium bicarbonate. There was also much carbon dioxide, and there were particles of charred carbon.

The sandstone lava flowed from the cone at a temperature of 710 degrees C.

Parry read the list three times, frowning until he had put the paper

down. Then he smiled and said, "Ha!"

The chauffeur said, "What, sir?"

"Nothing, Seton," Parry said. But he muttered, "The geologists are so close to it that they don't see it, even if it's elementary. But, surely, it can't be! It just can't!"

2.

A few minutes after 1 p.m., the limousine entered Roosville. This looked much like every other isolated agricultural center in southeastern New York. It reminded Parry of the Indiana village in which he had been raised except that it was cleaner and much less squalid. He made some inquiries at the gas station and was directed to Doorn's boarding house. Rooms were scarce due to the deluge of visitors attracted by the volcano, but Malone had arranged for Parry to double up with him. Seton was to sleep on a cot in the basement. Mrs. Doorn, however, was obviously smitten by the tall, hawkishly handsome stranger from Manhattan. His empty left coat-sleeve, far from embarrassing her, intrigued her. She asked him if he had lost the arm in the war, and she excused her bluntness with the remark that the recent death of her husband was the long-term effect of a wound suffered at St.-Mihiel.

"I was wounded, too," Parry

said. "At Belleau Wood." He did not add that it was two .45 bullets from a hood's gun which had severed his arm four years ago in a Bowery dive.

A few minutes later, Seton and Parry rode eastward out on the gravel road that met the blacktop in the center of town. It twisted and turned as if it were a snake whose head was caught in a wolf's jaws. It writhed up and down hills thick with a mixture of needle-leaf and broad-leaf trees. It passed along a deep rocky glen, one of the many in the Catskills.

Violence long ago had created the glens, Parry thought. But that was violence which resulted naturally from the geologic structure of the area. The volcano had also been born of violence, but it was unexpected and unnatural. Its presence in the Catskills was as unexplainable as a dinosaur's.

The limousine, rounding a corner of trees, was suddenly on comparatively flat ground. A quarter-mile down the road was the Havik farm: a large two-story wooden building, painted white, and a large red barn. And, behind it, a plume of white steam mixed with dark particles.

The car pulled up at the end of a long line of vehicles parked with the left wheels on the gravel and the right on the soft muddy shoulder. Parry and Seton got out and walked

along the cars to the white picket fence enclosing the front yard. Standing there, Parry could see over the heads of the crowd lining the cornfield and past the edge of the barn. In the middle of the broad field was a truncated cone about ten feet high, its sides gnarled and reddish, irresistibly reminding him of a wound which alternately dried up and then bled again, over and over. A geyser of steam spurted from it, and a minute after he had arrived, a glow appeared on the edges of the crater, was reflected by the steam, and then its origin crawled over the black edges. It was white-hot lava, sandstone pushed up from below, oozing out to spread horizontally and to build vertically.

It seemed to him that the ground trembled slightly at irregular intervals as if the thumps of a vast but dying heart were coming through the earth from far away. This must be his imagination, since the scientists had reported an absence of the expected seismic disturbances. Yet — the people in the crowd along the field and in the yard were looking uneasily at each other. There was too much white of eye shown, too much clearing of throat, too much shuffling and backward stepping. Something had gone through the crowd, something that might spook them if the least thing untoward happened.

The door of the county sheriff's car, parked by the gateway, opened, and Sheriff Huisman got out and waddled up to Parry. He was short but very fat, a bubble of fat which smoked a cheap stinking cigar and glared with narrow red eyes in a red face at Parry. Indeed, Parry thought, he was not so much a bubble of fat as a vessel of blood about to burst.

The thin lips in the thick face said, "You got business here, mister?"

Parry looked at the crowd. Some were obviously reporters or scientists. The majority just as obviously were locals who had no business beyond sightseeing. But the sheriff wasn't going to antagonize voters.

"Not unless you call curiosity a business," Parry said. There was no need to identify himself as yet, and he could operate better if the Roosville law wasn't watching him.

"OK, you can go in," Huisman said. "But it'll cost you a dollar apiece, if your man's coming in, too."

"A dollar?"

"Yeah. The Haviks been having a tough time, what with their silo burned down and old lady Havik killed only four days ago by a stone from that volcano and people stomping around destroying their privacy and getting in the way.

They gotta make it up some way."

Parry gestured at Seton, who gave the sheriff two dollars, and they went through the gateway. They threaded through the crowd in the barnyard, passed a Pathe news crew, and halted at the edge of the field. This was mainly mud because of the recent heavy rains. Any weeds on it had been burned off by the large and small lava "bombs" hurled by the volcano. These lay everywhere, numbering perhaps several hundred. When ejected, they had been roughly spherical, but the impact of landing had flattened out the half-liquid rocks. As Seton remarked, these made the field look like a pasture on which stone cows browsed.

The lava had ceased flowing and was slowly turning red as it cooled. Parry turned to look at the back of the barn, which was broken here and there and marked with a number of black spots. A few stones had evidently also struck the back of the house, since the windows where all boarded up except for those protected by the overhang of the porch roof.

A man appeared from around the corner of the barn. Smiling, his hand extended, he strode up to Parry. "Son of a gun, Cursh!" he said. "I wasn't really sure you'd come! After all, your client can't pay you anything!"

3.

Parry, grinning and shaking his hand, said, "I donate one case a year to charity. Anyway, I'd pay my client in this case."

Ed Malone greeted Seton and then said, "I've found out some things I didn't have time to report. The locals admit that the volcano is an act of God, but they still think that maybe God wrought it in order to punish the Haviks. They're not much liked around here. They're stand-offish, they seldom attend church, they're drunk night and day, they're slovenly. Above all, the villagers don't like the way the family treats Bonnie, even if, as they say, she is 'sorta strange'."

"What about Tizoc?"

"Nobody's seen him. Of course, nobody's really looking for him. Bonnie hasn't said anything to the sheriff because she's afraid he'll spill the beans to her family, and then she'll suffer. She'll be trying to get out today to see you but"

A sound like several sticks of dynamite exploding whirled them around toward the cone. They cried out with the people around them as they saw a white-hot object soaring toward them. They ran away, yelling, and behind them came a crashing sound. When they turned around again, they saw a hole in the back of the barn and smoke pouring out of it.

The cry of "Fire!" arose. Parry

hurried around with the others to the front of the barn and looked inside. The white-hot rock had landed in a pile of hay by the back wall, and both were blazing. The flames were spreading swiftly toward the stalls, which held three horses. These were screaming and kicking against the stall boards in a frenzy. From near the front of the barn, from the pens, pigs squealed in terror.

During the futile efforts to save the barn, Parry identified the Haviks. The fire had brought all of them out of the house. Henry Havik was a very tall and very thin man of about fifty-seven, bald, broken-nosed, snaggle-toothed, and thick-lipped. The nose was also bulbous and covered with broken veins, the eruptions of whiskey. When he came close to Parry, he breathed alcohol and rotting teeth. The sons, Rodeman and Albert, looked like twenty-year-younger editions of their father. In twenty years, or less, their faces would be as broken-veined and their teeth as rotten.

Bonnie had slipped out during the confusion, and though she should have been concerned about the barn, evidently she was looking for Parry. Seeing Malone, she came toward him, and Malone pointed at Parry. She was just twenty-one but looked older because of some deep lines in her face, the broad scar along the left side of her face, and

the loose and tattered gingham dress she wore. Her yellow hair would have been attractive if it had not been so disheveled. In fact, Parry thought, if she were cleaned up and made up and dressed up, she would be pretty. There was, however, something wild and disquieting about the pale blue eyes.

Smoke poured from the barn while men, choking and coughing and swearing, led the horses and drove the pigs out and others manned a bucket brigade. Since the Haviks had no phone, the sheriff had driven off in a hurry to summon the Roosville fire brigade. Parry gestured at Malone and Bonnie followed him, and he led the way to the other side of the house. He would have liked to have stationed Seton as a sentinel, but the chauffeur was lost in the seethe of smoke and mob.

Parry said, "No need for introductions and no time. Tell me about Juan Tizoc, Bonnie. He's the one this is all about, isn't he?"

"You're pretty smart, Mr. Parry," she said. "Yes, he is. When Juan was first hired by pa, I didn't pay much attention to him. He was short and dark, Indian-looking, and he had a funny accent. And he was lame, too. He said and American tourist who was speeding hit him when he was a kid, and he couldn't never walk straight again.

He was sometimes bitter about that, but when he was with me he was mostly laughing and joking. That was what made me like him so much, at first. There hadn't never been much laughing around here before he came here, let me tell you. I don't know how he did it, since I didn't really see him too much, but he made my days easier. Sorta edged with light even if they wasn't full of it. Ma and pa kept him humping, he was a hard worker, though he couldn't never seem to satisfy them, and they insulted him a lot, hollered at him, and they was chinchy with the food, too. But he found time for me"

"If he was treated so badly, why didn't he just walk off?" Parry said.

"He was in love with me," she said, looking away from him.

"And you?"

She spoke so softly that he could barely hear her.

"I loved him."

She groaned, and she said, "And now he's run away, left me!" She paused and then said, "But I just can't believe he'd leave me!"

"Why not?"

"I'll tell you why! We both knew how we felt about each other even though neither of us'd said a word about it. But we'd looked words enough! I suppose if I'd been a Mexican girl he'd have said something long before, but he knew he might just as well be a nigger as

far as Roosville was concerned. And me, I loved him, but I was ashamed of it, too. At the same time, I wondered how any man, even a Mexican, could love me.”

She touched her scar. Parry said, “Go on.”

“I’d just finished giving the horses their oats when Juan came in to do something or other, I never found out. He looked around, saw no one was there except me, and came straight to me. And I knew what he was going to do and went into his arms and began kissing him. And he was telling me between kisses how much he hated all gringos, especially my family, he wished they’d all burn in hell, except for me, of course, he loved me so much, and then”

Rodeman Havik had passed by the barn door and had seen them. He had called out to his brother and father, and all three had rushed in at Tizoc. He had knocked Rodeman down, but the father and Albert had jumped on him and begun hitting and kicking him. Bonnie’s mother had come from the house then and with Rodeman’s help had dragged her into the house. There she was shoved into the basement and locked in.

“And that was the last time I saw him,” she said, tears welling. “Pa said he’d kicked him off the farm, said he told him he’d kill him if he didn’t get out of the country.

And pa beat me. He said he ought to kill me, no decent white woman’d let a greaser slobber over her. But I was so ugly I was lucky even a greaser’d look at me.”

“Why does he hate you so much?” Parry said.

“I don’t know!” she said, suddenly sobbing. “But I wish I was brave enough to kill myself!”

“I’ll do that for you!” someone bellowed.

4.

Henry Havik, his eyes and lips closed down like jackknife blades, soot covering the red of the broken veins of his nose, rushed at his daughter. “You bitch!” he shouted. “I told you to stay inside!”

Parry stepped in between Havik and Bonnie, and said, “If you hit her, I’ll have you in jail in ten minutes.”

Havik stopped, but he did not unclench his fists.

“I don’t know who you are, you one-armed jackass, but you better step aside! You’re interfering with a man and his daughter!”

“She’s of age, and she can leave whenever she pleases,” Parry said coolly. He kept his eyes on the farmer while speaking out of the side of his mouth. “Bonnie! Say the word, and I’ll see you into town! And never mind his threats. He can’t do a thing to you as long as you have protection. Or witnesses.”

"He wouldn't care where I was!" she said. "And I'm afraid to go away! I wouldn't know what to do *out there!*"

Parry looked at her with much pity and some disgust. Finally, he said, "Bonnie, the unknown evil is far better for you than the known evil. You have sense enough to know that. Have the courage, the guts, to do what your good sense tells you you should do."

"But if I leave here," she wailed, "nobody's going to do anything about Juan!"

Havik shouted, "What?" and he swung at Parry, though it was obvious his primary target was his daughter. Parry blocked Havik's fist with his arm and kicked the man in the knee. At the same time, Malone rammed his fist into Havik's solar plexus. Havik fell gasping for breath and clutching his knee. A moment later, the two sons, closely followed by Sheriff Huisman, came around the corner of the house. Huisman bellowed at everybody to freeze, and everybody except Havik obeyed. He was rolling on the ground in agony.

Huisman listened to all of them talking at once, then he bellowed for, and obtained, quiet. He asked Bonnie to tell him what had happened. After listening to her, he said, "So you're a private dick, Parry? Well, you don't have no license to practice here."

"True," Parry said, "but that has nothing to do with the situation. I represent Miss Havik — do I not, Bonnie? — and she wishes to leave the premises. She is over twenty-one and so legally free to do so. Mr. Havik here attacked us — I have two witnesses to back that statement — and if he doesn't keep quiet, I'll charge him with"

"This is my property!" Havik said. "As for you, you dirty knee-kicking Frenchman"

Parry took Bonnie's elbow and said, "Let's go. We can send for your clothes later."

The sons looked at their father. Huisman scowled and bit down on his cigar. Parry knew what he was thinking. He was well aware that the daughter was within her rights. Also, a New York reporter was watching him closely. What could he do, even if he wished to do anything?

"You'll pay for this, you ungrateful cow," Havik said. But he did nothing to prevent his daughter from leaving. Trembling, moving only because Parry was pushing and steering her, she walked out of the yard and to the limousine.

5.

Parry went to bed at ten o'clock but was too tired to fall asleep at once. The events at the Havik's had been stimulating enough; those

that followed had drained him of even more energy and set his nerves to resonating. He was furious with the sheriff because of the contempt he had openly expressed for Bonnie after hearing her story and his refusal to question the Haviks or search their premises. Plainly, he thought that the beating up of Tizoc had been a worthy, even applaudable, act. And he claimed that there was not enough evidence to warrant an investigation into Tizoc's disappearance. That the sheriff was right about the latter point enraged Parry even more.

After the long session in the back room of the jail, Parry had gotten Bonnie a room at a Mrs. Amster's. Then they had shopped at the small dress shop, purchased her clothes, and taken them to her place. She had bathed and put on some make-up — much, she would have considered sinful — and after dressing she had accompanied Seton and Parry to the restaurant. There she had been subjected to openly curious, and some hostile, stares from and much whispering among the patrons. By the time they left, she was in tears.

Afterward, they'd walked around town, and she had told him in detail about her life in the Havik household. Parry was tough, but every once in a while the sufferings and tragedies of humanity refused to be kept at bay. Like the sea

pounding a dike, they found a weak spot, and they poured through him. Usually, it was one case, like Bonnie's, representing millions of men, women, and children who were enduring injustice, cruelty, and lack of love, that punched through. And then the others, or his consciousness thereof, roared in after the spearhead.

Parry could not sleep for a long time because he felt as if he were a huge sea shell in which the ocean of suffering was a painful din. Finally, he did drift away, only to be awakened, half-stupefied, by a pounding on the door. He turned on the light and stumbled to the door, noting on the way that Malone, breathing whiskey fumes, had not been roused. The door swung open to reveal his landlady, Mrs. Doorn, and Mrs. Amster. Immediately, he became wide awake. Before Mrs. Amster could stammer out her story, he had guessed what had happened.

A few minutes later, he plunged out the front door into the dimly lit three-in-the-morning night of Roosville. He ran to Huisman's house, which was only a block from the jail. The sheriff wasn't pleased to be pulled out of a beery sleep, but he put on his clothes and went out to his car with Parry behind him.

"It's a good thing you didn't go out there by yourself," he said

thickly. "Old man Havik could've shot your buff off and claimed you was trespassing. As it is, I ain't sure that Bonnie didn't go willingly with her father."

"Maybe she did," Parry said, sliding into the front seat. "There's only one way to find out. If Havik has forced her to come with him, he's guilty of kidnaping. Mrs. Amster said only that she woke up in time to see Havik and his sons pushing Bonnie into the car. She hadn't heard a thing before then."

Though Huisman drove as swiftly as the winding gravel road would allow, he did not turn his siren or flashing red lights on. As they turned onto the road to the Havik farm, he turned off his headlights. It was evident, however, that they would not need them. The light from flowing lava and ejected rocks outlined the house brightly.

"That thing looks like it's getting ready to blow!" the sheriff said in a scared voice. "I ain't never seen it so bright before!"

He and Parry both cried out. A particularly large fragment, a white spot in the eye of night, had risen from the cone and was soaring toward the house. It disappeared behind the roof, and a moment later flames broke out from the area in which it had fallen.

Huisman skidded the car to a stop by the fence with a shrieking of tires, and he and Parry tumbled

out. The glare from the cone and from the rooftop flames outlined the house. It also showed them Bonnie, the top of her dress half-torn off, her face twisted, running down the porch steps and toward them. She shouted something at them, but the whistling of steam and boomings of ejected rock and the cries of her father and brothers behind her drowned out her words.

Parry shouted at Huisman, "Havik's got a shotgun!"

Cursing, Huisman stopped and undid the strap over the revolver in his holster. Havik ran out down the steps and into the yard, then halted to point the double-barreled weapon toward Bonnie.

Parry yelled at her to throw herself on the ground. Though she could not have heard him, she sprawled onto the ground heavily. Parry saw by the light of another whirling glowing thing that came from over the house and downward that she had tripped on a small rock, now cooled to a dull red.

Havik's gun boomed twice; pellets tore by Parry.

Huisman had thrown himself down, too, but had clumsily dropped his gun while doing so.

Parry saw where the mortarlike trajectory of the rock would end, and he cried out. Later, he asked himself why he had tried to warn a man who was trying to kill his own

daughter and would undoubtedly have tried to kill him, too. The only answer was that, being human, he was not always, by any means, logical.

There was a thud, and Havik fell, the semiliquid stone bent somewhat around his shattered head, clinging to it. The odor of burning flesh and hair drifted over the yard.

Rodeman and Albert Havik screamed with horror, and they ran to their father. That was all the time the sheriff needed. He recovered his revolver, and, rising, called at the two to drop their rifles. They started to do so but whirled around when several more rocks crashed into the ground just behind them. The sheriff, misinterpreting their actions, fired twice, and that was enough.

6.

Curtius Parry had arranged for Bonnie Havik to work as a maid for a Westchester family, and he had talked to a plastic surgeon about the removal of her scar. Having done all he could for her, he was now taking his ease in his apartment on East 45th Street. He had a drink in his hand; Ed Malone, sitting in a huge easy chair near him, held a drink in one hand and a cigarette in the other.

Malone was saying, "So Tizoc can't be found? So what? At least

you saved Bonnie from being murdered, and nothing less than poetic justice got rid of her beastly family for her."

Parry raised his thick eyebrows and said, "They're dead, yes, but they're still alive in Bonnie, working their violence in her. It'll be a long time, if ever, before they cease to savage her guts. As for their deaths, *were* they examples of poetic justice? And as for Juan Tizoc, well, if I told you my theory about what actually happened to him, you'd say I was crazy."

"Tell me anyhow, Cursh," Malone said. "I won't laugh at you or call you crazy."

"I only ask that you keep it to yourself. Very well. The Catskills are not volcanic country, but Mexico is"

"So?" Malone said after a long silence.

"Consider the theory that some of the townspeople were voicing. They spoke about the spontaneous fires in the Havik house when Bonnie was eleven, and they hinted that Bonnie was somehow responsible for the volcano. But they did not know that in every allegedly authentic case of salamandrism, as it's called, the phenomena always cease when the unhappy child becomes pubescent. So, Bonnie could not be responsible."

"I'm glad to hear you say that,
(to page 162)

ACROSTIC PUZZLE

by Paul Novitski

This puzzle contains a quotation from a work of science fiction. First, guess as many of the clues as you can and write the word or words in the numbered blanks opposite the clues. Put those letters in the matching blocks in the puzzle. (The end of a line in the diagram doesn't mean the end of a word.) If your words are correct, you will see words forming in the puzzle blocks. Fill in the missing letters and put them in the numbered spaces opposite the clues. That will help you guess those words and therefore get more of the puzzle, and so on. You don't need to be familiar with the quotation in order to work the puzzle. The first letters of the correctly answered clues will spell out the name of the author and the title of the work from which the quotation is taken.

A. They look up (Brunner)

67 101 6 93 36

B. Housing for space cadets

21 95 46 90

C. Better breeding

79 82 7 24 69 14 60 3

D. To lift oneself up by one's one bootstraps

23 102 26 64 100 4 94 50 91 84

E. At. Wt. 121.75

17 66 96 22 42 81 10 30

F. You can't do without this

18 98 19 47

G. Ruled by sentient equines in 18th Century science-fiction

53 25 78 29 65

H. Piglet (SF Author)

27 44 87 11 75 52 85 103

I. Muhamed's rank in THE WORD FOR WORLD IS FOREST. (LeGuin)

71 68 80 31 59

J. Solomon "Biff" Dreznik's God. (Panshin)

57 40 45 9 73

K. What the kid lacked. (Delany's DHALGREN)

74 70 61 51 2 8 28 86

L. A measure of "X" radiation

83 38 35 20 77 13 48 92

M. Time for love. (Heinlein)

41 12 54 32 76 97

N. Formal address, Terran male aristocrat (medieval)

16 1 88 58

O. Art form of Trogs (Panshin)

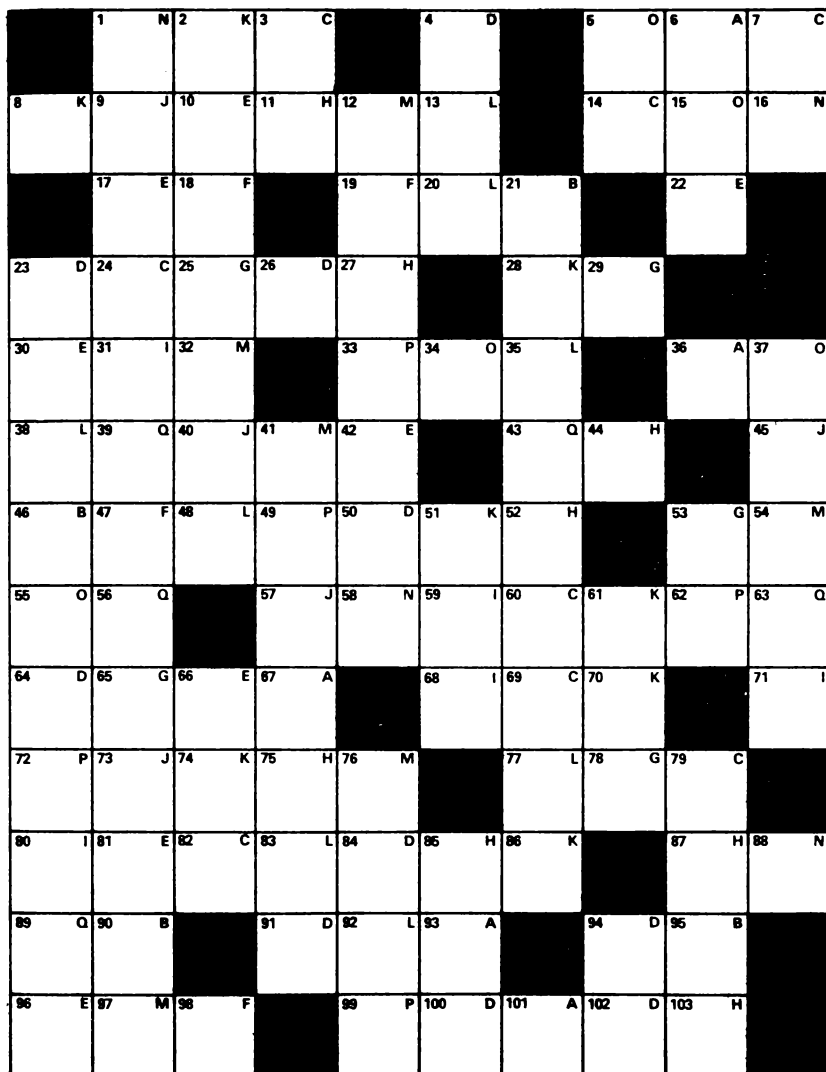
15 34 55 37 5

P. The White Goddess Argo dwelt here. (Delany)

72 62 33 99 49

Q. Brillo. (Ellison)

56 89 39 43 63



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[Continued on Page 162]

Cursh," Malone said. "I was afraid you were going to base your theory on supernaturalism."

"*Supernatural* is only a term used to explain the unexplainable. No, Ed, it wasn't Bonnie who heated up the sandstone not too deep in the earth and opened the earth in the cornfield to propel the white-hot stuff out onto the Haviks. It was Tizoc."

Malone's drink sloshed over his hand, and he said, "Tizoc?"

"Yes. The Havik men killed him, most bloodily and in a white-hot anger, I'm sure. And they dug a grave in the center of the field and filled it up and smoothed out the dirt over it. They expected that the roots of the corn plants would feed off Tizoc, and the plants themselves would destroy all surface evidences of his grave. This was most appropriate, though the Haviks would not know it, since corn was first domesticated in ancient Mexico. But Mexico is also the land of volcanoes. And a man, even a dead man, expresses himself in the spirit of the land in which he

was raised and with the materials and in the method most available.

"The Haviks did not know that Tizoc's hatred was such, his desire for vengeance such, that he burned with these even as a dead man. He burned with hatred, his soul pulsed with violence even if the heart had ceased pulsing. And the sandstone was turned to magma with the violence of his hatred and vengeance"

"Stop, Cursh!" Malone cried. "I said I'd not call you crazy, but"

"Yes, I know," Parry said. "But consider this, Ed, and then advance a better theory, if you can. You saw the report the geologists made on the composition and the relative proportions of the gases and the ashes expelled by the volcano. These are not what any volcano so far studied has expelled."

Parry drank some Scotch and set the glass down.

"The ejected elements, and their relative proportions, are exactly those that compose the human body."

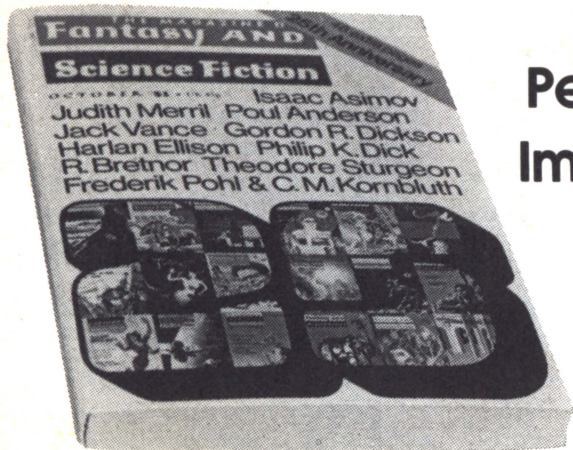
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