

EXPANSION[®]

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Larry Niven

Forrest J Ackerman
Howard V. Hendrix
Paula E. Downing
T. Jackson King
George Barr
and more...

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CONTENTS

- The Memory Seller*** by T. Jackson King **6**
art by George Barr
- Tombé*** by Howard V. Hendrix **17**
art by Michael Kucharski
-
- Forrest J Ackerman selects...
- A Martian Odyssey*** by Stanley G. Weinbaum **28**
art by Allen Koszowski
-
- In the Still of the Night*** by Michael Bracken **48**
art by Bob E. Hobbs
- Grounded*** by Herb Kauderer **60**
art by Michael Kucharski
- The Disease*** by David J. Adams **62**
art by Keith Minnion
- Prisoners of War*** by Ryck Neube **68**
art by Bob E. Hobbs

DEPARTMENTS

- Editorial*** by Steven E. Fick **3**
- Letters*** **4**
- Interview: Larry Niven*** by Ken Rand **21**
- Commentary: Starship Troopers*** by James Van Hise **42**
- Interview: Paula E. Downing*** by T. Jackson King **52**
- Reviews: Cosmic Music*** by Rebecca Dahms Lioi **77**
- Contributors*** **82**

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EDITORIAL**Words That Kill**

Are we so connected we're disconnected?

We've got fax machines, cellular phones, uplinks, downlinks, e-mail... Everybody's got a computer and electronic communications are fast replacing the *old-fashioned* letter as our prime means of personal correspondence.

Little wonder that science fiction now explores the hypo-reality *inside* the chip. Network television even got into the act with Oliver Stone's *Wild Palms*. It's a new kind of inner space, more technologically-based than what we might have read about in the works of PKD or the like. *I'm talking cyberspace.*

Cyberspace is one of the more recent places to which science fiction has taken us. Its founder, William Gibson, describes it: "Well, I always tell people that Cyberspace is where the bank keeps their money. Cyberspace is the totality of everything we do in the electronic data-matrix... Even though it's non-geographical, it's a sort of territory and very important changes are taking place there."¹

In fact, many writers are exploring an entire world in there. They've found ways to download their characters and bring us along on a journey through the synthetic reality inside mind and machine—a computer landscape. It's often a dark, dystopic world filled with techno-punks and hyper-violence.

It seems, when we get this deep—at our core—now liberated in the nouveau computer frontier, we find a wasteland inside. And I thought all those pop-psychologists said we were good at heart.

It's no wonder the crime rate's increasing!

Could it be that our technology has isolated us from each other and the need for relationships? We no longer have to rub shoulders at the nearest watering hole. No longer need to get along with as many people in a face-to-face way. Without the on-going practice, are we forgetting how?

Is it easier, in the personal isolation of cyberspace, to kill?

Funny, when William Gibson wrote the book that started it all, he did it on a manual typewriter.

—Steven E. Fick.

¹ quoted from *TechnoPolitics* (PBS)



Today, I received a notice from *EXPANSE*, stating that another delay in the delivery date of the premiere issue is occurring. I am writing simply to thank you for taking the time—and incurring the expense—to notify me of this.

Being involved with publication deadlines myself, I can certainly appreciate the numerous reasons/situations that can occur, which could result in a “due date” being missed. I assume that these factors are particularly intense when they occur during the process of trying to release a brand new product.

I applaud your concern for your potential “readership” (is that still a word?) and I’m sure that I’ll agree that the wait was worth it. I’m already looking forward to #2.

Arthur Ciccone
Andover, MA

I was impressed with *EXPANSE*’s premiere issue. A good blend of fiction and non-fiction. The physical layout and illustrations were also quite pleasing to the eye. Keep up the good work!

In response to the interview with John Brunner, I was very amused and bemused by his desire to abolish religion because (quoting Shelley) “faith is the foulest child of time”. Why is religious faith automatically worse, or less rational, than the faith of Mr. Brunner (and other secular fanatics, as I would call them) that a good, stable society can be built on a purely secular foundation? The historical evidence argues overwhelmingly against this belief, yet Mr. Brunner staunchly supports it. Sounds like blind faith to me.

M. Russell
Los Angeles, CA

I recently received a copy of the Premiere Issue of *EXPANSE*. It is a most impressive beginning for a promising new endeavor which I hope will prove most successful. As a self-employed businessman, I know that beginnings are the most stressful and difficult times for new businesses. I wish you the greatest of luck and success with *EXPANSE*!

Last night, I sat down and read *EXPANSE* cover to cover. I am looking forward to the next issue and another selection of insightful SF stories. Ackerman’s upcoming series sounds wonderful also.

In the 40’s, there was trend toward anthologies which assembled previously published short stories from pulp magazines, as

well as tales from previous anthologies. Often, the same stories were repeated in several anthologies. This became tiresome for avid SF readers. Creative editors, Raymond J. Healy to name one, decided to anthologize never before published stories for those avid readers who became bored with paging through anthologies looking for stories which they had not read. One of Healy’s anthologies was Pocket Book #908, *New Tales of Space and Time*. Bradbury, Asimov, Van Vogt, and Boucher appeared in this collection.

Now, the time is right to revisit the stories from the pulp era. Many of the current readers of SF are unfamiliar with these vintage stories, and many of the pulp era publications are rare and expensive. Thanks in advance to Mr. Ackerman for the privilege to revisit an earlier age of SF.

Daniel E. Milner
Waxahachie, TX

I received the sample copy of the premiere issue of *EXPANSE* and I thank you for it. It was like a breath of reality blowing in my face—real, old-fashioned, honest to God science fiction! A minimum of technobabel and a maximum of story. Good job.

Best of luck with your new venture.

Arthur Zirul
Fairview, NJ

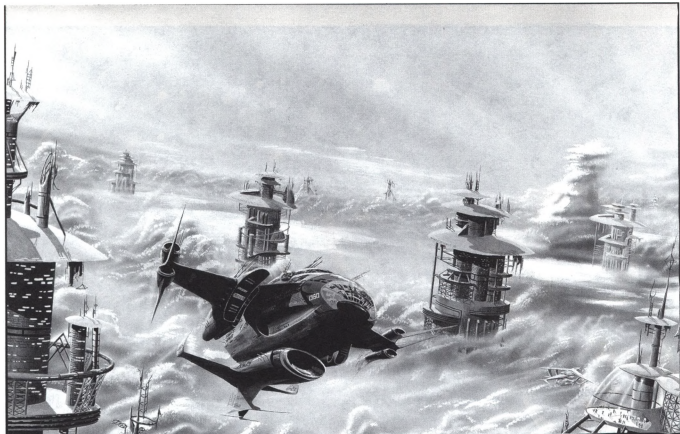
I recently came across your magazine at the local bookstore, and was pleasantly surprised. The reading material was great, and I like the choice of cover art. Please keep up the good work. I’m already looking forward to the next issue!

Shauna Sky
Chicago, IL

I enjoyed the premiere issue very much, and look forward to future issues of your zine. I especially enjoyed the short story by L. Sprague de Camp (“The Cayuse”) in his *Rivers of Time* series. I have been a long-time fan of Mr. Sprague de Camp. Also, the interview of John Brunner by Darrell Schweitzer was quite interesting. I hope the editorial is indicative of the general mood of *EXPANSE*. I personally prefer stories that have a generally positive outlook on the future of mankind, not that all stories have to fall in that mode. A steady diet of negative stories turns me off.

Douglas Vaughan
Beaufort, NC

EXPANSE Magazine welcomes your letters. Whether to comment, criticize or just say hello, let’s keep in touch. We’ll publish as many as we have room for. Your input makes a difference as we continue to grow and improve in bringing you the best in science fiction! Unless otherwise marked, all letters are assumed for publication and become the property of *EXPANSE* Magazine and its Publisher. Letters may be edited, as necessary, for space considerations. Send to: *EXPANSE* Magazine, Letters Department, Post Office Box 43547, Baltimore, Maryland 21236-0547. And thanks in advance!



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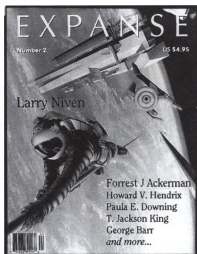
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THE
MEMORY SELLER

by T. Jackson King

art by George Barr

The Memory Seller's shop loomed forbiddingly before Jamie. A chill wind brushed his neck. In the distant hills, the wind moaned its loneliness. It was midday. Neither of the two moons had risen yet. And anyone who cared about the corruption of youth was home, abed in First Sleep, exhausted from ten-hour mornings spent dry-farming the upland plateau of a third-rate planet that slowly circled a swollen giant star, 85 light years from Earth. Around him, nothing human moved. And the shop beckoned.

Crimson light beams danced on its corrugated metal roof and sheet steel walls as the high noon radiance of 30 Hercules shone down on the planet Attica, filtered through yellow dust raised by planet-wide duststorms. The light beams bent and torqued as they danced atop the metal roof, like images seen in a pond, lending a sense of unreality to the colonial daydreams of sleeping settlers. Under a yellow-hazed sky ablaze with ruby threads, Jamie inspected the three green globes over the front door. They signified "memories for sale." Other shops large and small dwindled down either end of the main street, each one closed up and without customers relaxing on their front stoops. Their solitude reminded Jamie he'd come here against the express instructions of his father Zebulon and his mother Malia. But at 16, boys and girls become men and women on the farming world of Attica. By law. With the oppressive duties of adults, forever abandoning such childish impulses as had driven him to this place. Except...except he didn't *feel* childish. He felt adventurous, strong and daring—like the ancient Greek heroes and heroines he'd read about during Second Sleep, when he was supposed to be doing schoolwork. The story of Jason and the Argonauts was one he remembered clearly, as hard-fixed in his mind as the edge of a forged steel plow. But more than adventure drew Jamie to the Memory Seller's shop here abided *knowledge*. Here lay something forbidden. He must know *why* it was forbidden.

Even if someone caught him.

Jamming nervous, sweaty hands into coverall pockets, Jamie glanced up and down the dusty main street of Platea. Yellow dust devils swirled along its broad expanse of hard-packed dirt. Still no one about. He stepped onto a fiberglass boardwalk running down one side of the deserted street.

Jamie knocked on the windowless door. It squealed, uncoiled hinges protesting. A scraping sound came from inside.

"Who is it?" called a raspy voice. The hacking cough of old age and high altitude emphysema followed the question. The dull gray door stayed shut.

"Jamie Whitlock...from the Euboean settlement. Let me in."

"Hang on." A metal bolt scraped, unlocking the entry.

The steel door swung inward slowly. Dim red

light spilled into the shop's dark cavern. Inquisitive sunbeams flickered off dust motes floating high in the thick, heavy air preferred by people who weren't native to Attica. The shopkeeper displaced the blood-red dust motes and stared up at Jamie. He choked, able only to stare at the man's strange form.

And old, *old* man inspected him back. Dressed in faded blue dungarees and a red cotton shirt, open at the neck, the man stood bald, pugnacious, and with a pepper-flecked white beard covering his chin. Red highlights blossomed on withered cheeks. Purple veins lined bare white hands, gnarled with arthritis, but strong looking. Under the red shirt hid dirty white longjohns, worn to fend off the midsummer cold of the Achaian Plateau. If much of the man's body looked almost dead, his eyes shone with vitality. They were hazel-colored, surrounded by crowsfeet, and they stared at him with a lively, speculative hunger. Jamie gasped suddenly, remembering to breathe.

"What do you want?" the Memory Seller asked.

He towered over the five foot tall ancient. At sixteen years old and six feet tall, Jamie still had a foot to go before he reached full adult height for a third generation Attican. Lower gravity made him tall, lean, and gangly compared to

the withered shortness of someone born...in space, perhaps even on forgotten Earth.

"Memories." Jamie felt nervous and a little bit unsure. "You know—all the guys get them after they—"

"Bed a girl?" cackled the Memory Seller.

"Yes!" Why did this old man delight in teasing him? Why were memories of Earth so —forbidden? What was the price of remembering Earth? The man's hazel eyes lit up and shone bright...almost like the beacon fire used by winter solstice patrols.

"You know the girls come here too," teased the old man again as he turned and shuffled into the hot, humid air of the shop, beckoning Jamie to follow. "They are your equal, young man."

"I know that."

Jamie followed, ignoring the jibe. Of course women were his equals. It just happened that Attica had fewer women than men, so birthing new settlers took first place over personal independence. Black-haired Melanie Jacobi understood that. Which was why yesterday morning still hung so fresh in his memory. The specialness

Why were memories of Earth so— forbidden?

they'd shared still sung deep inside him.

"How's it done? What's it like?" he asked, walking deeper into the long, barn-like building. Jamie looked around, curious about a place so feared by his farming neighbors and the town dwellers. Ceiling skylights let in a dim blood-red radiance, illunining the interior. Open-fronted cubicles lined either side of the central hallway, with partition walls going up nearly to the shop's roof; almost like the stalls of his father's barn. Black curtains hung across most entrances, but they only muffled the sounds of breathing, moaning and crying as other customers *remembered*. Painfully. The shopkeeper stepped into an empty cubicle and Jamie followed. A pallet-bed occupied the narrow space. Next to it sat a strange, sapphire blue box with metallic cord and flexible cap. The shopkeeper turned and studied Jamie.

Abruptly, he laughed. "What's it like? How do you explain candy to someone who's never eaten any? Or sex to a celibate? The showing is in the doing. The knowledge is in the experiencing. The *danger* lies in whether you remember as a *man*, or as a child. Still interested?"

A challenge. "Yes!"

The shopkeeper nodded. "Good. Memories are not for the weak of heart. They require strength."

The sapphire blue *memorynet* machine intrigued him. "Again, how does it work?"

"It's simple. You lie down. I select a memory crystal. You put the *memorynet* cap on. Then you look at the spiral pattern over the entryway—to focus your alpha rhythms." The Memory Seller pulled loose a black velvet bag from his waist belt and grinned. "Any preferences? I've got memories of a bordello in a small garret on Paris' Left Bank. And one of scuba-diving off Australia's Great Barrier Reef—think of that! Then there's the memory of the first man to land on Earth's moon—he survived until First Contact, so the Aliens recorded his memories. And of course I have the memories of the first Liaison, Jack Harrigan, before he left with the Aliens."

"Show me the crystals," Jamie said, confused. This was all coming too fast for him. He stood between the man and the pallet, wanting the forbidden, but afraid. The recollection of the great stories he'd read, and his burning desire to *know* more about the home of his great-grandparents, more than dry, screen-read words, that desire strengthened him.

"Sure—but don't touch." The Memory Seller glanced down at cupped palms. Beauty glittered before Jamie.

The memory crystals were all yellow, in keeping with the standard color coding rules of the galaxy's alien-run Forty-Seventh Florescence multi-civilization. Thousands of Alien species needed certain basic Traditions if they were to continue building the six million year-old Florescence. But Aliens who traveled the stars at sub-light speeds and yet talked instantaneously by tachyons with the other side of home galaxy didn't care what *shapes* the crystals took. For humans, the shapes were as diverse as their hundreds of cultures and thousands of languages. Teardrops. Ovoids. Cabochons. Cubes. Rhombohedrons. Many shapes in the yellow crystalline matrices of synthetic rubies, emeralds and diamonds. Under the dim red beams fingering down through the roof skylights, they flickered, almost alive. It seemed to Jamie as if each facet was a person, or a special memory. He looked up at the old, white-haired man.

"Does the remembering...hurt?"

"Heh, heh!" cackle-laughed the Memory Seller. Hazel eyes blazed. "Of course it does! Doesn't it *hurt* to remember when your first pet died? Doesn't it hurt to remember when your grandma Miletus died?"

But—the pause caught him even as he wondered how this ancient knew his personal story—"isn't it wonderful to remember yesterday morning with—"

"All right!" he interrupted before her name came out. "Who are you?"

"The Memory Seller." The shopkeeper seemed inclined to stop there, but Jamie frowned, showing his stubbornness. As stubborn as Uncle Pausanias, said the chiding memory voice of his mother.

"Leonidas Euchidas Pantites is the name."

"Oh." The full Greek name signified one of the original colonists, or someone connected with Attica's settling over a hundred years ago. But it didn't make sense. "Excuse me, Progenitor, but why are you still alive?"

"Insolent pup!" scream-rasped Pantites. Red cheek spots spread into an angry flush. "I live because I *want* to live! And *how* I do it is none of your business. Do you want to buy memories or not?"

"Yes!" Jamie wiped palms on his coveralls, nerves making his voice high-toned. "Do you—do

The sapphire blue *memorynet* machine intrigued him.

you have something that shows me Earth's history? Something that takes me around the planet? Kind of like the highlights?"

Pantites' hazel eyes lost their anger. They dulled into simple novas. Jamie thought the man felt sympathy for him. But why would he, the future inheritor of four hundred hectares of prime millet fields, be the object of sympathy from an outcast like this Memory Seller?

"Yes, I do," he said. "It's my own special blend. Memories of many people, from many places on Earth. From many times, actually." Pantites looked past him, seeing something else besides Jamie's rudy-cheeked features, brown hair, and British stockiness. Then he refocused on Jamie.

"The price is ten drachmas and a promise."

"A promise? What promise?" he asked, but Pantites had turned away as he bent down to fiddle with the memorynet device.

Ten drachmas was a lot—the price of a new bioengineered cereal strain. The price of a freeze-resistant bacteria that would protect crops from the long cold night of Attica until it swung nearer to 30 Hercules. But he had the money. Or rather the chit for ten Holstein-zebu crossbreeds that waited in the communal kraal just outside of town. His father Zebulon had not asked why he wanted the cattle. He had simply glanced sharply at his only son, then looked very sober, even a little wistful. Zebulon's nod of agreement had been sharp and decisive. Pantites finally looked up from the machine and answered him.

"The promise that, wherever the future takes you, at the end of your life you will return *here*, and give me your memories." The Memory Seller's eyes burned coldly. "Or send them to me from your grave."

Jamie shivered. This talk of ancient worlds, of the future, and of death dragged him down. Life was wonderful—not to be feared. He and Melanie planned a big family. They planned to expand his fields into the dry red loess of a nearby valley. A small glacier hung above the valley, locked in rocky crags, and water would be brought down from it to supplement the seasonal monsoons that swept Attica at perihelion. He looked forward to the future, even if Melanie sometimes seemed more interested in his land than in him. But something gnawed within Jamie, something said there was more to life than farming, loving and raising a family.

"All right. I'll do it. Give me the memories."

"Patience. Now do what I say." Pantites kept out the special memory crystal, poured the rest back into the pouch, eyed him, and waved Jamie toward the pallet-bed. "Lie down and relax."

"Relax? I'm nervous."

"They all are. Lie down."

Jamie lay down on the pallet, got comfortable and looked up. Old Pantites held a silvery-blue filigree skullcap in yellow, smoke-stained fingers. The fingers moved toward him. Cold metal touched his forehead. Weight caressed his hair.

"Now, young man, don't worry at all. The neuron transducers won't hurt. And soon...soon you will remember Earth."

"You're sure?"

"I'm sure." Pantites' voice sounded gruff but friendly. "Focus now, and *remember*."

As his eyes focused upon the crudely drawn spiral circle on the wall opposite the bed, Jamie heard a scraping sound as Pantites left. The swish of a black curtain and the smell of newly lit incense were the last sensations he felt...the last, that is, before he *remembered*...

Leonidas looked upon death.

On his right shone the blue water of the Malian Gulf. To his rear lay the hot springs and the retreating forces of Corinth, Phlius, Mycenae, Phocis and Locris. To his left now approached the forces of the Malian traitor Ephialtes and Hydarnes the Mede, coming across the Dorian hills. Ahead...ahead surged the dust, panoply and bright-glittering hordes of Asiatics led by Xerxes. Three myriads of them. And in front, black-shining, came the remains of the Ten Thousand Immortals. Lances, spears and short swords reflected the sun back toward him, his three hundred Spartans, the seven hundred loyal Thespians and the Thebans. As usual, the Thebans hugged the seaward side, furthest from battle. Ears beset by the skirl of bronze long-horns, the tramp of three hundred thousand, and the clatter of metal, he looked around one last time at his faithful personal guard. Fathers all, blooded in battle, veterans of the barracks, they all had sons left back in the Peloponnesus. Today no bloodlines would be lost. But a king of Sparta would surely die.

The Pythia at Delphi had foretold his fate. "Either Sparta or one of her kings must be prey to the Medes." He gripped his shield close to his chest and tested the tension of leather binding straps around his greaves and breastplate. They were flexible enough for battle, but not loose. He hoped Apollo would let him join the company of the foretime heroes. Perhaps. Or perhaps not. Mortals could only be brave in the sight of the gods and strike the foe fearlessly. But Charon would soon be busy. Leonidas felt the touch of his fellows at his side. Here, at Thermopylae, the distance between the cliffs and the sea was but ten wagons wide. If not for the treachery of Ephialtes, they might still have held. But the bone dice the gods threw when testing mortals ruled otherwise. He breathed deep. Then he shouted APOLLOOOOO."

An hour later a Spartan soldier by the name of Pan-

tites came down from the woods, seeking Leonidas, carrying the news he'd been sent to secure. The sight of his king, beheaded, mutilated and hung upside down on a cross near the River Melas stopped him. He retreated silently, heartsick at the sight of Greek dead polluted by barbarian customs. The cleansing purity of funeral pyres would not tonight welcome his king and those who had stood with him.

Somewhere deep inside himself, Jamie gaped. The memory quickened his blood, flagged his heart and took the breath away. But it lived! The memory lived in him. And he with it. So strange. So very, very strange. But a new memory flickered, sucked at him, and drew him deep in the swirling whirlpool of Earth, and those who had once lived. Like him.

Hypatia looked with loving care upon the stacks and rolls of papyrus, each in the proper category niche, and thought of all the great friends preserved there—Aeschylus, Ptolemy, Apollonius of Perga, Plato, Plotinus, Aristotle, and Sophocles. She sighed and walked along the cool, dark echoing hall of the Great Library at Alexandria. Her slim fingers gently caressed the stiff curls of papyrus as she walked the corridors her father Theon had known so well. Shown to her so well. He would have been proud of her, she thought. After the partial burning and destruction of the library by the Christians of Patriarch Theophilus only twenty-three years ago, before the last of the Olympic Games, she and Theon had secreted away many of the most important manuscripts. Now, the knowledge was restored to its rightful place, used by both Asiatics and Romans, pagans and Christians. Hypatia finally felt she had at last earned her chair of philosophy at the Museum of Alexandria.

She stopped, and lovingly pulled out one of her favorites. The Astronomical Canon of Ptolemy, and next to it, the Conics of Apollonius. Ah, what delight there was in the Knowing! She untied the sash and unrolled it. Her own commentaries, in the careful koine script of the foretime philosophers, took up the right hand margin of each page. Her first love, mathematics. So satisfying, and such a grand guide to the world of philosophy, to the minds of mentors like Plato and Aristotle!

It was summer in the seventh year of Emperor Theodosius the Second, and Hypatia felt fulfilled, almost at peace. For awhile, her friend Orestes was keeping the lackeys of Cyril at bay. But for how long? No matter, there was work to do. She put the last scroll back, straightened the clasp of her toga, and walked assuredly down the hall to the lecture plaza. Today, she

would speak upon the conics, upon how they so exquisitely contained the greater reality within the smaller. She smiled, her mind already filled with theorems, proofs and elegant relationships. Knowledge WAS the perfect achievement of a lifetime!

Jamie moaned on the pallet; the woman excited him. So different from Melanie, so exotic and intelligent, so...familiar, in a way. The acrid sweetness of incense swirled thickly about him, conveying meaning without words, suggesting her essence. He sighed, only half-aware of a light tread approaching, pulling aside the privacy curtain, then retreating. Without awakening, the memories continued....

Hulagu the Mongol, grandson of Genghis Khan, sat upon his horse outside the fallen eastern wall of Baghdad. He watched as the inhabitants of Caliph Mustasssem's city were marched out, bound together, and then counted by his regiments. They numbered eight hundred thousand. The brown waters of the Tigris flowed in the far background, while nearby, Baghdad burned. Billows of black smoke hung low as his naphtha missiles mixed with the fires set by his thousands. He reflected upon the first Khaghan's rule—whoever resisted, died; whoever surrendered, lived out their lives in vassal bondage. The Muslims had resisted and insulted

him. He waved his left hand. The swords began slashing. The dark red blood flowed. Heads tumbled from shoulders.

Six days later, still watching, Hulagu saw the Tigris turning red. Rivers of blood ran from the last Abbasids. The sky god Bai Ulgan's cool winter winds brushed past him. His horse nickered. Seeing the piles of skulls outside the crumbled brick walls, seeing the blood flow, hearing the screams of eight hundred thousand, Hulagu remembered an old saying of Grandfather Genghis.

"The joy of man lies in treading down the enemy, tearing him up by the roots, taking from him everything he has, and in making one's bed upon the belly and navel of his wives."

Hulagu felt joyful.

Chandar Ruliman stood with his family beside the country bus they had been riding. Tamil guerrillas surrounded him and over two hundred other men, women and children of the Trincomalee district of Sri Lanka. The guerrillas carefully separated the Muslims and Tamils from the passengers on the three buses stopped among the banana groves and rice paddies. He was far

□
**Six days later,
still watching,
Hulagu saw
the Tigris
turning red.**
□

back, up against the metal of the garishly painted bus. Then the guns pointed only at him and the other Sinhalese Buddhists. They fired. People screamed. He screamed. His children—his two little boys and girl—they screamed. His wife Makia screamed. Chandar felt searing pains in both shoulders. Then he fell upon his family, a warm body covering dying ones.

Years later, even after the coming of the Aliens to Sol system, Chandar Ruliman still had nightmares. The Aliens wanted his nightmares, and they promised he would be at peace. He gave them away, the memories, the hatreds, the agonies.

Then he slit his throat.

"No!"

Jamie almost came awake, so strong were the feelings of blood, despair and loving cruelty. But he didn't. There was a new essence here, a sense of great tides moving through human destiny, of a striving and a yearning that overcame even blood-drenched corpses. The black curtain stayed motionless. He remembered more....

Jack Harrigan hugged his son and daughter. Adults, with children of their own, Bill and Shirley would stay behind on Earth while their father left on an Alien asteroid starship called Hekar. Jack, his new wife Colleen McIntyre, and four thousand other humans from most nations, all the major power blocks, and many cultures, were leaving Earth. They would live among the Aliens in a twenty-kilometer wide domed habitat that recreated a tiny simulacrum of the best of Earth's seas, mountains and forest. They would live for centuries, sleeping away the deep space passages in Suspense. They would be the first humans to Trade among Aliens, to buy and send back to Earth old and new Alien technology, and to make room for humans among the stars.

Jack bear-hugged his children again. He touched their tear-streaked faces. Then he and Colleen boarded a Horem shuttle craft at old LaGuardia.

As the Alien craft lifted them up to a meeting with the chief Alien negotiator—a mohawk-crested, red-furred "werewolf" named Arix Sargon Arax—Jack lay back in the accel seat and thought of Earth. He thought of the green hills of Tennessee. He thought about his cabin in the hills above Gatlinburg. He thought about all the friends a Pulitzer-prize winning newsmen makes over thirty years that stretched from Selma to Copernicus Base. Then the first Liaison between humans and Aliens firmly put his memories into deep storage, took a deep breath, and grinned over to his red-

haired Colleen.

"*Lover, this is going to be a helluva tiger-ride!*"

Jamie stirred a third time, excited by the daring of this man, and by the strangeness of alien shapes and spacecraft. This was a memory of Earth's recent past, one predating his birth and the settlement of Attica. Still, it tasted so sweet in his mind's eye—if only he could be such a daring, adventurous man! If only life's patterns weren't already set for him. If only there was some way....

Giant redwoods towered over a fern-scattered meadow....

Dark gray-green seas thundered against the rocks of Cape Cod as a nor'easter lashed the land....

Ice crystals screamed their lonely laments as someone walked through the Antarctic night, searching for the beacon that meant warmth, company, survival....

The leviathans of the deep swam past San Jorge beach off Baja California. Sperm whales broached, gusted out geysers of blood-warm air, and then dove down, calling, singing their songs around the girdle of a planetary sea. And sometime, somewhere across the seas, others called back their own song....

Chigger-bugs bit someone in the grassed-over former swamps of New Orleans....

White-feathered skuas screamed off the Irish coast, casting down insults on those who stole their dinners....

Hunger...anger...love...desire...destiny....

Jamie awoke with a start.

"That's it for now," said a raspy voice.

He looked up into the eyes of Leonidas Eucharidas Pantites. Former ship Captain, he now recalled, of the colony ship *Argive*, still in orbit about Attica. Those eyes looked so very old. Their nova-brightness now dimmed, hardly brighter than the pale radiance of Hercules. But they shone with caring for Jamie.

"Wh-what? More! I want more!" He reached for the memorynet's silvery-blue skullcap. Pantites quickly held it beyond his reach. Still Jamie grasped for it.

"No!" Pantites said "You have your memories of Earth. Go home."

And sometime,
somewhere
across the seas,
others called
back...

"It's not enough," he complained.

"It's *more* than enough, for now. Get up."

"I'm trying!" Jamie felt weak as he sat up. Legs shook when he stood leaning against the wall, he stepped out into the hallway. Then he swung around to stare at Pantites, the apparition from Earth. He tried to collect benumbed wits. *Exalted. Frightened. Horrified. Enthralled.* All these sensations and more coursed through his mind. Memories from Earth *were* incredible. And so very dangerous in the way they tempted him to leave behind the safe, secure, *normal* life of Attica. They tugged at him in ways he'd never felt before. They tempted him with dangerous thoughts. Disloyal thoughts. And they awoke old yearnings, yearnings from when he'd been very small.

"Why can't I have more memories?"

Pantites eyes blazed. The old man didn't look like a Progenitor. Instead, he looked like a myth come down from Olympus. Finally, he sighed. "Look around you, Jamie Whitlock. What do you see?"

He looked. The sounds of breathing, moaning and crying still echoed from behind black curtains. Standing with Pantites in the hallway, Jamie felt chill. He shivered. "I see people remembering Earth. So What?"

"Don't you *see*?" Pantites turned to Jamie, gnarled arms planted on dungareed hips. "They're *addicted*. Memories are now their reality. Fortunately, I lose only a few this way each year." Pantites looked endlessly sad. "You, I couldn't lose. Not you or the other young ones."

"The memories," Jamie said, stubborn-again. "Why are they forbidden to us? And why do the adults *fear* you?"

Pantites hack-coughed. "Don't you *listen*? Don't you understand? The memories of Earth are a horror. They are a wonderment. They are the kind of thing that is dangerous to *order*, to rulers and to settlers on a hard frontier." The Memory Seller lit up a foul-smelling black cigar and inhaled it harshly, expelling coal-black fumes from his lips. "But in small measure, they are the fire spark of desire, of ambition, and of greatness. What, Jamie Whitlock, will you add to this tapestry of memories?"

He? He wasn't important. He was just a farmer, or rather, a farmer to be. A settler of a harsh world, the world he'd been born on. There was no other destiny for him. Was there?

Pantites shrugged, turning away.

Jamie's weakness had gone. Intense curiosity now replaced it. He fingered the rough fabric of his coveralls, walking to the front door as Pantites led the way, but pursued something he recalled from before the memories. Something that seemed important.

"Who was Eucharidas?"

Pantites scowled back at Jamie. The Greek, unlike native Atticans, lived with difficulty on the surface of a thin-atmosphered, low-gravity planet. A planet supporting only thirty thousand other humans. But Jamie suspected the old man would still be around when his own five score and ten were up.

"Eucharidas? Eucharidas was a soldier at the battle of Platea, when the combined might of the Greeks defeated Mardonius and Xerxes before the River Asopus." Pantites' white beard widened in a grin and crowsfeet crinkled like meteor tracks across the night sky. "Afterward, it's said the Oracle at Delphi decreed all the fires throughout the Platean district must be extinguished because the barbarians had defiled them. This was done. Then Eucharidas the Platean ran sixty miles to Delphi, took fire from the altar, and returned. In one day. He embraced his friends and gave them the sacred fire. Then he fell dead." Pantites' eyes struck out like supernovas, cutting into Jamie. He stood straighter, feeling the whisper of three thousand years in the raspy voice of Leonidas Eucharidas Pantites.

"Jamie Whitlock, we still carry the fire before us. Will you walk before your kindred? Will you make room for man among the Aliens?"

"What do you mean? I've got a farm to run, Melanie and I plan to marry, and my father—"

"You are *not* your father." Pantites stopped before the shop front door, one hand outstretched as he leaned against the interior wall, face speculative as he watched Jamie. "What are you? Who are you? What destiny do you *choose* for yourself?"

He shivered. Jamie thought of Melanie. He thought of his parents. He remembered how few were the colonies of Earth, how they were but a ripple on the dark pond of endless night, and how very old were the Alien civilizations of the galaxy. The embers must blaze bright to last until the far spiral arms could be reached. Jamie looked at the last Spartan, then stepped out of the Memory Seller's shop onto the main street of Platea.

"Destiny? I've got responsibilities. I've got

□

The memories
of Earth are a
horror. They
are a
wonderment.

□

to—"

"Listen!" interrupted Pantites, looking up sharply.

Loud, angry voices drew his attention. Looking into town, Jamie spotted a crowd of several hundred coming their way, firebrands lit and raised against the chill of oncoming night. At this distance, the faces were unrecognizable. But the tramp of feet and timbre of voices sounded angry. Very angry. He turned back to Pantites, still standing in the doorway.

"They're coming for me," said the white-bearded ancient, staring calmly at the oncoming angry crowd. Pantites turned, "Well?"

"Yes—Yes, I'll carry the fire. And the memories. But how?"

"Here, take the crystal you just remembered," Pantites said.

Jamie looked down as a sharp-faceted yellow diamond tumbled from the black velvet bag into his callused hand. Looking down the dusty street, he wondered why his fellow colonists feared the memories of Earth. Why, this night, had they finally chosen to drive off the Memory Seller? He thrust the crystal into a coverall pocket and turned back to the shopkeeper.

"The memory net machines—they have to be saved! This is useless without them," he said, stepping back onto the boardwalk to help. Pantites stopped him.

"Don't worry—I've dealt with angry, fearful crowds before. They don't want to be reminded of the past, they want the young ones to look at the future, to know only the promise of this planet. To stay home, rather than venture outward—among the stars." Pantites smiled and red highlights burned bright on withered, parchment-thin cheeks. "Go. I'll be gone before they can catch me."

Jamie looked back doubtfully at the angry crowd. They seemed to be mostly older colonists, the ones who'd felt the lash of crop failures and hard freezes before the recombinant DNA bacteria had made things a little easier. Their voices were becoming clearer—he could make out words like "Fiend!" "Heretic!" "Murderer!" and other things almost as bloodthirsty as some of the memories he'd remembered.

"All right—I'll go."

"Good—and remember me," Pantites said, turning to go back inside. The shop's metal door clattered shut.

Jamie jogged left away from the crowd,

quickly passed under the city wall portal, and set off along the wagon-rut leading into the eastern hills, beyond which lay the Euboean settlement. His legs stretched out into a loping, low-gee stride. As he ran, he remembered his years growing up on Attica, of service lately in the winter solstice watchfire patrols, of battles against carnivorous rock-huggers near the few springs and creeks of his home world, of images of Zebulon and Malia loving and caring for him—many currents mixed within him. They tempested, tossed, and finally ebbed.

Twenty minutes later, Jamie stopped at the top of a low, eroded brown hillside, much like hundreds of others scarring the hardscrabble, rocky fields of the Achaean Plateau. He turned around and looked back at Platea.

It lay like a dollhouse picture. Checkerboard squares of ramshackle wood and metal buildings filled the city, with wide dirt streets between them, and the acropolis prefab rising high in the center. But on the city wall side near him, next to the old archway that framed the eastern portal, there rose a long black pillar of smoke. Red flames curled at his base. The Memory Seller's shop had stood there. Jamie scanned the outer perimeter of Platea, hoping to find Pantites trodding the stubble-covered fields. He saw

nothing. Turning slowly, he looked further out, at the sandstone mesas, stunted blue and green shrubs, and dry washes of his home. Away to the north, a blue light glinted in the setting light of Hercules. Jamie pulled a monocular from a coverall pocket and brought it to his eye.

The hunched-over figure of a blue-dungareed, red-shirted figure jumped into view. Thrown over the figure's back were the sapphire blue cables and silvery skullcaps of twenty or more memorynets. Above the blue cables loomed a bald head fringed with a white beard. Pantites marched away from him, to the north, where the last working shuttle lander of the still-orbiting *Argive* sat stored in a marble quarry.

Jamie looked to the east, toward the distant scattered lights of the Euboean settlement, toward the homes of Melanie and his parents. Choices. He looked up at the early night sky of Attica. The two moons were low on the horizon so the inner band of the Milky Way shone brilliantly. Diamond-white stars glittered and beckoned, speaking in tongues. He looked back at the struggling figure of Pantites, over ten kilometers

□
"They're
coming for
me," said the
white-bearded
ancient...
□

away. He sighed, cursing the memories of Earth, cursing the knowledge that life rarely offers simple choices.

He decided.

After all, four hundred hectares of prime millet land weren't *all* there was to life. And Melanie would find a new lover—one more *normal* and responsible than he. Jamie turned and jogged north.

Hours later, Jamie straggled to a halt before the deep quarry pit hollowed out by the first Attican settlers. Night hung full about, cold and merciless. But the two moons gave light. Enough light. Down below, resting on belly jets and with its nose pointed up the steep incline of the access rampway, lay the *Argive's* last shuttle. A watchfire burned nearby. Lights shone inside the open mid-body airlock. A flexible metal ladder hung from the airlock down to the ground. Inside, in the half-lit airlock, someone moved around, getting things prepared for launch. Pantites the Memory Seller? Letting out a yell, Jamie ran down the rocky talus slope, hoping he'd not break an ankle in the darkness.

"Pantites! I'm coming! Wait!"

The figure inside the airlock froze, then moved to the ladder. Shadow covered the face of his newfound friend. Gasping, Jamie ran across the quarry bottom, stopping just below the open airlock and nearby watchfire. He looked up.

His father!

Zebulon Whitlock, stood tall, gaunt and intense, filling the airlock. Pantites was nowhere to be seen. His father's black-bristled face frowned down at him.

"Jamie? I suspected you'd be visiting the Memory Seller's shop, not way out here in the wastes. Why are you here?"

Rocks skittered behind him. Jamie turned.

Pantites. Huffing and puffing. With a scowl for his father.

"You sir—what are you doing up there?" called Pantites to Zebulon Whitlock.

"Jamie?" His father's face held disgust for Pantites, ignoring him and focusing instead on his son. Jamie swallowed.

"I was following Captain Pantites."

Zebulon turned to the Memory Seller. "Why are you here?"

Pantites caught his breath, coming up to stand beside Jamie. "You good townfolks burned

out my shop. That's why. Now stand aside—the *Argive* awaits me."

"His father reached down and picked up a carryall sack lying at his feet. "That will be hard to do, *Captain* Pantites. I've just pulled out this shuttle's inertial guidance unit. The colony needs it to run the robot land tillers. The shuttle is only useful now as a parts source."

Pantites cursed, lowering his load of scavenged memorynets. "No good! That's *my* shuttle for *my* ship. Leave the unit behind and get out of my shuttle."

Zebulon turned back to Jamie. "Why were you following this man?"

He licked dry lips, heart thudding too loudly. "Because...because I decided my destiny lies out there, among the stars. To make new places among the Aliens for humans." His father's aged face turned haggard and sad. "And to keep alive the memories of Earth."

"What of your farm? What of Melanie?"

The cold night air of the high plateau sucked heat from Jamie. Beside him, Pantites rasped for breath, coughed, and began an emphysematic chest rattle. Standing out here was not good for their old Captain, even though he stood, glowering, near the watchfire's warmth.

"Father, you can sell the farm to our neighbors. Melanie will make her own way without me—as I *must* do now."

His father slumped down on the lip of the high airlock, legs dangling over its rim, leaning forward with forearms resting on his knees. Zebulon shook his head. "Where did you get such ideas? What gave you the *right* to hurt Melanie? And your mother?"

Where had this conviction come from? From the memories only? He thought not. Ever since he'd learned to read Jamie had spent the mid-day First Sleep reading of far places, imagining great adventures sailing the shining seas of warm, water-rich planets. He'd seen the pictures of old Earth, the great gorges, the broad rivers, the magnificent buildings—and the poverty. He'd understood how every colony was but a fragile link in a growing web of hard-won pioneering as humanity tried to increase the resources available to a growing population. With such a history, making sacrifices for the good of the community made sense. Except to Jamie. Sometimes, he'd long thought, the individual had to make his or her own way. Had to go against the grain. Had to

□
"Because...I
decided my
destiny
lies...among
the stars."
□

pick a hard course and stick to it. No matter what. He looked up.

"Father, I had that right from the moment I was born. And Mother will understand—her own family sailed the seas and homesteaded in America, generations ago." Jamie turned to silent Pantites. "Captain, will you take me aboard as Crew?"

Pantites glanced up at Jamie's father, then back to him. "The man speaks sense. For most young ones, it's a good idea to settle down with a nice spouse and a decent farm. Are you sure?"

Above, the metal flexladder clanged against the shuttle's skin as his father clambered down it, carrying his bag. Jamie turned to Pantites.

"Yes, I'm sure."

A rough hand gripped his shoulder. He turned, looking into the eyes of the man who had raised him and loved him. His father. Tears shone in the cold midnight of the quarry depths. "Jamie? Please?"

He wanted to cry too. Instead, he reached out and touched lightly his father's bristled cheek. "I'm going. Remember me. And tell Mother she did a fine job. I will love you both—forever."

His father sucked breath in sharply, look now distant. Turning, he stared off at the moonlit hill-tops. "Jamie, it's not yours to take. The *Argive* belongs to the colony."

Pantites shuffled up. "Not his. But it *is* mine to captain across the great deep. Give me the inertial unit, please."

"No."

Jamie looked from one to the other, fearing violence, heart torn apart by a new memory not of yellow crystal. One formed, instead, from living life as he must. He touched his father's covered shoulder. "Papa, let us have it. Please?"

Zebulon turned away, but pulled the shiny cube of the inertial guidance unit out of the carryall sack. Turning it in his hand, he stared into it like one might stare into a Chinese wood block puzzle, seeking the contorted pattern hidden within a standard shape. He looked over his shoulder at Jamie.

"I could just toss it into the fire. That would end this craziness of yours."

Pantites gasped. Jamie shook his head. "No, it wouldn't. I'd just leave on the next resupply ship—even if it's ten years from now."

Pantites stood away from the fire. "And I can pilot this shuttle, and dock, even without the inertial unit. I've done it before, Zebulon."

His father scowled. "So this is the price for getting rid of your contaminating influence the loss of my son and our ship?"

The Memory Seller smiled slightly. "You son

was never yours to give away—or keep. And neither was the *Argive*. She responds *only* to my voice commands—no other voice pattern has ever been encoded into her.

Jamie's father looked up at the star-riddled night sky, blinked, gazed down at the silvery cube held in one hand, then looked at Jamie. "Here." He tossed the cube to Jamie. He caught it. "Take it and go. And don't return until your mother and I are dead."

Zebulon Whitlock turned and stomped away into the night.

Pantites coughed, hacked, and turned to Jamie. "Last chance. He'll take you back if you leave now."

"No." Jamie turned and faced Pantites. The man's withered parchment face seemed to glow in the yellow light from the watchfire, flesh moving like frames in an old-style celluloid movie. "If I learn well, and follow your orders, will you add my voice recognition code to the *Argive's* memory banks?"

Pantites rubbed one hand across his bearded chin. "Old Athena is mighty particular about the humans she associates with. Think you can hold your own with an AI construct whose memories exceed even mine?"

"Yes!"

"Good. We'll give it a try." Pantites turned, grasped the flexladder, and climbed up to the airlock, hauling the memorynets along. Jamie followed.

As he climbed, the ghosts of Earth rustled about him, sharing their secrets, encouraging him, telling the tales of gods ancient, of vain human presumption, and of perseverance.

Forbidden memories stayed forbidden only when there was no one willing to tempt fate, and remember.

He smiled, remembering an ancient Greek tale.

The secret of the gods was not Fire, stolen from them by Prometheus for the benefit of mortals.

No, Jamie felt sure the secret of the gods was *knowledge*...the memories of Earth, with their temptation to leave the routine far behind.

Eventually, Jamie would know as much as Pantites and Athena.

Then, with that knowledge, perhaps he would become the first human to cross the empty gulfs between the spiral arms of home galaxy. He would travel on a journey most glorious, telling the tales of humans among the Aliens, bringing back their treasure of knowledge and riches.

Like Jason in search of the Golden Fleece. ■

The underground mall is all the rage this year. That, and filing our nails to sharp points. And cropping our hair close to the skull. And seeing ourselves on all the closed-circuit monitors throughout the mall.

And of course *Tombe*. There used to be other perfumes. *Joy*. *Obsession*. *Scandal*. *Opium*. *Poison*. Yesterday's news, trademarks from the lost world of the past. Now there is only *Tombe*, the pheromone perfume in the purple and yellow bottle. Violently sexy *Tombe*, incredibly expensive *Tombe*. The one that shapes itself to the wearer's body chemistry, the one that makes women glow and men perspire.

That woman there, the one who's just appeared on all the monitors, the one with the *déclassé* long blond hair—what is she saying? Hard to make out with that black gas mask she's wearing, isn't it? A crowd of us is gathering. The volume comes up on its own. She's saying something about bottles, about our being trapped inside an enormous bottle, only we can't see it. The perfume is the bottle, she says, the bottle is the perfume.

What nonsense.

Tombe

by Howard V. Hendrix

art by Michael Kuchatki



What's that? Oh, she's moved on to talking about Roger Kurtland. Now that story has possibilities! What was he working on when he discovered the pheromone? Transgenic humans, yes, we've heard about that. "Diggers" engineered to survive fossorially, without free water, without technology. "Sandmen" with lower metabolic rates, slower growth rates, the ability to self-regulate their population. Were they being designed for our world or another? A survival hedge against impending global ecodisaster? Human stock engineered to survive the rigors of life on a distant planet?

It doesn't matter, the masked woman says. We will not be different out there if we've learned nothing down here. People are as people do, she says, and if all we leave of ourselves is a series of trashed planets, then all we are is trash.

Should we be listening to this? Is this terrorist? The transgenic project was stopped, ran out of funds, was destroyed by angry religionists, whatever story you prefer to believe. All Roger Kurtland had to show for his transgenic research was the pheromone he synthesized, the main ingredient in *Tombé*.

The woman says she was the one responsible for bringing *Tombé* to market, that it was she who gave it its name.

If that were true, she'd have a high place in the *Tombé* distribution pyramid—and certainly no one would risk such a position to go around protesting on mall monitors, would they?

She says she first wanted to call the new perfume "Dusk." She was looking for a French word for that and found *tambée de la nuit*, "fall of night," but above that phrase, on the same page of the dictionary, she found *tombé*, "fallen." A perfume called *Fallen*.

Now though, after more research, she says she has serious doubts about the product—even regrets having ever let it loose in the world. What Einstein's bomb was to warfare, Kurtland's pheromone is to perfume, she says. The *Tombé* bomb has fallen, and we are all caught in its olfactory fallout.

How can she possibly make such a comparison? She must be crazy.

She is talking about the basis of the pheromone, its

origins in an obscure creature, *Heterocephalus glaber*. Of the two common names for it, she uses "naked mole rat" rather than the more pleasant "Ethiopian sand puppy." She reminds us of the pheromone's origin in the bodily excretions of that creature.

So? Amberggris is whale puke. Civet is cat stink.

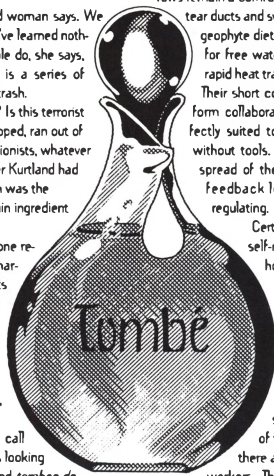
Kurtland thought naked mole rats were the perfect gene source for his transgenic humans, she says. They live in desert country that experiences one hundred forty degree surface temperatures, yet their extensive communal burrows remain a comfortable eight-five degrees. Their lack of tear ducts and sweat glands, combined with the moist geophyte diet they subsist on, eliminates their need for free water. Their lack of body hair facilitates rapid heat transfer with their burrow microclimate. Their short conical digging claws and tendency to form collaborative digging chains make them perfectly suited to existence in a harsh environment without tools. Their burrowing activities foster the spread of the geophytes they subsist on—a nice feedback loop—and their population is self-regulating.

Certainly she's not insane enough to think self-regulation's bad? Not with God knows how many billions of human beings in this world?

The dangerous thing, she says, is how that self-regulation is achieved in fact how the whole structure of naked mole rat society is maintained. The naked mole rat is the only mammal known to possess a colony structure similar to that of the social insects. Within each colony there are three castes: queen, courtiers, and workers. The workers cooperate in burrowing, gathering nest material, and bringing food to the nesting chamber for the dominant female and the courtiers. The male and female courtiers defend the colony. Only the queen breeds, and always only with a courtier male.

All well and good, this learning the natural history of an obscure African rodent, but what's her point?

Individual nonbreeding mole rats are not sterile, she says. If they appreciate the long-term significance of not breeding no better than most humans do, then why don't they breed? Why does only the queen breed? The answer, she says, is *pheromones*. Once a particular female becomes dominant, she chemically suppresses breeding by



the other females through the use of pheromones. The others have no choice in the matter, no free will. It's a chemical dictatorship, olfactory fascism—and that's exactly what *Tombé* is doing to you.

Now she really is going too far!

This sort of social organization may be fine for naked mole rats, she says on screen, but what about for human beings? Naked mole rats live in deserts and have to burrow through very hard soil to obtain food, so it pays for them to join forces in colonies and channel colony members' energies along specific lines—some finding food, others bearing young. The naked mole rat colony is a super-organism that can survive in areas where a single individual or a pair of mole rats cannot.

But what price survival? she asks. The individual naked mole rat must sacrifice all individual will to the will of the colony. Do you want that for yourself? Do you want to sacrifice the reality of your individuality to some meta-illusion called "society"? That is what *Tombé* is leading you to do. Which class of human mole rat do you fall into? Are you the queen? Are you a courtier, defending the status quo with your gun or badge or mind? Or are you a worker? Look at this underground mall. It's the first step toward a Sandman burrow, a naked mole rat colony! Look at the styles, the nails filed like digging claws, the hair shaved short—those are mole rat through and through! Do you even see yourself as "you" any more or are you merely part of the great "we," the invincible "us"? Can you even distinguish my voice from your own, or is it just another strand trapped in the tapestry of the massmind? Do you even remember your sex, degendered drones?

In the mall crowd some of us are stirring, listening too closely to her—particularly the more alienated types. Dangerous.

Only the queen breeds, she says, but the whole naked mole rat colony is controlled by her pheromones. And in our world, only the rich can afford *Tombé* in significant quantities. So what is *Tombé*? A perfume containing a pheromone synthesized from a substance found in the naked mole rat, yes, but also something more. *Tombé* makes men crane their necks and bends other women's wills to the wearer's own. *Tombé* is power, and the more

Tombé one owns, the more power one has. *Tombé* ensures chemical control over those who have less or none of it, suppresses reproduction by the have nots, guarantees an unconscious obedience, an almost instinctual subservience, from them. Soon only the rich will have children, not because the poor will have made a free will choice to have them, but because only the rich will have *Tombé*.

The murmur of discontent is rising, mounting like a wave. A perilous situation. Where is mall security? Where are the police? Why haven't they shut this witch off yet?

Women will be more powerful and more powerless than ever, she says. Because everyone will have less freedom, even the queen. The highest goal of a woman will be to become a breeding machine. Family values will be everything, for everyone will be closely related. Those of us whose breeding will be suppressed will solace ourselves with the knowledge that, by caring for our closely related broodmates, we will ensure the survival and passing on of our own genetic characteristics, even though we ourselves will not actually breed. "Self-sacrifice for the greater good" will be the new watchword.

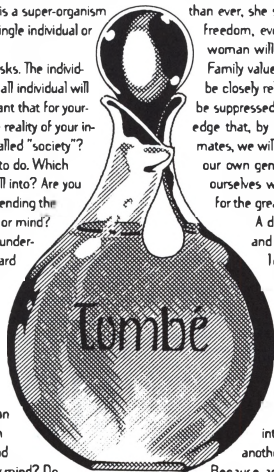
A dull thudding comes over the monitors and the woman with the gas mask and long hair — is it a wig? a disguise?—gives a shocked start. Good. Security is banging at her door. Her voice when she speaks now has a far greater note of urgency.

But this big family will not be all kindness and gentleness, she says. Before the naked mole rat hierarchy is fully developed, females coming into estrus fight and frequently kill one another. *Tombé* is doing that to us even now.

Because as women we express a non-seasonal sexual receptivity, a sort of permanent low-level estrus, the level of violence by women against women has risen steadily since *Tombé* hit the market. Don't you see it? It's the ultimate patriarchal control ploy: putting Woman at the figurehead top of the social pyramid as breeder, while simultaneously destroying sisterhood

Aha, a feminist! The thudding behind her is louder. Almost there.

It was Kurtland's kink! she shouts. I knew the man. We lived together, long before he developed the pheromone. That brutal idiosyncrasy of the naked mole rat social structure that had to be what attracted him to them in the first



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place, not their pheromones, not their value to his transgenic research! Don't let his discovery turn you into one of those Sandmen he never finished! Don't let it turn everyone into Diggers! Remember your humanity! You're not yet a naked mole rat, are you? Then break out of the perfume bottle he's trapped us in!

We have her now. Security drags her screaming off screen and away. The monitors go blank for an instant, then a *Tombé* commercial comes on. Amid pounding driving music two athletic-looking women appear on screen, backlit in shadowy purple and yellow light. Tight overhead spotlights make all the angles of their model faces stand out, make their close-cropped slicked-back hair shine like platinum wire. They are clad in purple or yellow one-piece swimsuits snug as bodypaint, their limbs oiled to a bright sheen. They face off against each other. The music pounds. Sharp camera work and tight editing cut the women into fragmentary images a leg kicking into yellow, a clawlike hand striking out at purple, tight lips around gritted teeth, a nailfiled fist clenching hair or digging into thigh. Over the fallen body of her defeated foe the woman in purple slowly rises, breathless and flushed with triumph. A male voice, low and smooth, intones the words that have flashed into the lower right corner of the screen: "Tombé. Violently sexy."

We applaud and applaud. The advertisement disappears. The monitors show us only ourselves again, applauding and applauding in real time in the underground mall, staring up at ourselves staring up at ourselves, over and over, until slowly we turn away. ■

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L A B R Y N I V E N

A fan of yours, Arthur C. Clarke, won a Marconi award for first presenting the idea of a communications satellite. Which of your ideas do you think could win such an award? And which ones would you like to see come to pass?

Niven: Do you know about Einstein rings? The Einstein ring is the ring you see around a neutron star if you've got a star directly behind it. I wanted them called Niven rings because I'd invented them independently. Apparently, Einstein got there first. I guess I'm not surprised.

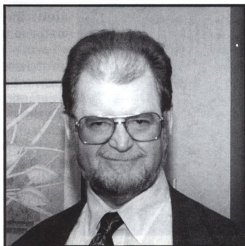
This one I'd like to see remembered: the crescent of volatile materials along the dawn side of the planet Pluto. They evaporate when the planet rotates into daylight and refreeze on the back. It's from *World of Ptavvs*, my first novel. They don't know if it exists yet. I invented it, of course, but it seems plausible.

And when we get there...

Niven: Then, I want my name on it. Science fiction writers have a hell of a time getting their names on anything. C-T, contra terrine matter, anti-matter with the file numbers filed off, was written about first by Jack Williamson. Then again, you have to say the scientists did get there first with the anti-particle. Jack just extrapolated from that. Any science fiction writer will do that. Of course, the good ones do it first—and that's Jack Williamson.

SF writers did it first with the DC-X. The idea of a rocketship that can come in nose first, turn around and land on its tail goes back to Flash Gordon. Now it's a reality with the DC-X. Are you optimistic it'll fly?

Niven: Oh, sure. It'll fly. The DC-X is not a spacecraft—it's just a demonstration toy. Maybe I shouldn't be using the word "toy," but it's not a rocketship. It was a magnificent achievement in the



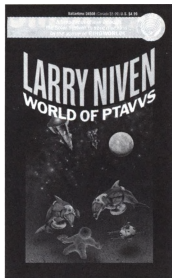
sense that it came in on time and under budget for the first time in this half-century. (At least I think it's on time and under budget.) They haven't given me a firm date yet.

Are you going to watch it go?

Niven: Yes. The question is, what do I have to cancel to get there? I don't have an answer until they give me a date.

If all goes well, will something like the DC-X have an impact on science fiction?

Niven: I would think so, but it's not a major impact. We've always believed rocketships would work. The questions are generally what do they look like, what do they cost, who is running them? The impact of the DC-X may well be a spate of stories in which the government isn't in the space program all by itself. We (science fiction writers) don't lead as often as we follow. And what we've been seeing for some decades is NASA demonstrating that it's not possible to build a rocketship—or a ladder—cheaply. It's going to cost millions of dollars even if it's only the ladder that leads down from an airlock. Or the toilet in a space shuttle, although I shouldn't be so cavalier about that. I remember the instructions on the door of the spacecraft in 2001: A Space



Odyssey.

Yeah, that's a very famous exception. But people rarely go to the bathroom in science fiction.

Niven: Fiction writers have a lot to answer for. That's one of them. Funny assumptions were made to get on with the story.

There are a lot of practical, everyday issues, like that, that SF rarely addresses. Economics might be another.

Niven: Only in Heinlein do you see people wrestling with how to get things done, how to make other people get things done. *The Man Who Sold the Moon*. Heinlein was copied over and over in every aspect by every science fiction writer. He's the most copied man on the planet, I suspect. But they had some trouble copying that one because it was hard work.

For myself, I can't do economics very well. I probably do more than most writers, but it's quite superficial.

It's clear in your work that you have a respect for science. It seems it took you some effort to get around to inventing your faster-than-light drives and your gravity generators. Is the effort that it took to get to those fantastic things related to your respect for science?

Niven: The truth is, you've got it somewhat backwards. I knew what I wanted. I invented a term for it and tried to describe what it would operate like. The first thing I invented about the gravity generator was the term "gravity generator."

Most folks call it an anti-gravity device of some kind.

Niven: Yeah, and they were doing that when I wrote the stories.

So your primary task is the story and you'll bend science to fit the story.

Niven: Yes, I will, but only as far as I need to. Never further. For instance, gravity generators are not forbidden by relativity, whereas anti-gravity is.

In *The Long ARM of Gil Hamilton*, your computers read out on tapes. High tech in the mid-70s, but it went quickly obsolete. Science fiction at one time seemed to precede science, but things are going so fast now it seems to be the other way around.

Niven: We've been doing the same things, we hard science fiction writers, for most of a century and maybe longer. We follow along behind the people who make the discoveries. We look over their shoulders and try to guess where the discoveries will lead. More today than ever, scientists have to watch their feet so they don't make mistakes. Two mistakes and you're branded. Science fiction writers, we make a lot more mistakes—we're trying to look a lot further—but we're not penalized for them.

Hard SF must be a lot harder to write today. Scientists just aren't as fast paced with the new discoveries.

Niven: They've pretty well slowed down during these past few decades. Something awful happened to our government and our government is what happened to the...well, maybe not. Economics don't favor the great discoveries anymore.

As a minor example, but not all that minor, they broke up the telephone company. Bell was supporting a lot of research. Bell is either gone or is struggling. And the research department is hurting. Or missing.

So *Future Shock* is not really a valid premise anymore, do you think? You can say that about sociology with the breakup of the Soviet Union and what impact it had on fiction writers, but not necessarily about science?

Niven: There will be impacts. The Soviets have broken up. The Russians

and maybe some of the other Soviet countries only had one thing in their lives to be proud of and that was the science they were doing. And now, there's no reason not to share it. It isn't as if they were competing with the United States on a war-footing anymore. "Glasnost" is still a valid word. Everybody knows it and information is coming out. At this point they can stop hiding and start bragging. That's got to be a wonderful time for science.

There are people who see an opportunity to do research and fall on it with glad cries. There are others who would rather not do the work. I guess I'm somewhere between these two poles because when I collaborate, it generally turns out that the other collaborator is doing all the research.

It seems that science fiction readers, to a certain extent, will accept the sacrifice of science for story. You've cited the instability of the Ringworld system—that didn't seem to slow down reader's appreciation of the story, or your ability to write a good one.

Niven: No, it didn't. In fact the Ringworld fell on some kind of borderline. The Ringworld is complicated enough that you really feel like you're stretching your brain, and it's simple enough that people who get into it always think they can improve it. Many times they're right.

Hence the sequel.

Niven: Yeah, it's simple enough to work on. It's a great big mental toy.

You hadn't planned a sequel?

Niven: No. I'm into a third one now, not because it's needed so much as a friend called and we talked story and in fifteen minutes, I had a story of Ringworld vampires. Barbara Hambly is doing an anthology of stories about female vampires. Two of her writers bailed out on her and she called friends. This was at the end of May. She called me. I said, well, we'll talk until one of us gets bored. And I talked vam-

pires for a bit and then she said "Ringworld vampires."

I dove into that and in fifteen minutes, I had a tale of a vampire nest under the base of a floating city. The point is, there's a big plate floating above the Ringworld. It's always noon on the Ringworld, so it's always shadow under the plate. So it's a great place for the Ringworld vampires, who aren't real vampires, except in the sense that they suck blood. They're hominids who've moved into the ecological niche that was left empty because the Ringworld engineers just didn't bring anything they considered nasty. They didn't bring, for instance, hyenas. Or vampires.

Frederik Pohl praised your ability to integrate elements of science into your fiction in a user-friendly way. Like the vampires filling an ecological niche or the nature of the Ringworld... How much of that in your work today has to do with Fred Pohl's editing back then?

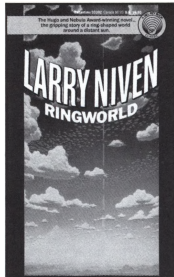
Niven: I guess I must have learned a lot from Fred Pohl. He put the title on my second story. In fact, he put the titles on my second and third stories. It would be hard to dredge up just everything that I learned from Fred Pohl.

For instance, he got me thinking in terms of pairing my story with an article on the object my story was about. I tried a few of those... It was a good habit. Pick something interesting in the sky and write about it.

But you do it in such a manner that it's easy to understand. Is this your idea or some influence from Fred Pohl?

Niven: That's me deciding it was necessary. And it was a lot of work at first. Lots and lots of rewriting to get an explanation of how a tide works into a story, after the climax—and make it work. Tides are not easy to describe.

For that matter, a lot of my concepts are easier for me to see, in my head, than to describe. I just came up with a perfect line for how you tell a Ringworld native what it is he's living



on. I didn't have that for two full books. It's been—how old is Ring-world? Twenty-three years? But the line you want is "You're standing on the part of the Arch you can't see."

What started your interest in science fiction in the first place and what keeps your interest alive today? Why not westerns, for example?

Niven: Westerns and every other genre you're likely to name are pretty limited. The thing about science fiction is its unlimitedness. And the thing about fantasy is it shrugs off even the limits you could put on science fiction.

Is that what keeps you interested today, the "unlimitedness"?

Niven: I'd have the unlimitedness whether or not I called myself a science fiction writer. Nobody tells me what to write. I've gotten fairly deep into comic books by now, for instance. I've written for a newspaper comic strip with Sherman DiVino and an artist who bailed out on us. I have, with Jerry Pournelle, written an ending for a movie, *The Watcher in the Woods*. I don't know how much of it they used, but it was a flat fee and good money.

We wrote the framework for a series of sequels to the original *Buck Rogers* novel. Ace Books owned it and Jim Baen was working at Ace Books then. We had to give up some of the laws of physics, but we kept as much as we could. Buck Rogers, after all, wasn't a scientist. He made a lot of relatively silly assumptions.

The Malibu Multiverse. I'm one of, I think it's eight founders.

Malibu comics gathered some people together in Phoenix for most of a week to carve out a universe that was to form the background of a series of comics. The series is just starting to be published. The multiverse would have included me, but they changed the

dates on me. I had a week sequestered to do that, but it wasn't the week in which I had to go to Tulsa, Oklahoma, or some such, and when they changed the dates on me, I was out.

But my notes were used. I met the group early and we did a lot of talking and I made a lot of notes. They went with the notes and they went with *Playgrounds of the Mind* and *N-Space*. And they came back knowing that a part of their comic book universe was going to be the Alderson Disc, as extremely altered by Larry Niven.

So you will have an influence in that world.

Niven: Yeah. I've got to supervise any use of the Alderson Disc. There are lots of opportunities for mistakes.

And I just invented for them a couple of characters I love. We talked a lot about characters and of course characters are the basis of what they're doing.

Mantra isn't just a comic book; it's a person. Mantra is a male warrior who has been jumping into bodies during the war that has lasted around fifteen-hundred years. At this point, he's in a female. He's a woman with two kids and he's floundering around more than somewhat. And his enemies know just where he is.

Okay, that's Mantra. I'm not interested very much in any of these except the Strangers. The Strangers were eight out of sixty people who were aboard a streetcar when it got hit by a kind of mystic lightning. And I don't want to get into the basis of that. It's a thing on the moon that's been causing waves of change in human beings from time to time. Here comes one now. Wham. It hits the streetcar. The streetcar crashes. One character will be the guy who was in the car the streetcar crashed into. He got a beam through his head, can't sleep anymore and—never mind him.

There are eight people who

were on the car, and they've found each other and found they've developed weird powers. Quite weird.

There's a guy who had just been pushed off the streetcar. Maybe he got powers, and maybe he didn't. But I can pick any of the rest and turn them into anything I want.

And I've chosen two. They are man and ex-wife. He was trying to avoid being spotted by her, but they were both on the streetcar. She got the car in the divorce, but it's in the shop. They didn't move away, in fact they date occasionally because it's easier than dating anybody else. In general, they ran out of the ability to stand each other.

She's the kind of person who believes in everything. Atlantis. Scientology. Psychic powers. And he's the kind of guy who repeats a good line too often. A line such as "If you wanted to develop psychic powers, develop the ability to find a parking space."

Now, he was into speed reading when the lightning hit. And at this point, he can assimilate information and link it much faster than any other human being on Earth. That means he is further toward taking the clues I will give him as to where he is, and extrapolating the Alderson Disc.

She has the ability to see really egregious uses of magic. So even through any number of walls, she can see a kind of lighted dome rising, which will turn out to be the use of a teleport door leading to the Disc.

I invented these characters to get people to the Disc, but she's got another power. They go looking for that door, okay? He just jumps into her newly repaired car, off they go, there's the door still glowing about ten stories up in a building in the middle of downtown and not a parking space anywhere. He says: "Okay, we're not going to find out anything. You'll never find a parking space." And she zips in right in front of the building. And she's got

the parking space power.

She has no idea how powerful this is going to be. She can park anything. She can park a battleship, having never seen one before. She can land a 747. She can't fly it. She can only land it.

Or a spaceship she's never seen before.

Niven: That's right. Or put a planet into orbit, if it's got motors on it.

That sounds bizarre but much of your writing is quite possible. A physicist can read your books and say, okay, this is a fair extrapolation.

Niven: I've got a lot of physicists who like my science fiction. They are people in the space program who got in because they read my stuff.

You also have a tremendous sense of humor. The cliché is that science is very dry. You buck that cliché with a sense of humor that's quite remarkable. And you use it very freely. Is this something you have to work at or does it come naturally?

Niven: All right, I'll lecture. First, I want to credit my father with my sense of humor. He was a lawyer. You wouldn't think they'd have great senses of humor but they generally do. I don't know why it is.

Second, there are two ways of making your stories funny. One is to just write whatever comes off the top of your head. Don't bother to justify it. The funniness is in not justifying. Ron Goulart style. The other is to understand what you're creating so thoroughly that you can even see funny parts. The eighteen billion people on Earth, for instance, and Beowulf Shaefer has just landed. What is the first thing he learns? He learns that picking pockets is legal, because there's no way to enforce a rule against it.

Or Jerry Pournelle trying to get me into the *Oath of Fealty* world. Jerry had designed a building two miles by two miles by a fifth of a mile high. Eventually I put air wells into that thing, that

looked like the box the Great Pyramid came in, only bigger. But, for a while there, he was sending me to shopping malls. "Look around. See what they've done here. Any good idea here will be used in the bottom floor of Todos Santos, which is tremendous." And he wanted me to see shopping malls, and I came back from a shopping mall one day and I put a high diving board on the edge of the building. For suicides. And they wind up in a net.

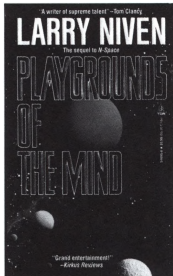
He put in the pillars, I think. I put the pillars under the air wells, but I also got him decorating them. One was a playground. One was a waterfall. I've forgotten what the other two were. They were leased out to merchants who used them right, but the waterfall hadn't been leased because no merchant had come up with an interesting idea.

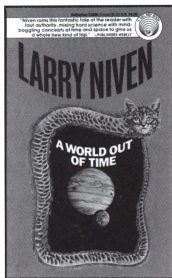
Do you find that because you're Larry Niven you have a little more leeway with your humor than, say, an unknown writer might?

Niven: No. Let's nail this down. Publishers have absolutely no memory of how good you were. If you can demonstrate that you're not that good anymore, you're out right away. What gets me reasonable amounts of money for a book is the publisher's memory of how good they think I still am. And it isn't the Niven name they're buying. It's the skills. Two mistakes and then I'm out.

In *Playgrounds of the Mind*, you said that most of your protagonists are tourists. That insight in fact influenced your plot in *A World Out of Time*.

Niven: When I realized that my favorite characters, the characters who were easiest to work with, were all tourists, I looked at the notion of a tourist who was forbidden to do touring. That's where "Rammer" came from, the first chapter in *A World Out of Time*. He was forbidden to be a tourist, and he went off and made himself a tourist anyway.





Is the use of this tourist idea a reflection of you? Now, you go to—how many science fiction conventions do you go to in a year, anyway?

Niven: It averages around eight, I think.

Are you the tourist that your protagonists are? Is it autobiographical?

Niven: I have to tell you, my tourists are better tourists than I am. I suffer from jetlag pretty strongly. And I've been in free-fall at Magic Mountain so I know how badly I react to being dropped from a height. So it may be I couldn't tolerate free-fall either.

They're tourists, but they're better tourists than I am. Then again, I do like traveling.

That's clear, eight science fiction cons a year—plus science cons.

Niven: Yeah, AAAS meetings. I don't go every year. I guess I make one out of three.

If you spent more time home writing, we'd have more of your work to read.

Niven: I'm home. But I have to tell you, there was a time when I thought I was getting my best ideas in bars. And I'm glad I got over that. The real answer is I'm working whenever I get this vague look on my face. I could be at a convention and still be daydreaming. No problem.

Why do you go to conventions? What's in it for you?

Niven: If I'd known about conventions when I was five, I'd have been going to conventions. I didn't learn about conventions, I didn't force myself to learn about them, until I was twenty-five or twenty-six. They are what I was looking for. I'm a science fiction reader since age ten or so. If I'd known there were people around who wanted to talk about these ideas, and if I'd known how to find them, nothing would have

kept me away.

So that's what brings you to them? The exchange of ideas?

Niven: Partly that. It's partly that the people there like what I like. Science fiction writers who go to conventions will generally be forced to admit that they go there to be admired. I go there to be admired. I go there to be told that what I'm doing in life is worthwhile. Although that isn't so necessary as it used to be. Understand, it was not a thing that made enough money to live on the first ten years of my career.

Some conventions you go to because there are business contacts. But that description fits the Worldcon and not much else. I'll see some old friends at the Worldcon and some of them will be my editors or my publishers or something like that.

I've heard you're a folksinger of some note.

Niven: I don't sing so well as I listen. My voice is a little raspy, without anything like the range of Leslie Fish's, though Leslie's is raspy too. I love to listen to the folksongs though.

When people think of collaboration, they think of Niven and Pournelle. You've even done it with three writers, several times. How do you do it? Why do you do it?

Niven: Superbly. Surely it is obvious that writing is a lonely profession. When you're collaborating, the loneliness goes away. When you're collaborating, your partner may get you out of a slump, though that's not guaranteed.

There are some other advantages. Suppose Jerry and I are both working on a character. He'll come out three dimensional. You've got two views on him. Binocular vision. Jerry invented Horace Bury, but Horace would have remained quite flat without my binocular viewpoint. As it was, he came out a central character for the whole series. I'm referring to *A Mote in God's Eye* where he was important, and *The Gripping Hand* where he was crucial.

You franchised out the Man-Kzin Wars. What's in it for you personally to have created this vast, well, *Known Space*, for example...

Niven: I've done it twice, in the sense of having created a sub-culture, watching a universe develop after I turn it loose to grow. There's the Man-Kzin Wars period, and I'm learning more about Kzinti family life than I ever wanted to know. I love these stories. And we just got Greg Benford involved. What he'll produce ought to be wonderful. And some stories come in from people I've never heard of, but they're so good that they've got to get in. One guy in Australia writes of a tiger skin in an old chest that's going to turn out to be a Kzin explorer from the nineteenth century. These will probably appear in Man-Kzin Wars six or seven. Jean Lamb writes of a woman who takes out the Kzinti crew who boarded her ship and killed the rest of her crew. It was not easy to do that, I mean to write of such a thing.

I love seeing the Man-Kzin Wars period burgeon like this, expand, develop more ideas.

I love, in another sense, seeing Dream Park become real in Boulder, Colorado. For I guess it must be up to fifteen years now, the International Fantasy Gaming Society—who took their name from Dream Park, and took the rules too—have been doing role-playing games up mountains and across deserts and down white water rivers. They don't look like the kind of gamers who sit around tables and play. They look like Olympic athletes. It's wonderful.

One last question: What's the most fun for you in science fiction?

Niven: I'm having a lot of fun right now. I'm into the second half of the Ringworld vampire story. And I'm watching a world develop.

It was a lot of fun watching Beowulf Shaeffer try to keep a man occupied and off balance until he could escape while I was writing the enveloping story for the first six Beowulf Shaeffer stories. Six stories plus an enveloping story. And it gave me the opportunity to correct all of the mistakes that science has been making for the past, like, thirty years. ■

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A Martian Odyssey

Jarvis stretched himself as luxuriously as he could in the cramped general quarters of the *Ares*.

"Air you can breathe!" he exulted. "It feels as thick as soup after the thin stuff out there!" He nodded at the Martian landscape stretching flat and desolate in the light of the nearer moon, beyond the glass of the port.

The other three stared at him sympathetically—Putz, the engineer, Leroy, the biologist, and Harrison the astronomer and captain of the expedition. Dick Jarvis, of course, was chemist of the famous crew, the *Ares* expedition, first human beings to set foot on the mysterious neighbor of the earth, the planet Mars. This, of course, was in the old days, less than twenty years after the mad American Doheny perfected the atomic blast at the cost of his life, and only a decade after the equally mad Cardoza rode on it to the moon. They were true pioneers, these four of the *Ares*. Except for a half-dozen moon expeditions and the ill-fated de Lancey flight aimed at the se-

art by Allen Koszowski

ductive orb of Venus, they were the first men to feel other gravity than earth's, and certainly the first successful crew to leave the earth-moon system. And they deserved that success when one considers the difficulties and discomforts—the months spent in acclimatization chambers back on earth, learning to breathe air as tenuous as that of Mars, the challenging of the void in the tiny rocket driven by the cranky reaction motors of the twenty-first century, and mostly the facing of an absolutely unknown world.

Jarvis stretched again and fingered the raw and peeling tip of his frost-bitten nose. He sighed again contentedly.

"Well," exploded Harrison abruptly, "are we going to hear what happened? You set out all shipshape in an auxiliary rocket, we don't get a peep for ten days, and finally Putz here picks you out of a lunatic antheap with a freak ostrich as your pal! Spill it, man!"

"Speel?" queried Leroy perplexedly. "Speel what?"

"He means 'spiel,'" explained Putz soberly. "It is to tell."

Jarvis met Harrison's amused glance without the shadow of a smile. "That's right, Karl," he said in grave agreement with Putz. "*Ich spiel es!*" He grunted comfortably and began.

"According to orders," he said, "I watched Karl here take off toward the North, and then I got into my flying sweat-box and headed South. You'll remember, Cap—we had orders not to land, but just scout about for points of interest. I set the two cameras clicking and buzzed along, riding pretty high—about two thousand feet—for a couple of reasons. First, it gave the cameras a greater field, and second, the under-jets travel so far in this half-vacuum they call air here that they stir up dust if you move low."

"We know all that from Putz," grunted Harrison. "I wish you'd saved the films, though. They'd have paid the cost of this junket; remember how the public mobbed the first moon pictures?"

"The films are safe," retorted Jarvis. "Well," he resumed, "as I said, I buzzed along at a pretty good clip; just as we figured, the wings haven't much lift in this air at less than a hundred miles per hour, and even then I had to use the under-jets.

"So, with the speed and the altitude and the blurring caused by the under-jets, the seeing wasn't any too good. I could see enough, though, to distinguish that what I sailed over

THE ONLY TIME in my life (now 76 years long) that my toes even curled with delight/excitement/wonder was not the first time I had sex, not the first time I saw a naked woman (the Exposition of 1933), the time I shook hands with Marlene Dietrich on HG Wells or Edgar Rice Burroughs or Boris Karloff or Michael Jackson, the time I received the first Hugo, the first time I saw METROPOLIS (now 79 times later), the first check I got for the sale of a sci-fi story... no, none of these highlights in my life caused my toes to curl like that magic day in the summer of 1934 when I, then 18, was lying under a big umbrella on the beach at Santa Monica (CA) and across a gulf of more than half a century I still vividly recall how my toes curled in the sand when I read the last words of A MARTIAN ODYSSEY.

It was new, different, fresh, a seminal work that would influence authors like Arthur K. Barnes and Eric Frank Russell. It was 360 degrees away from the Martian monstrosities of HG Wells, Edmond Hamilton, Ray Cummings and other pioneering science fiction authors who perennially pictured aliens as nightmarish creatures. The collective eyes of science fiction fans widened as we realized for the first time aliens could be other than bug-eyed marauders from space intent on plundering our planet and kidnapping our women, that they could be gentle, funny, friendly ("We are v-r-r-iends") piquant like—I weel. A punkish pre-Pucky of Perry Rhodan fame. An alien's alien.

One of science fiction's greatest tragedies was that only a year and a half after he exploded on the sf scene like a nova... Weinbaum died. The late Isaac Asimov characterized him as "the second Nova" ("Skylark" Smith the first, Robert Heinlein the third) Robert Bloch, who had the privilege of knowing him personally, said of him "his imaginative intelligent innovations helped reshape the form and direction of the genre." The Science Fiction Writers of America voted his MARTIAN ODYSSEY the second most popular sf short story of all time.

It would be cruel of me to keep you waiting a moment more to enjoy the exhilarating experience of reading for the first time (or the fifth) this sense-of-wonder saga from the seminal era of what was originally known and loved as "scientifiction."

was just more of this grey plain that we'd been examining the whole week since our landing—same blobby growths and same eternal carpet of crawling little plant-animals, or biopods, as Leroy calls them. So I sailed along, calling back my position every hour as instructed, and not knowing whether you heard me."

"I did!" snapped Harrison.

"A hundred and fifty miles south," continued Jarvis imperturbably, "the surface changed to a sort of low plateau, nothing but desert and orange-tinted sand. I figured that we were right in our guess, then, and this grey plain we dropped on was really the Mare Cimmerium which would make my orange desert the region called Xanthus. If I were right, I ought to hit another couple of



Forrest J Ackerman selects...

hundred miles, and then another orange desert, Thyle I or II. And so I did."

"Putz verified our position a week and a half ago!" grumbled the captain. "Let's get to the point."

"Coming!" remarked Jarvis. "Twenty miles into Thyle—believe it or not—I crossed a canal!"

"Putz photographed a hundred! Let's hear something new!"

"And did he also see a city?"

"Twenty of 'em, if you call those heaps of mud cities!"

"Well," observed Jarvis, "from here on I'll be telling a few things Putz didn't see!" He rubbed his tingling nose, and continued. "I knew that I had sixteen hours of daylight at this season, so eight hours—eight hundred miles—from here, I decided to turn back. I was still over Thyle, whether I or II I'm not sure, not more than twenty-five miles into it. And right there, Putz's pet motor quit!"

"Quit? How?" Putz was solicitous.

"The atomic blast got weak. I started losing altitude right away, and suddenly there I was with a thump right in the middle of Thyle! Smashed my nose on the window, too!" He rubbed the injured member ruefully.

"Did you maybe try washing der combustion chamber mit acid sulphuric?" inquired Putz. "Sometimes der lead giffs a secondary radiation—"

"Naw!" said Jarvis disgustedly. "I wouldn't try that, of course—not more than ten times! Besides, the bump flattened the landing gear and busted off the under-jets. Suppose I got the thing working—what then? Ten miles with the blast coming right out of the bottom and I'd have melted the floor from under me!" He rubbed his nose again. "Lucky for me a pound only weighs seven ounces here, or I'd have been mashed flat!"

"I could have fixed!" ejaculated the engineer. "I bet it was not serious."

"Probably not," agreed Jarvis sarcastically. "Only it wouldn't fly. Nothing serious, but I had my choice of waiting to be picked up or trying to walk back—eight hundred miles, and perhaps twenty days before we had to leave! Forty miles a day! Well," he concluded, "I chose to walk. Just as much chance of being picked up, and it kept me busy."

"We'd have found you," said Harrison.

"No doubt. Anyway, I rigged up a harness from some seat straps, and put the water tank on my back, took a cartridge belt and revolver, and some iron rations, and started out."

"Water tank!" exclaimed the little biologist, Leroy. "She weigh one-quarter ton!"

"Wasn't full. Weighed about two hundred and fifty pounds earth-weight, which is eighty-five here. Then, besides, my own personal two hundred and ten pounds is only seventy on Mars, so, tank and all, I grossed a hundred and fifty-five, or fifty-five pounds less than my everyday earth-weight. I figured on that when I undertook the forty-mile daily stroll. Oh—of course I took a thermo-skin sleeping bag for these wintry Martian nights.

"Off I went, bouncing along pretty quickly. Eight hours of daylight meant twenty miles or more. It got tiresome, of course—plugging along over a soft sand desert with nothing to see, not even Leroy's crawling biopods. But an hour or so brought me to the canal—just a dry ditch about four hundred feet wide, and straight as a railroad on its own company map.

"There'd been water in it sometime, though. The ditch was covered with what looked like a nice green lawn. Only, as I approached, the lawn moved out of my way!"

"Eh?" said Leroy.

"Yeah; it was a relative of your biopods. I caught one—a little grass-like blade about as long as my finger, with two thin, stemmy legs."

"He is where?" Leroy was eager.

"He is let go! I had to move, so I plowed along with the walking grass opening in front and closing behind. And then I was out on the orange desert of Thyle again.

"I plugged doggedly along, cussing the sand that made going so tiresome, and incidentally, cussing that cranky motor of yours, Karl. It was just before twilight that I reached the edge of Thyle, and looked down over the gray Mare Chronium. And I knew there was seventy-five miles of that to be walked over, and then a couple of hundred miles of that Xanthus desert, and about as much more Mare Cimmerium. Was I pleased? I started cussing you fellows for not picking me up!"

"We were trying, you sap!" said Harrison.

"That didn't help. Well, I figured I might as well use what was left of daylight in getting down the cliff that bounded Thyle. I found an easy place, and down I went. Mare Chronium was just the same sort of place as this—crazy leafless plants and a bunch of crawlers; I gave it a glance and hauled out my sleeping bag. Up to that time, you know, I hadn't seen anything worth worrying about on this half-dead world—nothing dangerous, that is."

"Did you?" queried Harrison.

"Did! You'll hear about it when I come to it. Well, I was just about to turn in when suddenly I heard the wildest sort of shenanigans!"

"Did you maybe try

washing der combustion

chamber mit acid

sulphuric?"

"Vot iss shenanigans?" inquired Putz. "He say, *'Je ne sais quoi,'*" explained Leroy. "It is to say, 'I don't know what.'"

"That's right," agreed Jarvis. "I didn't know what, so I sneaked over to find out. There was a racket like a flock of crows eating a bunch of canaries—whistles, cackles, caws, trills, and what have you. I rounded a clump of stumps, and there was Tweel!"

"Tweel?" said Harrison, and "Tvell?" said Leroy and Putz.

"That freak ostrich," explained the narrator. "At least, Tweel is as near as I can pronounce it without sputtering. He called it something like 'Trrrweerrlll.'"

"What was he doing?" asked the Captain.

"He was being eaten! And squealing, of course, as any one would."

"Eaten! By what?"

"I found out later. All I could see then was a bunch of black ropy arms tangled around what looked like, as Putz described it to you, an ostrich. I wasn't going to interfere, naturally; if both creatures were dangerous, I'd have one less to worry about.

"But the bird-like thing was putting up a good battle, dealing vicious blows with an eighteen-inch beak, between screeches. And besides, I caught a glimpse or two of what was on the end of those arms!" Jarvis shuddered. "But the clincher was when I noticed a little black bag or case hung about the neck of the bird-thing! It was intelligent! That or tame, I assumed. Anyway, it clinched my decision. I pulled out my automatic and fired into what I could see of its antagonist.

"There was a flurry of tentacles and a spurt of black corruption, and then the thing, with a disgusting sucking noise, pulled itself and its arms into a hole in the ground. The other let out a series of clacks, staggered around on legs about as thick as golf sticks, and turned suddenly to face me. I held my weapon ready, and the two of us stared at each other.

"The Martian wasn't a bird, really. It wasn't even bird-like, except just at first glance. It had a beak all right, and a few feathery appendages, but the beak wasn't really a beak. It was somewhat flexible; I could see the tip bend slowly from side to side; it was almost like a cross between a beak and a trunk. It had four-toed feet, and four fingered things—hands, you'd have to call them, and a little roundish body, and a long neck ending in a tiny head—and that beak. It stood an inch or so taller than I, and—well, Putz saw it!"

The engineer nodded. "Yah! I saw!"

Jarvis continued. "So—we stared at each other. Finally the creature went into a series of clackings and twitterings and held out its hands toward me, empty. I took that as a gesture of friendship."

"Perhaps," suggested Harrison, "it looked at that nose of yours and thought you were its brother!"

"Huh! You can be funny without talking! Anyway, I put up my gun and said, 'Aw, don't mention it, or something of the sort, and the thing came over and we were pals.

"By that time, the sun was pretty low and I knew that I'd better build a fire or get into my thermo-skin. I decided on the fire. I picked a spot at the base of the Thyle cliff, where the rock could reflect a little heat on my back. I started breaking off chunks of this desiccated Martian vegetation, and my companion caught the idea and brought in an armful. I reached for a match, but the Martian fished into his pouch and brought out something that looked like a glowing coal; one touch of it, and the fire was blazing—and you all know what a job we have starting a fire in this atmosphere!

"And that bag of his!" continued the narrator. "That was a manufactured article, my friends; press an end and she popped open—press the middle, and she sealed so perfectly you couldn't see the line. Better than zippers.

"Well, we stared at the fire a while and I decided to attempt some sort of communication with the Martian. I pointed at myself and said 'Dick'; he caught the drift immediately, stretched a bony claw at me and repeated 'Tick.' Then I pointed at him, and he gave that whistle I called Tweel; I can't imitate his accent. Things were going smoothly; to emphasize the names, I repeated 'Dick,' and them, pointing at him, 'Tweel.'

"There we stuck! He gave some clacks that sounded negative, and said something like 'P-p-p-prot.' And that was just the beginning; I was always 'Tick,' but as for him—part of the time he was 'Tweel,' and part of the time he was 'P-p-p-prot,' and part of the time he was sixteen other noises!

"We just couldn't connect! I tried 'rock,' and I tried 'star,' and 'tree,' and 'fire,' and Lord knows what else, and try as I would, I couldn't get a single word! Nothing was the same for two successive minutes, and if that's a language, I'm an alchemist! Finally I gave it up and called him Tweel, and that seemed to do.

"But Tweel hung on to some of my words. He remembered a couple of them, which I suppose is a great achievement if you're used to a language you have to make up as you go along. But I couldn't get

"The Martian wasn't a bird, really. It wasn't even bird-like, except just at first glance."

the hang of his talk; either I missed some subtle point or we just didn't *think* alike—and I rather believe the latter view.

"I've other reasons for believing that. After a while I gave up the language business, and tried mathematics. I scratched two plus two equals four on the ground, and demonstrated it with pebbles. Again Tweel caught the idea, and informed me that three plus three equals six. Once more we seemed to be getting somewhere.

"So, knowing that Tweel had at least a grammar school education, I drew a circle for the sun, pointing first at it, and then at the last glow of the sun. Then I sketched in Mercury, and Venus, and Mother Earth, and Mars, and finally, pointing to Mars, I swept my hand around in a sort of inclusive gesture to indicate that Mars was our current environment. I was working up to putting over the idea that my home was on the earth.

"Tweel understood my diagram all right. He poked his beak at it, and with a great deal of trilling and clucking, he added Deimos and Phobos to Mars, and then sketched in the earth's moon!

"Do you see what that proves? It proves that Tweel's race uses telescopes—that they're civilized!"

"Does not!" snapped Harrison. "The moon is visible from here as a fifth magnitude star. They could see its revolution with the naked eye."

"The moon, yes!" said Jarvis. "You've missed my point. Mercury isn't visible! And Tweel knew of Mercury be-

cause he placed the Moon at the *third* planet, not the second. If he didn't know Mercury, he'd put the earth second, and Mars third, instead of fourth! See?"

"Humph!" said Harrison.

"Anyway," proceeded Jarvis, "I went on with my lesson. Things were going smoothly, and it looked as if I could put the idea over. I pointed at the earth on my diagram, and then at myself, and then, to clinch it, I pointed to myself and then to the earth itself shining bright green almost at the zenith.

"Tweel set up such an excited clacking that I was certain he understood. He jumped up and down, and suddenly he pointed at himself and then at the sky, and then at himself and at the sky again. He pointed at his middle and then at Arcturus, at his head and then at Spica, at his feet and then at half a dozen stars, while I just gaped at him. Then, all of a sudden, he gave a tremendous leap. Man, what a hop! He shot straight up into the starlight, seventy-five feet if an inch! I saw him silhouetted against the sky, saw him turn and come down at me head first, and land smack on his beak like a javelin! There he stuck square in the

center of my sun-circle in the sand—a bull's-eye!"

"Nuts!" observed the captain. "Plain nuts!"

"That's what I thought, too! I just stared at him open-mouthed while he pulled his head out of the sand and stood up. Then I figured he'd missed my point, and I went through the whole blamed rigmarole again, and it ended the same way, with Tweel on his nose in the middle of my picture!"

"Maybe it's a religious rite," suggested Harrison.

"Maybe," said Jarvis dubiously. "Well, there we were. We could exchange ideas up to a certain point, and then—blooey! Something in us was different, unrelated; I don't doubt that Tweel thought me just as screwy as I thought him. Our minds simply looked at the world from different viewpoints, and perhaps his viewpoint is as true as ours. But—we couldn't get together, that's all. Yet, in spite of all difficulties, I *liked* Tweel, and I have a queer certainty that he liked me."

"Nuts!" repeated the captain. "Just daffy!"

"Yeah? Wait and see. A couple of times I've thought that perhaps we—"

**"Tweel set up such an
excited clacking
that I was certain he
understood."**

He paused, and then resumed his narrative. "Anyway, I finally gave it up, and got into my thermo-skin to sleep. The fire hadn't kept me any too warm, but that damn sleeping bag did. Got stuffy five minutes after I closed myself in. I opened it a little and bingo! Some eighty-below-zero air hit my nose, and that's when I got this pleasant little frostbite to add to the bump I acquired during the crash of my rocket.

"I don't know what Tweel made of my sleeping. He sat around, but when I woke up,

he was gone. I'd just crawled out of my bag, though, when I heard some twittering, and there he came, sailing down from that three-story Thyle cliff to alight on his beak beside me. I pointed to myself and toward the north, and he pointed at himself and toward the south, but when I loaded up and started away, he came along.

"Man, how he traveled!—a hundred and fifty feet at a jump, sailing through the air stretched out like a spear, and landing on his beak. He seemed surprised at my plodding, but after a few moments he fell in beside me, only every few minutes he'd go into one of his leaps, and stick his nose into the sand a block ahead of me. Then he'd come shooting back at me; it kept me nervous at first to see that beak of his coming at me like a spear, but he always ended in the sand at my side.

"So the two of us plugged along across the Mare Chronium. Same sort of place as this—same crazy plants and same little green biopods growing in the sand, or crawling out of your way. We talked—not that we understood each other, you know, but just for

company. I sang songs, and I suspect Tweel did too; at least, some of his trillings and twitterings had a subtle sort of rhythm.

"Then, for variety, Tweel would display his smattering of English words. He'd point to an outcropping and say 'rock,' and point to a pebble and say it again; or he'd touch my arm and say 'Tick,' and then repeat it. He seemed terrifically amused that the same word meant the same thing twice in succession, or that the same word could apply to two different objects. It set me wondering if perhaps his language wasn't like the primitive speech of some earth people—you know, Captain, like the Negritoes, for instance, who haven't any generic words. No word for food or water or man—words for good food and bad food, or rain water and sea water, or strong man and weak man—but no names for general classes. They're too primitive to understand that rain water and sea water are just different aspects of the same thing. But that wasn't the case with Tweel; it was just that we were somehow mysteriously different—our minds were alien to each other. And yet—we *liked* each other!"

"Well, I like you!" countered Jarvis wickedly. "Anyway," he resumed, "don't get the idea that there was anything screwy about Tweel. In fact, I'm not so sure but that he couldn't teach our highly praised human intelligence a trick or two. Oh, he wasn't an intellectual superman, I guess; but don't overlook the point that he managed to understand a little of my mental workings, and I never even got a glimmering of his."

"Because he didn't have any!" suggested the captain, while Putz and Leroy blinked attentively.

"You can be the judge of that when I'm through," said Jarvis. "Well, we plugged along across the Mare Chromium all that day, and all the next. Mare Chromium—Sea of Time! Say, I was willing to agree with Schiaparelli's name by the end of that march! Just that grey, endless plain of weird plants, and never a sign of any other life. It was so monotonous that I was even glad to see the desert of Xanthus toward the evening of the second day.

"I was fair worn out, but Tweel seemed as fresh as ever, for all I never saw him drink or eat. I think he could have crossed the Mare Chromium in a couple of hours with those block-long nose dives of his, but he stuck along with me. I offered him some water once or twice; he took the cup from me and sucked the liquid into his beak, and then carefully squirted it all back into the cup and gravely returned it.

"Just as we sighted Xanthus, or the cliffs that bounded it, one of those nasty sand clouds blew along, not as bad as the one we had here, but mean to travel

against. I pulled the transparent flap of my thermo-skin bag across my face and managed pretty well, and I noticed that Tweel used some feathery appendages growing like a mustache at the base of his beak to cover his nostrils, and some similar fuzz to shield his eyes."

"He is desert creature!" ejaculated the little biologist, Leroy.

"Huh? Why?"

"He drink no water—he is adapt for sand storm—"

"Proves nothing! There's not enough water to waste anywhere on this desiccated pill called Mars. We'd call all of it desert on earth, you know." He paused. "Anyway, after the sand storm blew over, a little wind kept blowing in our faces, not strong enough to stir the sand. But suddenly things came drifting along from the Xanthus cliffs—small, transparent spheres, for all the world like glass tennis balls! But light—they were almost light enough to float

even in this thin air—empty, too; at least, I cracked open a couple and nothing came out but a bad smell. I asked Tweel about them, but all he said was 'No, no, no,' which I took to mean that he knew nothing about them. So they went bouncing by like tumbleweeds, or like soap bubbles, and we plugged on toward Xanthus. Tweel pointed at one of the crystal balls once and said 'rock,' but I was too tired to argue with him. Later I discovered what he meant.

"We came to the bottom of the Xanthus cliffs finally, when there wasn't much daylight left. I decided to sleep on the plateau if possible; anything dangerous, I reasoned, would be more likely to prowl through the vegetation of the Mare Chromium than the sand of Xanthus. Not that I'd seen a single sign of menace, except the rope-armed black thing that had trapped Tweel, and apparently that didn't prowl at all, but lured its victims within reach. It couldn't lure me while I slept, especially as Tweel didn't seem to sleep at all, but simply sat patiently around all night. I wondered how the creature had managed to trap Tweel, but there wasn't any way of asking him. I found that out too, later; it's devilish!

"However, we were ambling around the base of the Xanthus barrier looking for an easy spot to climb. At least, I was. Tweel could have leaped it easily, for the cliffs were lower than Thyle—perhaps sixty feet. I found a place and started up, swearing at the water tank strapped to my back—it didn't bother me except when climbing—and suddenly I heard a sound that I thought I recognized!

**"So they went bouncing
by like tumbleweeds, or
like soap bubbles, and
we plugged on..."**



"You know how deceptive sounds are in this thin air. A shot sounds like the pop of a cork. But this sound was the drone of a rocket, and sure enough, there went our second auxiliary about ten miles to westward, between me and the sunset!"

"Vas me!" said Putz. "I hunt for you."

"Yeah; I knew that, but what good did it do me? I hung on to the cliff and yelled and waved with one hand. Tweel saw it too, and set up a trilling and twittering, leaping to the top of the barrier and then high into the air. And while I watched, the machine droned on into the shadows to the south.

"I scrambled to the top of the cliff. Tweel was still pointing and trilling excitedly, shooting up toward the sky and coming down head-on to stick upside down on his beak in the sand. I pointed toward the south and at myself, and he said, 'Yes—Yes—Yes;' but somehow I gathered that he thought the flying thing was a relative of mine, probably a parent. Perhaps I did his intellect an injustice; I think now that I did.

"I was bitterly disappointed by the failure to attract attention. I pulled out my thermo-skin bag and crawled into it, as the night chill was already apparent. Tweel stuck his beak into the sand and drew up his legs and arms and looked for all the world like one of those leafless shrubs out there, I think he stayed that way all night."

"Protective mimicry!" ejaculated Leroy. "See? He is desert creature!"

CHAPTER III—The Pyramid Being

"In the morning," resumed Jarvis, "we started off again. We hadn't gone a hundred yards into Xanthus when I saw something queer! This is one thing Putz didn't photograph, I'll wager!

"There was a line of little pyramids—tiny ones, not more than six inches high, stretching across Xanthus as far as I could see! Little buildings made of pygmy bricks, they were, hollow inside and truncated, or at least broken at the top and empty. I pointed at them and said 'What?' to Tweel, but he gave some negative twitters to indicate, I suppose, that he didn't know. So off we went, following the row of pyramids because they ran north, and I was going north.

"Man, we trailed that line for hours! After a while, I noticed another queer thing: they were getting larger. Same number of bricks in each one, but the bricks were larger.

"By noon they were shoulder high. I looked into a couple—all just the same, broken at the top and empty. I examined a brick or two as well; they were silica, and old as creation itself!"

"How you know?" asked Leroy.

"They were weathered—edges rounded. Silica doesn't weather easily even on earth, and in this climate—!"

"How old you think?"

"Fifty thousand—a hundred thousand years. How can I tell? The little ones we saw in the morning were older—perhaps ten times as old. Crumbling. How old would that make *them*? Half a million years? Who knows? Jarvis paused a moment. "Well," he resumed,

And it built itself in, and when it was covered, it moved over to a fresh place to start over. No wonder it creaked! A living creature half a million years old!"

"How you know how old?" Leroy was frantic.

"We trailed its pyramids from the beginning, didn't we? If this weren't the original pyramid builder, the series would have ended somewhere before we found him, wouldn't it?—ended and started over with the small ones. That's simple enough, isn't it?"

"But he reproduces, or tries to. Before the third brick came out, there was a little rustle and out popped a whole stream of those little crystal balls. They're his spores, or eggs, or seeds—call 'em what you want. They went bouncing by across Xanthus just as they'd bounced by us back in the Mare Chronium. I've a hunch how they work, too—this is for your information, Leroy. I think the crystal shell of silica is no more than a protective covering, like an eggshell, and that the active principle is the smell inside. It's some sort of gas that attacks silicon, and if the shell is broken near a supply of that element, some reaction starts that ultimately develops into a **_____** *Mate hour.* **_____** a beast like that one."

"You should try!" exclaimed the little Frenchman. "We must break one to see!"

"Yeah? Well, I did. I smashed a couple against the sand. Would you like to come back in about ten thousand years to see if I planted some pyramid monsters? You'd most likely be able to tell by that time!" Jarvis paused and drew a deep breath. "Lord! That queer creature! Do you picture it? Blind, deaf, nerveless, brainless—just a mechanism, and yet—immortal! Bound to go on making bricks, building pyramids, as long as silicon and oxygen exist, and even afterwards it'll just stop. It won't be dead. If the accidents of a million years bring it its food again, there it'll be, ready to run again, while brains and civilizations are part of the past. A queer beast—yet I met a stranger one!"

"If you did, it must have been in your dreams!" growled Harrison.

"You're right!" said Jarvis soberly. "In a way, you're right. The dream-beast! That's the best name for it—and its the most fiendish, terrifying creation one could imagine! More dangerous than a lion, more insidious than a snake!"

"Tell me!" begged Leroy. "I must go see!"

"Not *that* devil!" He paused again. "Well," he resumed, "Tweel and I left the pyramid creature and plowed along through Xanthus. I was tired and a little disheartened by Putz's failure to pick me up, and Tweel's trilling got on my nerves, as did his flying nosedives. So I just strode along without a word, hour

after hour across that monotonous desert.

"Toward mid-afternoon we came in sight of a low dark line on the horizon. I knew what it was. It was a canal; I'd crossed it in the rocket and it meant that we were just one-third of the way across Xanthus. Pleasant thought, wasn't it? And still, I was keeping up to schedule.

"We approached the canal slowly; I remembered that this one was bordered by a wide fringe of vegetation and that Mud-heap City was on it."

CHAPTER IV—The Dream-Beast

"I was tired, as I said. I kept thinking of a good hot meal, and then that when I jumped to reflections of how nice and home-like even Borneo would seem after this crazy planet, and from that, to thoughts of little old New York, and then to thinking about a girl I know there—Fancy Long. Know her?"

"Vision entertainer," said Harrison, "I've tuned her in. Nice blonde—dances and sings on the *Yerba* **_____** *Mate hour.* **_____**

"That's her," said Jarvis ungrammatically. "I know her pretty well—just friends, get me?—though she came down to see us off in the *Ares*. Well, I was thinking about her, feeling pretty lonesome, and all the time we were approaching that line of rubbery plants.

"And then—I said, 'What 'n hell!' and stared. And there she was—Fancy Long, standing plain as day under one of those crack-brained trees, and smiling and waving just the

way I remembered her when we left!"

"Now you're nuts, too!" observed the captain.

"Boy, I almost agreed with you! I stared and pinched myself and closed my eyes and then stared again—and every time, there was Fancy Long smiling and waving! Tweel saw something, too; he was trilling and clucking away, but I scarcely heard him. I was bounding toward her over the sand, too amazed even to ask myself questions.

"I wasn't twenty feet from her when Tweel caught me with one of his flying leaps. He grabbed my arm, yelling, 'No—no—no!' in his squeaky voice. I tried to shake him off—he was as light as if he were built of bamboo—but he dug his claws in and yelled. And finally some sort of sanity returned to me and I stopped less than ten feet from her. There she stood, looking as solid as Putz's head!"

"Vot?" said the engineer.

"She smiled and waved, and waved and smiled, and I stood there dumb as Leroy, while Tweel squeaked and chattered. I *knew* it couldn't be real, yet—there she was!

**"She smiled and
waved...and I stood
there dumb as Leroy,
while Tweel squeaked..."**

"Finally I said, 'Fancy! Fancy Long!' She just kept on smiling and waving, but looking as real as I hadn't left her thirty-seven million miles away.

"Tweel had his glass pistol out, pointing it at her. I grabbed his arm, but he tried to push me away. He pointed at her and said, 'No breet! No breet!', and I understood that he meant that the Fancy Long thing wasn't alive. Man, my head was whirling!

"Still, it gave me the jitters to see him pointing his weapon at her. I don't know why I stood there watching him take careful aim, but I did. Then he squeezed the handle of his weapon; there was a little puff of steam, and Fancy Long was gone! And in her place was one of those writhing, black, rope-armed horrors like the one I'd saved Tweel from!

"The dream-beast! I stood there dizzy, watching it die while Tweel trilled and whistled. Finally, he touched my arm, pointed at the twisting thing, and said, 'You one-one-two, he one-one-two.' After he'd repeated it eight or ten times, I got it. Do any of you?"

"Ouh!" shrilled Leroy. "*Moi—je le comprends!* He mean you think of something, the beast he know, and you see it! *Un chien*—a hungry dog, he would see the big bone with meat! Or smell it—not?"

"Right!" said Jarvis. "The dream-beast uses its victim's longings and desires to trap its prey. The bird at nesting season would see its mate, the fox, prowling for its own prey, would see a helpless rabbit!"

"How he do?" queried Leroy.

"How do I know? How does a snake back on earth charm a bird into its very jaws? And aren't there deep-sea fish that lure their victims into their mouths? Lord!" Jarvis shuddered. "Do you see how insidious the monster is? We're warned now—but henceforth we can't trust even our eyes. You might see me—I might see one of you—and back of it may be nothing but another of those black horrors!"

"How'd your friend know?" asked the captain abruptly.

"Tweel? I wonder! Perhaps he was thinking of something that couldn't possibly have interested me, and when I started to run, he realized that I saw something different and was warned. Or perhaps the dream-beast can only project a single vision, and Tweel saw what I saw—or nothing. I couldn't ask him. But it's just another proof that his intelligence is equal to ours or greater."

"He's daffy, I tell you!" said Harrison. "What makes you think his intellect ranks with the human?"

"Plenty of things! First, the pyramid-beast. He hadn't seen one before; he said as much. Yet he recognized it as a dead-alive automaton of silicon."

"He could have heard of it," objected Harrison. "He lives around here, you know."

"Well, how about the language? I couldn't pick up a single idea of his and he learned six or seven words of mine. And do you realize what complex ideas he put over with no more than those six or seven words? The pyramid-monster—the dream-beast! In a single phrase he told me that one was a harmless automaton and the other a deadly hypnotist. What about that?"

"Huh!" said the captain.

"*Huh* if you wish! Could you have done it knowing only six words of English? Could you go even further, as Tweel did, and tell me that another creature was of a sort of intelligence so different from ours that understanding was impossible—even more impossible than that between Tweel and me?"

"Eh? What was that?"

"Later. The point I'm making is that Tweel and his race are worthy of our friendship. Somewhere on Mars—and you'll find I'm right—is a civilization and culture equal to ours, and maybe more than equal.

And communication is possible between them and us; Tweel proves that. It may take years of patient trial, for their minds are alien, but less alien than the next minds we encountered—if they are minds."

"The next ones? What next ones?"

"The people of the mud cities along the canals." Jarvis frowned, then resumed his narrative. "I thought the dream-beast and the silicon-monster were the strangest beings conceivable, but I was wrong. These creatures are still more alien, less understandable than either and far less comprehensible than Tweel, with whom friendship is possible, and even, by patience and concentration, the exchange of ideas.

"Well," he continued, "we left the dream-beast dying, dragging itself back into its hole, and we moved toward the canal. There was a carpet of that queer walking-grass scampering out of our way, and when we reached the bank, there was a yellow trickle of water flowing. The mound city I'd noticed from the rocket was a mile or so to the right and I was curious enough to want to take a look at it.

"It had seemed deserted from my previous glimpse of it, and if any creatures were lurking in it—well, Tweel and I were both armed. And by the way, that crystal weapon of Tweel's was an interesting device; I took a look at it after the dream-beast episode. It fired a little glass splinter, poisoned, I suppose, and I guess it held at least a hundred of 'em to a load. The propellant was steam—just plain steam!"

"Shteam!" echoed Putz. "From vot come shteam?"

**"Somewhere on
Mars...is a civilization
and culture equal to
ours..."**

"From water, of course! You could see the water through the transparent handle, and about a gill of another liquid, thick and yellowish. When Tweel squeezed the handle—there was no trigger—a drop of water and a drop of the yellow stuff squirted into the firing chamber, and the water vaporized—pop!—like that. It's not so difficult; I think we could develop the same principle. Concentrated sulphuric acid will heat water almost to boiling, and so will quicklime, and there's potassium and sodium—

"Of course, his weapon hadn't the range of mine, but it wasn't so bad in this thin air, and it *did* hold as many shots as a cowboy's gun in a Western movie. It was effective, too, at least against Martian life; I tried it out, aiming at one of the crazy plants, and darned if the plant didn't wither up and fall apart! That's why I think the glass splinters were poisoned.

"Anyway, we trudged along toward the mud-heap city and I began to wonder whether the city builders dug the canals. I pointed to the city and then at the canal system, perhaps Tweel's people. I don't know; maybe there's still another intelligent race on the planet, or a dozen others. Mars is a queer little world."

CHAPTER V—The Barrel-People

"A hundred yards from the city we crossed a sort of road—just a hard-packed mud trail, and then, all of a sudden, along came one of the mound builders!

"Man, talk about fantastic beings! It looked rather like a barrel trotting along on four legs with four other arms or tentacles. It had no head, just body and members and a row of eyes completely around it. The top end of the barrel-body was a diaphragm stretched as tight as a drum head, and that was all. It was pushing a little coppery cart and tore right past us like the proverbial bat out of Hell. It didn't even notice us, although I thought the eyes on my side shifted a little as it passed.

"A moment later another came along, pushing another empty cart. Same thing—it just scooted past us. Well, I wasn't going to be ignored by a bunch of barrels playing train, so when the third one approached, I planted myself in the way—ready to jump, of course, if the thing didn't stop.

"But it did. It stopped and set up a sort of drumming from the diaphragm on top. And I held out both hands and said mildly, 'We are friends!' And what do you suppose the thing did?"

"Said, 'Pleased to meet you, I'll bet!'" suggested Harrison.

"I couldn't have been more surprised if it had! It

drummed on its diaphragm, and then suddenly boomed out, 'We are v-r-r-riends!' and gave its pushcart a vicious poke at me! I jumped aside, and away it went while I stared dumbly after it.

"A minute later another one came hurrying along. This one didn't pause, but simply drummed out, 'We are v-r-r-riends!' and scurried by. How did it learn the phrase? Were all of the creatures in some sort of communication with each other? Were they all parts of some central organism? I don't know, though I think Tweel does.

"Anyway, the creatures went sailing past us, every one greeting us with the same statement. It got to be funny; I never thought to find so many friends on this God-forsaken ball! Finally I made a puzzled gesture to Tweel; I guess he understood, for he said, 'One-one-two—yes!—two-two-four—no!' Get it?"

"Sure," said Harrison. "It's a Martian nursery rhyme."

"Yeah! Well, I was getting used to Tweel's symbolism, and I figured it out this way. 'One-one-two—yes!'

The creatures were intelligent.

"Two-two-four—no!' Their intelligence was not of our order, but something different and beyond the logic of two and two is four. Maybe I missed his meaning. Perhaps he meant that their minds were of low degree, able to figure out the simple things—'One-one-two—yes!'—but not more difficult things—'Two-two-four—no!' But I think from what we saw later that he meant the other.

"After a few moments, the creatures came rushing back—first one, then another. Their pushcarts were full of stones, sand, chunks of rubbery plants, and such rubbish as that. They droned out their friendly greeting, which didn't really sound so friendly, and dashed on. The third one I assumed to be my first acquaintance and I decided to have another chat with him. I stepped into his path again and waited.

"Up he came, booming out his 'We are v-r-r-riends' and stopped. I looked at him; four or five of his eyes looked at me. He tried his password again and gave a shove on his cart, but I stood firm. And then the— the dashed creature reached out one of his arms, and two finger-like nippers tweaked my nose!"

"Haw!" roared Harrison. "Maybe the things have a sense of beauty!"

"Laugh!" grumbled Jarvis. "I'd already had a nasty bump and a mean frostbite on that nose. Anyway, I yelled 'Ouch!' and jumped aside and the creature dashed away; but from then on, their greeting was 'We are v-r-r-riends! Ouch!' Queer beasts!"

"Tweel and I followed the road squarely up to the

"I pointed to the city and then at the canal system, perhaps Tweel's people."



nearest mound. The creatures were coming and going, paying us not the slightest attention, fetching their loads of rubbish. The road simply dived into an opening, and slanted down like an old mine, and in and out darted the barrel-people, greeting us with their eternal phrase.

"I looked in; there was a light somewhere below, and I was curious to see it. It didn't look like a flame or torch, you understand, but more like a civilized light, and I thought that I might get some clue as to the creatures' development. So in I went and Tweel tagged along, not without a few trills and twitters, however.

"The light was curious; it sputtered and flared like an old arc light, but came from a single black rod set in the wall of the corridor. It was electric, beyond doubt. The creatures were fairly civilized, apparently.

"Then I saw another light shining on something that glittered and I went on to look at that, but it was only a heap of shiny sand. I turned toward the entrance to leave, and the Devil take me if it wasn't gone!

"I suppose the corridor had curved, or I'd stepped into a side passage. Anyway, I walked back in the direction I thought we'd come, and all I saw was more dim-lit corridor. The place was a labyrinth! There was nothing but twisting passages running every way, lit by occasional lights, and now and then a creature running by, sometimes with a pushcart, sometimes without.

"Well, I wasn't much worried at first. Tweel and I had only come a few steps from the entrance. But every move we made after that seemed to get us in deeper. Finally I tried following one of the creatures with an empty cart, thinking that he'd be going out for his rubbish, but he ran around aimlessly, into one passage and out another. When he started dashing around a pillar like one of these Japanese waltzing mice, I gave up, dumped my water tank on the floor, and sat down.

"Tweel was as lost as I. I pointed up and he said 'No—no—no!' in a sort of helpless trill. And we couldn't get any help from the natives; they paid us no attention at all, except to assure us they were friends—ouch!

"Lord! I don't know how many hours or days we wandered around there! I slept twice from sheer exhaustion; Tweel never seemed to need sleep. We tried following only the upward corridors, but they'd run uphill a ways and then curve downwards. The temperature in that damned ant hill was constant; you couldn't tell night from day and after my first sleep I didn't know whether I'd slept one hour or thirteen, so

I couldn't tell from my watch whether it was midnight or noon.

"We saw plenty of strange things. There were machines running in some of the corridors, but they didn't seem to be doing anything—just wheels turning. And several times I saw two barrel-beasts with a little one growing between them joined to both."

"Parthenogenesis!" exclaimed Leroy. "Parthenogenesis by budding—like *les tulipes*!"

"If you say so, Frenchy," agreed Jarvis. "The things never noticed us at all, except, as I say, to greet us with 'We are v-r-r-riends! Ouch!' They seemed to have no home-life of any sort, but just scurried around with their pushcarts, bringing in rubbish. And finally I discovered what they did with it.

"We'd had a little luck with a corridor, one that slanted upwards for a great distance. I was feeling that we ought to be close to the surface when suddenly the passage debouched into a domed chamber, the only one we'd seen. And man!—I felt like dancing when I saw what looked like daylight through a crevice in the roof.

"They seemed to have no home-life of any sort, but scurried around with their pushcarts..."

"There was a—a sort of machine in the chamber, just an enormous wheel that turned slowly, and one of the creatures was in the act of dumping his rubbish below it. The wheel ground it with a crunch—sand, stones, plants, all into powder that sifted away somewhere. While we watched, others filed in, repeating the process, and that seemed to be all. No rhyme nor reason to the whole thing—but that's characteristic of this crazy planet.

And there was another fact that's almost too bizarre to believe.

"One of the creatures, having dumped his load, pushed his cart aside with a crash and calmly shoved himself under the wheel! I watched him crushed, too stupefied to make a sound, and a moment later, another followed him! They were perfectly methodical about it, too; one of the cartless creatures took the abandoned pushcart.

"Tweel didn't seem surprised; I pointed out the next suicide to him, and he just gave the most human-like shrug imaginable, as much as to say, 'What can I do about it?' He must have known more or less about these creatures.

"Then I saw something else. There was something beyond the wheel, something shining on a sort of low pedestal. I walked over; there was a little crystal about the size of an egg, fluorescing to beat Tophet. The light from it stung my hands and face, almost like a static discharge, and then I noticed another funny thing. Remember that wart I had on my left thumb? Look!" Jarvis extended his hand. "It dried up and fell

off—just like that! And my abused nose—say, the pain went out of it like magic! The thing had the property of hard X-rays or gamma radiations, only more so; it destroyed diseased tissue and left healthy tissue unharmed!

"I was thinking what a present *that'd* be to take back to Mother Earth when a lot of racket interrupted. We dashed back to the other side of the wheel in time to see one of the pushcarts ground up. Some suicide had been careless, it seems.

"Then suddenly the creatures were booming and drumming all around us and their noise was decidedly menacing. A crowd of them advanced toward us; we backed out of what I thought was the passage we'd entered by, and they came rumbling after us, some pushing carts and some not. Crazy brutes! There was a whole chorus of 'We are v-r-r-riends! Ouch!' I didn't like the 'ouch'; it was rather suggestive.

"Tweel had his glass gun out and I dumped my water tank for greater freedom and got mine. We backed up the corridor with the barrel-beasts following—about twenty of them. Queer thing—the ones coming in with loaded carts moved past us inches away without a sign.

"Tweel must have noticed that. Suddenly, he snatched out that glowing coal cigar-lighter of his and touched a car-load of plant limbs. Puff! The whole load was burning—and the crazy beast pushing it went right along without a change of pace! 'V-r-r-riends,' however—and then I noticed the smoke eddying and swirling past us, and sure enough, there was the entrance!

"I grabbed Tweel and out we dashed and after us our twenty pursuers. The daylight felt like Heaven, though I saw at first glance that the sun was all but set, and that was bad, since I couldn't live outside my thermo-skin bag in a Martian night—at least, without a fire.

"And things got worse in a hurry. They cornered us in an angle between two mounds, and there we stood. I hadn't fired nor had Tweel; there wasn't any use in irritating the brutes. They stopped a little distance away and began their booming about friendship and ouches.

"Then things got still worse! A barrel-brute came out with a pushcart and they all grabbed into it and came out with handfuls of foot-long copper darts—sharp-looking ones—and all of a sudden one sailed past my ear—zing! And it was shoot or die then.

"We were doing pretty well for a while. We picked off the ones next to the pushcart and managed to keep

the darts at a minimum, but suddenly there was a thunderous booming of 'v-r-r-riends' and 'ouches,' and a whole army of 'em came out of their hole.

"Man! We were through and I knew it! Then I realized that Tweel wasn't. He could have leaped the mound behind us as easily as not. He was staying for me!

"Say, I could have cried if there'd been time! I'd liked Tweel from the first, but whether I'd have had gratitude to do what he was doing—suppose I *had* saved him from the first dream-beast—he'd done as much for me, hadn't he? I grabbed his arm, and said 'Tweel,' and pointed up, and he understood. He said, 'No—no—no, Tick!' and popped away with his glass pistol.

"What could I do? I'd be a goner anyway when the sun set, but I couldn't explain that to him. I said, 'Thanks, Tweel. You're a man!' and felt that I wasn't paying him any compliment at all. A man! There are mighty few men who'd do that.

"So I went 'bang' with my gun and Tweel went 'puff' with his, and the barrels were throwing darts and getting ready to rush us, and booming about being friends. I had given up hope. Then suddenly an angel dropped right down from Heaven in the shape of Putz, with his underjets blasting the barrels into very small pieces!

"Wow! I let out a yell and dashed for the rocket; Putz opened the door and in I went, laughing and crying and shouting! It was a moment or so before I remembered Tweel;

I looked around in time to see him rising in one of his nosedives over the mound and away.

"I had a devil of a job arguing Putz into following! By the time we got the rocket aloft, darkness was down; you know how it comes here—like turning off a light. We sailed out over the desert and put down once or twice. I yelled 'Tweel!' and yelled it a hundred times, I guess. We couldn't find him; he could travel like the wind and all I got—or else I imagined it—was a faint trilling twittering drifting out of the south. He'd gone, and damn it! I wish—I wish he hadn't!"

The four men of the *Ares* were silent—even the sardonic Harrison. At last little Leroy broke the stillness.

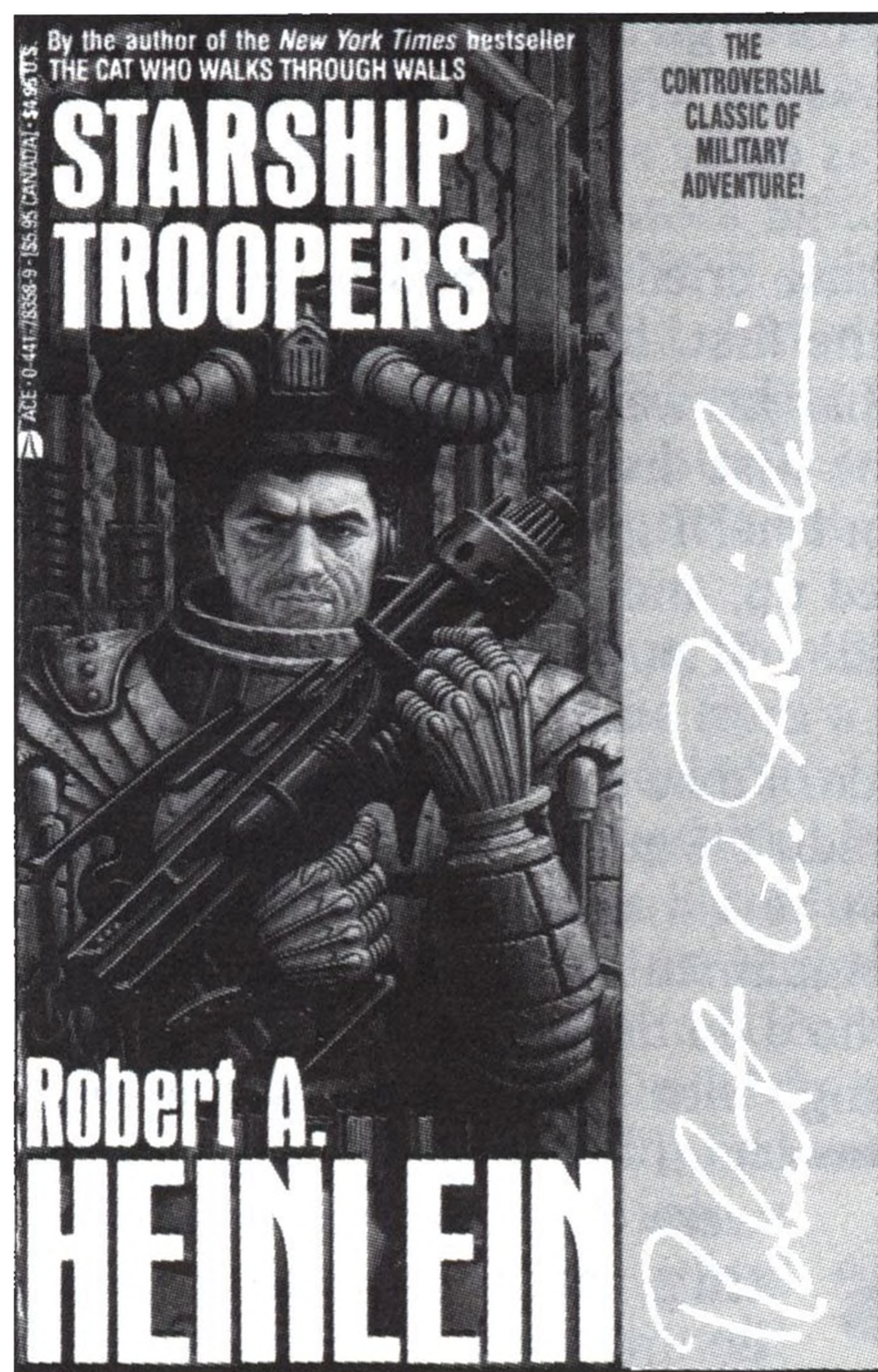
"I should like to see," he murmured.

"Yeah," said Harrison. "And the wart-cure. Too bad you missed that; it might be the cancer cure they've been hunting for a century and a half."

"Oh, that!" muttered Jarvis gloomily. "That's what started the fight!" He drew a glistening object from his pocket.

"Here it is." ■

**"We picked off the ones
next to the pushcart
and managed to keep the
darts at a minimum..."**



Militarism is a common theme in science fiction if for no other reason than that it's a quick and efficient way of organizing a group of characters in order to build the framework for a story. *Star Trek* is a prime example of this, and although I once heard someone bitterly complain that they found this to be a "fascist" organization, the military of Starfleet as envisioned by Gene Roddenberry always had an undercurrent of humanity which did not consider the soldier as an expendable implement of warfare. To a greater or lesser degree, SF writers have generally tried to portray the military of the future to be more humane than what they perhaps experienced in their stint in the contemporary services. But

then came *Starship Troopers* by Robert Heinlein in 1959.

In *Expanded Universe* (Ace, 1980), Heinlein stated, "*Starship Troopers* outraged 'em. I still can't see how that book got a Hugo. It continues to get lots of nasty 'fan' mail and not much favorable fan mail...but it sells and sells and sells and sells, in eleven languages. It doesn't slow down—four new contracts just this year. And yet I almost never hear of it save when someone wants to chew me out over it. I don't understand it."

Heinlein goes on to discuss the book in detail and what he thinks people are misunderstanding in it, and although he correctly sees that many are repulsed by the glorification of the military in the book, what he fails to discern is that it is not this element alone that causes the outrage, but rather that the military is portrayed in a manner which justifies dehumanizing people. Soldiers are cogs in a machine and never human beings. One has the dismaying feeling that it would be considered bad form were they to act like human beings.

The noblest fate that a man can endure is to place his own mortal body between his loved home and the war's desolation.—page 74

That line out of *Starship Troopers* encapsulates what the book is about and to a large degree explains why it has become the con-

Starship Troopers:

troversial book that it has. This novel glorifies war and fighting men just as surely as any war film made in the Forties and Fifties ever did, and I think it owes more than just a small measure of inspiration to those sources.

This book promulgates ideas which, in the nearly thirty-five years since it was written, have become abhorrent to many people. This is a future no more than a hundred years or so away, but society had changed to such a degree that a person doesn't have true citizenship, and is therefore precluded from holding certain civilian jobs, unless he has served in the voluntary government service.

This same honored military which Heinlein portrays as being so desirable, employs flogging as punishment for severe infractions (expulsions alone are not enough), and the fact that a certain number of recruits will die in training is accepted as just one of those things, and who those people are and what their deaths mean to others, and the impact of their passing, is never considered or referred to.

On a political note (and this book has a lot of those), on page 24 we are subjected to a tirade which explains why at the 1976 World SF Convention, Robert Heinlein was still insisting that it was impossible for a culture to have peace and

ROBERT

Militarism in SF

freedom.

"Anyone who clings to the historically untrue—and thoroughly immoral—doctrine that *violence never settles anything* I would advise to conjure up the ghosts of Napoleon Bonaparte and of the Duke of Wellington and let them debate it. The ghost of Hitler could referee, and the jury might well be the Dodo, the Great Auk, and the Passenger Pigeon. Violence, naked force, has settled more issues in history than any other factor, and the contrary opinion is wishful thinking at its worst. Breeds that forget this basic truth have always paid for it with their lives and freedoms."

He follows this up with a crowning one-two punch guaranteed to make the thinking person [this character is claiming to be such] scream out loud.

"The difference [between the soldier and the civilian] lies in the field of civic virtue. A soldier accepts personal responsibility for the safety of the body politic of which he is a member, defending it, if need be, with his life. The civilian does not."

Heinlein clearly could not have foreseen the Vietnam conflict and the resulting civilian protests, which included people going to jail to protest what they felt was a rapacious government policy. On the same subject, Heinlein overlooks the importance of soldiers who are

not allowed to question orders, vis-a-vis My Lai, whereas civilians can question what would otherwise be an omnipotent military.

Regarding Heinlein's ridicule of the *violence never accomplished anything* argument, I find it curious that he overlooks the implied meaning which, to me, always meant that violence never accomplished anything in a positive way and without causing a great deal of harm. The immorality is not just that the accomplishments of violence come only at a high and harmful cost, and mostly to innocent people, but that the people he lists as prime examples of the efficacy of violence are some of the most reprehensible people who have ever slithered across the face of the Earth. They were stopped with violence, but then they also shared Heinlein's derision of the *violence never accomplished anything philosophy*. I wonder whether he really wants to be in the company of their philosophies.

It's little wonder that Heinlein had to postulate a complete restructuring of society in order for his elite military to exist, because present day society places human interest before military interest.

Although *Starship Troopers* is considered an SF classic, it has nevertheless caused a lot of intense feeling and reaction from other writers who believe that Heinlein's militaristic philosophy must be answered in kind. The examples I have taken from the novel are only a few of the troubling elements

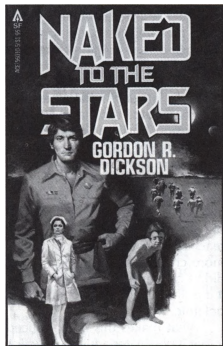
contained in the narrative.

I've talked with people who have tried reading this book and, politics completely aside, they couldn't get interested in it. I can well understand that. The story begins promisingly enough with a raid on an alien planet, but the rest of the book is told in flashback detailing the main character's *complete* military training from boot camp onward. For much of the book the science fiction element is treated like a meaningless extravagance so that it becomes nothing more than a tired, cliched story of the buck private working his way up through the ranks, making mistakes, achieving goals, etc. etc., and it's not worth repeating in a novel like this. It had already been done in many books and films in a mainstream contemporary setting before Heinlein decided to put the characters into battle armor to make it ostensibly different. By the time the book reaches its climax and the plot once more cruises back into view, I just didn't care any more. Too much of it is a simple plot used to indulge in polemic.

What makes this book noticed is that it postulates a future in which our military is even *more* stringent than it is now, and in which life is a much cheaper commodity. This latter undercurrent is what really troubles me about the book. When people die here, it's just regarded as one of those things, ho hum, *unless* that person is an immediate relative. Ancestor worship being placed high above basic humanity is noth-

HEINLEIN

ing to be admired. After all, everybody is related to *somebody* if that's the track you want to take. Even if none of the politics were controversial, the basic problem would remain that the story just has no heart. People become characters of no more significance than molded sheet metal. In one scene the main character's best friend is killed and he responds with little more than a sigh of sadness at the whims of fate. That is the real tragedy at the core of *Starship*



Troopers, and is probably the prime force which moved other writers to respond with their own versions of this story. That and something more is what lies at the heart of Gordon Dickson's response.

NAKED TO THE STARS by Gordon Dickson (1961)

This was the first novel to appear in reaction to *Starship Troopers* and reactions to Heinlein's novel have become a time honored tradition ever since.

Dickson's book opens with a battle, much like Heinlein's does, and then drops into flashbacks as the story progresses. Cal Truent recalls the last meeting with his father before joining the military and this

opens up a debate on war and warriors. Unlike the pro-military society father in *Starship Troopers*, Cal's father is opposed to this and even supported the people in the Equal Vote riots, which were over whether a person has a right to equal voting even he isn't a veteran (veterans can cast an extra vote because of their superior standing over ordinary citizens.) If there is any doubt that this is the same Earth society described in Heinlein's book, it's removed when Cal witnesses the flogging of a man who got drunk and damaged a helicopter he stole while on leave. Unlike Heinlein's book, Dickson pursues this concept of double punishment (flogging and dismissal) further by showing that after the man was dishonorably discharged, he became an outcast, shunned even by his own parents, and finally committing suicide three months later. This exploration of the human consequences of this type of society is Dickson picking up where Heinlein myopically left off.

In a roundabout way, Dickson even takes on Heinlein's argument about how much violence has accomplished, but this is only apparent to those previously familiar with *Starship Troopers*. During an argument, Cal's father states, "Alexander of Macedon and Jesus of Nazareth both founded empires, Cal. Where are the hosts of the Alexandrians today?"

This approach is also vastly different from Heinlein's in that Dickson doesn't lecture the reader. Rather he'll either state something briefly in passing or just probe an idea in one or two pithy sentences which communicate more than Heinlein did in several paragraphs.

Naked To The Stars also brings into focus in an explicit way what was only implicit in *Starship Troopers*. While reading Dickson's book I suddenly realized what Heinlein's militaristic SF novel really represented, and which I doubt even Heinlein realized. In all wars, the enemy is always considered to be

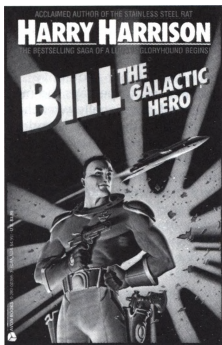
completely evil, but even more than this, they're looked upon as being sub-human. In World War II it was the Allies versus the Nazis, Crouts and Japs. In Korea the North Koreans were Gooks...as were the Vietnamese. If you *believe* that the opposition is inhuman in some respect, it's easier to kill them. Thus the enemy is *always* looked upon in this fashion, and in *Starship Troopers* this is just taken to the logical extreme by making the enemy totally alien and non-human, making the soldier's task that much easier because if they even look non-human, then it's easier to dismiss ethical considerations dealing with intelligence, etc.

Dickson latches on to this in that the aliens the troopers fight are at first only vaguely human, until the military head of Human Expansionism encounters the Paumon. Cal Truent, now head of a non-military branch of the service set up to deal with aliens after the military has had their way with them, has the following conversation with the head of the Earth forces on the Paumon planet.

"They're important just because they are so damn much like us," said Scoby. "Long as races we were knocking over were covered with fur, or had prehensile noses, we could go on calling them Pelties or Anteaters. We could shut our eyes to the fact that they had about as much brains, or probably about as much soul as we had. But an alien we got to call 'Prog,' now—that's getting a little like 'God' or 'Nigger.' You're sort of straining to point up the difference."—page 136

Unlike the hero of *Starship Troopers*, Cal Truent repudiates his military indoctrination. He does the one thing which soldiers have been forbidden to indulge in down through the ages. He thinks about what he is doing.

A man, he told himself now, can kill and go on living. But if he murders, he erects a barrier



between himself and life; a barrier behind which he dies alone.

And a man begins, thought Cal, to murder when he begins to tell himself that it is right to kill; that there are practical or moral justifications for it. Because there are none. Sometimes it happens and things afterwards are better than they were before. But it is never good, it is always bad. There was always a better way if someone had had the wit to find it.—page 173

Cal does have the wit and it involves forcing the Earth military to deal with the Paumon resistance forces as equals in negotiations, and not as conqueror and conquered.

This is just the bare bones of the story as there are also elements involving other characters and their own reactions to military life and how they deal with it. From this respect as well, Dickson's book is much more realistic in a human way than Heinlein's because his characters are shifting and changing human beings rather than promilitary archetypes or even antimilitary archetypes). Although much shorter than *Starship Troopers*, *Naked To The Stars* has much more depth and complexity of thought and seems much more real

and of the moment.

BILL THE GALACTIC HERO by Harry Harrison (1965)

Harry Harrison's novel is a different kind of reaction against *Starship Troopers* in that it takes the form of a backhanded salute, the kind that makes the recipient sting.

The portrayal of being dragged into the Imperial army and the mania of serving there may be deliberately wild and out of tune, and yet it all somehow makes a crazy sort of sense...not unlike the real military. Bill Phigerinadon is drugged into signing the entrance papers, outfitted with a uniform which include boots which march by remote control, and then inducted into boot camp under Petty Chief Officer Deathwish Drang, a character who sports a pair of surgically implanted tusks ("They were very expensive!") By way of introduction he states, "I am your father and your mother and your whole universe and your dedicated enemy, and very soon I will have you regretting the day you were born. I will crush your will. When I say frog you will jump. My job is to turn you into troopers and troopers have discipline. Discipline means simply unthinking subservience, loss of free will, absolute obedience. That is all I ask..."

While an exaggerated form of the boot camp Heinlein portrayed in *Starship Troopers*, in atmosphere it is not all that different. Recruits are treated as sub-humans and hunger after the usual off-duty pursuits that recruits pursue, except that Bill and the others hunger more greedily after the services of a prostitute than Heinlein would have had his squeaky clean cadet consider. But as different as it is, the underlying atmosphere of cruelty and tension in the service is quite similar.

The question of fighting an alien enemy that the troops know little about while understanding less is also picked up on here. The

alien enemy are called Chingers and they're hug, three-armed lizards. At least that's what the recruits are told until Bill uncovers a Chinger spy who is so small that it pulls a little spaceship out of a dufflebag and blasts off, escaping through the hull of the transport vessel. When Bill wonders why this Chinger was only 7 inches tall rather than the towering 7 feet they'd all been taught, an officer explains, "Seven inches, seven feet — what difference does it make! You don't expect us to tell the recruits how small the enemy really are, or to explain how they come from a 10G planet. We gotta keep the morale up."

What the war is really all about is finally figured out even by Bill, who sees little of it during his long series of misadventures in military logic. While on a distant planet where he escapes from a prison gang, Bill has a chance meeting with the Chinger spy who escaped him earlier and it's clear that the Chinger has no idea what this human/alien war is all about. Bill, older, wiser and much abused by reality has finally figured it out. "Nobody really hates Chingers, I guess. It's just that there is no one else around to fight a war with, so we fight with you."

Here, as in *Naked To The Stars*, the alien enemy is personalized, while in *Starship Troopers* they're just alien, non-human enemies with no more in common with us than a nest of insects. Dehumanize the enemy and suddenly they're all alike and the questions of political policies practiced by rulers which are impressed on helpless masses becomes an ethical complexity dismissed before it's even given thought.

So although it's a romp and a satire on the very interplanetary military which Heinlein portrayed with polish and reserve, the regimentation and brutality here are pictured as being so wacky that a uniform will never look the same to you again.

First published in 1965, it predated the knowing military farces which began appearing in the wake of the Vietnamization of America.

THE FOREVER WAR by Joe Haldeman (1974)

This novel, which won the 1976 Hugo Award, was not actually written as a conscious creation to *Starship Troopers* but is nonetheless influenced by it as well as by the author's experiences in Vietnam. Haldeman explained that he was sixty pages into the book before someone pointed out to him the similarity to Heinlein's famous novel. And yet Heinlein's book was clearly one which held some fascination for Haldeman since he'd read it three or four times before he decided to write *The Forever War*, so its influence is not open to dispute.

What forms the heart of this novel and infuses it with a gritty, human realism are Haldeman's combat experiences. There's a distrust of the military mind espoused as well as a grim and grudging acceptance of an endless war. When people die or are injured, it's often in shocking closeup. There is also a certain inevitability to it all, and a lack of understanding what the war is really all about.

Concerning the relationship between the two novels, Haldeman stated in *Dream Makers Vol. II* (Berkley, 1983), "I find the combat scenes in *Starship Troopers* pretty well done, but Heinlein's experience is that of an elite young officer who didn't stay in the service long enough to get shot at. I was a soldier, a fighting soldier, and much of my book came out of my emotional reactions to combat.

"Heinlein has told me that he's read *The Forever War* several times, and when it won an award he sent me a very warm letter pointing out that, although we didn't see eye to eye on much, we did agree on two particular things: the evil of the Draft, and the senselessness of

fighting a war that you know you can't win."

In an earlier interview in *Science Fiction Review* #20 (Feb. '77), he had another revelation. "In the first part of *The Forever War* I was trying to do a parallel with the American involvement in Vietnam, and then the story took over and just went its own way. But oddly enough, a reader in India got in touch with me and showed me chapter and verse the last half of the book followed American involvement. I had written it before we had quit the war, and the whole thing followed in a metaphorical way. Well, he was right, and I was simply drawing on the only war that I have experienced, and so that was my psychological background for the thing and I subconsciously followed it. But I stopped doing it consciously after the first fifty pages or so."

The Forever War tells the story of a thousand year war in which trooper William Mandella fights from beginning to end. Due to time dilation brought about by relativity, months of subjective time pass for him in space while decades pass on Earth. The war is fought with an alien race they call the Taurens, one which they've never communicated with other than to exchange deadly hostilities.

Mandella survives basic training on hostile alien worlds and is one of the lucky ones to return alive from his first campaign. Only 26 years have passed on Earth but enough has changed to convince him to go back into the military to escape from it. It will be hundreds of years before he sees Earth again.

The camaraderie portrayed among the soldiers is convincing, as are the harrowing situations he encounters, many of which involve not just fighting but dealing with the devices required to travel in deep space under conditions of stress that the human body was never meant to experience. These encounters, whether they be weapons, battlesuits or special life-

support gear, are all imaginatively realized, even their dangers of operation. In one instance, Mandella's lover suffers a hideous wound when her protective suit malfunctions. In perhaps the most tense and emotionally wrenching sequence in the book, Mandella aids the medical team when he discovers what has happened to her, comforting her even though her body is covered with a sheen of blood and her intestines are protruding from a gash worn into her flesh. A woman doctor is helping in the brief exchange which follows, and she observes:

"She's very pretty." A remarkable observation, her body torn and caked with crusting blood, her face smeared where I had tried to wipe away the tears. I suppose a doctor or a woman or a lover can look beneath that and see beauty.—page 84

A few pages later, Mandella expresses the cynicism he feels when their ship as to turn back before completing a raid, due to damage suffered. Their commander states that he may be court martialled for cowardice for turning back but he feels it's important to examine what damaged the ship in light of their knowledge of the enemy's weapons. Mandella thinks:

I had to stifle an impulse to laugh. Surely "cowardice" had nothing to do with his decision. Surely he had nothing so primitive and unilitary as a will to live.—page 89

But when Mandella is wounded and sent the Heaven (a medical rehab planet), his longing for the Earth he knew which might have been, comes to the surface.

Heaven was a lovely, unspoiled Earth-like world; what Earth might have been like if men had treated her with compassion instead of lust.—page 131

A lot of things beyond warfare and its immediate impact on the soldier of the line is explored in this book. Haldeman even has a far-

reaching go at future shock. Mandella finds that homosexuality has become much more wide spread on Earth as a form of population control until eventually everyone is homosexual and new human beings are created in special nurseries, not unlike *Brave New World*. This is just a side issue in the book but it impacts on Mandella psychologically when he finds himself to be the only 20th century heterosexual left around, with beliefs judged peculiar by his new contemporaries. It's a concept which is tossed at the reader to think about and turn over in his mind and is really only treated as one more element in the passage of time in Mandella's long, time-dilated existence.

Science Fiction is a realm of ideas and an exploration of themes, not all of which are intended to be popular. Rather they are intended to be ideas proffered and explored, and sometimes reacted to. Heinlein was just writing one more in a long series of unrelated novels which explored themes dealing with our future. In this case he drew on his long involvement with the military, one which stretches back to 1923, to postulate an alternate society as well as his own personal martial vision. The reactions consisted of a Hugo Award as well as controversy, although not as much then as has grown over the years. Even so, when Joe Haldeman's *Forever War* was serialized in *Analog*, once the bastion of conservative science fiction expression [How is that possible? Isn't that a contradiction of terms?], some readers took violent exception to Haldeman's ideas, but then that may have had as much to do with the transformation *Analog* was undergoing from the old-line visions of John W. Campbell to the stretching in many new directions hitherto forbidden in its pages under the new editorship of Ben Bova. Whatever, the people who loved *Starship Troopers* couldn't live with the visions conjured up by Joe Haldeman, fictional as they

may have been.

If nothing else, Heinlein's novel stimulated much more than controversy, it stimulated thought and creativity, which is rally what good science fiction is all about. It also brought into being novels which might otherwise never have been written because the stimulus would not have been there. This is certainly true of *Naked To The Stars*, a neglected classic if there ever was one.

While many people consider Science Fiction to be the province of rayguns and rocketships, and little else, at its best it is much more as every one of the four novels discussed here can attest to. At its best, SF can be a mirror on reality, reflecting the world as the author sees it now and transposing those images into the realm of where it may be headed. Science Fiction often consists of the cautionary tale, as well as the exploration of the human souls as it is confronted with circumstances which only the future can shape. Whatever the interpretation of the vision, it ultimately forces more and more ideas into the open where they can be dissected and explored so that even the cold logic of militarism can be explored and peeled away until what seems to be a hear of steel at its core might be tempered with the heat of a writer's humanity.

Looking out on the vast field of science fiction literature today, we see that in spite of the well reasoned reactions against *Starship Troopers*, and even the outright attacks on it, Heinlein has apparently had the last laugh. While *Starship Troopers* was an oddity in 1959, more than thirty years later it has bloomed into an entire sub-genre of science fiction—the military SF novel. Jerry Pournelle has written several and even co-edits an ongoing anthology series *There Will Be War*. Chris Bunch and Allan Cole are the co-authors of the Sten series, militaristic novels marked by their casual destruction of human

life without any sense that those lives ever had any meaning or value to anyone. David Drake has written several novels in the *Hammers Slammers* series and all of them embrace the worldview explored by Heinlein in *Starship Troopers*. The condemnations of this kind of SF have been all but drowned out in the whirlwind of its rising popularity.

The basic problem with militaristic SF was perhaps best encapsulated by Charles Platt in the November 1988 issue of *Interzone* magazine. In a column he titled "The War Bores," Platt stated, "Stories of laser-toting space cadets in search of 'maturity' embarrass me in their shallowness. Worse, I see them as betrayals of real human truths: that maturity is a matter of learning to understand and tolerate other people, rather than learning how to kill them; that men fight more often from fear than heroism; and that an army is basically a system for gutting the human spirit."

But the modern militaristic science fiction novel rejects all of those ideas—ideas whose importance Gordon Dickson recognized as being worthwhile when he wrote *Naked To The Stars* more than thirty years ago. But this human side of the military, and the consequences of its actions, is seldom considered in the modern shoot-em-ups. Vengeance against the ugly aliens is more to the point in stories written by the literary progeny of *Starship Troopers*.

Isn't it about time that someone took on the modern military establishment in science fiction in their novels? Isn't it time that all sides of military life, death and conquest in the far flung futures be explored, and not just the manifest destiny of humanity to advance into the future while turning back the clock to a time when fighting and conquest was all that mattered? And isn't it about time that writers who have all too often never fought in a war or seen any form of personal combat, stop glorifying it? ■



H.R. '93

drummed into her on a planet many light years from where we sat had kept her going. Cleeese and I were lifers—career soldiers with no place to call home—and we'd gotten lax about the regulations, especially after Ibera's death. We'd been stationed on too many barren planets to care about polishing boots.

"This is as exciting as it gets," I said as I pushed myself up from the table to begin preparing a meal for myself. The thick grey paste I heated contained every possible nutrient and tasted like heavily salted emu dung.

"Have you even been in battle?" Barrington asked. In the months we'd been stationed together she'd rarely initiated a conversation.

"Once," I said. I carried my dinner back to the table and spoke between bites. "On Titus Nine. I was in a civilian bar and I'd had too much to drink. I insulted the bartender's daughter. He and three of his friends took offense. I walked away in the arms of an MP and had to pay their hospital bills."

I laughed; it wasn't the only barroom brawl I'd walked away from.

Barrington had no sense of humor and she didn't laugh with me. "That's not what I meant."

"I know. But it's as close as I've come. The war's out there," I said, pointing toward space. "It's not on the ground. It hasn't been on the ground in centuries. That's why we sit, and we wait, and nothing ever happens."

I finished my meal and settled into my bunk. As I lay on my side, I watched Barrington move around the module. It had been nearly a year since I'd been with a woman, and she was slowly becoming attractive to me. Only past experience kept me from her: I'd slept with female soldiers before and I knew sleeping with Barrington would be like sleeping with Cleeese. As I watched her I remembered the night I'd spent with the Xandu dancer on Graz, and I slowly fell asleep.

Barrington shook me awake sometime later. "I'm going out," she said. "It's my turn."

I yawned and rolled out of my bunk. When Barrington stepped into the lock, I prepared a chess board for Cleeese and I poured him a drink from what remained of Ibera's whiskey ration.

Soon a solitary figure approached the module. I waited while the lock went through its disinfectant cycle. A moment later Barrington dropped her laser rifle on the table and pulled off her helmet.

"Cleeese is dead."

"Jesus!" I swore. "What happened?"

She shook her head. "He was dead when I got there. Just like Ibera."

There had been four of us when we were dropped into place. Ibera had ruptured his suit while we were setting up the command module the first night. It hadn't been a pretty sight. Barrington had thrown up inside her suit when she'd seen what remained of him.

I grabbed my gear. "I'm going after him."

"There's nothing left but the suit," she said. "Once the suit ruptured, he disintegrated."

"We've been together for years," I explained. "I've got to go."

"His suit's contaminated," she said. "Don't bring it back here."

"By the book," I said.

"And don't forget it."

I pulled on my suit, sealed my helmet in place,

and grabbed my laser rifle. Then I stepped into the air lock, waited while the lock went through its cycle, and hurried to Cleeese.

His suit lay slumped forward over a waist-high rock, the arms outstretched. I turned the helmet and looked through the visor. I saw only a thin smear of black goo on the inside of the helmet and I knew the suit was empty. The chemicals in the atmosphere destroyed human

flesh in minutes. Once Cleeese's suit had ruptured, he'd stood no chance at all.

Slowly and carefully I examined his suit, starting with the helmet and working down until I found the rupture point near the left ankle. The suit's self-sealing capabilities had already repaired the damage, but too late to save Cleeese.

I swore softly when I realized the tiny hole had been burned in by a laser.

I examined Cleeese's rifle. It still carried a full charge; he hadn't shot himself in the foot. I looked back toward the command module, even though I couldn't see it from where I stood.

Barrington, Cleeese, and I had been the only three people on the planet and Cleeese had just been murdered.

I checked my oxygen; I'd only used twenty minutes of an eight-hour load. Every suit came equipped with a one-hour emergency tank. I pulled Cleeese's from his suit, but it had been leached dry, the result of a damaged valve. Angry, I threw the empty tank as far into the desert as I could. It landed with a muted thud nearly twenty meters away.

The only other thing Cleeese carried of value was

He was dead when I got there. Just like Ibera.

his laser rifle. I slung it over my shoulder and hiked quickly away from his remains. Before long, I stood at the apex of a triangle consisting of myself, Cleese's empty suit, and the command module where I hoped Barrington had remained. Between us all was the rock formation that had served as our reference point each time we'd hiked into the desert.

I squatted with my back to a large outcropping and stared in the direction of the command module. Barrington wouldn't be the first combat soldier to go over the edge. Soldiers who went by the book were often the first to crack. When there were no longer any regulations to follow, when thought had to come unbidden to their mind, they found themselves unable to cope. And boredom, sooner or later, fractured the shell of regulation, slowly prying them open until they cracked.

I considered my odds of survival. With my emergency tank, I had eight hours of oxygen left, time enough to decide between slowly suffocating inside my suit or returning to the base and taking my chances with Barrington. Kennedy wasn't an option, no one from his post could reach us in less than fourteen hours.

I straightened, took a deep breath to calm myself, and began walking. As I returned to the base—all the while expecting Barrington to suddenly appear before me—I wished we'd been issued full body armor.

"You won't be engaging the enemy," the Starship Commander had said when she denied our request. "Your assignment is to monitor the desert."

"But—" Ibera had started to protest.

"This isn't a search-and-destroy assignment, sergeant."

"What are we supposed to do if they land, play pat-a-cake?" Ibera had seen combat on Clearwater; he'd been the only survivor and we'd grown to trust his instincts.

"You have your orders." She turned her back on us. "You're dismissed."

Ibera had sworn all the way to the shuttle dock just as I swore all the way back to the command module.

I found Barrington inside the module, stripped out of her suit and sitting on the edge of her bunk. Her laser rifle still lay on the table where she'd dropped it.

"Well?" she asked.

"Not a damned thing I could do," I said. She nodded.

I hung Cleese's laser rifle next to mine and hoped Barrington wasn't suicidal. One stray shot could have both of us breathing death.

Barrington wore her regulation issue laser knife in its sheath on her left wrist. I'd left mine in my locker, never expecting hand-to-hand combat on the hell-hole we'd been assigned to. I began to respect regulations. Barrington had followed them and she was armed; I hadn't and I wasn't.

I watched her as I crossed the room.

"Only three more months," she said. "Then we go home." She shook her head. "We won't make it." She ran her hands through her closely-cropped hair. "God, I can't stand this place."

I grunted in response.

"The recruiter didn't tell me it would be like this." "They never do."

Barrington stared at the air lock as I crossed to

her left. I kicked high with my left foot, catching the side of her head. As she instinctively fell away from my blow, I grabbed her left arm and twisted it behind her, pulling her to her feet.

"What the hell's wrong with you?" she yelled.

Barrington reached behind her and grabbed my head. Then she flipped me over, onto Cleese's bunk. I rolled onto my feet and crouched facing her.

She pulled her laser knife from its sheath. "Don't move."

I went in fast and low. My first kick landed in her lower abdomen, my second broke her nose. I grabbed her right arm and slammed her wrist against my bunk. The laser knife dropped to the floor, humming softly.

Barrington struggled against me as I held her face against the wall. I quickly palmed the air lock door open and shoved her to the floor inside.

Then I slid the inside door shut and slammed down the manual lock. Barrington stood and beat her fists against the other side of the window. I watched her face as I opened the outer door.

Her screams were cut short as she turned to black ooze.

I shut the outer door and sent the air lock through four cycles of disinfection. The ooze that had been Barrington was slowly sucked away.

Cleese's drink still sat on the table untouched. I picked it up, downed it all in one long swallow, and set the empty glass next to Barrington's laser rifle. I stared at the rifle, it hadn't been fired.

Then I looked at my rifle

And screamed. ■

I had eight hours of oxygen left...

PAULA



Paula E. Downing is more than just an up and coming writer of hard SF who's garnered great reviews, good sales and a track record of eight novels sold to three publishers, with four already in print. She's also a full-time personal injury attorney, a traffic court judge, a former non postulant who found the convent not for her, and a quite private person in a family of super-achieving daughters. But for her, writing goes beyond self-fulfillment or storytelling.

For Downing, writing is a 'calling'. Something she does to make the world a better place. And to speak to young readers who need some hope, as she once did.

"My main goal is the hope of touching my readers the way my favorite writers have touched me and enlightened my imagination all my life. As a shy and alienated teenager, books became my love and delight, my comfort and inspiration. Books gave me hope when everything seemed useless; books taught me a better world might be found, if I was patient and kept my hope and kept looking. I want to write that way, in the hope that somehow my books will bring that special magic to someone else."

To date, those books include the space adventure *MAD RAY'S LIGHT* (Baen, 1990, as "Paula King"), the telepath/alien contact/political thriller

RINN'S STAR (Del Rey, 1990), the hard SF disaster story *FLARE STAR* (Del Rey, 1992) and *FALLWAY* (Del Rey, 1993), the story of a shipwrecked woman who must choose between human rescue or keeping the home and family she's built within an alien culture. She's also sold a hard SF trilogy to Roc Books, *The Cloudships of Orion*, which include the forthcoming novels *SIDURI'S NET* (1994), *MAIA'S EVIL* (1995) and *ORION'S DAGGER* (1996). Besides novels, she's had two short stories published in Sunday school religious magazines, and sold "How-To" articles on writing to *The Writer*, *Byline*, *The SFWA Bulletin*, and *Midnight Zoo*. As if that weren't enough, for five years she wrote a monthly column on writing techniques for the nationally circulated Science Fiction and Fantasy Workshop *Newsletter*, and spent two years reading slush as an Associate Editor for the small press magazine *Pandora*.

Her life is definitely bulging at the seams.

But Downing never forgets her early years, nor what she experienced then. Those years are both a source of pain and a wellspring of empathy for other people and her characters. They are also the reason why she guards so fiercely her private life.

"When I was thirteen, my family moved from Hermiston, Oregon, to Walla Walla, Washington, and I sud-

denly found myself in ninth grade among several cliques who didn't see any new member material in me, with me steadily plummeting towards the nerd cliques with the rest of the washouts. I went into total withdrawal. I did not want to move in the first place, I did not like my new school, I didn't like *anything*. As a result, my adolescence the next several years was something of a terror. I never really recovered from that initial shock of contemptuous exclusion, and my reaction was 'well, exclude you back.'

"This early solitude, first as a teenager and later as a career woman living alone, led me to fill my homelife with books and daydreams, both of which coalesced many years later in my fiction. I still love quiet days at home when I have complete freedom to create anything I want, to order my time as I please, to work or not work, to watch the trees or play with my cats or read a new book. Because I'm forced to go to the office five days a week, I get very protective of my weekends. My home is my castle, my one sure place, and I really don't mind acting like a sessile sponge stuck to a rock: my sponge has great adventures that run farther afield than Legal Beagle ever does."

Something good *did* come out of the ninth grade. Specifically the adventure of science.

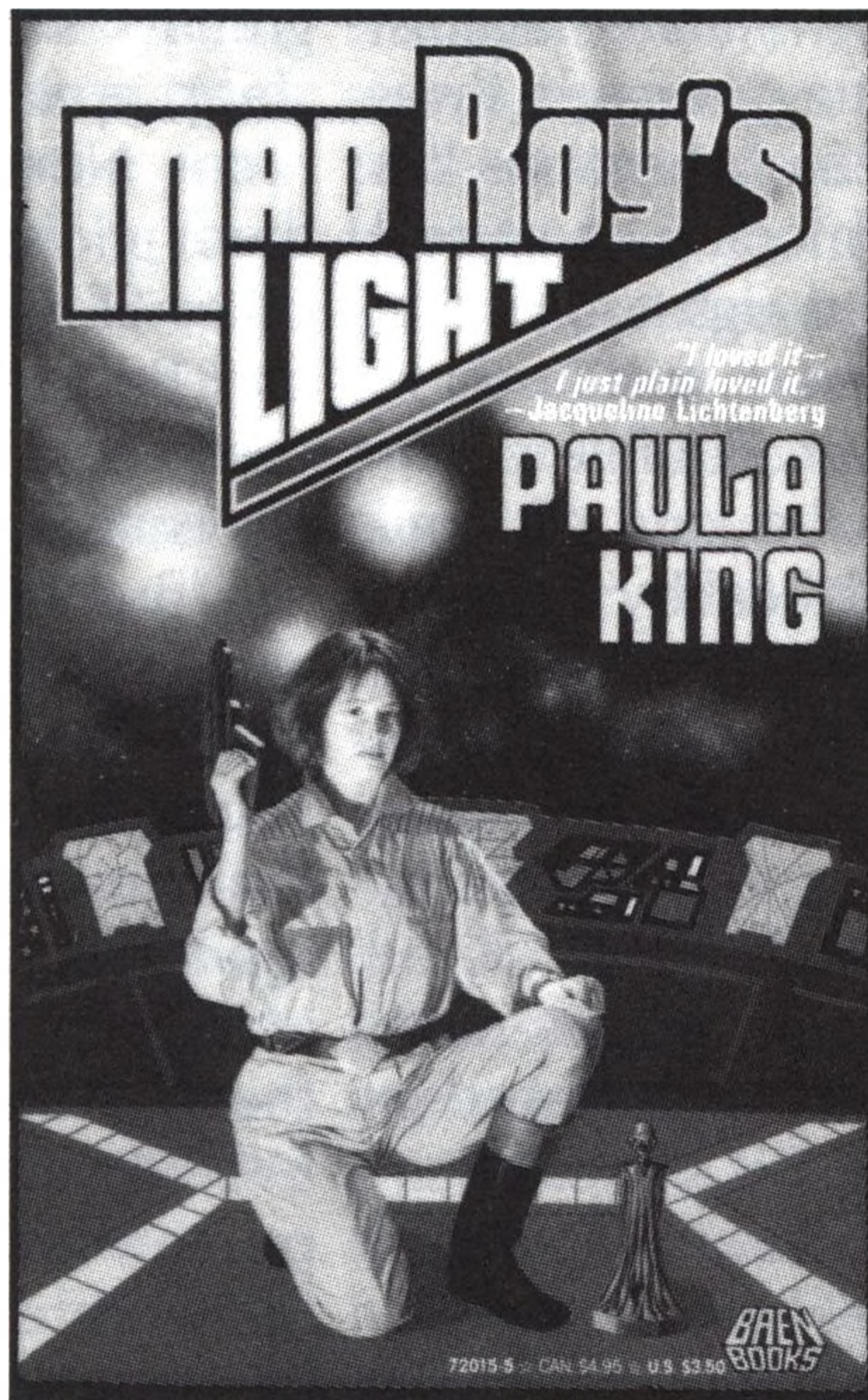
"On 'Career day' in ninth grade, I decided I wanted to be a microbiologist—I had recently read Paul de Kruif's *The Microbe Hunters*. And I can remember an earlier time, I must have been only seven or eight, when my parents gave me a children's one-volume encyclopedia and I was simply mesmerized by the article on dinosaurs and prehistoric times. Great

picture of T-rex fighting a triceratops. I loved my science classes, had my first crush ever on my eighth-grade science teacher, and was in the science fair every year. I steadily collected books on popular science, many of which I still have thirty years later: Thiel's history of astronomy, a two-volume book on the discovery of elementary particles, and a book on you-too-can-build-a-telescope. Later I veered off into history and literature and eventually continued down the liberal arts route to get a degree in Asian History and in Law—but I've never given up my reading about science.

"My love for science is based on the elegance of the physical world: how things work, how they form themselves into patterns, how they interact and affect each other. Science is full of elegant beasts with lovely names like mesons and ammonites and OB stars, with never an end to learning. Later in law I found the same open-ended kind of knowledge, and I find the same variety in my writing: it's an open door that can preoccupy a lifetime.

"My hard SF is based on taking scientific facts and trying to imagine what it's 'really like' out there in interstellar space. Early in my writing I got into 'starmapping,' creating maps and details about nearby stars as if it were a road-map my characters could wander. All my star-places in my novels are real locales, and I use the actual facts about a particular star, whether it's Delta Bootis or Wold 359, to frame the story parameters. What a place is really like is a great vehicle for dreaming up

original ideas: *FLARE STAR* itself started with a short paragraph in an astronomy book about flare stars, those diminutive red dwarfs barely larger than Jupiter



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that are intensely violent but are among the longest-living stars. What would it be like to be there when a flare star blew up? And so the story began."

The selection of FLARE STAR by the industry trade magazine *Science Fiction Chronicle* for listing in its 'Best SF Novels of 1992' surprised her. As have the great reviews she's gotten in places like *Booklist*, *Locus*, *Rave Reviews*, *Science Fiction Chronicle*, *Science Fiction Review*, *Quantum* and the library YA magazines *Kliaat* and *VOYA*. Why? Because hard SF was not her original writing focus.

"I never really intended to write hard SF as my primary focus: I wanted to write softer SF and Fantasy, but the star-places got me. In my first novel, *MAD ROY'S LIGHT*, I wrote about a young woman in an alien trade guild and used one of my starmaps to dream up the worlds where my aliens lived; this led to the concluding chase scene in a multiple-star system, and much more of a science focus than I had intended. *RINN'S STAR* is set in Bootes, and again, creating the planets that starship *Zvezda* visits intensified the science focus, especially when I decided my Russian ship captain ought to be a geologist—I adore geology. Then came *FLARE STAR*, which I considered my 'token' hard SF novel, only I found I liked writing hard SF very much—surprise. And so I'm writing my *Cloddish* trilogy, and my enjoyment of the science is 'hardening' all those other soft SF stories I assumed would stay soft. Surprise, surprise—but that's one of the joys of writing, getting surprised by yourself."

So how did she start? When did she first think about becoming a writer?

"I've wanted to write stories since I was fourteen or fifteen, but I took twenty years to get around to it. I wrote some poetry and a few short stories as a teen, but one devastating comment from my mother stopped that short until college. In

college, I got into an Expository Writing class, but that was the semester the prof decided to give no feedback until the end of the course: my 'D' was a gut-stopping surprise. I went and asked him why I got a 'D' and he told me that 'I just didn't have what it takes to be a writer' and told me to choose something else that 'didn't need talent.' Someday I will shoot that professor with my phaser, but he's probably dead now and beyond my retribution. Ah, well."

The roles of women in her novels are distinctive, and go beyond the good characterization and normal love interest that often mark a good story. "In my novels, women are leaders and do have good relationships with their men, but to me those relationships are a natural part of a productive life. I've been discriminated against because I was young, because I was junior to their senior, because I'm new, because I'm old, because I wear glasses and weigh too much, because I'm different, because I'm the same, whatever. But in my novels I can project the kind of femininity I think most healthy and nurturing, and that is the maturity of a woman responsible for herself, able to make decisions, able to lead or follow—and I try to portray my men as equals."

Her reading interests vary widely. "In genre, I like Poul Anderson, C. J. Cherryh, Pat Murphy, Andre Norton, Guy Gavriel Kay, and Anne McCaffrey's earlier novels. Out of genre, my favorites are John D. MacDonald, Jonathan Kellerman, and similar mystery and spy-adventure writers. I don't read true crime books. As a lawyer, I'm fascinated by the legal proceedings, but

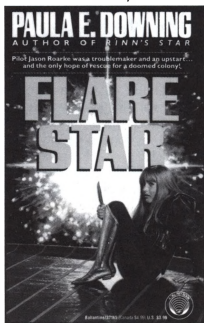
I'm mostly interested in the close personality portraits good writers like Ann Rule build into their books."

Anyone who reads Downing's books can see that her writing is very similar to Andre Norton in flavor and tone, while also showing the strong influence of C. J. Cherryh. I asked her how much Norton had influenced her writing and why.

"When I was in seventh grade, I decided to systematically read every book in the school library, and I randomly started in the middle at 'N' with Andre Norton's *JUDGEMENT ON*

JANUS. *JANUS* started me on SF for life. Norton has an alien quality to her stories that is quite unique and very accessible to young readers, and I was fascinated with her green-skinned aliens and frozen-sleep space travel. I hunted out more Norton juveniles and read them all in the next few years, plus other SF juveniles by Alan Nourse and Robert A. Heinlein and whoever else I could find, then gradually shifted into adult SF.

"But Norton was first, and has always had that special touch in how she creates worlds and her young heroes. I still re-read Norton's juveniles from time to time, especially my favorites: *THE BEAST MASTER*, the Solar Queen stories, the *WITCH WORLD* novels, *CATSEYE*. I know all her young heroes as personal friends: I understand them, care for them, wish I could live where they live. I think that's the magic touch in Norton juveniles, that identification with these young people who are trying to find their way in an often hostile world. It reverberates very much for



teenagers who are beginning to develop their individuality.

"Norton's quality of alienness and the theme of struggling for personal identity always surmounts her occasional awkwardness in style: no one writes quite like she does, and she became one of the major influences in my own fiction. I don't try to write 'like Norton does' when I write stories, just like I don't consciously try to be a 'Cherry clone,' but Norton's influence reverberates in how I generate stories and envision them: she said things in her stories that I want to say, too, and her many characters have influenced how I see people, both in real life and in my stories. She was the model for the stories that were beginning in my head, because my stories definitely began back when I was about that age."

The influence of C. J. Cherryh is quite substantial, but quite different from Norton, and not just because Downing admits to having read and re-read Cherry's *Faded Sun* novels oh, was it four times?

"Make that fifteen times or so. There are parts of *Faded Sun* that I can recite from memory, along with passages from JANE EYRE, some McCaffrey, and a few John MacDonald books. Norton may have started me on a life-long love for SF, but Cherryh's *Faded Sun* trilogy started my professional writing career. Perhaps other writers have a seminal book they can identify as the real beginning; *Faded Sun* was that kind of beginning for me.

"I remember the day I first read *Faded Sun*. I was home from the office for some reason—maybe it was a holiday—and I started reading the first book. Then read the second, then the third, for twelve hours straight. And the next day—not a holiday—I falsely claimed extreme illness and stayed home to read it all over again for another twelve hours straight. The third day I did go back to work—I have some dutiful bones—but I re-read the trilogy two times more in the next three weeks. And I spent the next

year re-reading my favorite parts over and over again. And I still do from time to time twelve years later. It was that kind of book for me.

"The story in *Faded Sun* awakened something magical that carried me for seven years of 4 a.m. writing, on through the disappointments, and all the hundreds of hours of practice and study and trying and trying and trying. The series even inspired a trilogy sequence of my own. Eventually I would get good enough to write it, I told myself, and then I could read it on paper and I would be complete.

"I've never really analyzed why *Faded Sun* had such an impact on me, but I think it has to do with Cherry's beautiful *mri* aliens, their serene culture, their total romanticism, the human who meets them and becomes one of them, and the scope of the *mri* history and destiny. I've read other Cherry novels, of course—I like her Morgaine fantasy trilogy very much—but few of her other books drew me in as much as this one. Cherryh is a wonderful stylist, and part of my love of her writing is the elegance of how she tells a story—the flow of the words, the images, the shift of emotion and mood—but other writers have that kind of lyrical style too. So it must have been, simply put, the *mri*. They touched a chord in me that still reverberates: why, I really don't know except that I am a romantic and always will be. Maybe in an alternative plane, the self that is me knows the *mri* very well."

Such is the path of a writer to the discovery of wonderful stories, the inspiration to one's own writing—and the hope. The hope that she too can do something this meaningful. I asked her to discuss her upcoming *Del Rey* novel, *A WHISPER OF TIME*, and what it means to her.

"This was a very special book for me. *WHISPER* was the first SF story I ever tried to write down nearly twenty years ago, and

Medoret has grown up with me throughout the years. Several of my characters have dealt with the problems of their own *difference*: my telepath Rinn in a hostile society, Jahnel choosing her very different life among aliens when given the chance to return to humanity, and now my Medoret, my alien founding among humans.

"I think we all feel, in one way or another, disjointed from the world. Sometimes it's because of something we can't change—even if we wanted to—and find that the larger society disdains us for being black or disabled or foreign or female. Sometimes it's because we find *value* in something others don't, and we cling to the value we see despite formidable pressures to conform. I've chosen some atypical things in my life, entering a convent and becoming a lawyer among them, so Medoret's problems in finding her true self reverberate with my own choices. Of all my characters, she is the one I modeled most on myself, that remembered younger self searching for her own individuality.

"I decided to validate my teenage value battles by making Medoret's alien mentality a special kind of dream-knowledge, one that is very valuable and essential to her and one she will not give up. To create her dream world, I looked for a rich source of myth to fill the images and eventually thought of the Maya, about whom I hadn't learned much before, but knew would have good potential in images of tropical forests, great temples, and fierce gods. It was an excellent choice, one that exceeded even my hopes for the novel.

"I also decided that the discovery of ancient alien ruins would inevitably attract archaeologists, the scientists best suited to study them. Since my husband is an archaeologist, I had a resident expert—I knew *nothing* about archaeology. So the three motifs of an alien founding, archaeological ruins and Mayan mythology, all set in a far fu-

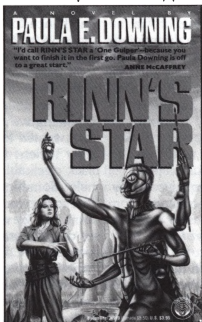
ture history where Medoret is the first alien ever found by humans, came together to shape WHISPER. I'm very pleased with the novel, and I'm hoping that Del Rey will give the go-ahead on the sequel THE SERPENT'S MIST, as our next book."

But hard SF is what she is making her name at, and it is the basis for the trilogy her agent recently sold to Roc under the pen name 'P. K. McAllister.' What will this trilogy be about?

"The *Cloudships of Orion* started with a great image of a beautiful ship sailing through interstellar gas clouds, and I knew enough about gasclouds and protostars to spin some dangers for a ship sailing against the odd forces in these clouds. I saw the independence of the *Cloudships* as one possible destiny for future humanity, and thought the isolation of their crews on the long voyages through open space would gradually encourage a unique culture. And there the idea sat for several years, with me collecting articles about gasclouds.

"In my proposal to Roc, I described the *Cloudships* as 'gypsy ships' that wander the interstellar clouds. After I sold the trilogy and began writing the first novel, SIDURI'S NET, I initially cast my protagonist as a Greek—then realized that choice wasn't going much of anywhere. I needed my *Cloudship* sailmaster to be a reflection of the larger choice of the *Cloudships*, who are choosing a new destiny for interstellar humanity, one not bound to planets but true wanderers through the galactic void. While Greeks are very interesting people, they don't have an obvious cultural conflict of that kind—but the Gyp-

sies do, the *real* Gypsies. And then I realized I didn't know very much about Gypsies, aside from the romantic dress and fortunetelling, so I decided to find some books and make my protagonist a Rom, as the



Gypsies call themselves. The story promptly came alive with all kinds of interesting characters, Greeks and Slavs and Rom, and I knew then that I had a great combination in the hard science of the *Cloudships* and *Pov Janusz'* conflict as both Gypsy and sailmaster of NET. And so *Pov* is Rom/Gypsy, and I expect to have a wonderful time with him throughout the series.

"In the first book, the *Cloudship Siduri's Net* sails for a comet and visits a protostar in Taurus; in MAIA'S VEIL, *Net* travels the Pleiades, seeking its independence; and in ORION'S DAGGER, *Net* leads a group of *Cloudships* to the dangerous Orion Nebula. Visiting so many venues is a wonderful opportunity to create 'out there,' while blending in a strong cast of characters and my *Cloudships*. I am very happy with the writing, and find it a great opportunity to stretch my skills."

But Downing's success in selling eight novels in just four years did not come easily. In truth, her apprenticeship to writing failed several times, including the experience of that early college writing professor. The story of that long journey is a microcosm of what every serious writer goes through in one way or another.

"In 1975 I wrote my first short story, and the following year I wrote half a novel, then spent a year or more writing feverishly on other short stories. But the results

were not encouraging, and I didn't know what I was doing wrong or how to fix it or even how to find out to how to fix it. I bought books on writing and learned about movie deals and getting an agent and literary rights, but I wanted to know how writers wrote stories. Somehow, I had gotten through sixteen years of education without anyone ever asking me to write a composition just for the sake of the writing. I literally could not string together five sentences with any kind of fluency or style. But the books said 'writers are born, not made,' and I obviously—painfully obviously—wasn't any born writer.

"Then in law school I decided I wanted to make law review. Law journals are edited by law students and making law review is a great credential, but to make law review required a writing submission. So I decided to get systematic. I bought several college-freshman composition manuals to study as 'preparation,' and discovered a whole new world. Sentences have structure beyond subject and verb—and sentences have choices, not one right way. And paragraphs have structure and they have choices, too. And words have choices—and there can be rules, of a sort. Nothing fixed, but there are better ways of writing things. And thus the adventure began.

"I made law review, landed a clerkship with a local judge, and spent the next four years writing his legal opinions, full-time, eight hours a day, five days a week, doing nothing but write and write and write. In the process, I became very good at legal writing. So I thought—maybe I could do it again in fiction!

"My how-to-write books said the best way to learn how to write is by writing, and I think that's a fundamental rule. But there is *intelligent* writing where you're learning from what you're doing, and there's trial-and-error. After all the wandering around to no purpose I had done before law school, I de-

cided I would use my intelligence for a change. And so I began my essays on writing fiction, how it seems to be done, with specific applications to my own stories. I still keep track of what works and what doesn't, and I keep on polishing my skills.

"During the last two years of my clerkship, I researched children's religious markets and started my story notebooks. I took a correspondence course in children's writing, and later sold two stories to Sunday School magazines, my first fiction sales. In 1986 I started MAD ROY'S LIGHT, joined the Workshop, landed an agent the following spring—and met my husband—then finished LIGHT in mid-1987 and RINN'S STAR in early 1988. For a year, both novels went the rounds past several publishers. But matters came to a screeching halt when I inadvertently discovered my agent had lied to me about sending out a novel. I thought the publisher had lost the manuscript—after all, my agent had told me three times she'd sent it. So I called up Del Rey, who said they'd never gotten it. Thinking it lost in the mails, I called my agent. She sputtered a bit, said she'd look into it, then two weeks later she fired me flat.

"So there I was in mid-1988, dumped by my agent, with two manuscripts busily breezing by every editor who read them. But Baen Books had invited LIGHT back for a second try and I still had ten or so other publishers to try with RINN. So I sent LIGHT back to Baen and shipped RINN to Del Rey. LIGHT came tantalizingly close to a sale that summer but still got rejected—only to be invited back again 'in a year or so.' In spring 1989 I sent LIGHT back to Baen, and waited and waited while RINN sat some more. Then in October 1989 Baen bought LIGHT and six weeks later Del Rey bought RINN. So from the time I started serious work on my fiction in 1981 to the actual first novel sale was eight

years; five to practice writing and three to submit."

As if the usual problems in learning the craft, surviving her first agent, and attracting the attention of publishers wasn't enough challenge, Downing has had to deal with interesting family reactions to her writing. Some are favorable. Some are mixed. Some...well, let her tell it...

"My parents don't know quite what to make of my writing. My dad harasses bookstores to stock my books and learned early to turn the books cover out; he hands out my books to his friends, and generally enjoys the whole experience even though he doesn't get around to reading my books much—Dad is not a reader. My mother constantly reminds me how good my legal career is, and collects 'facts' about how women writers—or SF writers or writers in general—can't make a living writing full-time, unquote. My sister Donna hands out autographs as 'Paula Downing's sister' to her friends. However, the Dread

Writing Career is definitely a threat to my parent's pre-eminent career preference for me of Legal Bigshot. So I get talked to a lot."

But Downing talks back to her family, insisting on equal time for writing. "I used to time my mother and sister on their attention-span about my writing; Mom clocked in at about a minute and a half, and Donna usually blipped to a wildly different subject after 40 seconds. I've read that this kind of friendly befuddlement is rather typical of families. Now, by folks listen longer, and I try to track on Donna's social activities and Mom's office politics."

How does Downing write? Is

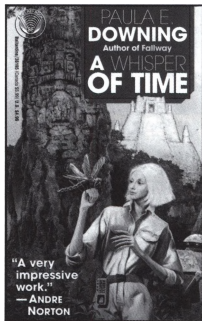
she a gestalt writer or an analytical writer? And what's her system for building a storyline and doing two novels a year while working full-time as a lawyer? The answer: story notebooks.

"I've experimented with a lot of 'writing systems' over the years, and I always come back to my story notebooks. The story notebook for MAD ROY'S LIGHT ended up twice as long as the novel itself, but I learned from the experience and have gradually fine-tuned with each novel. I watch for the more idiotic projects but generally let myself range over lots of things, all of it priming the pump for the story. My story notebook organized the science background for FLARE STAR and saved me endless nitpicking. With FALLWAY I relied less on my notebook, then got back into a full-court press with A WHISPER OF TIME to learn the archaeology and Mayan history I wanted to build into the story. So I chiefly use my notebooks to organize my research and to keep track of my story as I go along.

"My husband Tom is more of a gestalt writer and doesn't use many notes; I like to think on paper and so keep a journal for each novel. I spin out notes on all kinds of things, keep track of my chapters, lists, revision ideas, and so on as I write. I probably spend as much time on my story development as I do on drafting, but

I've found that it takes me twice as long to draft *without* the notebook as with it. I thus have a great excuse to indulge what I want to do anyway."

Downing's systematic approach to researching her stories carries over into her day to day



work in *doing* the writing. Her discipline is rather daunting.

"One of the best rules about writing is consistency, writing something every day. Because I spend so much time on research and story development, I've never set up a flat rule of so many pages a day. When I'm focused on drafting, however, I like to write 6-12 pages during my morning writing, and usually I can keep that up for a week or two before I go back to more notebook. Later, I take as much time again to revise my first draft.

"When I started writing seriously in 1981, I began a habit of getting up early in the morning, at least as early as 4 a.m., sometimes as early as 2 a.m., and I spend that time writing. Right now I'm on my timekeeping habit again—I keep records of what I do in the morning and see how well I'm managing my spare time—but timekeeping happens only when I'm jousting with the office. I have an ongoing genial war with Legal Beagle about my writing time. At my previous firm, I often worked 70 hours a week at the job—with the extra 20 hours coming right out of my writing time—and so I got very determined about harvesting any other time to work on my novel.

"My study is located downstairs in our combination living-room and kitchen. I like windows. Our living-room windows face east and so I get to watch the sun come up every morning. I use doors on file cabinets for my desks, and have set up two large 'U's' with bookshelves stuck underneath each table desk for research books and my story binders. I use a Macintosh Classic and am so converted to computers that I can't think properly without one."

A system to learn writing. A system to research her stories. A system for doing the writing. By now, you should be getting the idea that this is one organized lady. It naturally follows that she is equally astute about the commercial side of

writing. I asked her to name three things she feels a new writer should understand about the *business* of writing.

"One of the most important transitions for a new writer from amateur to pro is to learn professionalism as fast as possible; otherwise you're going to get badly dented and might make critical mistakes in your early career—and some mistakes can be disasters from which you might never recover. Writing is a *business*, not a favor to you, and the usual editor's experience is that most new writer's don't make it over the hurdles to an established career. Because they see so many new writers come and go, however much they may like your writing, they simply can't commit to you fully until you've passed over the shoals to firmer ground. So be prepared. Don't be naive. Don't assume. Find out what it's really like from pros and other sources so you don't get badly surprised and lose your footing.

"The second tip is very prosaic: get along with your editor, deliver on time, and write a good next book. You are now in writing as a business: treat it like a business. The perils to your career are not worth the emotional satisfaction of temper tantrums and unreasonable demands that only show how green you are. Until you know what the business is really like, you just don't know what's due you. The flat answer is 'not much.' An option clause is not an enforceable contract. It's likely the editor will buy another book from you, but he or she doesn't have to. If your sales figures stay in the cellar, you will probably get dropped and have to start over somewhere else. Writing is a *business*, and the bottom line is sales, however genial your editor, however genuine his or her love for your book. Don't expect otherwise.

"You should also develop a future plan for your writing, what books you might write, what niche you might settle into, what alterna-

tives you might have. Your agent may give you some advice, but most agents are focused only on the next deal, being a practical sort. Your editor might share some genial dream-spinning, but she can't commit to those nine-novel plans until you're established. But you should think about it. You don't have to plan the next ten years in unalterable detail, but you should have an idea for yourself of what you'd like to do and where you might go with your career, assuming the Writing Fairy continues to bless you with a publisher and some okay sales."

The craft of writing is something that Downing has addressed in her writing columns, her articles in major national magazines, and on panels at SF conventions. A similar question on three pieces of advice about the craft of writing drew this response.

"Since the business part of writing is largely out of your control, you can focus on what is within your control, your development as an artist. Your best chance of establishing a writing career is to focus on your skills as a writer and storyteller, to keep on learning, trying new things, polishing your skills as craftsman and dream-spinner. Writers continue to learn in different ways: some learn intuitively by trial-and-error, and others get analytical like I do. I'm fascinated by how a story can be expressed, the turn of words, the structure of a story, the better ways to write the pictures in my head and to show these character-people who have become alive to me. I want to write a story that does them justice—and so I am always *thinking* about how I might do the story better.

"Writing is also extremely personal, and the best stories come from some place within ourselves that is uniquely ours. One of the self-explorations in writing is touching on all that we have learned in our lives as people, then weaving our personal experience into the story. In *A Whisper of Time*, my

Medoret is very much my adolescent self, and I deliberately tapped into those old memories to create Medoret's feelings and reactions. I've always known I'm really an alien. So is Medoret, and she became a very wonderful character to work with. If you tap into your creativity and begin developing that sure touch, your novels will grow with each new writing."

There is much, much more to tell about Paul E. Downing, a remarkable woman just showing the strength of her writing talent, her writing resolve and her vision as a writer. She adroitly anticipated the war in Yugoslavia in *FLARE STAR*, and managed to write convincingly in *RINN'S STAR* about a Russian Communism two hundred years in the future. She's also a 'people-ist' rather than a 'feminist' in her writing. But perhaps the best way to end is to quote her answer to my question about why she so often uses Third World and non-American characters in her novels, people from Central Asia, India, the Balkans, and Europe.

"This is why Paula Downing puts Slavs and Kazakhs and Gypsies into her novels. I believe strongly in diversity, especially our diversity as many kinds of peoples. I believe very strongly in self-determination of peoples and nations, of individuals and ways of life. I believe we have the right to be different, to value other things. We must bind together, but there must be a fundamental respect for each other's values. Some systems oppress people, and some ideas are evil in themselves, but all I ask is the starting fundamental of thinking the other side *might* have some good reasons for what they do.

"I would be very unhappy in a monochrome world, and I think trying to conform everybody to one point of view would destroy our best values as a race. In my fiction, these values have surfaced partly in my interest in aliens—and in my choice of different backgrounds for my humans. I don't get up on a soapbox about it, but I get persistent about showing different kinds of people as valuable in their own right, whether she's a telepath or an alien or a Gypsy." ■

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GROUNDED

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.....
o one cared that Kathleen was a chemist, or good

looking in a mousy way. In the Buckler Colony she was known for one thing. Flying. Everyone wanted to fly as well as she did. Everyone wanted wings made by her.

On her recreation breaks crowds would form on the observation deck. Most of the flyers in the low-G chamber would stop when she came in. Even watching her from the deck, others felt awkward and clumsy.

Kathleen in flight was strength and grace. The flight of others was mere exercise. Every minute she flew Kathleen seemed more powerful, less massbound, less earthly, less human. She never hurried. Each moment aloft was precious to her, so she stretched and savored every second.

Sometimes in her sleep, Kathleen dreamt she was a butterfly with wings lightdays across. She would flit through a galactic field, touching down on the flowers of random systems, and kissing them with her gentle caress.

She was sitting in the deck twelve common room when the supervisor came. She was working

.....



KUCHARSKI

at her loom, weaving a new pair of wings. She had recently gotten new thread. It was thinner and brighter than any she had ever gotten before. It was inspiring her to new levels of weave and design.

Even here Kathleen had an audience. Around her a clutter of onlookers each hoped that this time, they'd be lucky enough to get her old wings. The supervisor joined the small group. He, too, seemed fascinated with the creation growing before him. He waited silently until Kathleen noticed him. He nodded when he caught her eye.

She recognized him. His name was Adams, she recalled. He was a very good flyer. Several times he'd had the courage to stay in the core chamber when Kathleen was flying. She saw tenseness in his face now.

"Is something wrong?" she asked. Her onlookers became aware of him. They turned to look at Adams.

"Yes," he answered. Kathleen looked at him expectantly. "Your medical report came back."

"And?"

"And the doctors have ordered you earthbound. Your bones need calcium regeneration. Immediately. You're to leave on the next shuttle. You'll be down for at least eighteen months." His voice was quiet and crisp. He stood at attention while he spoke.

There was a very still silence. Kathleen looked back to her weaving. "I see." After a few more moments stillness, she began gathering her things. Adams helped her carry her belongings out of the common room. Once they were in the hall, the cluster of onlookers burst into excited chatter. The sound faded into a fuzz as they moved toward Kathleen's quarters.

They walked quickly and without speaking. When they entered, Adams saw that the quarters were clean and almost empty. The air smelled of soap and Jasmine.

Kathleen put her loom in the corner. She gestured for Adams to put her box of tools and supplies there.

"Can I be alone for a while?" she asked.

"I'm sorry, but no," he answered. "It's against regulations to leave someone unattended during an emergency medical recall. I'm supposed to stay with you until you board the shuttle. You're supposed to be on it in forty minutes.

She looked at him and nodded. She rummaged a travel pack from her closet. It didn't take long to pack her few personal belongings. She got out her spacesuit and spread it on the bed. She set her wings on top of it. There were her good pair of wings, her extra pair, and the ones in progress that she peeled off the loom.

She got undressed and folded her boots and

clothes into the pack. Then, with stoic grace, she wrapped each set of wings around her in bright silken layers. She was a giant caterpillar building a cocoon. Her spacesuit formed a shiny coat overall.

"I guess we'd better move along," she said, tossing her pack on her shoulder.

"Aren't you going to take your loom?" Adams asked.

"No."

She paused. "Better it should be used," she said. She turned and walked out the door without looking back or waiting to see if Adams followed.

Silently they walked to the boarding area. News of her departure had quickly spread through the ship. A large crowd had formed to see her off. There were big hugs and small kisses and last remarks. And finally she boarded.

The shuttle was gone for minutes before the crowd began to disperse. Some stayed until the shuttle's exhaust was just another speck of light among the stars on the viewscreens.

After everyone else had gone, Adams finally let go. He stood at attention watching the empty viewscreen with tears running down his face. It was almost an hour before he could compose himself. He took the rest of the day off.

Adams spent some time in the rest room washing his face. When he was ready, he went and got the loom and supplies that Kathleen had left in her quarters. He didn't know when the quarters would be reassigned and he didn't want them "cleaned up." He brought them to his own quarters.

Looking at his own quarters now, Adams found them cluttered, disorganized, and dirty. He set aside the weaving things and began to clean. He spent hours cleaning until the room smelled like disinfectant. He opened a bottle of red wine to give the room a more pleasant odor.

When he was done, he went and cleaned himself. He spent a very long time under the scrubber. He shaved and groomed his hair and cleaned his fingernails. He put on one of his newer uniforms that still had some crispness.

Finally he set up the loom. He'd never done this before, but he made good progress with the help of his computer. He didn't know why he felt compelled to start weaving right away. His own wings were fine. He took very good care of them. But somehow it seemed important that the loom be in use before Kathleen reached earth.

He forgot to eat supper, but he didn't mind. He had made good progress weaving before he got tired. When he stopped, he made sure everything was in its place before he turned in to sleep.

That night he dreamed of butterflies, flitting through space. ■

Last night, ship's time, I still had enough nerve to look in the mirror. When I woke up this morning, after I had gotten past the nausea and the pain which coursed through my body, I noticed that a few fingernails had fallen off. I struggled up into a sitting position only long enough to see that blood and pus spotted the bedsheets, and that clumps of hair had remained on my pillow. I gently laid back down and waited to die.

THE DISEASE

Actually, I waited only a minute or two, then I got mad enough to decide to get out of bed. I knew when I was selected to be aboard the *Horizon* that unknown hazards waited for all of us out here in space. Death was a possibility I understood well. But not this way, victims of THE DISEASE, as we called it, always saying it like it was all capital letters. It came into our ship's small community and overwhelmed us so swiftly that we never bothered to name it officially, and when the first crew members died, THE DISEASE seemed appropriate—monstrous and vague.

To the logical mind, death at the hands of THE DISEASE was similar in many respects to colliding with an asteroid or having the ship's engine blow, or even becoming the main course for some fanged alien. But this thing was insidious, maddening, avoiding all our attempts to contain it and identify it, much less cure it. We ran hundreds of tests, had almost all our ship systems down so our computers could work on it full time, and spent agonizing hours watching Doctor Nayden working in the lab, all with no real results. What we did know was that once infected which was immediately upon even remote contact with a carrier or anything they had contacted by touch or breath you had about three days. That might sound mercifully quick, but if you had it, you wouldn't think so.

I knew I might have lingered longer had I remained in bed and saved my energy, but as I said, this thing had me angry. If it had some sort of physi-

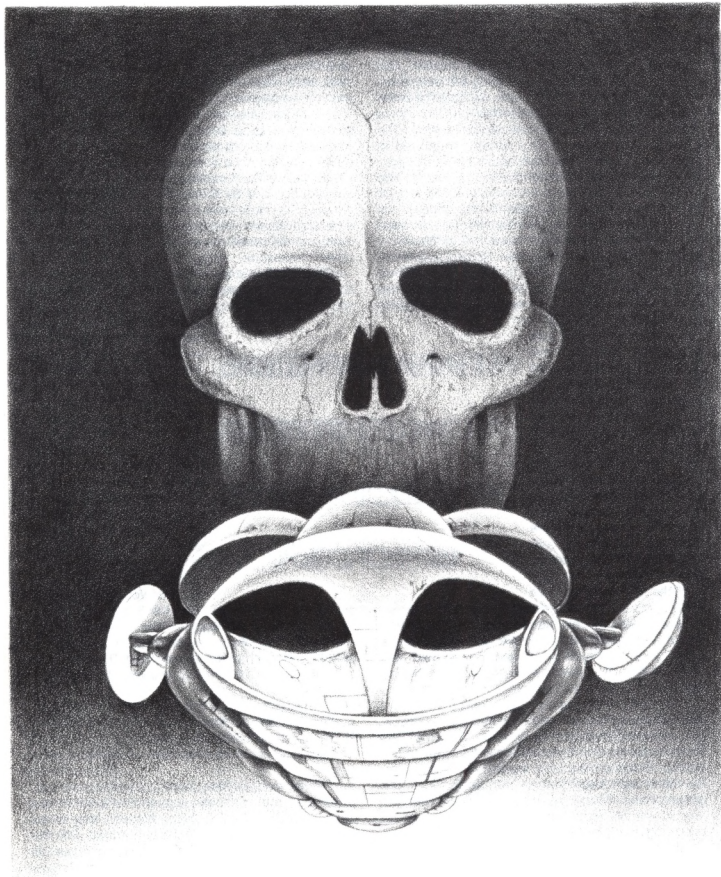
by
David J. Adams

cal form, I would have ripped it apart with my bare hands. But all I could do against THE DISEASE was stand up and move around, and that simply out of spite. I was on day two of the sickness. Tomorrow I wouldn't have the strength to get out of bed even if I wanted to.

There were twelve crew members on the *Horizon* when it left Earth. It was one of a fleet of six ships built to explore space and collect scientific data. Now we were on our way back home with six dead and buried in the emptiness of space, four more that wouldn't last another twelve hours, and Carl Burrell and myself, who would survive another thirty-six at best. We were due to drop out of hyperspace in a little over two hours, where a medical frigate would be waiting for us. We could only hope against hope that they could accomplish what our ship's computer and now dead doctor couldn't find a cure.

I guess I should tell you my name is Mike Stenstrom, and that I'm the Ship's Navigator on this journey. I'm thirty-two and single, probably because my first love has always been space. So here I am with my best girl, so to speak, and here I'll likely die. Enough about me.

art by Keith Minnion



The simple act of walking took great effort. My head spun, my stomach churned, and my leg muscles cried out for relief, but it made me feel better mentally to know I could still move around. As I shambled down the corridor housing the crew quarters, touching the dull gray walls for balance when needed, I peeked in each room only long enough to see some sign of life from the remaining crew. The head science officer, Nancy Jansen, managed to emit a soft moan when she heard the door open. The fact that she could still hear at all meant she might have nearly twelve full hours left. She tried to lift her head, the skin as gray as the ship's walls where sores hadn't eaten it away. Her flesh drooped like melting wax under the weak pull of the ship's artificial gravity. Her eyes were glazed and fixed, and I could tell immediately that THE DISEASE had taken her sight. I had seen enough. She was alive and I could do nothing else for her. I stepped back so the door would close.

The others were still alive, but either too exhausted or too deaf to react when I opened their doors. I was glad for that. I think they all looked worse than Nancy did. When we had jettisoned Mark Caulkin, his skin was just some gray covering, hardly attached to his body anymore. He was an unbearable sight, more so because by then we knew we'd all end up that way. I glanced once at my hands, light gray in color and the skin softer than when I was born, and wished I had some gloves.

Burrell wasn't in his room or the galley, but when I got to the bridge, I heard the familiar grunt he made when he was hard at work. It took me a few seconds to spot his boots jutting out from under the main control console.

"Burrell, what are you doing?" I asked.

He pushed himself out from under the console and regarded me with angry, bloodshot eyes. His thin, peppered hair was all but gone, and blood trickled from one nostril and the corner of his mouth. He wiped both streaks away with the back of one graying hand. "What are you doing up and about?" he said with his usual sneer. "I thought you'd just die like a dog, like the others."

Burrell had a way with people, and not a good one. Actually most of the crew hated him, his condescending attitude, and his gruff nature. He had been assigned as System's Specialist because he knew the engine and ship design better than anyone else, not because of his winning personality. Generally, I

kept my distance from him, and he never bothered me much, so we got along, I guess. I decided against having an argument over his insult to myself and the rest of the crew, used a shrug for an answer, and returned to my original question. "What are you working on?"

He looked me over once, assessing, I now assume, my physical condition. He waved the multi-tool he was using as he spoke. "I guess if I let you in on this, you won't be able to stop me anyway."

I waited without answering, making sure I didn't seem concerned by the implied threat of violence, although he might have mistaken my unsteady legs as a sign of fear. But the way he fiercely held the multi-tool did make me wonder if THE DISEASE had driven him insane.

"I'm trying to override the Captain's command codes. I want to change our flight path after we drop out of hyperspace."

"Why? Has the medical ship sent word of a different rendezvous point?"

"I don't want to rendezvous with them."

"What?" I said, taking a half step in his direction. I stopped abruptly when he held the tool up in a striking position. "The medical ship is our last hope of survival."

He laughed madly, then coughed. Blood splattered out with each hack. I would have thought he was further along than myself if it hadn't been for my own bouts of vomiting blood on

and off for the last several hours. "We have no hope of survival," he said bitterly. "We're all dead."

I hesitated, because, while I had tried not to think about it too much, I agreed with him. "Even so, why avoid the medical frigate? Where would we go?"

"The sun."

"But why?"

"To destroy everything, completely. This disease must be stopped. It's the only way."

"But the medical ship can analyze it, and maybe"

"Don't be a fool, Stenstrom. You and I know better than anyone what will happen. Our biofilters are every bit as advanced as theirs. We were fully suited and protected when the shuttle came back with the others. What good did it do us?" He held out his arms to illustrate his point, the gray skin starting to hang loosely under the biceps, open sores plentiful on each arm.

I couldn't argue with what he was saying. Our respective duties deemed that Burrell and I waited

HER FLESH DROOPED LIKE
MELTING WAX UNDER THE
WEAK PULL OF THE SHIP'S
ARTIFICIAL GRAVITY.

aboard the *Horizon* while the rest of the crew took the ship's shuttle down to a planet. It seems years ago now when they radioed back from a world never named, although it was our right to do so having found the first alien life. Simple spores of some sort, but life just the same. Before we even had a chance to begin celebrating, the first crewman fell ill. By the time the shuttle returned, Burrell and I were making sure we followed decontamination procedures to the letter. It hadn't mattered.

"What do you think will happen," he continued, "if we let the people from that medical ship on board?"

I knew the answer, but chose to avoid it, like we had all been doing since we called in our medical emergency. I shrugged stupidly.

Burrell waved a hand at me and let out a frustrated grunt. "They'll die too, and you know it. But that won't be all. They'll head back to Earth, because, they'll figure, the best medical attention can be had there."

"They'd be right," I said softly.

"Of course they would! So they'd convince themselves to go back, and the biofilters and all the precautions in the world would do nothing. Nothing! Then what would happen?"

He said this last like he was speaking to a child, which was typical of how he discussed technical matters with other members of the crew, including, at times, Captain Conlin. Part of me wished I was the one holding the maxi-tool. "Why didn't you bring this up a few days ago, when everyone could have discussed it? You were standing right there when we signalled our situation back and arranged for the medical ship."

"Everyone was still healthy enough then to try to hold on, to look for a solution. Now we're past that. All that's left is salvaging what we can, and that's trying to protect everyone from us and this demon we're carrying."

I saw something in his eyes I hadn't before—he was looking for my agreement despite himself, like it mattered to him. I mulled things over, and had to admit to myself that I really wasn't holding out any hope of them curing us. There wouldn't be enough time. At least this way, we could take THE DISEASE with us. Out of spite, like my decision to get out of bed and walk around, but when it's all you can do ... I finally granted him a slow nod.

He seemed a bit relieved at this, but his expres-

sion fell well short of a smile. "I could use some help here, if you're with me."

"The sun," I said, delaying commitment to his plan. "You think that's the only solution?"

"We can't just let the ship float in space. They'd board it eventually. A star is the only way to be sure, purification by destruction." He must have noticed something peculiar about my expression. "What's wrong?"

I smiled slightly, a bit embarrassed. "I've always been afraid of dying by fire. I just wish there was another way."

"Look, it'll be over quickly. It won't be like being trapped in a burning building or anything."

He surprised me with his tone, almost as if he wanted to ease my fears. "What can I do to help?"

We rearranged circuits and wires for some time, although I really had no idea what I was doing, but

Burrell did and gave me a new task when each previous one was complete. Eventually, after a couple of failed tests, we found we could override the Captain's command codes. I programmed in a new flight path, one that would take us directly from our reentry point in the solar system, just beyond Mars, straight into the all-consuming embrace of the sun. When the job was complete, we both remained where we sat, exhausted. I was glad then for the work, since it had taken

my mind off the pain for a while.

"You think any of the others are gone yet?" I asked. My speech sounded a bit slurred, and I could feel the way my lips hung loosely. I was glad I couldn't see my own face, even if I had to see Burrell's, knowing as time passed it was more and more a mirror.

He shrugged. "Even if they are, we need to leave them on the ship now. Best they go into the sun with us. I just hope they don't ever find the bodies we already left behind. They could still be deadly. I think the Captain's quarantine message for the sector will hold, at least for a time. But if it doesn't, what we're doing will all be for nothing."

I nodded tiredly. "What do you think it is?"

"What?"

"THE DISEASE."

He thought for a time and then shook his head. "Whatever it is, it's something humanity isn't currently equipped to deal with. Other plagues in our past at least gave us time to act and test the victims

I PROGRAMMED IN A NEW
FLIGHT PATH...STRAIGHT
INTO THE ALL-CONSUMING
EMBRACE OF THE SUN.

before they were gone, and were passed on only through certain types of direct contact between infected and uninfected, be it insects, animals, or humans. But this.... There's never been anything that was so deadly so fast, or anything passed so easily. Did you know Nayden's computer told him it was at least 1200 times more contagious than the collection of germs we refer to as the common cold?"

I shook my head slowly. Everything I learned about this thing made me hate it and respect it even more.

"If only we could have slowed it down," said Burrell, slapping a hand in frustration against his knee. "It just ate us up, like a ravenous pack of wolves set loose among the sheep. But I guess if we could have slowed it, it wouldn't be THE DISEASE."

As I looked at him, I thought I could see the same respect I felt for the invisible killer. The difference was I had never sensed Burrell to have respect for anyone or anything. Strange that THE DISEASE, the thing that would kill him, the thing he hated like the rest of us, might have also been the only thing he truly admired.

A single bell-tone from the ship's computer told us we were dropping out of hyperspace. As soon as we had, we could hear the medical ship hail us. I looked at Burrell, who took in a deep breath, then struggled to his feet.

At the communication's console, he said weakly, "This is System's Specialist Carl Burrell, acting Captain of the *Horizon*. The rest of the crew is dead. I will be joining them in that state soon."

"This is Clancy Wenger, Captain of the medical frigate *Mercy*," was the reply after a short pause. "We are prepared to rendezvous as planned."

"That won't be possible, Captain. The disease is far too deadly for me to allow that. It is highly contagious and kills in days. Our biofilters were useless, and I know yours are no better. I have altered our path to take us into the sun. I repeat that all ships should remain clear of Gamma 19 sector at all costs. There will be no further need for communication between us."

As Wenger started to protest, Burrell cut the link, then turned the communication equipment off.

"Why did you tell them everyone else was dead?" I asked, curious but not offended.

"It gives them less reason to think of coming over here. Not as much chance of being heroes."

"You think they might try, even after what you've

said?"

"It wouldn't surprise me. I hope they're smart enough to leave us be, but man's need to know everything sometimes overpowers caution."

We sat in silence for a long time, each of us dozing on occasion when exhaustion overlook pain, neither with the energy to return to quarters. I started to feel part of the seat I was in, and realized with grim amusement that I would likely die in this Navigator's chair I had so desperately wanted to occupy. I heard Burrell get sick twice, but didn't turn to look. I hoped he did the same when my body expelled some of its leaking internal fluids. When I was alert, I numbly watched the blazing yellow ball of fire, at first a small spot, but growing larger all the time. I hoped I would be gone before we arrived at our final destination.

I had been asleep again—how long I can't say—when I was awakened by a shout from Burrell.

I thought he was crying out in pain, but when I turned to see, I saw him madly race across the bridge toward a pair of people in full protective gear, the red medical insignias apparent on both arm and chest. They were carrying the limp form of our Biologist, Henri LeBlanc. The way his flesh hung made me hope he was long dead.

Burrell's scream was a battle cry. He charged at them, wielding the maxitool like a sword, blood streaking from his nose and

mouth. His targets seemed stunned and at loss for how to fight and keep a respectful grip on the man they bore. The hesitation cost the first doctor his life.

I tried to scream at Burrell, but accomplished nothing more than forcing myself to cough up a bit more blood.

The second person, a woman, dropped her half of LeBlanc and reached for something on her utility belt, too late. She managed to get an arm up in time to ward off Burrell's blow, at the cost of having it broken. Her suit muffled her scream better than the sickening crack of the bone being split.

Burrell pressed the attack while I tried to rise, finding at first that I lacked the strength, and not knowing what I could do anyway. Burrell was a berserker in a killing rage, and if I moved anywhere near him, I was sure the maxitool would find my skull as well. Still, I couldn't just watch other humans murdered in cold blood. I yelled for Burrell to stop, forced myself to stand, and started ambulating toward them.

AS I LOOKED AT HIM, I
THOUGHT I COULD SEE THE
SAME RESPECT I FELT FOR
THE INVISIBLE KILLER.

Burrell ignored me and took two more vicious swings with the maxi-tool. The first was a glancing blow to her shoulder, the second a miss as she had gathered herself and managed to dodge it. When the miss threw him slightly off balance, she kicked him in the chest, sending him sprawling toward me and leaving a slick streak of blood behind to mark the trail back to her.

I reached down and tried to help him up and hold him at the same time, but he roughly pushed me away. He turned on me for an instant, his eyes insane, and at that moment I was sure he was mad. I raised my arms to fend off the blow I thought was coming, but he turned away and stalked back toward the wounded doctor.

She hesitated just a second, then, likely seeing what I had in his eyes, fled. He went after her, his sickened gait reminiscent of Quasimodo in the old holos of *The Hunchback of Notre Dame*. I wasn't surprised when he came back alone.

He looked once at the two dead men—the doctor and LeBlanc—with his features still contorted by rage. He turned away, hurling the maxi-tool against the wall. The action seemed to take his remaining strength, and he slumped against the wall and slid to the floor.

"Burrell?" I finally ventured.

"I had to!" he snapped. "I had to try to stop them. They didn't believe us. Wouldn't listen. Fools!"

"The woman...?"

"Back on the medical ship," he cried. "They were both dead anyway. That's why I killed him, and would have killed her. Now she's dead, and so is everyone else on that frigate." He coughed harshly, choking on his own fluids. "You have to stop them, Stenstrom," he said sternly, giving an order. He coughed again, shuddered twice, then fell silent, blood running lazily over his lips and chin and down the front of his suit.

"I can't believe you killed a man like that," I said in a whisper, knowing he couldn't hear regardless. Sending the *Horizon* and its doomed crew into the sun was one thing, but smashing a doctor's skull, when he had come to help...

I turned away and looked at the sun, always closer but still an hour away. I studied my trembling hands, noticing less the shaking and more the deepening shade of gray and the way the flesh, sickly and thin, seemed to be melting off the bones. It wouldn't be long now, I was glad that my exertions

had sped the process. Maybe I would cheat the sun's fire yet.

I put my head on the control panel for a few moments, trying to ignore what Burrell had done and said, waiting for death's strong arms to gently enfold me. When I heard the *Mercy* fire her engines, I lifted my head slowly, as if awoken in the middle of the night.

I pushed away thought of my own doom long enough to consider what was happening. The *Mercy* was leaving, probably heading back to Earth. Inside the ship, waiting to face through the populace, was THE DISEASE, a faceless reaper ready for a bountiful harvest.

"They're already dead," I said aloud, trying to convince myself, like Burrell had apparently been able to do when he used the maxi-tool. I hesitated, trying hard to think clearly, my eventual killer muddying my mind. Maybe they could solve this mystery, maybe the best medical minds and the best equipment, if given enough time... No. They didn't know THE DISEASE like I did, weren't intimate friends with it. The people on that ship were already dead.

I changed the view on the screen to aft and watched the *Mercy* beginning its retreat, noting as I did that my eyesight was beginning to fade. Like most medical ships, it was small, smaller than the *Horizon* or even its shuttle.

That brings me to now.

One trembling forefinger waits, poised over a button on the control console like an executioner's hand on the electric switch. The button activates the tractor beam that guides the shuttle into the docking bay. With my other hand, I reduce the beam's power, such that it won't draw in the *Mercy*, but will simply hold the ship in place, dragging it into the sun's cleansing fire along with the *Horizon*.

I can feel my head spinning as the last vestiges of strength drain from my body. The blindness is now swiftly overtaking me, and the background noises from the ship I had grown used to have blended into a gentle buzz as my hearing starts to fail. THE DISEASE is ready to claim me, but I can accomplish one last thing, take one last stubborn stab at it. I should probably think myself a hero, saving the world from a horrible fate, but I can only think myself a murderer, condemning innocent people to a fiery death. "God forgive me," I say.

I push the button ■

I CAN FEEL MY HEAD
SPINNING AS THE LAST
VESTIGES OF STRENGTH
DRAIN FROM MY BODY.



"I'll have a double lobotomy."

"With or without the pepper?"

His smile was so warm I could imagine him a victim of spontaneous combustion. "With. If I'm gonna die in 54 minutes, my ulcer won't grieve my taste buds a little burn. However, if I ain't dead, I'll be buying some chalk tabs in 55 minutes. Don't let me forget. By the way, I'm Rains, Clive Rains."

The polis authorities could identify my corpse via DNA, but being a good citizen I wanted to save the coroner valuable time.

"Let me guess, you purchased one

by
Ryck Neube

The clock in the next room rang me awake at six. Connie rose and clattered and thumped into her envirsuit. One by one, she roused the rest of her family, Beth's family, helping them into their protective garb. Their racket wouldn't allow me to get back to sleep. After a quick shower, I slipped into the Molte jumpsuit in which I'd been married.

"Yer gonna make a pur-dy corpse," I said to the mirror.

Catching the tube, I entered Dream Hall at a quarter to seven. I'd lived a full life without owning a watch, yet now my eyes locked onto every timepiece I encountered. Minutes ticked as I strolled halfway around the loop seeking an open bar. The retail hall was a ghost town.

Lorre's was a miners' den to judge from the sturdy mesh protecting the bartender. He wore a bulky Armstrong, the suit favoured by miners. I couldn't see how he could close and seal his visor considering a bushy beard hanging to his waist.

"I was beginning to wonder if opening was a mistake. What's your brand, bucko?"

of those defective suits from Collins. This one is on me. Call me Keep, everyone does."

"Much obliged, Keep." I raised the frosty mug of yellow swill in a salute before gulping. "Yep, I'm one of the feeb. Super-feeb. I not only fell for the con, but I paid extra for a pine scented scrubber. Here's to the fool born every min."

I laughed. Crying in public was too gauche, too common this week.

"You aren't alone. Lots of people bought them. Even the Mayor. If Collins could con an Irlane, he could con anybody! Don't worry, the Law will burn Collins eventually."

"No doubt about that. The Mayor WILL airlock the yerp. Here's to Click'ta'tae, the best bull's-eye in the universe."

"I don't blame them," said Keep, low and pensive. His eyes glanced at the ceiling in the direction of the asteroid mines. "If I had the money, I would have evaked, too."

"Me too," I lied. "Of course, the fat cats have The Wait same as us. Except we die when the missiles hit. Worse thing that happens to the elite will be the

mother corporation blighting their careers. Pooooor things."

He laughed until his eyes caught the clock. A tic appeared, dancing his left eye. Suddenly we were both reliving the missile that hit yesterday, or the two the day before, or the first one that whacked us on Monday. A quarter of a hall at a time, the polis was dying.

"Another day, another hall." I pushed the empty mug into the slot. "Another, if ya please. And buy yourself something."

I slid a \$20 coin across the counter. My pocket bulged with them. We'd spent years savings for a vacation on Nok. Beth had memorized every landmark, every resort and river we would visit. Our room was cluttered with brochures and vids. On the wall hung our itinerary—14 hours of sightseeing every day for a month.

It would have been a corking month.

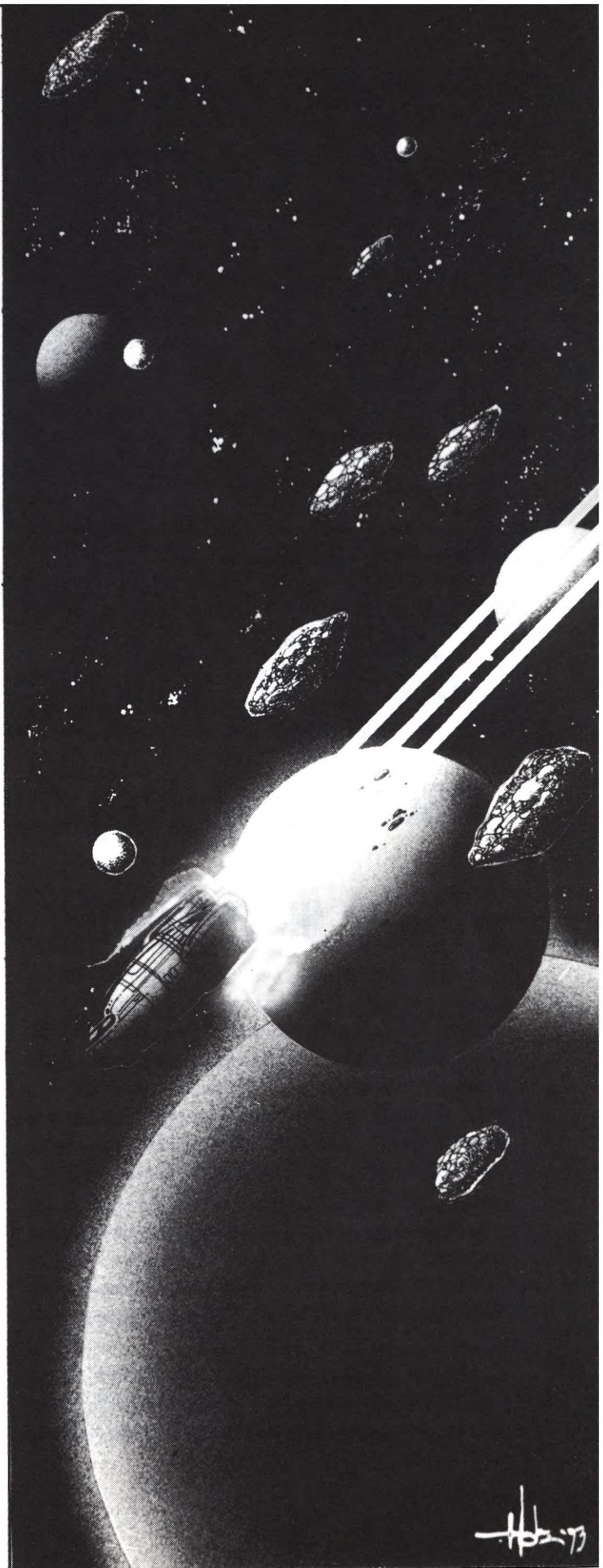
I wished I could bring myself to tear down the itinerary.

I didn't feel so loquacious after Beth stuck in my memory's craw. Keep, being a consummate bartender, read my mood and said nothing as I went to a booth. I fed a tenner into the wall-vid to watch the local news. The selector was broken, so I was stuck on the Irlane channel.

Closing my eyes, I translated most of it. I hadn't lived among them for six years without mastering some of their tongue. The hardest part was forgetting they taught at school and think of the language as a form of Morse Code. I couldn't translate while looking them in the face. All those dangling, moving thingees were too distracting.

The talking head detailed our city's pathetic efforts to defend itself. The tugs abandoned by the polis' fleeing elite (They were too short-ranged.) were towing bales of garbage and containers of ingots into position around us. An Irlane gadget-maven had constructed an electronics

art by
Bob E. Hobbs



Hobbs '73

counter-measure to confuse the missiles. The report ended with a list of 366 who died yesterday.

I digested the list as an abstraction, as if it were 16th Century Dutch history and not my doom.

A pair of Dyb' shuffled into the bar. Fortunately, my nose was already numb. Their evirsuits could protect them from the rigours of space, but nothing could protect us from their aroma. Unlike the multi-limbed, multi-everything Irlane, the bipedal Dyb' were halfway human in their thought processes. Their sheer, elegantly embroidered evirsuits were fitted with clam-shaped helmets.

My buzz caused me to shuffle to Keep for another lobotomy. A whim inspired me to buy a pack of

and grabbing a square bottle out of his hand. Looking neither left or right, she marched straight to my booth.

She was short, with the sturdy bone structure of someone who called a full-gray planet home. Fashionably plaid hair had been lacquered into a skull cap. The whites of her eyes had been dyed violet. The servo-exo on her scarred left arm and the missing fingers pegged her as either a cultist or merely old-fashioned.

"Is this the asshole section?" She uncapped the opiated wine and guzzled a quarter of the litre.

"Drinking like that, it must be. What? Ya don't wanna be awake for yer death?" Her perfume scoured my nostrils alive, just in time for a big whiff of Dyb'. Lucky me.

The lights flickered. We both jumped. The floor vibrated as the hall's crash doors slammed, sealing the ring into airtight quarters. It was half past.

"Time flies when yer waiting to die. They're getting too cautious," I said, strangling a fear-tremble deep within my chest. Who cared if my heart was still skipping beats? No one could see that. "The enemy won't change their schedule. That's an important part of their terror campaign."

"An asshole and an expert to boot. If you're so smart, tell me

who the *enemy* is." Her lips were too thick for a mouth too wide for a face that thin and angular. Violet whites complemented her dilating obsidian pupils.

"I wish I did. 'Tis too absurd to die not knowing who is killing me."

"An expert asshole and a Grainer to boot."

My stomach tightened. "It still shows? Ya know, if ya were wearing more than spray paint, I'd be insulted. However, I have this rule about nakkid women. Insult away!"

"THAT would be important to YOUR kind. As far as your heritage is concerned, it is the vowels in yeeeeer pronouns and those stupid 'tises. Nobody 'tisssssses anymore."

I leered. It was the least I could do for someone

Their evirsuits could protect them from the rigours of space, but nothing could protect us from their aroma.

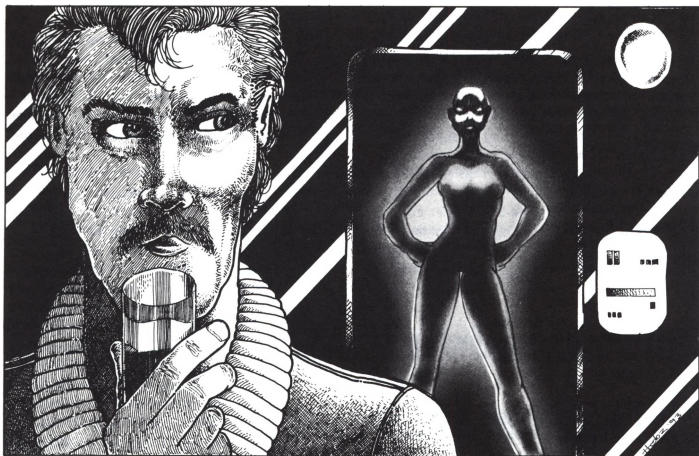
saltines and a summer sausage. Despite the wealth in my pocket, my wallet puled about spending \$35 for a sausage that barely filled the palm of my hand. Once the Dyb' smelled it, they went into a feeding frenzy and purchased a trough of pickled pig's feet.

And who says humanity hasn't impacted the galaxy's culture?

She walked into the bar with a 100 watt scowl on her face.

"Let me guess, you bought one of those Collins death-suits. This one's on me. Call me Keep, everyone does."

The woman mumbled an order, then threw a gold coin through the mesh. Gold. That proved she was a Nokker. She cursed Keep, reaching through the slot



with such a low opinion of me.

A Grainer grew immune to contumely. We thrived on it to spite our critics. I reckoned people felt guilty about the way we got shafted, kicked from polis to polis in our converted grain haulers, junkers falling apart, piece by piece. Guilt generated a special breed of hatred. The Gypsies had endured it. So had the urban homeless during Earth's last days. You grew inured to it.

Or you suicided.

Or you immigrated to non-human turf where social distinctions didn't exist.

I matched her glower for glower as we sipped our respective poisons.

The belching of the Dyb' provided the only noise. The clock, of course, was silent while its advancing numbers shouted fearful messages. Keep stuffed his beard inside his suit using an antique teak backscratcher. Once inside, I could see the jutting chin of the helm housing its communications array. He emptied the cash register into the suit's kangaroo pouch.

The woman raced over and bought another litre. Much to my surprise, she returned with a lobotomy

for me.

"I'm touched."

"Touching yourself won't help."

While she squinted at the clock, the last of the first bottle gurgled down her throat. The poison primed her pump, causing words to leak out of her mouth. She wouldn't look at me while she spoke. Instead, it appeared she was talking to the tabletop.

Lisa Bej Scarfo graduated at the top of her class at the University of Taylor, L-5, the same year entered the Deimos College of Applied Crafts. She'd joined the Nok Trade Commission after it seceded from the Sol T.C. Lisa Bej arrived on Click'ta'tae on the last ship.

"Bad timing," I drawled, commiserating with a thickening tongue. They didn't call them lobotomies for nothing. I waited for her to resume her tale of woe, but alas...

It was time.

I tossed a coin in the vid. The m-point of our stellar system filled the screen. Ions were excitable sorts. A hundred square clicks glowed lighter than the surrounding space. Unreality rent the egg-shaped anomaly. A small drone emerged, scarcely more than

a reactor and drive. On its heels came the herdscores of meteors.

The screen went blank. The bar went blank as the city's reactors were damped. A single battery-powered light dawned in the corner. Shadows danced.

"Ya can feel the city shutting down, trying to hide like a rabbit from the hawks," I whispered. I knew it was silly, but in my nightmares the missiles could hear me.

"If they can orbit a vid-broadcaster out there, they could fly a laser or Rontah or brickthrower or anything! Idiots! Those are Trak-III's masked in those rocks. Their sensors can detect a match lit on the

through my clenched teeth.

The cutter detonated before my mind's eye for the zillionth time. Pointless. The ambush was over. The Exies had destroyed the invadersone, two, three. The battle was over. Done! Why did Beth have to die? How? Did they hit a mine? Did the NATICK's decrepit reactor finally give up the ghost? Losing her was bad enough. But, not to know how...

"An expert asshole Grainer and a widower to boot. You're a regular renaissance disaster Clyde." Her voice did flip-flops in cadence to my stomach. She appeared angry with me for having a dead wife.

So was I.

"The name's Clive. I bind books for a living." I could think of nothing else to say. And crying was so gauche.

"A book bender?" Her chin was shiny from dribbling the excess kooch.

My moustache was also damp. That was why sleeves were invented. I may be a Grainer, but at least I'd mastered my annoying public drooling problem.

"Binder. Ya tool down to the library and have yer favourite volume pumped out. Hardcopy, it's called, in case ya've never seen one. Ya bring it to me with a pile of cash and by the end of the week I'll present ya with a leather-bound keepsake ya can will to future generations of foul-tempered Scarfos."

"A book on *paper*?"

"Bound with imported Nok leather. Maybe ya got a commission on the sale." The smell of cut paper wafted like spring through my imagination. "I'm fortunate to be the only binder on the Polis. Luckier that it's an Irlane polis. They are crazy about heirloom-quality books. Their books fold out like a Mayan codex. I make pouches for 'em, lyn'kaks."

"On Nok we read holies like civilized people. Do you chip your flatware from flint? Savages!"

"Y'all can read?"

"I like your spirit," she muttered, wiping drool from her forehead. (You don't want to know. Trust me.)

The Dyb' commenced a display of gas-

That was why sleeves were invented...at least I'd mastered my annoying public drooling problem.

other side of the system."

"Traks? Ya know what kind of missiles are being thrown at us?"

"Hagerty Industries on Nok manufactures them. I sell them across the galaxy. They're so clever even the Irlane buy them. Ironic, isn't it?"

"Huh? NOK is attacking us? What could they possibly gain?"

"Listen to what I'm saying, not the gibbering of your paranoid *little* mind. If Nok had dispatched a fleet, it wouldn't have been routed by a trashy cutter, Exocets or nay. Not a thousand Exies would have saved you!"

My hand shook, splashing swill on the table. "My wife was aboard the NATICK." The words hissed

singing—another endearing trait that lowered property values wherever they colonized.

"How did they become the galaxy's premier fecs? Damned aliens."

I applauded and requested 'Greensleeves.' They looked at me like...they did that empty trough of pig's feet. I smiled and ordered them another round of carrot juice.

"Whatever ya do, NEVER ask 'em what they had for lunch. Ain't nothing worse than aliens who take ya literally."

"Except those who take you orally. Old jokes are...glub." Her nascent good cheer imploded into a twitching face that solidified into a granite rictus. She hurled her empty at Keep. The Dyb' clapped and tossed their own containers. Keep, safe behind his mesh, merely laughed.

"Why the hell didn't you fools surrender? Why did you spineless wonders allow these Bugs to drag you into this nightmare? It's their corporation's war, not OURS! Humanity is a majority on this benighted compost heap. You should have demanded a say! This is *your* fault!"

"We had a vote, glubber. Lookit, we DID vote to surrender, but only after the NATICK put up a nominal defense. How can ya sell to other species with that hatred percolating. Specist!"

"Sheep! You've followed them blindly into annihilation."

"We couldn't surrender outright. Have ya ever read the Irlane First Brood Mythos? Back in their bad ole days, they had a civil war. There was a Gandhisque minority that refused to play. After the war was over, the winners and losers got together and ate the Gandhis. Win or lose, ya gotta play their game."

"That's insane! You're sheep to follow Bugs."

"Cork the pejoratives. Yer in their house. I'm a Grainer. Like most of the people here I was tired of being a pawn in the politics du jour of our species. The aliens treat us all the same. With respect. That's more than I got from humans."

"You fools HAD to fight? Your big victory was a

flake." She spat the last word, showering the table with droplets. Her maimed hand shook.

"I know." I had to cough to get it out. The cutter had been parked in the shadow of a planetoid. It had fired its Excocets right up their tailpipes. One, two, three. Simple as could be.

"Insane sheep."

"What's insane was the enemy destroying our m-point comm satellite. How can we surrender if we can't tell 'em we quit? They're the lunatic, whoever they are."

My stomach cramped. I'd watched the mining ships search the debris from the invaders demolished fleet. Used Dyb' warships. Generic equipment. Not

**They looked at me like...
they did that empty trough
of pig's feet. I smiled and
ordered them another round.**

that they'd made a thorough search. Fear of boobytraps and mines and more invaders kept the ships at a respectful distance.

"What makes you think the enemy did it?"

"Contrary to popular belief, there ain't that many folks accustomed to blooming missiles through our m-point."

Now that the ventilators were down my breath grew laboured. Intellectually, I knew there was sufficient oxygen for days. Yet my lungs strained to fill themselves. The rotting aroma of the Dyb' soured my nostrils. Years of propinquity meant nothing; I'd never get used to that smellor, for that matter, the hint of ammonia exhaled by the Irlane.

"Citizen Bookbender, what makes you think an

enemy would be stupid enough to destroy your Point Broadcaster? They would WANT this orbital asylum to scream for help from the mother corporation. If anyone destroyed it, Click'ta did it to prevent your surrender. Idiot!"

Contractions in her long neck graduated into a gurgle of sorts. Considering her guzzling, I presumed she had swallowed her tongue. It made me glad Beth hadn't time to suffer. One puff. One boom. The largest fragment had been the size of my fist and that was reactor shielding.

I waited for her to turn blue while I sipped and eyed the clock. We'd be dead in four minutes. No need to give that foul mouth artificial respiration. Her

**"I'm tired of being prisoner
of war. It's a good day to
die." No more worries
about going bald.**

brain would still be alive when that missile vapourized us.

The dream said today. And I was glad. I'd look good in vapour.

"I'm tired of being a prisoner of war. It's a good day to die." No more worries about going bald. No more nightmares about Beth.

"A widowed asshole expert bookbender AND a P.O.W. to boot," she groaned, eyes moist, hands a-tremble. "Why the hell didn't you surrender? I should be at home. This isn't MY war."

"What? It's mine? Don't look at me, I gave at the battle! We can't win. We can't quit. We ain't got no interstellar arks. We're stuck and we're gonna die. So, cope with it! Just relax. The missiles do all the

work. It's not like paying taxes."

The crash alarm bellowed. I screamed. She screamed. Keep slapped his visor shut.

"What the hell are you looking at?"

"Ya can almost hear 'em launching from their hidey holes. Yer Traks. My war. There, we're even."

Our lady of sales took a Herculean swig. Livid scars puckered.

I sold, I mean, I sell food and machine tools, silk and air scrubbers, artwork and...and..." Her sigh could have filled the universe. "I only dealt with legal governments, established customers. This isn't my fault. It's not my responsibility how our products are used!"

Her plaintive tone reminded me of the alarms. Somebody dies, they cried. You died, said my nightmares. I know who is doing this, declared Lisa's body language.

I grinned. I would never have that vacation on Nok. BUT, the Nokker knew the name of my bane. Fate tickled my curiosity, sending it ballistic. I grinned until it hurt.

"Two minutes 'till we die. Want to confess to yer fellow prisoner of war?" I willed her to speak.

"Before I got this damned job...I died."

I reached over and sat my hand atop her blighted paw. I couldn't say why. The flesh was cooler than the steel bracing it, yet sweating.

"I flew passenger aircraft, the Lydon to Bradbury tourist run. A contractor had cut corners, supplying sub-standard blades for the turbines. We bounced twice and exploded after my engines cut out during a take-off. I...I was dead when they pulled me from the wreckage. After they revived me...I wasn't the same. Only...The contractor was never indicted, but he was guilty. Damned guilty."

The polis shuttered as our trim jets fired, pumping super-heated waste gas with the hope that the missiles would home onto the reinforced rings where the jets were located. Punching holes there wouldn't kill anyone. It hadn't worked before, but hope sprang eternal. Girders moaned, ghostly sounds echoing from the ventilation shafts. Angry ghosts.

"I preferred selling weapons. Higher commis-

sions, easier sales. I had a 'Winner's List' I distributed—humans and aliens who'd used our weapons successfully. Easy money!"

I raised my mug. "To easy money. Keep those workers busy. Keep yer balance of trade fat and sassy."

A second alarm sounded, shriller, more insistent. Keep and the Dyb' dived to the floor. Lisa twitched. She wanted to hide beneath the table, but my obdurate posture froze her.

"It doesn't matter," I said, finishing my drink. Space hated nothing more than waste. "The table MIGHT protect us from shrapnel, but I'd rather be shredded than spaced. Eating vacuum ain't pretty."

Click'ta'tae jumped ever so slightly.

She scratched her maimed hand, eyes screwed shut. "I know, I know. It was a HPK-4 warhead. Its armoured shell penetrates and 940 keys of Blastex detonates 24 seconds later. I—"

The polis shivered. Speed bump. That's what Uncle Woody used to call it when our ship went bang. The man only smiled when our converted grain transport was in trouble. His stainless steel teeth were dazzling. "Just a speed bump," he said as alarms screamed. He made me smile that instant before we rammed Deimos Station.

"Wow, only 940 kilograms. I would have guessed a coupla tons min. Reckon it blew on the other end of the city. Maybe Austin Hall. Good, the rich deserve ALL the perks they get."

"They'll have suits. The best."

"Get real. Most of the rich evaked from the get-go. They're out hiding in the mines. Roughing it. The only ones still here are the ones too greedy to abandon their wealth lest we hoi polloi loot it. And ya can bet some of 'em bought their suits from Collins. He was an equal opportunity rip-off artist."

"It was too expensive to carry an envirsuit. Passenger ships are required to provide them. I bought a suit the instant I stepped onto a polis. S.O.P., playing it safe. Nobody told me to inspect it with a fine-toothed comb!"

She held her bottle so tightly that her knuckles went white.

"I've been in space since I was four. Yer dirtshoe, that's excuse enough for ya. Me, I can't plead ignorance. I was taught to inspect my suit weekly. Never had the time. It was something to do mañana."

I waved my mug. Uncle Woody would have air-locked me for stupidity. I deserved to die. To fall for the old switcheroo. "Let me pack this for you," cozened Collins after I'd tried on the deluxe envirsuit.

I found myself laughing.

"The other one must have missed. We recommend their use in pairs. An 'E' model to jam the target's electronics and a 'C' model with a maximum

"The table MIGHT protect us from shrapnel, but I'd rather be shredded than spaced. Eating vacuum ain't pretty."

warhead. It is the most cost effective mode. Pairs should be launched one to three minutes apart to avoid fratricide among the missiles."

The polis quivered, jets firing again. The alarm shrilled another warning. Keep, perhaps feeling invulnerable in his rock-proof suit, rose from his sanctuary. He slopped fluid everywhere in his haste to fill two tall glasses. He waded me over. My knees wobbled, but Ma Rains' eldest never passed on a freebie.

"Hail," she said as I sat and pushed a glass at her. "Hail on a tin roof."

"I'll be damned, yer genius missiles musta hit one of those garbage bails. Poetic justice, doncha think?"

"Hail," she mumbled.

Or was it 'Hell.'

I sniffed at the drink. It wasn't a lobotomy. A sip. I pegged it as one of those syrupy amphetamine swills. Keep didn't want us drinking ourselves unconscious during the attack. How thoughtful.

The all-clear sounded. I daubed my forehead with my sleeve, casually hiding my tears of relief. The Dyb' emerged, sans helmets, and did a comic dance. They reminded me of 300 kilo extras from FIDDLER ON THE ROOF being convulsed by electrical current.

Keep didn't so much as hoist his visor. The reason miners lived to enjoy their retirement could be distilled into one word: caution. One mistake out there and you died.

I fed a coin to the wall-vid. A stream of debris that once hid the missiles flew toward our system's white dwarf heart. Their vapour trails formed a lovely rainbow. The camera traversed, filling the screen with Click'ta'tae, a grubby cylinder slowly rotating with the Typpin Constellation as a backdrop. Sunside had caught the brunt of the attacks. Pockmarks rimmed in black and grey decorated the city's hull. A new hole hemorrhaged snow into space. Ice crystal gleamed like a million diamonds.

"Damn. It missed Austin Hall. Looks to be E'en Hall that got it. They have...had the best library on the polis. Pity the loss." My voice cracked. "They could have been safe on one of the planetoids with the rest of our elite. However, the E'en clan are creatures of principle. High principles."

I said a silent prayer for the noble Irlanes, not that I had a god to pray to. Kee, the Captain of our cutter, had been one of the E'en. For a moment it comforted me to stand shoulder to carapace with heroes. Like Beth.

The amph-syrup kicked me. Lightning surged, neurons thundered. "Ya gonna drink all day like a loser? C'mon, I'll walk ya home. Let's accomplish something today!"

I witnessed the syrup erode Lisa's mournful mien. A dull film lifted from her dyed eyes. "You're right," she said in slow motion. "Every day feels like the last. I'm on death row. You understand? Nothing personal, it was easy money. Forgive me."

My brain raced; I nearly fell off the rush. I had the energy to build worlds. Nothing mattered beyond harnessing the surge.

"Selling missiles ain't firing 'em. There's nothing

to forget. Uh, forgive. C'mon, we've received a 24 hour extension on our lives. Time's a-wasting."

The Dyb' were still dancing when we departed. Their song of joy was infectious, albeit cacophony cubed. The deserted hall echoed with our footsteps. She didn't blink as the huge crashdoors folded into the ceiling.

"It's all a matter of responsibility, isn't it?"

"Only for our own actions."

"That's what I mean."

"Check out those minute fluctuations in the lights. I have to get Keep's recipe. I feel like I'm 18 again! I'm gonna finish that Ku'lan'nu today. And paint my room. My laundry, I oughta do my laundry. And sort my socks."

"It's the Kay El Nijji. My last customer had their missiles backordered because the Kay were buying all the hardware in sight."

"Kay El? Isn't that Superman's proctologist?" I giggled. It was nearly impossible to stop.

"I'm serious! Who will you tell? Everybody should know. To hell with client confidentiality!"

I staggered. The bullet platform was empty. A sign flashed seven minutes until the next car arrived. Those flashing numbers captivated me. The clunk of a hatch barely penetrated my euphoria.

"Naw, it isn't the Kay. They're arming to move on the Acaid's poles, not us. Our mother corp is helping to finance that war. Don't sweat it, ya ain't responsible."

When I looked over my shoulder, she wasn't there. The sound of thumping machinery drew me to the emergency airlock. She was already bleeding air.

"Yer wasting yer time. The anti-lunatic software will stop ya." I talked to the door since the intercom was out.

"I'm guilty," she mouthed before turning away from the porthole.

Readouts danced downward. The software was as defective as the intercom. Tons of explosive had fouled the system. I raced to the phone, knowing it was too late.

Central put me on hold. The readout said zero. I dropped the phone. One less POW wouldn't change a thing.

I went home to work. ■

As the sales clerk rang up his purchase of the latest Janet Jackson release, the man standing beside me at the music store listening booth stared at my stack of CDs with intense curiosity. Sensing an opportunity, I removed the headset I was using to preview my selections.

"What is that you're listening to anyway?" he asked quizzically.

"Electronic Music", I replied, but I might as well have said "Eldenuit Quarnt."

His roundish face screwed into a loud, non-verbal "huh?!"

Hesitantly, he received the headset I offered him as if I had offered him an alien fruit, assuring him that it really wasn't poisonous. For a moment, his face was blank but slowly, his eyes grew wide and his mouth became transfigured into a wide grin. He listened a few moments longer then returned the headset. After a brief exchange of thanks, he turned back into the music store for his own copy. I asked the sales clerk if I was going to receive a commission for the sale.

In essence, I witnessed the discovery of a new universe for someone who never realized that there was more to music than what mainstream radio heaved at him.

I have witnessed a number of such awakenings. It is a deeply satisfying experience and I try to make it a point to be a catalyst to bring them about. The essence of Cosmic Music revolves around the discovery of other worlds

*A Buyer's Guide
to Cosmic Music...*

Wading through the

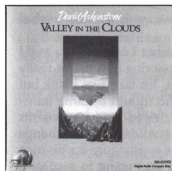
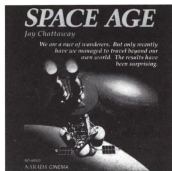
COSMIC SEAS

by
*Rebecca
Dahms Lioi*

through the time and space machine of music.

Unfortunately, Cosmic Music is not as common as commercially popular music. Unless you're fortunate enough to live in a city with a station that carries Cosmic Music, it's difficult to hear much of it on the radio—a distinct disadvantage for buying, as radio is one of the primary influences on what people select for their musical diets.

Buying Cosmic Music, however, can be an intimidating experience even for a veteran music buyer. It's common to pick up a CD with a pleasant looking computer generated cover drawing of a planet spinning serenely through



the vast expanses of space having only two twenty-some minute nondescript cuts called something like "Alpha (Part I)" and "Alpha (Part II)." Not a clue as to what you are about to shell out a fair sum of money for. Not knowing what to buy is a major deterrent from buying Cosmic Music at all. Even experienced Cosmic Music buyers have CDs gathering dust on the shelf that were bought on little more than guesses. With a little research however, building a collection of Cosmic Music can be less painful to both the ears as well as the wallet.

First, the aspect of listening to Cosmic Music. It is important to realize that unless you are a serious music collector, there is probably a lot of Cosmic Music floating about that you really DON'T want to own. Much of the Cosmic Music movement deals with experimentation and like any experiment: sometimes it works, and sometimes it doesn't. That doesn't necessarily negate the historical value of a piece, but it is much like a Picasso painting: you may appreciate it, recognize its artistic and historical value—but you most certainly wouldn't want it on your wall! Or maybe you would if you happen to like Picassos. The same is true with Cosmic Music, or any music for that matter.

I use several different measuring sticks when judging if I want a piece of music in my personal collection. First, and most important, is it enjoyable to you? Does it fit your tastes? Pick up a Cosmic Music album and take the time to first examine the cover. Look at the artwork. What kind of instruments does it have? Do you tend to like strictly synthesizer music or are you more drawn to acoustic music? Perhaps you prefer a combination of the two. Are you looking for something stirring or soothing? Textured or flat? Rather than random selection, if you give these issues some thought, you will find the "dud" element dwindling from your CD collection. Always read the sleeve notes. They often contain a lot of helpful and interesting information. If you can find a music store that will let you listen before you buy, by all means take advantage of the situation.

Appropriate settings can be a good

measuring sticks for Cosmic Music. I tend to pick music that is good to listen to in the dark or driving in my car as fast as I dare. And do yourself a favor; buy yourself a good headset for your stereo. Headsets minimize distractions and reveal subtleties in music that can't be realized through speakers. Twenty minutes or so of seclusion in musical realms can relieve stress and leave you feeling more energetic and creative.

Theme, rather than musical style tends to be the tie that binds Cosmic Music. Rather than being characterized by a particular beat or style of instrumentation, Cosmic Music is a combination of many styles ranging from symphonic to pop. Within Cosmic Music itself are a number of subgroups which are helpful to know when finding out what type of Cosmic Music is most suitable to personal tastes.

If you were to look at a photograph of the spectrum of colors, you would notice that often it is difficult to tell where one color ends and another begins. Where red becomes yellow and green becomes blue. The same is true of Cosmic Music. There is often so much crossover between styles that it is often difficult to make a distinction as to which subgroup a particular artist belongs.

On one end of the Cosmic Music spectrum is Ambient music, taken from the album of the same title by long-time musician and producer, Brian Eno, the primary influence on the style. The dictionary definition of *ambient* is "surrounding" and it is that atmospheric calm that is characteristic of the style. Eno's *Music for Airports* is a classic example of the style. This is an album that I don't particularly recommend you go out and buy unless you know ahead of time what you're getting yourself into. It is the Picasso that you don't necessarily want on your wall, but has its historical and musical impacts. The listening audience of ambient music is relatively small. *Music for Airports* is an exercise in electronic wandering. It is quiet and meandering. Good background music, but it doesn't seem to actually GO anywhere. Imagine an oscilloscope measuring the dynamics of the music: the gap between peaks and

troughs is very narrow. That is characteristic of the style. Both the narrow scope of the music and limited demand have impacted the style's ability to expand in popularity.

New Age music would follow Ambient in the progression along a musical spectrum. Most albums found in this category in music stores really aren't New Age. The popularity of New Age music in the early 80's became a produced a category for the music store clerks to put anything instrumental that wasn't classical, jazz, rock, or country. By strictest definition, New Age music refers to music connected with the New Age religious/philosophical movement that has become popular over the last decade. While there is no collective body of beliefs amongst those espousing New Age philosophy, most believe in universal oneness, that is, that everything in the universe is composed of the same essence. Oriental religions also exert influences on New Age beliefs. There is a strong sense of connectedness with nature and the spiritual world. Here is where New Age philosophy meets the music world. New Age music has definite spiritual and philosophical underpinnings often with influences of eastern music woven in. Many musicians reflect this philosophy directly by stating so on the sleeve notes of their albums or, more indirectly, by song titles. Bells, gongs, wind and surf sounds are often incorporated into the music. New Age music is usually quiet, reflective and earthy.

Relaxing sounds of electronic oceans open David Arkenstone's debut album, *Valley in the Clouds*. *Valley in the Clouds* is clear, calm and flowing; full of texture and fat synthesizer sounds, and unlike *Music for Airports*, each piece GOES somewhere. There is definite movement and jungle tropical rhythms; definite peaks and valleys.

The sleeve notes of *Valley in the Clouds* contains an insightful comment about the artist's intention behind his music:

"The *Valley in the Clouds* which David Arkenstone has created is a strangely familiar place. An evocative landscape, it is made of the very essence of your own experience; a timeless realm of vi-

sion and emotion springing from the root of our collective humanity. Sometimes whispering, sometimes resounding, here is a voice with a message for every ear. More than a collection of songs, it is a total environment, an ancestral home to which we can return. In a place such as this, boundaries begin to blur and the lines drawn between worlds and individuals lose their significance. It is a place of wonder close at hand, a place where pasts and futures merge, a half-remembered dream of a *Valley in the Clouds*."

Whereas New Age music tends to conjure earthier images, Electronic music leans more to the celestial. Again, the line can be very fine between the two subgroups and often cross into one another. Same instrumentation, but with a different perspective. Purists will argue that Electronic Music is just that—all electronic—synthesizers, computers, and drum machines, not even allowing for the occasional electric guitar. Others expand the definition to permit acoustic instruments to creep in and nestle amongst the electronic ones. Electronic Music actually gets the most exposure of any of the Cosmic Music subgroups. Electronic Music is increasingly becoming the choice for movie themes, especially since one musician is far more economical than an entire symphony orchestra. The television industry has incorporated Electronic music into many themes and especially as segue-way music for commercial breaks during sporting events. I am even pleasantly surprised to find our local grocery store replacing its traditional "elevator music" with Electronic music.

Also known for his theme for *Star Trek*, the *Next Generation*, *Space Age* by Jay Chattaway embodies the essence of Electronic music along the purist lines. It is also an excellent example of how television has influenced and advanced the exposure of Cosmic Music. It is a sharp contrast to the more subdued and restful *Valley in the Clouds*. *Space Age* is bold and dramatic, even theatrical at times. Grandiose rolls of electronic kettle drums and cymbals crashing seem to portray the awesome majesty of space. Jay Chattaway takes



the classic "orchestral approach" to Electronic Music. That is, using synthesizers to mimic an orchestral or "classical" effect. This is partly due to much of the album being the soundtrack to the PBS series by the same title, demanding appropriate music for a space-related subject. The opening piece, being the theme song for the TV series takes on a very television-y sound; it is not surprising that this album is a soundtrack. The piece conjures up images of space stations lumbering through the vast emptiness of space. The subsequent pieces continuing in the soundtrack vein. Each piece has a correlating sleeve note pondering various philosophical aspects of space such as "What is Heaven For?" and "The Unexpected Universe."

Closely related to New Age and Electronic Music is what I term Neo-Celtic, characterized by its Gaelic influences coupled with modern instrumentation. The very mystique that surrounds the ancient Celts lends itself so well to this style of Cosmic Music. While New Age is earthy and Electronic is spacey, Neo-Celtic is ancient and mysterious in nature, often reminding one of Druids dancing around Stonehenge in the mist. The instruments of choice are the Celtic harp, flute, pipes and the human voice as well as the modern synthesizer and electric harp.

The movement was almost single-handedly created by the Irish Brennan/Duggan clan that produced the band Clannad and soloist Enya. Clannad began its musical evolution by rearranging traditional Irish music for group performance. Formerly, such music was usually sung and played by a solo artist, a tradition handed down for centuries from the medieval bards. Taking such "liberties" with traditional music infuriated many, but paved the way for Clannad's musical style characterized by "layered" vocals and expanded instrumentation.

Airing the theme from the British

TV show "Harry's Game" on a Volkswagen Jetta commercial marked the discovery of new musical worlds for many people in the United States and a turning point in Clannad's evolution. Volkswagen's 1-800 customer service number was flooded with calls from people not particularly interested in the car, but wanting to know about the music.

Clannad's current release, *Banba* (Banba, being an Irish goddess) is yet another step in the band's cosmic progression. Several of the cuts are sung in Gaelic with the lush, harmonic vocals that have come to be the hallmark of Clannad's music. Having established themselves musically, Clannad is steering away from traditional Irish numbers producing almost entirely original pieces. Clannad, however, has not abandoned the overall mysterious and melancholy tones that are dominant in their music. Each piece seems bathed in its own unabashed sweet sadness. Included on the album is the lovely theme song from the movie *Last of the Mohicans*. "I Will Find You" is a haunting, longing ballad featuring lyrics in English as well as Cherokee and Mohican, which are well suited for Clannad's vocals. Already popular in Europe, "I Will Find You" is beginning to filter onto commercial radio stations in America.

Progressive Rock would be the next step—a progression, containing the widest range of musical variation. Dating back to the late 60's and early 70's when so many different avenues of rock music were being explored, a number of very talented musicians, many of whom were classically trained, began developing this style. Complexity, intricacy and skill are the underlying principles of Progressive Rock. The songs tend to run on the long side in order for the music to fully develop. Pop hits are usually not the goal of most progressive rock bands, although, sadly, once a Progressive Rock band does have a hit single, the record company starts

shouting for more. The "no hits, no contract" carrot large record companies tend to dangle worsens the situation. The push for hit singles has stifled many otherwise excellent musicians into trying to produce music they would rather not. Albums by Progressive Rock bands being pressured to produce pop songs litter the cut-out bins in record stores.

Many bands claim influences from classical composers use symphony orchestras as along side of electric guitars and synthesizers. Other performers took Progressive Rock in another direction, bordering on hard or psychedelic rock.

The beloved instrument of Progressive Rock was the mellotron. A keyboarded quasi-predecessor of the synthesizer, the mellotron, utilized tape loops of actual string sections to give an orchestral effect. Synthesizers are now more advanced leaving the mellotron behind in sad obsolescence; however, the acoustic sound quality of the mellotron has never been duplicated.

Progressive Rock became a style of music that many critics loved to hate. While producing a number of very popular bands, the style was blasted as being bombastic, overdone, and just plain "too much" by critics looking for a leaner and more straightforward style of rock music.

While not nearly as popular in America as other Progressive Rock bands such as Yes or Genesis, Renaissance heavily influenced this style of music. Characteristic of many Progressive Rock bands, Renaissance often cited classical inspirations such as Rachmaninoff, Prokiev and Shostakovitch as being major influences.

Renaissance's 1977 release, *Novella* runs the gamut of musical styles and emotions for Renaissance from the orchestral "Can You Hear Me?" to the Spanish flavored ballad of "The Sisters," a longing, melancholy piece about suffering and doubt.

"Can You Hear Me?" is a classic of the Progressive Rock style. Annie Haslam's professionally trained operatic voice seemingly effortlessly hits some amazingly high notes with clarity and force. Typical of Progressive Rock pieces, the bass guitar emerges from being a background instrument to taking a more "lead instrument" role. The 14 minute "Can You Hear Me?" carries the listener through a number changes in tempo, dynamics and situations. The piece moves from the hectic pace of city dwelling contrasted by the quiet, acoustic reflectiveness, to the swells of a storm.

Techno music conjures up images of the first episode I ever saw of *Battlestar Galactica*. In one scene, Starbuck enters a seedy galactic bar. Descending the stairs into a hazy pit of blue and red smoke, he passes different landings packed with aliens dancing up a frenzy. On one of these landings is the solitary musician donning a punkish hairdo, silver suit, high-heeled boots and jamming with all his soul

on a singular, cordless keyboard.

Techno music has a futuristic slant. While it is almost always strictly electronic, it varies from the Electronic sub-group in that it has a definite pop music and dance flavor to it. It is characterized by heavy beats and use of drum machines along with frequent, quick bursts of synthesizer blasts. It is the preferred dance music currently played at many night clubs.

Kraftwerk, from Germany, was one of the primary instigators of this style of music. Kraftwerk, German for "Power Station", encapsulates the soul of the Techno movement with its synthesizer music and futuristic themes. *The Mix*, a compilation of Kraftwerk's most "well-known" pieces, traces the band's history and gives the listener a good feel for Kraftwerk's music.

The Mix is a fun album, especially to the American listener. It is intriguing to wonder, however, whether that was the band's actual intention, or the album ended up that way due to language and cultural differences. Kraftwerk pre-

sents a number of amusing pieces performed in a very serious manner. The opening piece begins with the band chanting in Hogan's Heroes' English "Vee are Zee Robots" and continues on a technical dialogue about robotic life.

Another piece that typifies Kraftwerk's approach to its subject matter is "Pocket Calculator". Overdubbed with "cutsey" musical calculator-like synthesizer sound, the singer speaks in monotone:

"I'm the operator with my pocket calculator / I am adding / and subtracting / and computing / and controlling... When I press a special key, it plays a little melody."

What exists beyond this end of the spectrum is still being discovered by the brave musicians who dare to leave the realms of commercial airwaves and explore the great expanses of music. New worlds are being discovered everyday as these bold explorers share their own discoveries via the vehicle of music. Take a cosmic journey. Sit back, relax — and don't forget to share your headset! ■

Sources

"So where do you find this stuff anyway?" is a question I commonly hear.

Most shopping mall music stores may carry a very limited selection of cosmic music, however, finding it may be a challenge. Unless your music store has progressed enough to distinguish between the New Age and Electronic categories, most cosmic music will be in the New Age bins. Or, try digging through the rock music bins. The Neo-Celtic music usually ends up in the "International" bins at the music store stuffed between the traditional Irish music and folk ballads from Lapland.

A more likely place to find what you're looking for are independently owned music stores. Usually little hole-in-the-wall places lacking the glitz and high overhead of shopping mall stores, the owners of these shops are more likely to stock harder-to-find pieces. Many sell used CDs, a good way to pick up some inexpensive additions to your collection. Independent owners are more likely to let you LISTEN before you buy.

If you know what you are looking for, even shopping mall music stores carry a copy of *Phonolog Reports*, a comprehensive guide to record releases. Most stores will be glad to place an order for you.

If you don't have a decent music store in your area, why not try mail order? There are several excellent options for finding Cosmic Music via the US Postal service.

Goldmine, a tabloid exclusively for record and CD collectors is a wealth of information if there is something particularly hard-to-find or imported. *Goldmine* lists a number of record and CD distributors and sources. *Goldmine* tends to be very general however and carries everything from Cosmic Music to Fifties Music.

More specifically in the vein of Cosmic Music is Backroad's *Heartbeats* catalog. Much of the music from the syndicated Cosmic Music program *Hearts of Space* can be found in this excellent source of music. The detailed descriptions of each album are also extremely helpful. *Heartbeats* tends to carry a lot of mainstream Cosmic Music and often overlooks smaller labels and hard-to-find music.

One of my personal sources of hard-to-find music is *Of Sound Mind* in Baltimore. *Of Sound Mind* specializes in Cosmic Music. Owner Chris Lamka is a wealth of information and extremely good at tracking down music, especially if it is international. Chris contacts many international artists personally, giving him the ability to carry music that is virtually impossible to find elsewhere. Chris may be contacted at (410) 529-7082.

Other good sources of music are *Rock Revelations* in England (081-390-5288), *Sound City2000, Inc.* out of Portland, Oregon (503) 654-2196 and *Eurock*, PO Box 13718, Portland, Oregon 97213.

When he's not "Ackscavating" dead classics for *EXPANSE*, **Forrest J Ackerman** edits *Famous Monsters of Filmland* and *Wonderama*, attends conventions, does television interviews and will make his 44th film appearance... His agency represents some 200 artists and writers.

Allen Koszowski returns this issue with art for "A Martian Odyssey." He was recently nominated for Best Artist by the Small Press Writers and Artists Organization.

James Van Hise is a full-time writer and co-edits *Midnight Graffiti*. His most recently published work is a paperback, also titled *MIDNIGHT GRAFFITI*, available from Warner.

T. Jackson King is an Oregon writer, archaeologist and author of the SF novel *RETREAD SHOP* (Warner, 1988). He's sold stories to *Pulphouse*, *Tomorrow*, *Figment*, *Pandora*, *Midnight Zoo*, and *Dark Infinity*, and articles to *Writer's Digest*, *Science Fiction Chronicle*, *Byline*, *Small Press*, *Women & Guns*, *Writer's Journal*, *MZB's Fantasy Magazine*, *SFWA Bulletin*, and *The Report*.

In her October, 1991 "Mystery News" column in *Mystery Scene*, Barbara D'Amato claimed **Michael Bracken** had "the most versatile pen in the west" because he writes in so many genres. His short story, "Of Memories Dying," appeared on the preliminary ballot for a Nebula Award.

In addition to writing, Bracken has more than seventeen years' experience in commercial and small press publishing. He's been an editor, publisher, designer, production manager, systems manager, typographer, and independent consultant for a variety of publications...

David J. Adams, his wife, Diane, and one-year-old daughter, Rachel, live in Lancaster, PA. He's worked for the last eight years as a chemical engineer. More than twenty of his stories have been published or accepted by small press publications such as *Midnight Zoo*, *Best of the Midwest's*, *Limited Infinity*, and *Vision*. But he says his appearance in this issue of *EXPANSE* "is my first professional sale."

Howard V. Hendrix has been published in a variety of formats and genres. His science fiction short stories and novelets have appeared in such anthologies as Bantam's *FULL SPECTRUM* (Vol. 1, 1988; Vol. 4, 1993) and Bridge Publications' *WRITERS OF THE FUTURE* (Vol. 2, 1986) and in the magazines *Amazing Stories*, *Aboriginal SF*, *Pulphouse*, *Starshore*, *EOTU*, *Tales of the Unanticipated*, *The Mystic Muse*, *The Leading Edge*, and *Mosaic*. **TESTING**, **TESTING**, 1, 2, 3, a "mini-anthology" of his more experimental short stories, was published by the EOTU Group in the summer of 1990. He wrote the *Peripheral Visions* column for the short-lived but much lamented *Starshore*, and other examples of his non-fiction writing have appeared in newspapers in the U.S. and New Zealand.

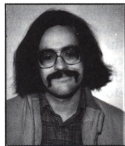
A full-time freelancer from Utah who specializes in science fiction, **Ken Rand** also writes humor and non-fiction. He was an editor for newspapers in Utah and Wyoming. He won an honorable mention in *Writers of the Future*. His work has appeared in *The Report*, *Science Fiction Chronicle*, *Seattle Times*, *Gauntlet* and Jerry Pournelle's *ENDLESS FRONTIERS* (Vol. V), among others. Recently, he married his ex-wife, ending a 19-year divorce.

Ryck Neube has been writing full-time since 1979, occasionally working for the IRS to support the mortgage. "The only reason I've endured this long is my fortune of having married an understanding workaholic." He's lived as a street person, been rejected employment by the CIA for being "politically unreliable," survived a bout of Legionnaires Disease, and barely escaped arrest after mooning 120 cheerleaders *en masse* at a cheerleading clinic.

Keith Minnion is a color printing specialist with nine published stories and countless illustration credits. His favorite author: Samuel R. Delany. His favorite book: *WE HAVE ALWAYS LIVED IN THE CASTLE*. His favorite rejection letter came from John W. Campbell, "in 1970, not long be-



George Barr



Ryck Neube



Keith Minnion



T. Jackson King



David J. Adams

fore, you know... (Hey, my story had *nothing* to do with that!)"

Herb Kauderer is a prolific science fiction poet who has appeared in such markets as *Pulphouse*, *Starshore*, and *The Buffalo News*. Three of his poems have been nominated for the Rhysling Award. He is currently a graduate student at Buffalo State College working on an MA in English and lives with his wife and daughter in an 1888 farmhouse.

A familiar name to the genre, **George Barr** has been illustrating science fiction and fantasy since the late 1950's. He sold his first cover painting to *Fantastic Stories* in 1960. As the Fan Guest of Honor at 3 conventions (including both Wester- and WorldCons), Artist GoH at the '94 WorldCon in Winnipeg, he was possibly the first person to be honored as both Fan Artist, then Pro Artist, in the history of both Wester- and WorldCons.

Bob Hobbs is back, and continues to have work appear in magazines like *Tomorrow* and *Figment*. His new book *SCARABAEUS* is due to be released in November from *Earth Prime Productions*. "The book is what we're calling a 'thematic portfolio' of full page, super-detailed pen & ink illustrations with a common theme." He'll be doing book illustrations for Last Unicorn Games and several new poster for Creative Management Services in California promoting paintball.

The cover art, this issue, is *Vertigo* by **John Holland**. He's been painting for about about six years. Though having had two years of commercial art courses, he considers himself basically self-taught. His interest in the SF/Fantasy field was inspired mainly by the works of Michael Whelan and Keith Parkinson. "They are probably more responsible for my initial interest in art than any other factor," he says.

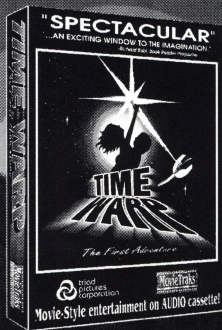
"I use a combination of conventional brush and airbrush in my work, the amount of each varying depending on the piece. I seem to be leaning towards more conventional brush work as my skill with it increases. *Vertigo* is done almost entirely with a brush, airbrush was used only on the spaceships and a small amount of the clouds."

ADVERTISING INDEX

Mindsparke	20
Science Fiction Chronicle	20
Weinberg Books Inc.	27
The Science Fiction Shop	27
Barry R. Levin	29
Alternate Histories	59
Triad Pictures Corporation	Cover 3

PHOTO CREDITS *Premiere Issue*: pg. 29, Jyrki Ijas, pg. 74, George Scithers; pgs. 76-78, Dr. Robert Garrett; *Issue No. 2*: pg. 21, Char Urbanec; pg. 29, Forrest J Ackerman Agency; pg. 52, T. Jackson King; **Back Cover** by Chris Lioi and Larry Hubble, using a Celestron Ultima 8 with focal reducer (1260mm), Nikon F-3, Ektar 1000, 15 minute exposure.

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