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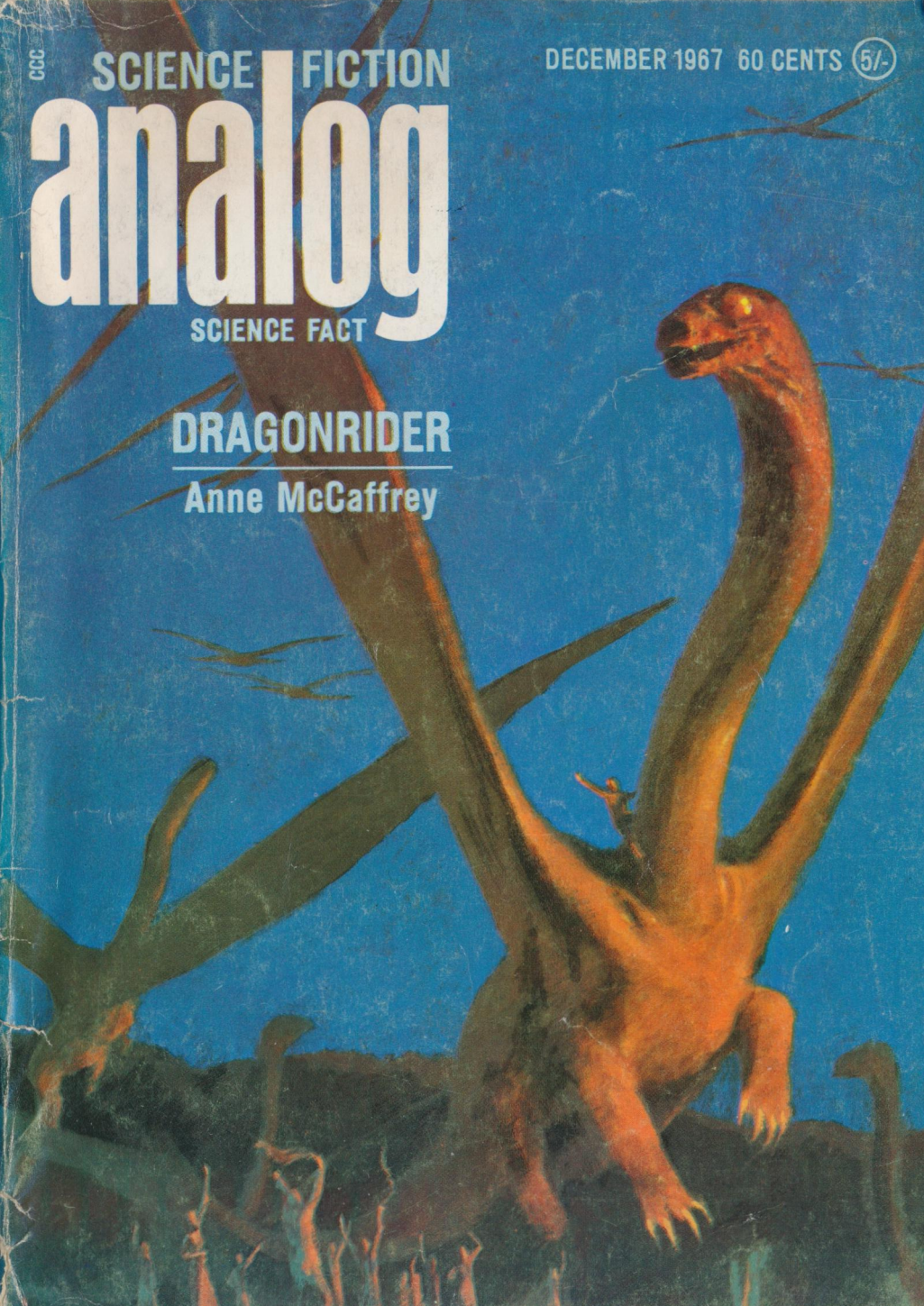
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Anne McCaffrey



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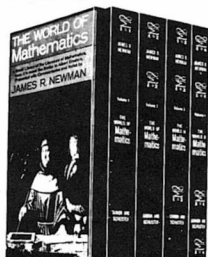
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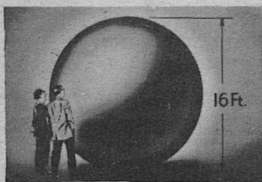
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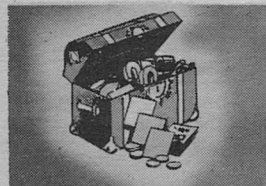
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JOHN W. CAMPBELL
Editor
KAY TARRANT
Assistant Editor
HERBERT S. STOLTZ
Art Director
ROBERT E. PARK
Business Manager
WALTER J. McBRIDE
Advertising Manager

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LIBERAL CRUELTY

AN EDITORIAL BY JOHN W. CAMPBELL

Men always—and inescapably always must—act on the basis of what they *believe* is true. The actual correlation between a man's beliefs and actual reality is not predictable—but, by definition, if it is his *belief*, then *he* thinks the correlation is one-to-one.

What a man believes “is, and of a right ought to be” justice, he desires passionately. Since we, like most other higher animals, are “territorial animals,” we have very powerful and very ancient instincts that drive us to demand and to defend our “territory,” “our rights” and what we believe ought to be. That, in essence, is the motivation of the Declaration of Independence.

It is, equally, the motivation of the paranoid psychotic who one day takes his gun and shoots down a dozen neighbors in the street.

As I say, there is no predictable correlation between a man's passion-

ate convictions (“Give me liberty, or give me death!”) and Truth. (“They were all plotting to kill me! I had to stop them!”)

Now if a Jew, in Germany in 1940 said: “They’re all plotting to kill me and my whole family!” he was not necessarily psychotic; it was the Jew who said: “Oh, they won’t bother *me!*” who was psychotic, unable to accept the deadly reality of the situation.

These things make it extremely difficult to distinguish between unreality and sanity. It requires a wide assortment of data about the real world, a broad education, a considerable degree of intellectual self-honesty and practice and experience in rational thinking and analysis of data. It’s not something the illiterate and uneducated can carry out.

If the undereducated and illiterates fail in their assessment of reality, it’s understandable in a world as

complex and rapidly evolving as ours today.

But it is also their own "fault"; it is their own choice that they remain uneducated and illiterate. Anyone in our modern world who is not literate and reasonably well educated has chosen not to be. My daughter teaches Remedial Reading in a major urban public school system; the fourteen-year-old boy who is functionally illiterate and says outright, "Whadda I wanna learn to read for? I got better things to do with my time!" is expressing a sincerely and passionately held belief that literacy and education are things people are trying to impose on him. He is, in his own belief-system, rejecting their efforts to enslave him, to drive him to unwanted goals *they* have selected for him.

Anyone think that "better schools" would improve his educational attainments?

Well . . . maybe, if we had Christopher Anvil's "want generator" and could willy-nilly impose on his mind, by an electronic gadget backed up by an adequate number of kilowatts, a want-to-learn-what-we-want-to-teach. It's been done in the past by using whips backed up with swords and spears.

The individual so compelled to choose to learn will have a deep conviction of violent injustice.

You *can* lead a horse to water *and* make him drink; all you have to do is arrange to shove him under water, and he'll imbibe water if you

just keep him there a while. In an equivalent way you *can* make someone who rejects learning absorb knowledge.

The essential point is what men believe to be justice they will passionately seek to achieve. *However insane that belief may be.*

The basic cause of the urban riots is that deep sense of injustice among a number of Negroes, spurred on by the Black Power extremists—who are motivated in an entirely different way.

First, recognize that what the Black Power leaders mean when they say "Black Power" is "*my* Power." A clear-cut example of a white individual who had the same type of compulsive power-craving was Lee Oswald. He *had* to get fame, importance-which-is-acknowledgment. He craved the dignity and influence of commanding followers, of being a Recognized Leader. The same deep, compulsive passion drove John Wilkes Booth, fading actor, steadily being rejected by the theater and the public.

This psychopathic type is driven to achieve notoriety, public attention, at any cost whatever. Hitler was a fairly successful member of that type; he happened to combine that psychopathic drive for acknowledgment with a genuine genius talent for swaying people. The psychopathic personality with an equal compulsion for Power who lacks any talent whatever, is frus-

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DRAGONRIDER

First of Two Parts.

The Time of the Threads was coming to Pern—
with all the blind, deadly voraciousness of vegetable life.
And Pern and the Dragons, the Weyrs and the Holds
were unready after a four-century respite.
For people had forgotten the reality of the Threads . . .

ANNE McCAFFREY

Illustrated by John Schoenherr





The Finger Points
At an Eye blood red.
Alert the Weyrs
To sear the Thread.

"You still doubt, R'gul?" F'lar asked, appearing slightly amused by the older bronze rider's perversity.

R'gul, his handsome features stubbornly set, made no reply to the Weyrleader's taunt. He ground his teeth together as if he could grind away F'lar's authority over him.

"There have been no Threads in Pern's skies for over four hundred Turns. There are no more!"

"There is always that possibility," F'lar conceded amiably. There was not, however, the slightest trace of tolerance in his amber eyes. Nor the slightest hint of compromise in his manner.

He was more like F'lon, his sire, R'gul decided, than a son had any right to be. Always so sure of himself, always slightly contemptuous of what others did and thought. Arrogant, that's what F'lar was. Impertinent, too, and underhanded in the matter of that young Weyrwoman. Why, R'gul had trained her up to be one of the finest Weyrwomen in many Turns. Before he'd finished her instruction, she knew all the teaching ballads and sagas letter perfect. And then the silly child had turned to F'lar. Didn't have sense enough to appreciate the merits of an older, more experienced man. Undoubtedly she felt a first obligation to F'lar, he having discovered her at Ruath Hold during Search.

"You do, however," F'lar was saying, "admit that when the sun hits the Finger Rock at the moment of dawn, winter solstice has been reached?"

"Any fool knows that's what Finger Rock is for," R'gul grunted.

"Then why don't you, you old fool, admit that the Eye Rock was placed on Star Stone to bracket the Red Star when it's about to make a Pass?" burst out K'net, the youngest of the dragonriders.

R'gul flushed, half-starting out of his chair, ready to take the young sprout to task for such insolence.

"K'net," F'lar's voice cracked authoritatively, "do you really like flying the Igen Patrol so much you want another few weeks at it?"

K'net hurriedly seated himself, flushing at the reprimand and the threat.

"There is, you know, R'gul, incontrovertible evidence to support my conclusions," F'lar went on with deceptive mildness. "'The Finger points/At an Eye blood red . . .'"

"Don't quote me verses I taught you as a weyrling," R'gul exclaimed, heatedly.

"Then have faith in what you taught," F'lar snapped back, his amber eyes flashing dangerously.

R'gul, stunned by the unexpected forcefulness, sank back into his chair.

"You cannot deny, R'gul," F'lar continued quietly, "that no less than half an hour ago, the sun balanced on the Finger's tip at dawn and the

Red Star was squarely framed by the Eye Rock."

The other dragonriders, bronze as well as brown, murmured and nodded their agreement to that phenomenon. There was also an undercurrent of resentment for R'gul's continual contest of F'lar's policies as the new Weyrleader. Even old S'lel, once R'gul's avowed supporter, was following the majority.

"There have been no Threads in four hundred years. There are no Threads," R'gul muttered.

"Then, my fellow dragonman," F'lar said cheerfully, "all you have taught is falsehood. The dragons are, as the Lords of the Holds wish to believe, parasites on the economy of Pern, anachronisms. And so are we.

"Therefore, far be it from me to hold you here against the dictates of your conscience. You have my permission to leave the Weyr and take up residence where you will."

R'gul was too stunned by F'lar's ultimatum to take offense at the ridicule. Leave the Weyr? Was the man mad? Where would he go? The Weyr had been his life. He had been bred up to it for generations. All his male ancestors had been dragonriders. Not all bronze, true, but a decent percentage. His own dam's sire had been a Weyrleader just as he, R'gul, had been until F'lar's Mnementh had flown the new queen and that young upstart had taken over as traditional Weyrleader.

But dragonmen never left the Weyr. Well, they did if they were negligent enough to lose their dragons, like that Lytol fellow who was now Warden at Ruath Hold. And how could he leave the Weyr *with* a dragon?

What did F'lar want of him? Was it not enough that the young one was Weyrleader now in R'gul's stead? Wasn't F'lar's pride sufficiently swollen by having bluffed the lords of Pern into disbanding their army when they were all set to coerce the Weyr and dragonmen? Must F'lar dominate *every* dragonman, body and will, too? He stared a long moment, incredulous.

"I do not believe we are parasites," F'lar said, breaking the silence with his soft, persuasive voice. "Nor anachronistic. There have been long Intervals before. The Red Star does not always pass close enough to drop Threads on Pern. Which is why our ingenious ancestors thought to position the Eye Rock and the Finger Rock as they did . . . to confirm *when* a Pass will be made. And another thing," his face turned grave, "there have been other times when dragonkind has all but died out . . . and Pern with it because of skeptics like you." F'lar smiled and relaxed indolently in his chair. "I prefer not to be recorded as a skeptic. How shall we record you, R'gul?"

The Council Chamber was tense. R'gul was aware of someone breathing harshly and realized it was him-

self. He looked at the adamant face of the young Weyrleader and knew that the threat was not empty. He would either concede to F'lar's authority, completely, though concession rankled deeply, or leave the Weyr.

And where could he go, unless to one of the other Weyrs, deserted for hundreds of Turns? And, R'gul's thoughts were savage, wasn't that indication enough of the cessation of the Threads? Five empty Weyrs? No, by the Egg of Faranth, he would practice some of F'lar's own brand of deceit and bide his time. When all Pern turned on the arrogant fool, he, R'gul, would be there to salvage something from the ruins.

"A dragonman stays in his Weyr," R'gul said with what dignity he could muster from the remains of his pride.

"And accepts the policies of the current Weyrleader?" The tone of F'lar's voice made it less of a question and more of an order.

Relieved he would not have to perjure himself, R'gul gave a curt nod of his head. F'lar continued to stare at him until R'gul wondered if the man could read his thoughts as his dragon might. He managed to return the gaze calmly. His turn would come. He'd wait.

Apparently accepting the capitulation, F'lar stood up and crisply delegated patrol assignments for the day.

"T'bor, you're weather-watch.

Keep an eye on those tithe trains as you do. What's the morning's report?"

"Weather is fair at dawning . . . all across Telgar and Keroon . . . if all too cold," T'bor said with a wry grin. "Tithing trains have good hard roads, though, so they ought to be here soon." His eyes twinkled with anticipation of the feasting that would follow the supplies' arrival; a mood shared by all, to judge by the expressions around the table.

F'lar nodded. "S'lan and D'nol, you are to continue an adroit Search for likely boys. They should be stripplings, if possible, but do not pass over anyone suspected of talent. It's all well and good to present, for Impression, boys reared up in the Weyr traditions." F'lar gave a one-sided smile.

"But there are not enough in the lower caverns. We, too, have been behind in begetting. Anyway, dragons reach full growth faster than their riders. We must have more young *men* to Impress when Ramoth hatches. Take the southern holds, Ista, Nerat, Fort, and south Boll where maturity comes earlier. You can use the guise of inspecting holds for greenery to talk to the boys. And, take along firestone. Run a few flaming passes on those heights that haven't been scoured in oh . . . dragon's years. A flaming beast impresses the young and rouses envy."

F'lar deliberately looked at R'gul to see the ex-Weyrleader's reaction

to the order. R'gul had been dead set against going outside the Weyr for more candidates. In the first place, R'gul had argued that there were eighteen youngsters in the Lower Caverns, some quite young, to be sure, but R'gul would not admit that Ramoth would lay more than the dozen Nemorth had always dropped. In the second place, R'gul persisted in wanting to avoid any action that might antagonize the Lords.

R'gul made no overt protest and F'lar went on.

"K'net, back to the mines. I want the dispositions of each firestone dump checked and quantities available. R'gul, continue drilling recognition points with the weyrings. They must be positive about their references. They may be sent out quickly and with no time to ask questions, if they're used as messengers and suppliers.

"F'nor, T'sum," and F'lar turned to his own brown riders, "you're clean-up squad today." He allowed himself a grin at their dismay. "Try Ista Weyr. Clear the Hatching Cavern and enough weyrs for a double wing. And, F'nor, don't leave a single record behind. They're worth preserving.

"That will be all, dragonmen. Good flying." And with that, F'lar rose and strode from the Council Room up to the queen's weyr.

Ramoth still slept, her hide gleaming with health, its color deep-

ening to a shade of gold closer to bronze, indicating her pregnancy. As he passed her, the tip of her long tail twitched slightly.

All the dragons were restless these days, F'lar reflected. Yet when he asked Mnemeth, the bronze dragon could give no reason. He woke, he went back to sleep. That was all. F'lar couldn't ask a leading question for that would defeat his purpose. He had to remain discontented with the vague fact that the restlessness was some kind of instinctive reaction.

Lessa was not in the sleeping room nor was she still bathing. F'lar snorted. That girl was going to scrub her hide off with this constant bathing. She'd had to live grimy to protect herself in Ruath Hold but bathing twice a day? He was beginning to wonder if this might be a subtle, Lessa-variety insult to him personally. F'lar sighed. That girl. Would she never turn to him of her own accord? Would he ever touch that elusive inner core of Lessa? She had more warmth for his half brother, F'nor, and K'net, the youngest of the bronze riders, than she had for F'lar who shared her bed.

He pulled the curtain back into place, irritated. Where had she got to today when, for the first time in weeks, he had been able to get all the wings out of the Weyr just so he could teach her to fly *between*?

Ramoth would soon be too egg-heavy for such activity. He had

promised the Weyrwoman and he meant to keep that promise. She had taken to wearing the wher-hide riding gear as a flagrant reminder of his unfulfilled pledge. From certain remarks she had dropped, he knew she would not wait much longer for his aid. That she should try it on her own didn't suit him at all.

He crossed the queen's weyr again and peered down the passage that led to the Records Room. She was often to be found there, poring over the musty skins. And that was one more matter that needed urgent consideration. Those records were deteriorating past legibility. Curiously enough, earlier ones were still in good condition and readable. Another technique forgotten.

That girl! He brushed his thick forelock of hair back from his brow in a gesture habitual to him when he was annoyed or worried. The passage was dark which meant she could not be below in the Records Room.

Mnementh, he called silently to his bronze dragon, sunning on the ledge outside the queen's weyr. *What is that girl doing?*

Lessa, the dragon replied, stressing the Weyrwoman's name with pointed courtesy, *is talking to Manora. She's dressed for riding*, he added after a slight pause.

F'lar thanked the bronze sarcastically and strode down the passage to the entrance. As he turned the last bend, he all but ran *Lessa* down.

You hadn't asked me where she

was, *Mnementh* answered plaintively to F'lar's blistering reprimand.

Lessa rocked back on her heels from the force of their encounter. She glared up at him, her lips thin with displeasure, her eyes flashing.

"Why didn't I have the opportunity of seeing the Red Star through the Eye Rock?" she demanded in a hard, angry voice.

F'lar pulled at his hair. *Lessa* at her most difficult would complete the list of this morning's trials.

"Too many to accommodate as it was on the Peak," he muttered, determined not to let her irritate him today. "And you already believe."

"I'd've liked to see it," she snapped and pushed past him towards the weyr. "If only in my capacity of Weyrwoman and Recorder."

He caught her arm and felt her body tense. He set his teeth, wishing as he had a hundred times since *Ramoth* rose in her first mating flight that *Lessa* had not been virgin, too. He had not thought to control his dragon-incited emotions and *Lessa's* first sexual experience had been violent. It had surprised him to be first, considering her adolescent years had been spent drudging for lascivious warders and soldier-types. Evidently no one had bothered to penetrate the curtain of rags and the coat of filth she had carefully maintained as a disguise. He had been a considerate and gentle

bedmate ever since but, unless Ramoth and Mnemeth were involved, he might as well call it rape.

Yet he knew someday, somehow, he would coax her into responding wholeheartedly to his love-making. He had a certain pride in his skill and he was in a position to persevere.

Now he took a deep breath and released her arm slowly.

"How fortunate you're wearing riding gear. As soon as the wings have cleared out and Ramoth wakes, I shall teach you to fly *between*."

The gleam of excitement in her eyes was evident even in the dimly lit passageway. He heard her inhale sharply.

"Can't put it off too much longer or Ramoth'll be in no shape to fly at all," he continued amiably.

"You do mean it?" Her voice was low and breathless, its usual acid edge missing. "You will teach us today?" He wished he could see her face clearly.

Once or twice, he had caught an unguarded expression on her face, loving and tender. He would give much to have that look turned on him. However, he admitted wryly to himself, he ought to be glad that melting regard was directed only at Ramoth and not at another human.

"Yes, my dear Weyrwoman, I mean it. I will teach you to fly *between* today. If only to keep you from trying it yourself."

Her low chuckle informed him his taunt was well-aimed.

"Right now, however," he said, indicating for her to lead the way back to the weyr, "I could do with some food. We were up before the kitchen."

They had entered the well-lighted weyr so he did not miss the trenchant look she shot him over her shoulder. She would not so easily forgive being left out of the group at the Star Stone this morning; certainly not with the bribe of flying *between*.

How different this inner room was now. Lessa was Weyrwoman, F'lar mused as Lessa called down the service shaft for food. During Jora's incompetent tenure as Weyrwoman, the sleeping quarters had been crowded with junk, unwashed apparel, uncleared dishes. The state of the Weyr and the reduced number of dragons were as much Jora's fault as R'gul's for she had indirectly encouraged sloth, negligence and gluttony.

Had he, F'lar, been just a few years older when F'lon, his father, had died . . . Jora had been disgusting but when dragons rose in mating flight, the condition of your partner counted for nothing.

Lessa took a tray of bread and cheese, and mugs of the stimulating *klah* from the platform. She served him deftly.

"You've not eaten either?" he asked.

She shook her head vigorously,

the braid into which she had plaited her thick, fine dark hair bobbing across her shoulders. The hairdressing was too severe for her narrow face but it did not, if that were her intention, disguise her femininity nor the curious beauty of her delicate features. Again F'lar wondered that such a slight body contained so much shrewd intelligence and resourceful . . . cunning, yes, that was the word, cunning. F'lar did not make the mistake, as others had, of underestimating her abilities.

"Manora called me to witness the birth of Kylara's child."

F'lar maintained an expression of polite interest. He knew perfectly well that Lessa suspected the child was his and it could have been, he admitted privately, but he doubted it. Kylara had been one of the ten candidates from the same Search three years ago which had discovered Lessa. Like others who survived Impression, Kylara had found certain aspects of Weyr life exactly suited to her temperament. She had gone from one rider's weyr to another's. She had even seduced F'lar, not at all against his will, to be sure. Now that he was Weyrleader, he found it wiser to ignore her efforts to continue the relationship. T'bor had taken her in hand and had his hands full until he retired her to the Lower Caverns, well-advanced in pregnancy.

Aside from having the amorous tendencies of a green dragon, Kylara was quick and ambitious. She

would make a strong Weyrwoman so F'lar had charged Manora and Lessa with the job of planting the notion in Kylara's mind. In the capacity of Weyrwoman . . . of another Weyr . . . her intense drives would be used to Pern's advantage. She had not learned the severe lessons of restraint and patience that Lessa had and she didn't have Lessa's devious mind. Fortunately she was in considerable awe of Lessa and, F'lar suspected, that Lessa was subtly influencing this attitude. In Kylara's case, F'lar preferred not to object to Lessa's meddling.

"A fine son," Lessa was saying.

F'lar sipped his *klah*. She was not going to get him to admit any responsibility.

After a long pause, Lessa added, "She has named him T'kil."

F'lar suppressed a grin at Lessa's failure to get a rise from him.

"Discreet of her."

"Oh?"

"Yes," F'lar replied blandly. "T'lar might be confusing if she took the second half of her name as is customary. 'T'kil', however, still indicates sire as well as dam."

"While I was waiting for Council to end," Lessa said, after clearing her throat, "Manora and I checked the supply caverns. The tithing trains, which the Holds have been so gracious as to send us," her voice was sharp, "are due within the week. There shortly will be bread fit to eat," she added, wrinkling her nose

at the crumbling gray pastry she was attempting to spread with cheese.

"A nice change," F'lar agreed.

She paused.

"The Red Star performed its scheduled antic?"

He nodded.

"And R'gul's doubts have been wiped away in the enlightening red glow?"

"Not at all," F'lar grinned back at her, ignoring her sarcasm. "Not at all, but he will not be so vocal in his criticism."

She swallowed quickly so she could speak. "You'd do well to cut out his criticism," she said ruthlessly, gesturing with her knife as if plunging it into a man's heart. "He is never going to accept your authority with good grace."

"We need every bronze rider . . . there are only seven, you know," he reminded her pointedly. "R'gul's a good wingleader. He'll settle down when the Threads fall. He needs proof to lay his doubts aside."

"And the Red Star in the Eye Rock is not proof?" Lessa's expressive eyes were wide.

F'lar was privately of Lessa's opinion, that it might be wiser to remove R'gul's stubborn contentiousness. But he could not sacrifice a wingleader, needing every dragon and rider as badly as he did.

"I don't trust him," she added, darkly. She sipped at her hot drink, her gray eyes dark over the rim of

her mug. As if, F'lar mused, she didn't trust him either.

And she didn't, past a certain point. She had made that plain and, in honesty, he couldn't blame her. She did recognize that every action F'lar took was towards one end . . . the safety and preservation of dragonkind and weyrfolk, and, consequently, the safety and preservation of Pern. To effect that end, he needed her full cooperation. When weyr business or dragonlore were discussed, she suspended the antipathy he knew she felt for him. In conferences, she supported him wholeheartedly and persuasively but always he suspected the double edge to her comments and saw a speculative, suspicious look in her eyes. He needed not only her tolerance but her empathy.

"Tell me," she said after a long silence, "did the sun touch the Finger Rock before the Red Star was bracketed in the Eye Rock or after?"

"Matter of fact, I'm not sure as I did not see it myself . . . the concurrence lasts only a few moments . . . but the two are supposed to be simultaneous."

She frowned at him sourly. "Whom did you waste it on? R'gul?" She was provoked; her angry eyes looked everywhere but at him.

"I am Weyrleader," he informed her curtly. She was unreasonable.

She awarded him one long, hard look before she bent to finish her meal. She ate very little, quickly and

neatly. Compared to Jora, she didn't eat enough in the course of an entire day to nourish a sick child. But then, there was no point in ever comparing Lessa to Jora.

He finished his own breakfast, absently piling the mugs together on the empty tray. She rose silently and removed the dishes.

"As soon as the Weyr is free, we'll go," he told her.

"So you said," and she nodded towards the sleeping queen, visible through the open arch. "We still must wait upon Ramoth."

"Isn't she rousing? Her tail's been twitching an hour."

"She always does that about this time of day."

F'lar leaned across the table, his brows drawn together thoughtfully as he watched the golden forked tip of the queen's tail jerk spasmodically from side to side.

"Mnementh, too. And always at dawn and early morning. As if somehow they associate that time of day with trouble . . ."

". . . Or the Red Star's rising?"

Some subtle difference in her tone caused F'lar to glance quickly at her. It wasn't anger, now, for missing the morning's phenomenon. Her eyes were fixed on nothing; her face, smooth at first, was soon wrinkled with a vaguely anxious frown as tiny lines formed between her arching, well-defined brows.

"Dawn . . . that's when all warnings come," she murmured.

"What kind of warnings?" he asked with quiet encouragement.

"There was that morning . . . a few days before . . . before you and Fax descended on Ruath Hold. Something woke me . . . a feeling, like a very heavy pressure . . . the sensation of some terrible danger threatening." She was silent. "The Red Star was just rising." The fingers of her left hand opened and closed. She gave a convulsive shudder. Her eyes refocused on him.

"You and Fax did come out of the northeast from Crom," she said sharply, ignoring the fact, F'lar noticed, that the Red Star also rises north of true east.

"Indeed we did," he grinned at her, remembering that morning vividly. He remembered, too, how certain he had been as Fax's procession wound down the long valley to Ruath Hold that he and Fax would find some excuse for a mortal duel. And that he had somehow convinced himself that Ruatha Valley held a woman who had the unusual talents it would take to become the Weyrwoman Pern needed to impress the unhatched queen. "Indeed we did," he chuckled. "Although," he added, gesturing around the great cavern to emphasize, "I prefer to believe I served you well that day. You remember it with displeasure?"

The look she gave him was coldly inscrutable.

"Danger comes in many guises."

"I agree," he replied amiably, de-

terminated not to rise to her bait. "Had any other rude awakenings?" he inquired conversationally.

The absolute stillness in the room brought his attention back to her. Her face had drained of all color.

"The day Fax invaded Ruath Hold." Her voice was a barely articulated whisper. Her eyes were wide and staring. Her hands clenched the edge of the table. She said nothing for such a long interval F'lar became concerned. This was an unexpectedly violent reaction to a casual question.

"Tell me," he suggested softly.

She spoke in unemotional, impersonal tones, as if she were reciting a Traditional Ballad or something that had happened to an entirely different person.

"I was a child—just eleven. I woke at dawn . . ." her voice trailed off. Her eyes remained focused on nothing, staring at a scene that had happened long ago.

F'lar was stirred by an irresistible desire to comfort her. It struck him forcibly, even as he was stirred by this unusual compassion, that he had never thought that Lessa, of all people, would be troubled by so old a terror.

Mnementh sharply informed his rider that Lessa was obviously bothered a good deal. Enough so that her mental anguish was rousing Ramoth from sleep. In less accusing tones, Mnementh informed F'lar that R'gul had finally taken off with his weyrling pupils. His dragon,

Hath, however, was in a fine state of disorientation due to R'gul's state of mind. Must F'lar unsettle everyone in the Weyr . . .

"Oh, be quiet," F'lar retorted under his breath.

"Why?" Lessa demanded in her normal voice.

"I didn't mean you, my dear Weyrwoman," he assured her, smiling pleasantly, as if the entranced interlude had never occurred. "Mnementh is full of advice these days."

"Like rider, like dragon," she replied tartly.

Ramoth yawned mightily. Lessa was instantly on her feet, running to her dragon's side, her slight figure dwarfed by the six-foot dragon head.

A tender, adoring expression flooded her face as she gazed into Ramoth's gleaming opalescent eyes. F'lar clenched his teeth, envious, by the Egg, of a rider's affection for her dragon.

In his mind, he heard Mnementh's dragon equivalent of laughter.

"She's hungry," Lessa informed F'lar, an echo of her love for Ramoth lingering in the soft line of her mouth, in the kindness in her gray eyes.

"She's always hungry," he observed and followed them out of the weyr.

Mnementh hovered courteously just beyond the ledge until Lessa and Ramoth had taken off. They

glided down the Weyr Bowl, over the misty bathing lake, towards the feeding ground at the opposite end of the long oval that comprised the floor of Benden Weyr. The striated, precipitous walls were pierced with the black mouths of single weyr entrances, deserted at this time of day by the few dragons who might otherwise doze on their ledges in the wintry sun. Benden Weyr, that could house five hundred beasts, accommodated a scant two hundred these days.

As F'lar vaulted to Mnemeth's smooth bronze neck, he hoped that Ramoth's clutch would be spectacular, erasing the ignominy of the paltry dozen Nemorth had laid in each of her last few clutches.

He had no serious doubts of the improvement after Ramoth's remarkable mating flight with his Mnemeth. The bronze dragon smugly echoed his rider's certainty and both looked on the queen possessively as she curved her wings to land. She was twice Nemorth's size, for one thing; her wings half-a-wing again longer than Mnemeth's who was the biggest of the seven male bronzes. F'lar looked to Ramoth to repopulate the five empty Weyr, even as he looked to himself, and Lessa, to rejuvenate the pride and faith of dragonriders and of Pern itself. He only hoped time enough remained to him to do what was necessary. The Red Star had been bracketed by the Eye Rock. The Threads would soon be falling.

Somewhere, in one of the other Weyr's records, must be the information he needed to ascertain *when*, exactly, Threads would fall.

Mnemeth landed. F'lar jumped down from the curving neck to stand beside Lessa. The three watched as Ramoth, a buck grasped in each of her forefeet, rose to a feeding ledge.

"Will her appetite never taper off?" Lessa asked with affectionate dismay.

As a dragonet, Ramoth had been eating to grow. Her full stature attained, she was, of course, now eating for her young and she applied herself conscientiously.

F'lar chuckled and squatted, hunter fashion. He picked up shale flakes, skating them across the flat dry ground, counting the dust puffs boyishly.

"The time will come when she won't eat everything in sight," he assured Lessa. "But she's still young . . ."

". . . And needs her strength," Lessa interrupted, her voice a fair imitation of R'gul's pedantic tones.

F'lar looked up at her, squinting against the wintry sun that slanted down at them.

"She's a finely grown beast, especially compared to Nemorth." He gave a contemptuous snort. "In fact, there *is* no comparison. However, look here," he ordered peremptorily.

He tapped the smoothed sand in front of him and she saw that his

apparently idle gestures had been to a purpose. With a sliver of stone, he drew a design in quick strokes.

"In order to fly a dragon *between*, he has to know where to go. And so do you." He grinned at the astonished and infuriated look of comprehension on her face. "Ah, but there are certain consequences to an ill-considered jump. Badly visualized reference points often result in staying *between*." His voice dropped ominously. Her face cleared of its resentment. "So, there are certain reference, or recognition points, arbitrarily taught all weyrings. That," he pointed first to his facsimile and then to the actual Star Stone with its Finger and Eye Rock companions, on Benden Peak, "that is the first recognition point a weyring learns. When I take you aloft, you will reach an altitude just above the Star Stone, near enough for you to be able to see the hole in the Eye Rock clearly. Fix that picture sharply in your mind's eye, relay it to Ramoth. That will always get you home."

"Understood. But how do I learn recognition points of places I've never seen?"

He grinned up at her. "You're drilled in them. First by your instructor," and he pointed the sliver at his chest, "and then by going there, having directed your dragon to get the visualization from her instructor," and he indicated Mnementh. The bronze dragon lowered

his wedge-shaped head until one eye was focused on his rider and his mate's rider. He made a pleased noise deep in his chest.

Lessa laughed up at the gleaming eye and, with unexpected affection, patted the soft nose.

F'lar cleared his throat in surprise. He was aware that Mnementh showed an unusual affection for the Weyrwoman but he had had no idea Lessa was fond of the bronze. Perversely, he was irritated.

"However," he said, and his voice sounded unnatural to himself, "we take the young riders constantly to and from the main reference points all across Pern, to all the Holds so that they have eyewitness impressions on which to rely. As a rider becomes adept in picking out landmarks, he gets additional references from other riders. Therefore, to go *between*, there is actually only one requirement: a clear picture of where you want to go. *And* a dragon!" He grinned at her. "Also, you should always plan to arrive above your reference point in clear air."

Lessa frowned.

"It is better to arrive in open air," F'lar waved a hand above his head, "rather than underground," and he slapped his open hand into the dirt. A puff of dust rose warningly.

"But the wings took off within the Bowl itself the day the Lords of the Hold arrived," Lessa reminded him.

F'lar chuckled at her uptake. "True, but only the most seasoned

riders. Once we came across a dragon and a rider entombed together in solid rock. They . . . were . . . very young." His eyes were bleak.

"I take the point," she assured him gravely. "That's her fifth," she added, pointing towards Ramoth who was carrying her latest kill up to the bloody ledge.

"She'll work them off today, I assure you," F'lar remarked. He rose, brushing off his knees with sharp slaps of his riding gloves. "Test her temper."

Lessa did so with a silent, *Had enough?* She grimaced at Ramoth's indignant rejection of the thought.

The queen went swooping down for a huge fowl, rising in a flurry of gray, brown and white feathers.

"She's not as hungry as she's making you think, the deceitful creature," F'lar chuckled and saw that Lessa had reached the same conclusion. Her eyes were snapping with vexation.

"When you've finished the bird, Ramoth, do let us learn how to fly *between*," Lessa said aloud for F'lar's benefit, "before our good Weyrleader changes his mind."

Ramoth looked up from her gorging, turned her head towards the two riders at the edge of the feeding ground. Her eyes gleamed. She bent her head again to her kill but Lessa could sense the dragon would obey.

It was cold aloft. Lessa was glad of the fur lining in her riding gear,

and the warmth of the great golden neck which she bestrode. She decided not to think of the absolute cold of *between* which she had experienced only once, coming from Ruath Hold to Benden Weyr three Turns before. She glanced below on her right where bronze Mnemeth hovered and caught his amused thought.

F'lar tells me to tell Ramoth to tell you to fix the alignment of the Star Stone firmly in your mind as a homing. Then, Mnemeth went on amiably, we shall fly down to the lake. You will return from between to this exact point. Do you understand?

Lessa found herself grinning foolishly with anticipation and nodded vigorously. How much time was saved because she could speak directly to the dragons! Ramoth made a disgruntled noise deep in her throat. Lessa patted her reassuringly.

"Have you got the picture in your mind, dear one?" she asked and Ramoth again rumbled, less annoyed because she was catching Lessa's excitement.

Mnemeth stroked the cold air with his wings, greenish brown in the sunlight, and curved down gracefully towards the lake on the plateau below Benden Weyr. His flight line took him very low over the rim of the Weyr. From Lessa's angle, it looked like a collision course. Ramoth followed closely in his wake. Lessa caught her breath

at the sight of the jagged boulders just below Ramoth's wing tips.

It was exhilarating, Lessa crowed to herself, doubly stimulated by the elation that flowed back to her from Ramoth.

Mnementh halted above the farthest shore of the lake and there, too, Ramoth came to hover.

Mnementh flashed the thought to Lessa that she was to place the picture of where she wished to go firmly in her mind and direct Ramoth to get there.

Lessa complied. The next instant the awesome, bone-penetrating cold of black *between* enveloped them. Before either she or Ramoth was aware of more than that invidious touch of cold and impregnable darkness, they were above the Star Stone.

Lessa let out a cry of triumph.

It is extremely simple. Ramoth seemed disappointed.

Mnementh reappeared beside and slightly below them.

You are to return by the same route to the Lake, he ordered and before the thought had finished, Ramoth took off.

Mnementh was beside them above the lake, fuming with his own and F'lar's anger. *You did not visualize before transferring. Don't think a first successful trip makes you perfect. You have no conception of the dangers inherent in between. Never fail to picture your arrival point again.*

Lessa glanced down at F'lar.

Even two wingspans apart, she could see the vivid anger on his face, almost feel the fury flashing from his eyes. And laced through the wrath, a terrible sinking fearfulness for her safety that was a more effective reprimand than his wrath. Lessa's safety, she wondered bitterly, or Ramoth's?

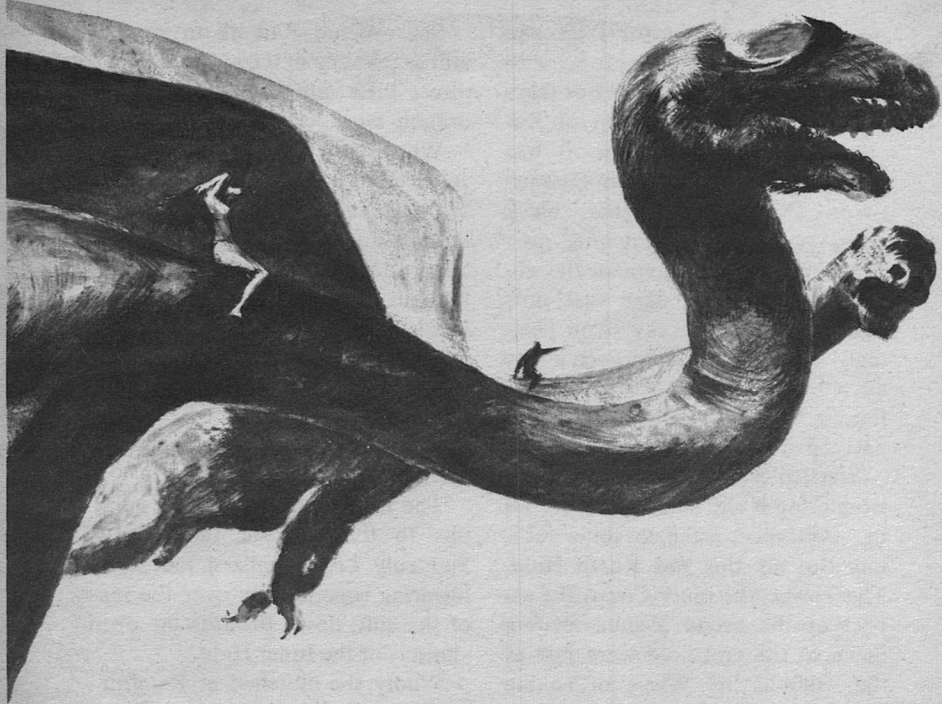
You are to follow us, Mnementh was saying in a calmer tone, *rehearsing in your mind the two reference points you have already learned. We shall jump to and from them this morning, gradually learning other points around Benden.*

They did. Flying as far away as Benden Hold itself, nestled against the foothills above Benden Valley, the Weyr Peak a far point against the noonday sky, Lessa did not neglect to visualize a clearly detailed impression, each time.

This was as marvelously exciting as she had hoped it would be, Lessa confided to Ramoth. Ramoth replied: *Yes, it was certainly preferable to the time-consuming methods others had to use but she didn't think it was exciting, at all, to jump between from Benden Weyr to Benden Hold and back to Benden Weyr again. It was dull.*

They had met with Mnementh above the Star Stone again. The bronze dragon sent Lessa the message that this was a very satisfactory initial session. They would practice some distant jumping tomorrow.





Tomorrow, thought Lessa glumly, some emergency will occur or our hardworking Weyrleader will decide today's session constitutes keeping his promise and that will be that.

There was one jump she could make *between*, from anywhere on Pern, and not miss her mark.

She visualized Ruatha for Ramoth, as seen from the heights above the Hold . . . to satisfy that

requirement. To be scrupulously clear, Lessa projected the pattern of the firepits. Before Fax invaded and she had had to manipulate its decline, Ruatha had been such a lovely prosperous valley. She told Ramoth to jump *between*.

The cold was intense and seemed to last for many heartbeats. Just as Lessa began to fear she had somehow lost them *between*, they exploded into the air above the Hold. Ela-

tion filled her. That for F'lar and his excessive caution. With Ramoth she could jump anywhere! For there was the distinctive pattern of Ruatha's fire-guttered heights. It was just before dawn, the Breast Pass between Crom and Ruatha, black cones against the lightening gray sky. Fleetingly she noticed the absence of the Red Star that now blazed in the dawn sky. And fleetingly she noticed a difference in the air. Chill, yes, but not wintry . . . the air held that moist coolness of early spring.

Startled she glanced downward, wondering if she could have, for all her assurance, erred in some fashion. But no, this was Ruath Hold. The Tower, the inner Court, the aspect of the broad avenue leading down to the crafthold were just as they should be. Wisps of smoke from distant chimneys indicated people were making ready for the day.

Ramoth caught the tenor of her insecurity and began to press for an explanation.

This is Ruatha, Lessa replied stoutly. *It can be no other. Circle the heights. See, there are the fire-pit lines I gave you . . .*

Lessa gasped, the coldness in her stomach freezing her muscles.

Below her in the slowly lifting pre-dawn gloom, she saw the figures of many men toiling over the breast of the cliff from the hills beyond Ruatha: men moving with quiet stealth like criminals.

She ordered Ramoth to keep as still as possible in the air so as not to direct their attention upward. The dragon was curious but obedient.

Who would be attacking Ruatha? It seemed incredible. The present Warder, Lytol, was a former dragonman and had savagely repelled one attack already. Was there thought of aggression among the Holds now that F'lar was Weyrleader? What Hold Lord would be mounting a territorial war in the winter?

No, not winter. The air here was spring-like.

The men crept on, over the fire-pits to the edge of the heights. Suddenly Lessa realized they were lowering rope ladders over the face of the cliff, down towards the open shutters of the Inner Hold.

Wildly she clutched at Ramoth's neck, certain of what she saw.

This was the invader Fax, now dead nearly three Turns—Fax and his men as they began their attack on Ruatha nearly thirteen Turns ago.

Yes, there was the Tower guard, his face a white blot turned towards the cliff itself, watching. He had been paid his bribe to stand silent this morning.

But the watch-wher, trained to give alarm for any intrusion, why was it not trumpeting its warning? Why was it silent?

Because, Ramoth informed her rider with calm logic, *it senses your presence as well as mine so how*

could the Hold possibly be in danger?

No. No! Lessa moaned. What can I do now? How can I wake them? Where is the girl I was? I was asleep and then I woke. I remember. I dashed from my room. I was so scared. I went down the steps and nearly fell. I knew I had to get to the watch-wher's kennel . . . I knew . . .

Lessa clutched at Ramoth's neck for support as past acts and mysteries became devastatingly clear.

She herself had warned herself, just as it was her presence on the queen dragon that had kept the watch-wher from giving alarm. For as she watched, stunned and speechless, she saw the small, gray-robed figure that could only be herself as a youngster, burst from the Hold hall door, race down the cold stone steps into the Court and disappear into the watch-wher's stinking den. Faintly she heard it lurring in piteous confusion.

Just as Lessa-the-girl reached that doubtful sanctuary, Fax's invaders swooped into the open window embrasures and began the slaughter of her sleeping family.

Back—back to the Star Stone! Lessa cried. In her wide and staring eyes she held the image of the guiding rocks like a rudder for her sanity as well as Ramoth's direction.

The intense cold acted as a restorative. And then they were above the quiet, peaceful wintry Weyr as if they had never paradoxically visited Ruatha.

F'lar and Mnementh were nowhere to be seen.

Ramoth, however, was unshaken by the experience. She had only gone where she had been told and had not quite understood that going when she had been told had shocked Lessa. She suggested to her rider that Mnementh had probably followed them to Ruatha so if Lessa would give her the *proper* references, she'd take her there. Ramoth's sensible attitude was comforting.

Lessa carefully drew for Ramoth, not the child's memory of a long-vanished, idyllic Ruatha, but her more recent recollection of the Hold, gray, sullen, at dawning, with a Red Star pulsing on the horizon.

And there they were again, hovering over the Valley, the Hold below them on the right. The grasses grew untended on the heights, clogging firepit and brickwork; the scene showed all the deterioration she had encouraged in her effort to thwart Fax of any profit from conquering Ruath Hold.

But, as she watched, vaguely disturbed, she saw a figure emerge from the kitchen, saw the watch-wher creep from its lair and follow the raggedly dressed figure as far across the Court as the chain permitted. She saw the figure ascend the Tower, gaze first eastward, then northeastward. This was still not Ruatha of today and now! Lessa's mind reeled, disoriented. This time she had come back to visit herself of three Turns ago, to see the filthy

drudge plotting revenge on Fax.

She felt the absolute cold of *between* as Ramoth snatched them back, emerging once more above the Star Stone. Lessa was shuddering, her eyes frantically raking the reassuring sight of the Weyr Bowl, hoping she had not somehow shifted backwards in time yet again. Mnementh suddenly erupted into the air a few lengths below and beyond Ramoth. Lessa greeted him with a cry of intense relief.

Back to your weyr! There was no disguising the white fury in Mnementh's tone. Lessa was too unnerved to respond in any way other than instant compliance. Ramoth glided swiftly to their ledge, quickly clearing the perch for Mnementh to land.

The rage on F'lar's face as he leaped from Mnementh and advanced on Lessa brought her wits back abruptly. She made no move to evade him as he grabbed her shoulders and shook her violently.

"How dare you risk yourself and Ramoth? Why must you defy me at every opportunity? Do you realize what would happen to all Pern if we lost Ramoth? Where did you go?" he was spitting with anger, punctuating each question that tumbled from his lips by shaking her.

"Ruatha," she managed to say, trying to keep herself erect. She reached out to catch at his arms but he shook her again.

"Ruatha? We were there. You weren't. Where did you go?"

"Ruatha!" Lessa cried louder, clutching at him distractedly because he kept jerking her off balance. She couldn't organize her thoughts with him jolting her.

She was at Ruatha, Mnementh said firmly.

We were there twice, Ramoth added.

As the dragons' calmer words penetrated F'lar's fury, he stopped shaking Lessa. She hung limply in his grasp, her hands weakly plucking at his arms, her eyes closed, her face gray. He picked her up and strode rapidly into the queen's weyr, the dragons following. He placed her upon the couch, wrapping her tightly in the fur cover. He called down the service shaft for the duty cook to send up hot *klah*.

"All right, what happened?" he demanded.

She didn't look at him but he got a glimpse of her haunted eyes. She blinked constantly as if she longed to erase something she had recently seen.

Finally she got herself somewhat under control and said in a low tired voice. "I did go to Ruatha. Only . . . I went *back* to Ruatha."

"Back to Ruatha?" F'lar repeated the words stupidly. The significance momentarily eluded him.

Certainly, Mnementh agreed, and flashed to F'lar the two scenes he had picked out of Ramoth's mind.

Staggered by the import of the visualization, F'lar found himself slowly sinking to the edge of the bed.

"You . . . you went *between* times?"

Lessa nodded slowly. The terror was beginning to leave her eyes.

"*Between* times," F'lar murmured. "I wonder . . ."

His mind raced through the possibilities. It might well tip the scales of survival in the Weyr's favor. He couldn't think exactly how to use this extraordinary ability but there *must* be an advantage in it for dragonfolk.

The service shaft rumbled. He took the pitcher from the platform and poured two cups.

Lessa's hands were shaking so much she couldn't get hers to her lips. He steadied it for her, wondering if going *between* times would cause this kind of shock regularly. If so, it wouldn't be any advantage at all. He wondered if she'd had enough of a scare this day so she might not be so contemptuous of his orders the next time.

Outside in the weyr, Mnementh snorted his opinion on that. F'lar ignored him.

Lessa was trembling violently now. He put an arm around her, pressing the fur against her slender body. He held the mug to her lips, forcing her to drink. He could feel the tremors ease off. She finally held the cup and took long, slow, deep breaths between swallows, equally determined to get herself under control. The moment he felt her stiffen under his arm, he released her. He

wondered if Lessa had ever had someone to turn to. Certainly not after Fax invaded her family Hold. She had been only eleven; a child. Had hate and revenge been the only emotions the growing girl had practiced?

She lowered the cup, cradling it in her hands carefully as if it had assumed some undefinable importance to her.

"Now. Tell me," he ordered.

After a long deep breath she began to speak, her hands tightening around the mug. Her inner turmoil had not lessened; it was merely under control now.

"Ramoth and I were bored with the weyrling exercises," she admitted candidly.

Grimly F'lar recognized that, while the adventure might have taught her to be more circumspect, it had not scared her into obedience. He doubted that anything would.

"I gave her the picture of Ruatha so we could go *between* there." She did not look at him but her profile was outlined against the dark fur of the rug. "The Ruatha I knew so well: I accidentally sent myself backward in time to the day Fax invaded."

Her shock was now comprehensible to him.

"And . . ." he prompted her, his voice carefully neutral.

"And I saw myself . . ." her voice broke off. With an effort she continued. "I had visualized for Ramoth the designs of the firepits and the angle of the Hold if one looked

down from the pits into the Inner Court. That was where we emerged. It was just dawn"—she lifted her chin with a nervous jerk—"and there was no Red Star in the sky." She gave him a quick defensive look as if she expected him to contest this detail. "And I saw men creeping over the firepits, lowering rope ladders to the top windows of the Hold. I saw the Tower guard watching. Just watching." She clenched her teeth at such treachery and her eyes gleamed malevolently. "And I saw myself run from the Hall into the watch-wher's lair. And do you know why," her voice lowered to a bitter whisper, "the watch-wher did not alarm the Hold?"

"Why?"

"Because there was a dragon in the sky and *I*, Lessa of Ruatha, was on her." She flung the mug from her as if she wished she could reject the knowledge, too. "Because *I* was there, the watch-wher did not alarm the Hold, thinking the intrusion legitimate, with one of the Blood on a dragon in the sky. So *I*," her body grew rigid, her hands clasped so tightly the knuckles were white, "*I* was the cause of my family's massacre. Not Fax! If I had not acted the captious fool today, I would not have been there with Ramoth and the watch-wher would . . ."

Her voice had risen to an hysterical pitch of recrimination. He slapped her sharply across the cheeks, grabbing her, robe and all, to shake her.

The stunned look in her eyes and the tragedy in her face alarmed him. His indignation over her willfulness disappeared. Her unruly independence of mind and spirit attracted him as much as her curious dark beauty. Infuriating as her fractious ways might be, they were too vital a part of her integrity to be exorcised. Her indomitable will had taken a grievous shock today and her self-confidence had better be restored quickly.

"On the contrary, Lessa," he said sternly, "Fax would still have murdered your family. He had planned it very carefully, even to scheduling his attack on the morning when the Tower guard was one who could be bribed. Remember, too, it was dawn and the watch-wher, being a nocturnal beast, blind by daylight, is relieved of responsibility at dawn and knows it. Your presence, damnable as it may appear to you, was not the deciding factor by any means. It did, and I draw your attention to this very important fact, it did cause you to save yourself, by warning Lessa-the-child. Don't you see that?"

"I could have called out," she murmured but the frantic look had left her eyes and there was a faint hint of normal color in her lips.

"If you wish to flail around in guilt, go right ahead," he said with deliberate callousness.

Ramoth interjected a thought that, since they, too, had been there that previous time as Fax's men had

prepared to invade, it had already happened, so how could it be changed? The act was inevitable both that day and today. For how else could Lessa have lived to come to the Weyr and impress Ramoth at the hatching?

Mnementh relayed Ramoth's message scrupulously, even to imitating Ramoth's egocentric nuances. F'lar looked sharply at Lessa to see the effect of Ramoth's astringent observation.

"Just like Ramoth to have the final word," she said with a hint of her former droll humor.

F'lar felt the muscles along his neck and shoulders begin to relax. She'd be all right, he decided, but it might be wiser to make her talk it all out now, to put the whole experience into proper perspective.

"You said you were there twice?" He leaned back on the couch, watching her closely. "When was the second time?"

"Can't you guess?" she asked sarcastically.

"No," he lied.

"When else but the dawn I awakened, feeling the Red Star was a menace to me. Three days before you and Fax came out of the north-east."

"It would seem," he remarked drily, "that you were your own premonition both times."

She nodded.

"Have you had any more of these presentiments . . . or should I say, reinforced warnings?"

She shuddered but answered him with more of her old spirit.

"No, but if I should, *you* go. I don't want to."

F'lar grinned maliciously.

"I would, however," she added, "like to know why and how it could happen."

"I've never run across a mention of it anywhere," he told her candidly. "Of course, if you have done it, and you undeniably have," he assured her hastily at her indignant protest, "it obviously can be done. You say you thought of Ruatha, but you thought of it as it was on that particular day. Certainly a day to be remembered. You thought of spring, before dawn, no Red Star . . . yes I remember you mentioning that . . . so one would have to remember references peculiar to a significant day to return *between* times to the past."

She nodded slowly, thoughtfully.

"You used the same method the second time, to get to the Ruatha of three Turns ago. Again, of course, it was spring."

He rubbed his palms together, then brought his hands down on his knees with an emphatic slap and rose to his feet.

"I'll be back," he said and strode from the room, ignoring her half-articulated cry of warning.

Ramoth was curling up in the weyr as he passed her. He noticed that her color remained good in spite of the drain of her energies by the morning's exercises. She glanced

at him, her many-faceted eye already covered by the inner, protective lid.

Mnementh awaited his rider on the ledge, and the moment F'lar leaped to his neck, took off. He circled upward, hovering above the Star Stone.

You wish to try Lessa's trick, Mnementh said, unperturbed by the prospective experiment.

F'lar stroked the great curved neck affectionately. *You understand how it worked for Ramoth and Lessa?*

As well as anyone can, Mnementh replied with the approximation of a shrug. *When did you have in mind?*

At that moment, F'lar had had no idea. Now, unerringly, his thoughts drew him backwards to the summer day R'gul's bronze Hath had flown to mate the grotesque Nemorth, and R'gul had become Weyrleader in place of his dead father, F'lon.

Only the cold of *between* gave them any indication they had transferred; they were still hovering above the Star Stone. F'lar wondered if they had missed some essential part of the transfer. Then he realized that the sun was in another quarter of the sky, and the air was warm and sweet with summer. The Weyr below was empty, there were no dragons sunning themselves on the ledges, no women busy at tasks in the Bowl. Noises impinged on his

senses; raucous laughter, yells, shrieks, and a soft crooning noise that dominated the bedlam.

Then, from the direction of the weyring barracks in the lower Caverns, two figures emerged; a stripling and a young bronze dragon. The boy's arm lay limply along the beast's neck. The impression that reached the hovering observers was one of utter dejection. The two halted by the lake, the boy peering into the unruffled blue waters, then glancing upward towards the queen's weyr.

F'lar knew the boy for himself, and compassion for that younger self filled him. If only he could reassure that boy, so torn by grief, so filled with resentment, that he would one day become Weyrleader . . .

Abruptly, startled by his own thoughts, he ordered Mnementh to transfer back. The utter cold of *between* was like a slap in his face, replaced almost instantly as they broke out of *between* into the cold of normal winter.

Slowly, Mnementh flew back down to the queen's weyr, as sobered as F'lar by what they had seen.

Rise high in glory,
Bronze and gold.
Dive entwined,
Enhance the Hold.

Count three months and more,
And five heated weeks,

A day of glory and
In a month, who seeks?

A strand of silver
In the sky . . .
With heat, all quickens
And all times fly.

"I don't know why you insisted F'nor unearth these ridiculous things from Ista Weyr," Lessa exclaimed in a tone of exasperation. "They consist of nothing but trivial notes on how many measures of grain were used to bake daily bread."

F'lar glanced up at her from the records he was studying. He sighed, leaned back in his chair in a bone-popping stretch.

"And I used to think," Lessa said with a rueful expression on her vivid, narrow face, "that those venerable Records would hold the total sum of all dragonlore and human wisdom. Or so I was led to believe," she added pointedly.

F'lar chuckled. "They do, but you have to disinter it."

Lessa wrinkled her nose. "*Phew*. They smell as if we had . . . and the only decent thing to do would be to rebury them."

"Which is another item I'm hoping to find . . . the old preservative technique that kept the skins from hardening and smelling."

"It's stupid, anyhow, to use skins for recording. There ought to be something better. We have become, dear Weyrleader, entirely too hide-bound."

While F'lar roared with appreciation of her pun, she regarded him impatiently. Suddenly she jumped up, fired by another of her mercurial moods.

"Well, you won't find it. You won't find the facts you're looking for. Because I know what you're really after and it isn't recorded!"

"Explain yourself."

"Which is?"

"It's time we stopped hiding a rather brutal truth from ourselves."

"Which is?"

"Our mutual feeling that the Red Star is a menace and that the Threads *will* come! *We* decided that out of pure conceit and then went back *between* times to particularly crucial points in our lives and strengthened that notion, in our earlier selves. And for you, it was when you decided you were destined," her voice mocked the word, "to become Weyrleader one day.

"Could it be," she went on scornfully, "that our ultraconservative R'gul has the right of it? That there have been no Threads for four hundred Turns because there are no more? And that the reason we have so few dragons is because the dragons sense they are no longer essential to Pern? That we *are* anachronisms as well as parasites?"

F'lar did not know how long he sat looking at her bitter face, nor how long it took him to find answers for her probing questions.

"Anything is possible, Weyrwom-

an," he heard his voice replying calmly. "Including the unlikely fact that an eleven-year-old child, scared stiff, could plot revenge on her family's murderer and—against all odds, succeed."

She took an involuntary step forward, struck by his unexpected rebuttal. She listened intently.

"I prefer to believe," he went on inexorably, "that there is more to life than raising dragons and playing spring games. That is not enough for me. And I have made others look further, beyond self-interest and comfort. I have given them a purpose, a discipline. Everyone, dragonfolk and Holder alike, profits.

"I am not looking in these Records for reassurance. I'm looking for solid facts.

"I can prove, Weyrwoman, that there have been Threads. I can prove that there have been Intervals during which the Weyrs have declined. I can prove that if you sight the Red Star directly bracketed by the Eye Rock at the moment of winter solstice, the Red Star will pass close enough to Pern to throw off Threads. Since I can prove those facts, I believe Pern is in danger. I believe . . . not the youngster of fifteen Turns ago. F'lar, the bronze rider, the Weyrleader, believes it!"

He saw her eyes reflecting shadowy doubts but he sensed his arguments were beginning to reassure her.

"You felt constrained to believe in me once before," he went on in a milder voice, "when I suggested that you could be Weyrwoman. You believed me and . . ." he made a gesture around the weyr as substantiation.

She gave him a weak, humorless smile.

"That was because I had never planned what to do with my life once I did have Fax lying dead at my feet. Of course, being Ramoth's weyrmate is wonderful but"—and she frowned slightly—"it isn't enough anymore either. That's why I wanted so to learn to fly and then . . ."

". . . that's how this argument started in the first place," F'lar finished for her with a sardonic smile.

He leaned across the table, urgently.

"Believe with me, Lessa, until you have cause not to. I respect your doubts. There's nothing wrong in doubting. It sometimes leads to greater faith. But believe in me until spring. If the Threads have not fallen by then . . ." He shrugged fatalistically.

She looked at him for a long moment and then inclined her head slowly, in agreement.

He tried to suppress the relief he felt at her decision. Lessa, as Fax had discovered, was a ruthless adversary and a canny advocate. Besides these, she was Weyrwoman: essential to his plans.

"Now, let's get back to the contemplation of trivia. They do tell me, you know: time, place and duration of Thread incursions," he grinned up at her reassuringly. "And those are facts I must have to make up my timetable."

"Timetable? But you said you didn't know the time."

"Not the day to the second when the Threads may spin down. For one thing, while the weather holds so unusually cold for this time of year, the Threads simply turn brittle and blow away like dust. They're harmless. However, when the air is warm, they are viable and . . . deadly." He made fists of both hands, placing one above and to one side of the other. "The Red Star is my right hand, my left is Pern. The Red Star turns very fast and in the opposite direction to us. It also wobbles erratically."

"How do you know that?"

"Diagram on the walls of the Fort Weyr Hatching Ground. *That was the very first Weyr.* So, when the Star makes a pass, the Threads spin off, down towards us, in attacks that last six hours and occur about fourteen hours apart."

"Attacks last six hours?"

He nodded gravely. "When the Red Star is closest to us. Right now, it is just beginning its Pass."

She frowned.

He rummaged among the skin sheets on the table and an object dropped to the stone floor with a metallic clatter.

Curious, Lessa bent to pick it up, turning the thin sheet over in her hands, "What's this?" She ran an exploratory finger lightly across the irregular design on one side.

"I don't know. F'nor brought it back from Fort Weyr. It was nailed to one of the chests in which Records had been stored. He brought it along, thinking it might be important. Said there was a plate like it just under the Red Star diagram on the wall of the Hatching Ground.

"This first part is plain enough: 'Mother's father's father, who departed for all time *between*, said this was the key to the mystery, and it came to him while doodling. He said that he said: ARRHENIUS? EUREKA! MYCORRHIZA . . .' Of course that part doesn't make any sense at all. It isn't even Pernese; just babbling, the last three words.

"I have studied it, Lessa. The only way to depart for all time *between* is to die, right? People can't just fly away on their own, obviously. So it is a death vision, dutifully recorded by a grandchild, who couldn't spell very well. 'Doodling' as the present tense of dying!" He smiled indulgently. "And as for the rest of it, after the nonsense; like most death-visions, it 'explains' what everyone has always known. The second part says simply: '. . . flame-throwing fire-lizards to wipe out the spores. Q. E. D.' No, this is no help in our researches, just a

primitive rejoicing that he is a dragonman, who didn't even know the right word for Threads."

Lessa wet one fingertip to see if the patterns were inked on. The metal was shiny enough to be a good mirror. However, the patterns remained smooth and precise. "Primitive or no, they had a more permanent way of recording their visions than well-preserved skins."

"Well-preserved babblings," said F'lar, turning back to the skins he was checking for understandable data.

"A badly-scored ballad, perhaps," said Lessa, dismissing it. "The design isn't even pretty."

F'lar pulled forward a chart that showed overlapping horizontal bands imposed on the projection of Pern's continental mass.

"Here," he said, "this represents waves of attack and this one," he pulled forward the second map with vertical bands, "shows time bands. So you can see, that with a fourteen-hour break, only certain parts of Pern are affected in each attack. One reason for the spacing of the weyrs."

"Six full weyrs," she murmured, "close to three thousand dragons."

"I'm aware of the statistics," he replied in a voice devoid of expression. "It meant no one weyr was overburdened during the height of the attacks, not that three thousand beasts must be available. However, with these timetables, we can man-

age until Ramoth's first clutches have matured."

She turned a cynical look on him. "You've a lot of faith in one queen's capacity."

He waved that remark aside impatiently. "I've more faith, no matter what your opinion is, in the startling repetitions of events in these Records."

"Ha!"

"I don't mean how many measures for daily bread, Lessa," he retorted, his voice rising. "I mean such things as the time such and such a wing was sent out on patrol, how long the patrol lasted, how many riders were hurt. The brooding capacities of queens, during the fifty years a Pass lasts and the intervals between such passes. Yes, it tells that. By all I've studied here," and he pounded emphatically on the nearest stack of dusty, smelly skins, "Nemorth should have been mating twice a Turn for the last ten. Had she even kept to her paltry twelve a clutch, we'd have two hundred and forty more beasts . . . Don't interrupt. But we had Jora as Weyrwoman and R'gul as Weyrleader and we had fallen into planet-wide disfavor during a four hundred Turn interval. Well, Ramoth will brood over no measly dozen and she'll lay a queen egg, mark my words. She will rise often to mate and lay generously. By the time the Red Star is passing closest to us and the attacks become frequent, we'll be ready."

She stared at him, her eyes wide with incredulity. "Out of Ramoth?"

"Out of Ramoth and out of the queens she'll lay. Remember, there are Records of Faranth laying sixty eggs at a time, including several queen eggs."

Lessa could only shake her head slowly in wonder.

"'A Strand of silver

In the sky.

With heat, all quickens,

All times fly!' " F'lar quoted to her.

"She's got weeks more to go before laying and then the eggs must hatch . . ."

"Been on the Hatching Ground recently? Wear your boots. You'll be burned through sandals."

She dismissed that with a guttural noise. He sat back, outwardly amused by her disbelief.

". . . And then you have to make Impression and wait till the riders . . ." she went on.

". . . Why do you think I've insisted on older boys? The dragons are mature long before their riders."

"Then the system is faulty."

He narrowed his eyes slightly, shaking the stylus at her.

"Dragon tradition started out as a guide . . . but there comes a time when man becomes too traditional . . . too—what was it you said the other day—too hidebound. Yes, it's traditional to use the weyrbred, because it's been convenient. And because this sensitivity to

dragons strengthens when both sire and dam are weyrbred. That doesn't mean weyrbred is best. You, for example . . ."

"There's Weyrblood in the Ruathan Line," she said proudly.

"Granted. Take young Naton; he's craftbred from Nabol, yet F'nor tells me he can make Canth understand him."

"Oh, that's not hard to do," she interjected.

"What do you mean?" F'lar jumped on her statement.

They were both interrupted by a high-pitched, penetrating whine. F'lar listened intently for a moment and then shrugged, grinning.

"Some green's getting herself chased again."

"And that's another item these so-called all-knowing records of yours never mention. Why is it only the gold dragon can reproduce?"

F'lar did not suppress a lascivious chuckle.

"Well, for one thing, firestone inhibits reproduction. If they never chewed stone, a green could lay but, at best, they produce small beasts and we need big ones. And, for another thing," his chuckle rolled out as he went on deliberately, grinning mischievously, "if the greens could reproduce, considering their amorousness, and the numbers we have of them, we'd be up to our ears in dragons in next to no time."

The first whine was joined by an-

other and then a low hum throbbed as if carried by the stones of the Weyr itself.

F'lar, his face changing rapidly from surprise to triumphant astonishment, dashed up the passage before Lessa could open her mouth.

"What's the matter?" she demanded, picking up her skirts to run after him. "What does that mean?"

The hum, resonating everywhere, was deafening in the echo-chamber of the queen's weyr. Lessa registered the fact that Ramoth was gone. She heard F'lar's boots pounding down the passage to the ledge, a sharp *ta-ta-tat* over the kettledrum booming hum. The whine was so high-pitched now it was inaudible, but nerve-wracking. Disturbed, frightened, Lessa followed F'lar out.

By the time she reached the ledge, the Bowl was a-whir with dragons on the wing, making for the high entrance to the Hatching Ground. Weyrfolk, riders, women, children, all screaming with excitement, were pouring across the Bowl to the lower entrance to the Ground.

She caught sight of F'lar, charging across to the tunnel entrance and she shrieked at him to wait. He couldn't have heard her across the bedlam.

Fuming because she had the long stairs to descend, then must double back as the stairs faced the feeding grounds at the opposite end of the

Bowl from the Hatching Ground, Lessa realized that she, the Weyrwoman, would be the last one there.

Why had Ramoth decided to be secretive about laying? Wasn't she close enough to her own weyrmate to want her with her?

A dragon knows what to do, Ramoth calmly informed Lessa.

"You could have told me," Lessa wailed, feeling much abused.

Why, at the time F'lar had been going on largely about huge clutches and three thousand beasts, that infuriating dragon-child had been doing it!

It didn't improve Lessa's temper to have to recall another remark of F'lar's—on the state of the Hatching Grounds. The moment she stepped into the mountain-high cavern, she felt the heat through the soles of her sandals. Everyone was crowded in a loose circle around the far end of the cavern. And everyone was swaying from foot to foot. As Lessa was short to begin with, this only decreased the likelihood of her ever seeing what Ramoth had done.

"Let me through!" she demanded imperiously, pounding on the wide backs of two tall riders.

An aisle was reluctantly opened for her and she went through, looking neither to her right nor left at the excited weyrfolk. She was furious, confused, hurt and knew she looked ridiculous because the hot sand made her walk a curious, quick-step mince.

She halted, stunned and wide-eyed at the mass of eggs, and forgot such trivial things as hot feet.

Ramoth was curled around the clutch, looking enormously pleased with herself. She, too, kept shifting, closing and opening a protective wing over her eggs so it was difficult to count them.

"No one will steal them, silly, so stop fluttering," Lessa exclaimed as she tried to make a tally.

Obediently, Ramoth folded her wings. To relieve her maternal anxiety, however, she snaked her head out across the circle of mottled, glowing eggs, looking all around the cavern, flicking her forked tongue in and out.

An immense sigh, like a gust of wind, swept through the cavern. For there, now Ramoth's wings were furled, gleamed an egg of glowing gold among the tan, the green and the blue ones. A queen egg!

"A queen egg!" The cry went up simultaneously from half a hundred throats. The Hatching Ground rang with cheers, yells, screams and howls of exultation.

Someone seized Lessa and swung her around in an excess of feeling. A kiss landed in the vicinity of her mouth. No sooner did she recover her footing than she was hugged by someone else, she thought it was Manora, and then pounded and buffeted around in congratulation until she was reeling

in a kind of dance between avoiding the celebrants and easing the growing discomfort of her feet.

She broke from the milling revelers and ran across the Ground to Ramoth. She came to a sudden stop before the eggs. They seemed to be pulsing. The shells looked flaccid. She could have sworn they were hard the day she Impressed Ramoth. She wanted to touch one, just to make sure, and dared not.

You may, Ramoth assured her condescendingly. She touched Lessa's shoulder gently with her tongue.

The egg was soft to touch and Lessa drew her hand back quickly, afraid of doing injury.

The heat will harden it, Ramoth said.

"Ramoth, I'm so proud of you," Lessa sighed, looking adoringly up at the great eyes which shone in rainbows of pride. "You are the most marvelous queen ever. I do believe you will redragon all the Weyrs. I do believe you will."

Ramoth inclined her head regally, then began to sway it from side to side over the eggs, protectingly. She began to hiss suddenly, raising up from her crouch, beating the air with her wings, before settling back into the sands to lay yet another egg.

The weyrfolk, uncomfortable on the hot sands, were beginning to leave the Hatching Ground, now they had paid tribute to the arrival of the golden egg. A queen took

several days to complete her clutch so there was no point to waiting. Seven eggs already lay beside the important golden one and if there were seven already, this augured well for the eventual total. Wagers were being made and taken even as Ramoth produced her ninth mottled egg.

"A queen egg, by the mother of us all," F'lar's voice said in Lessa's ear. "And I'll wager there'll be ten bronzes at least."

She looked up at him, completely in harmony with the Weyrleader at this moment. She was conscious, now, of Mnementh, crouching proudly on a ledge, gazing fondly at his mate. Impulsively, Lessa laid her hand on F'lar's arm.

"F'lar, I do believe you."

"Only now?" F'lar teased her, but his smile was wide and his eyes proud.

Weyrman, watch; Weyrman, learn
Something new in every Turn.

Oldest may be coldest, too.

Sense the right; find the true!

If F'lar's orders over the next months caused no end of discussion and muttering among the weyrfolk, they seemed, to Lessa, to be only the logical outcomes of their discussion after Ramoth had finished laying her gratifying total of forty-one eggs.

F'lar discarded tradition right and left, treading on more than R'gul's conservative toes.

Out of perverse distaste for out-

worn doctrines against which she herself had chafed during R'gul's leadership, and out of respect for F'lar's intelligence, Lessa backed him completely. She might not have respected her earlier promise to him that she would believe in his ways until spring if she had not seen his predictions come true one after another. These were based, however, not on the premonitions she no longer trusted after her experience *between* times, but on recorded facts.

As soon as the eggshells hardened and Ramoth had rolled her special queen egg to one side of the mottled clutch for attentive brooding, F'lar brought the prospective riders into the Hatching Ground. Traditionally the candidates saw the eggs for the first time on the day of Impression. To this precedent, F'lar added others: Very few of the sixty-odd were weyrbred and most of them were in their late teens. The candidates were to get used to the eggs, touch them, caress them, be comfortable with the notion that out of these eggs, young dragons would hatch, eager and waiting to be Impressed. F'lar felt that such a practice might cut down on casualties during Impression when the boys were simply too scared to move out of the way of the awkward dragonets.

F'lar also had Lessa persuade Ramoth to let Kylara near her precious golden egg. Kylara readily enough weaned her son and spent

hours, with Lessa acting as her tutor, beside the golden egg. Despite Kylara's loose attachment to T'bor, she showed an open preference for F'lar's company. Therefore, Lessa took great pains to foster F'lar's plan for Kylara since it meant her removal, with the new-hatched queen, to Fort Weyr.

F'lar's use of the Hold-born as riders served an additional purpose. Shortly before the actual Hatching and Impression, Lytol, the Warder appointed at Ruath Hold, sent another message.

"The man positively delights in sending bad news," Lessa remarked as F'lar passed the message skin to her.

"He's gloomy," F'nor agreed. He had brought the message. "I feel sorry for that youngster cooped up with such a pessimist."

Lessa frowned at the brown rider. She still found distasteful any mention of Gemma's son, now Lord of her ancestral Hold. Yet . . . she had inadvertently caused his mother's death. As she could not be Weyrwoman and Lady Holder at the same time, it was fitting that Gemma's Gaxom be Lord at Ruatha.

"I, however," F'lar said, "am grateful to his warnings. I suspected Meron would cause trouble again."

"He's got shifty eyes, like Fax," Lessa remarked.

"Shifty-eyed or not, he's dangerous," F'lar answered. "And I can-

not have him spreading rumors that we are deliberately choosing men of the Blood to weaken Family Lines."

"There are more craftsmen's sons than Holders' boys in any case," F'nor snorted.

"I don't like him questioning that the Threads have not appeared," Lessa said gloomily.

F'lar shrugged. "They'll appear in due time. Be thankful the weather has continued cold. When the weather warms up and still no Threads, then I will worry." He grinned at Lessa in an intimate reminder of her promise.

F'nor cleared his throat hastily and looked away.

"However," the Weyrleader went on briskly, "I can do something about the other accusation."

So, when it was apparent the eggs were about to hatch, he broke another long-standing tradition and sent riders to fetch the fathers of the young candidates from craft and Hold.

The great Hatching cavern gave the appearance of being almost full as Holder and Weyrfolk watched from the tiers above the heated Ground. This time, Lessa observed, there was no aura of fear. The youthful candidates were tense, yes, but not frightened out of their wits by the rocking, shattering eggs. When the ill-coordinated dragonets awkwardly stumbled—it seemed to Lessa they deliberately looked around at the eager faces as though

pre-Imprinted—the youths either stepped to one side, or eagerly advanced as a crooning dragonet made his choice. The Impressions were made quickly and with no accidents. All too soon, Lessa thought, the triumphant procession of stumbling dragons and proud new riders moved erratically out of the Hatching Ground to the barracks.

The young queen burst from her shell and moved unerringly for Kylara, standing confidently on the hot sands. The watching beasts hummed their approval.

“It was over too soon,” Lessa said in a disappointed voice that evening to F’lar.

He laughed indulgently, allowing himself a rare evening of relaxation now that another step had gone as planned. The Holder folk had been ridden home, stunned, dazed and themselves impressed by the Weyr and the Weyrleader.

“That’s because you were watching this time,” he remarked, brushing a lock of her hair back. It obscured his view of her profile. He chuckled again. “You’ll notice Naton . . .”

“. . . N’ton . . .” she corrected him.

“. . . All right, N’ton . . . Imprinted a bronze.”

“Just as you predicted,” she said with some asperity.

“And Kylara is Weyrwoman for Pridith.”

Lessa did not comment on that

and she did her best to ignore his laughter.

“I wonder which bronze will fly her,” he murmured softly.

“It had better be T’bor’s Orth,” Lessa said, bridling.

He answered her the only way a wise man could.

Crack dust, blackdust,
Turn in freezing air,
Waste dust, spacedust,
From Red Star bare.

Lessa woke abruptly, her head aching, her eyes blurred, her mouth dry. She had the immediate memory of a terrible nightmare which, just as quickly, escaped recall. She brushed her hair out of her face and was surprised to find she had been sweating heavily.

“F’lar?” she called in an uncertain voice. He had evidently risen early. “F’lar,” she called again, louder.

He’s coming, Mnementh informed her. Lessa sensed that the dragon was just landing on the ledge. She touched Ramoth and found that the queen, too, had been bothered by formless, frightening dreams. The dragon roused briefly and then fell back into deeper sleep.

Disturbed by her vague fears, Lessa rose and dressed, foregoing a bath for the first time since she had arrived at the Weyr.

She called down the shaft for breakfast, plaiting her hair with deft fingers as she waited.

The tray appeared on the shaft platform just as F'lar entered. He kept looking back over his shoulder at Ramoth.

"What's got into her?"

"Echoing my nightmare. I woke in a cold sweat."

"You were sleeping quietly enough when I left to assign patrols. You know, at the rate those dragonets are growing, they're already capable of limited flight. All they do is eat and sleep and that is . . ."

". . . What makes a dragon grow . . ." Lessa finished for him and sipped thoughtfully at her steaming hot *klah*. "You are going to be extra careful about their drill procedures, aren't you?"

"You mean to prevent an inadvertent flight *between* times? I certainly am," he assured her. "I don't want bored dragonriders irresponsibly popping in and out." He gave her a long, stern look.

"Well, it wasn't my fault no one taught me to fly early enough," she replied in the sweet tone she used when she was being especially malicious. "If I'd been drilled from the day of Impression to the day of my first flight, I'd never have discovered that trick."

"True enough," he said solemnly.

"You know, F'lar, if I discovered it, someone else must have and someone else may. If they haven't already."

F'lar drank, making a face as the *klah* scalded his tongue. "I don't

know how to find out discreetly. We would be foolish to think we were the first. It is, after all, an inherent ability in dragons or you would never have been able to do it."

She frowned, took a quick breath and then let it go, shrugging.

"Go on," he encouraged her.

"Well, isn't it possible that our conviction about the imminence of the Threads could stem from one of us coming back when the Threads are actually falling . . . I mean . . ."

"My dear girl, we have both analyzed every stray thought and action—even your dream this morning upset you although it was no doubt due to all the wine you drank last night—until we wouldn't know an honest presentiment if it walked up and slapped us in the face."

"I can't dismiss the thought that this *between* times ability is of crucial value," she said emphatically.

"That, my dear Weyrwoman, is an honest presentiment."

"But why?"

"Not 'why,'" he corrected her cryptically, "*when*." An idea stirred vaguely in the back of his mind. He tried to nudge it out where he could mull it over. Mnementh announced that F'nor was entering the weyr.

"What's the matter with you?" F'lar demanded of his half brother for F'nor was choking and sputtering, his face red with the paroxysm.

"Dust . . ." he coughed, slap-

ping at his sleeves and chest with his riding gloves. "Plenty of dust, but no Threads," he said, describing a wide arc with one arm as he fluttered his fingers suggestively. He brushed his tight, wher-hide pants, scowling as a fine black dust drifted off.

F'lar felt every muscle in his body tense as he watched the dust float to the floor.

"Where did you get so dusty?" he demanded.

F'nor regarded him with mild surprise. "Weather patrol in Tillek. Entire north has been plagued with dust storms lately. But what I came in for . . ." He broke off, alarmed by F'lar's taut immobility. "What's the matter with dust?" he asked in a baffled voice.

F'lar pivoted on his heel and raced for the stairs to the Record Room. Lessa was right behind him, F'nor belatedly trailing after.

"Tillek, you said?" F'lar barked at his wingsecond. He was clearing the table of stacks for the four charts he then laid out. "How long have these storms been going on? Why didn't you report them?"

"Report dust storms? You wanted to know about warm air masses."

"How long have these storms been going on?" F'lar's voice crackled.

"Close to a week."

"How close?"

"Six days ago, the first storm was noticed in upper Tillek. They have

been reported in Bitra, upper Telgar, Crom and the High Reaches," F'nor reported tersely.

He glanced hopefully at Lessa but saw she, too, was staring at the four unusual charts. He tried to see why the horizontal and vertical strips had been superimposed on Pern's land mass, but the reason was beyond him.

F'lar was making hurried notations, pushing first one map and then another away from him.

"Too involved to think straight, to see clearly, to understand," the Weyrleader snarled to himself, throwing down the stylus angrily.

"You did say only warm air masses," F'nor heard himself saying humbly, aware that he had somehow failed his Weyrleader.

F'lar shook his head impatiently.

"Not your fault, F'nor. Mine. I should have asked. I knew it was good luck that the weather held so cold." He put both hands on F'nor's shoulders, looking directly in his eyes. "The Threads have been falling," he announced gravely. "Falling into cold air, freezing into bits to drift on the wind," and F'lar imitated F'nor's finger-fluttering, "as specks of black dust."

"'Crack dust, blackdust,'" Lessa quoted. "In the Ballad of Moreta's Ride, the chorus is all about black dust."

"I don't need to be reminded of Moreta right now," F'lar growled, bending to the maps. "She could talk to any dragon in the Weyrs."

"But I can do that!" Lessa protested.

Slowly, as if he didn't quite credit his ears, F'lar turned back to Lessa. "What did you just say?"

"I said, I can talk to any dragon in the Weyr."

Still staring at her, blinking in utter astonishment, F'lar sank down to the table top.

"How long," he managed to say, "have you had *this* particular skill?"

Something in his tone, in his manner, caused Lessa to flush and stammer like an erring weyrling.

"I . . . I always could. Beginning with the watch-wher at Ruatha . . ." and she gestured indecisively in Ruatha's westerly direction, "and I talked to Mnementh at Ruatha. And . . . when I got here, I could—" her voice faltered at the accusing look in F'lar's cold, hard eyes. Accusing and worse, contemptuous.

"I thought you had agreed to help me, to believe in me."

"I'm truly sorry, F'lar. It never occurred to me it was any use to anyone but—"

F'lar exploded onto both feet, his eyes blazing with aggravation.

"The one thing I could not figure out was how to direct the wings and keep in contact with the Weyr during an attack. How was I going to get reinforcements and firestone in time. And you . . . you have been sitting there, spitefully hiding the—"

"I am NOT spiteful," she screamed at him. "I said I was

sorry. I am. But you've a nasty smug habit of keeping your own council. How was I to know you didn't have the same trick? You're F'lar, the Weyrleader. You can do *anything*. Only you're just as bad as R'gul because you never *tell* me half the things I ought to know."

F'lar reached out and shook her until her angry voice was stopped.

"Enough. We can't waste time arguing like children." Then his eyes widened, his jaw dropped. "Waste time? That's it."

"Go *between* times?" Lessa gasped.

"*Between* times!"

F'nor was totally confused. "What are you two talking about?"

"The Threads started falling at dawn in Nerat," F'lar said, his eyes bright, his manner decisive.

F'nor could feel his guts congealing with apprehension. At dawn in Nerat? Why, the rainforests would be demolished. He could feel a surge of adrenalin charging through his body at the thought of danger.

"So we're going *back* there, *between* times, and be there when the Threads started falling, two hours ago. F'nor, the dragons can go not only where we direct them, but *when*."

"Where? When?" F'nor repeated, bewildered. "That could be dangerous."

"Yes, but today it will save Nerat. Now, Lessa," and F'lar gave her another shake, compounded of pride and affection, "order out all the

dragons, young, old—any that can fly. Tell them to load themselves down with firestone sacks. I don't know if you can talk across time . . ."

"My dream this morning . . ."

"Perhaps. But right now, rouse the Weyr." He pivoted to F'nor. "If Threads are falling . . . were falling . . . at Nerat at dawn, they'll be falling on Keroon and Ista right now, because they are in that time pattern. Take two wings to Keroon. Arouse the plains. Get them to start the firepits blazing. Take some weyrlings with you and send them on to Igen and Ista. Those Holds are not in as immediate danger as Keroon. I'll reinforce you as soon as I can. And . . . keep Canth in touch with Lessa."

F'lar clapped his brother on the shoulder and sent him off, the brown rider too used to taking orders to argue.

"Mnementh says R'gul is duty officer and R'gul wants to know . . ." Lessa began.

"C'mon, girl," F'lar said, his eyes brilliant with excitement. He grabbed up his maps and propelled her up the stairs.

They arrived in the weyr just as R'gul entered with T'sum. R'gul was muttering about this unusual summons.

"Hath told me to report," he complained. "Fine thing when your own dragon . . ."

"R'gul, T'sum, mount your wings.

Arm them with all the firestone they can carry and assemble above Star Stone. I'll join you in a few minutes. We go to Nerat at dawn."

"Nerat? I'm watch officer, not patrol . . ."

"This is no patrol," F'lar cut him off.

"But sir," T'sum interrupted, his eyes wide, "Nerat's dawn was two hours ago, same as ours."

"And that is *when* we are going to, brown rider. The dragons, we have discovered, can go *between* places temporally as well as geographically. At dawn, Threads fell at Nerat. We're going back, *between* times, to sear them from the sky."

F'lar paid no attention to R'gul's stammered demand for explanation. T'sum, however, grabbed up firestone sacks and raced back to the ledge and his waiting Munth.

"Go on, you old fool," Lessa told R'gul irascibly. "The Threads are here. You were wrong. Now be a dragonman! Or go *between* and stay there!"

Ramoth, awakened by the alarms, poked at R'gul with her man-sized head and the ex-Weyrleader came out of his momentary shock. Without a word, he followed T'sum down the passageway.

F'lar had thrown on his heavy wher-hide tunic and shoved on his riding boots.

"Lessa, be sure to send messages to all the Holds. Now, this attack will stop about four hours from

now. So the farthest west it can reach will be Ista. But I want every Hold and craft warned."

She nodded, her eyes intent on his face lest she miss a word.

"Fortunately the Star is just beginning its Pass so we won't have to worry about another attack for a few days. I'll figure out the next one when I get back.

"Now, get Manora to organize her women. We'll need pails of ointment. The dragons are going to be laced and that hurts. Most important, if something goes wrong, you'll have to wait till a bronze is at least a year old to fly Ramoth . . ." Suddenly F'lar crushed her against him, his mouth bruising hers as if all her sweetness and strength must come with him. He released her so abruptly she staggered back against Ramoth's lowered head. She clung for a moment to her dragon, as much for support as for reassurance.

Wheel and turn
Or bleed and burn.
Fly between,
Blue and green.

Soar, dive down,
Bronze and brown
Dragonmen must fly

When Threads are in the sky.

As F'lar raced down the passage-way to the ledge, firesacks bumping against his thighs, he was suddenly grateful for the tedious sweeping patrols over every Hold

and hollow of Pern. He could see Nerat clearly in his mind's eye. He could see the many petaled vine-flowers which were the distinguishing feature of the rainforests at this time of year. Their ivory blossoms would be glowing in the first beams of sunlight like dragon-eyes among the tall, wide-leaved plants.

Mnementh, his eyes flashing with excitement, hovered skittishly at the ledge. F'lar vaulted to the bronze neck.

The Weyr was seething with wings of all colors, noisy with shouts and countercommands. The atmosphere was electric but F'lar could sense no panic in that ordered confusion. Dragon and human bodies oozed out of openings around the Bowl walls. Women scurried across the floor from one lower cavern to another. The children playing by the lake were sent to gather wood for a fire. The weyrlings, supervised by old C'gan, were forming outside their barracks. F'lar looked up to the Peak and approved the tight formation of the wings assembled there in close flying order. Another wing formed up as he watched. He recognized brown Canth, F'nor on his neck, just as the entire wing vanished.

He ordered Mnementh aloft. The wind was cold and carried a hint of moisture. A late snow? This was the time for it, if ever.

R'gul's wing and T'bor's fanned out on his left, T'sum and D'nol on

his right. He noted each dragon was well-laden with sacks. Then he gave Mnementh the visualization of the early spring rainforest in Nerat, just before dawn, the vine-flowers gleaming, the sea breaking against the rocks of the High Shoal . . .

He felt the searing cold of *between*. And he felt a stab of doubt. Was he injudicious, sending them all, possibly to their deaths *between* times, in this effort to out-time the Threads at Nerat?

Then, they were all there, in the crepuscular light that promises day. The lush, fruity smells of the rainforest drifting up to them. Warm, too, and that was frightening. He looked up and slightly to the north. Pulsing with menace, the Red Star shone down.

The men had realized what had happened, their voices raised in astonishment. Mnementh told F'lar that the dragons were mildly surprised at their riders' fuss.

"Listen to me, dragonriders," F'lar called, his voice harsh and distorted in an effort to be heard by all. He waited till the men had moved as close as possible. He told Mnementh to pass the information on to each dragon. Then he explained what they had done and why. No one spoke but there were many nervous looks exchanged across bright wings.

Crisply he ordered the wings to fan out in a staggered formation, keeping a distance of five-wings'

spread up or down between them.

The sun came up.

Slanting across the sea, like an ever-thickening mist, Threads were falling; silent, beautiful, treacherous. Silvery gray were those space-traversing spores, spinning from hard frozen ovals into coarse filaments as they penetrated the warm atmospheric envelope of Pern. Less than mindless, they had been ejected from their barren planet towards Pern, a hideous rain that sought organic matter to nourish it into growth. The southern continent of Pern had already been sucked dry. One Thread sinking into fertile soil would burrow deep, propagating thousands in the warm earth, rendering it into a black-dusted wasteland.

A stifled roar from the throats of eighty men and dragons broke the dawn air above Nerat's green heights—as if the Threads might hear this challenge, F'lar mused.

As one, dragons swiveled their wedge-shaped heads to their riders for firestone. Great jaws macerated the hunks. The fragments were swallowed and more firestone was demanded. Inside the beasts, acids churned and the poisonous phosphenes were readied. When the dragons belched forth the gas, it would ignite in the air, into ravening flame to sear the Threads from the sky. And burn them from the soil.

Dragon instinct took over the

moment the Threads began to fall above Nerat's shores.

As much admiration as F'lar had always held for his bronze companion, it achieved newer heights in the next hours. Beating the air in great strokes, Mnementh soared with flaming breath to meet the down-rushing menace. The fumes, swept back by the wind, choked F'lar until he thought to crouch low on the lea side of the bronze neck. The dragon squealed as Threads flicked the tip of one wing. Instantly F'lar and he ducked into *between*, cold, calm, black. In the flicker of an eye, they were back to face the reality of Threads.

Around him, F'lar saw dragons winking in and out of *between*, flaming as they returned, diving, soaring. As the attack continued, and they drifted across Nerat, F'lar began to recognize the pattern in the dragons' instinctive evasion-attack movements—and in the Threads. For, contrary to what he had gathered from his study of the Records, the Threads fell in patches. Not as rain will, in steady unbroken sheets, but like flurries of snow; here, above, there, whipped to one side suddenly. Never fluidly, despite the continuity their name implied.

You could see a patch above you. Flaming, your dragon would rise. You'd have the intense joy of seeing the clump shrivel from bottom to top. Sometimes, a patch would fall between riders. One

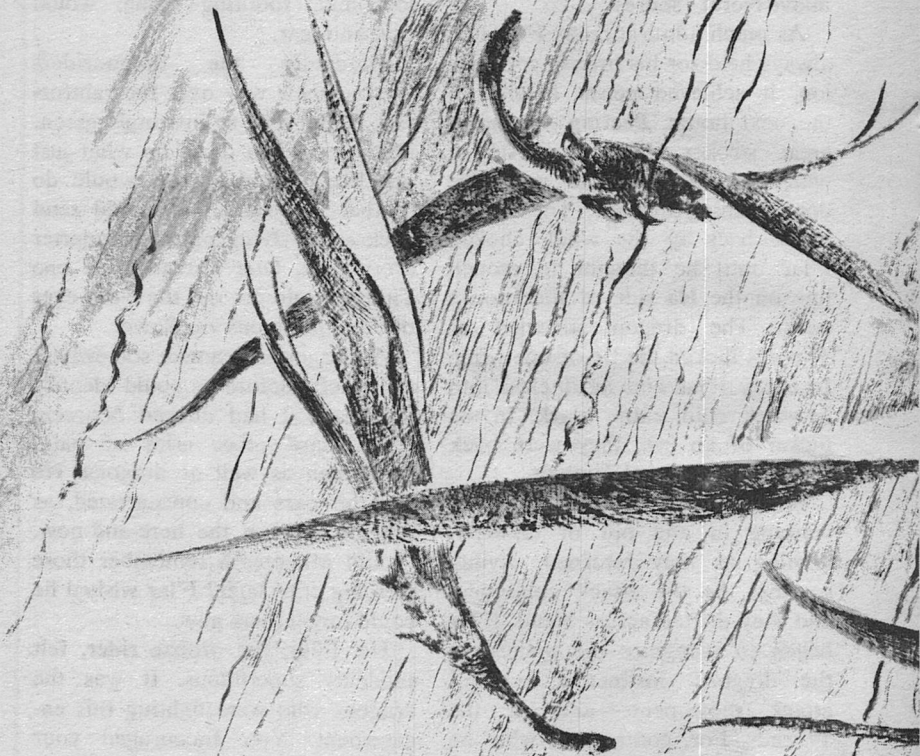
dragon would signal he would follow and, spouting flame, would dive and sear.

Gradually the dragonriders worked their way over the rainforests, so densely, so invitingly green. F'lar refused to dwell on what just one live Thread burrow would do to that lush land. He would send back a low-flying patrol to quarter every foot. One Thread! Just one Thread could put out the ivory eyes of every luminous vineflower.

A dragon screamed somewhere to his left. Before he could identify the beast, it had ducked *between*. F'lar heard other cries of pain, from men as well as dragons. He shut his ears and concentrated, as dragons did, on the here-and-now. Would Mnementh remember those piercing cries later? F'lar wished he could forget them now.

He, F'lar, the bronze rider, felt suddenly superfluous. It was the dragons who were fighting this engagement. You encouraged your beast, comforted him when the Threads burned, but you depended on his instinct and speed.

Hot fire dripped across F'lar's cheek, burrowing like acid into his shoulder . . . a cry of surprised agony burst from F'lar's lips. Mnementh took them to merciful *between*. The dragonman batted with frantic hands at the Threads, felt them crumble in the intense cold of *between* and break off. Revolted, he slapped at injuries still afire. Back in Nerat's humid air, the sting



seemed to ease. Mnementh crooned comfortingly and then dove at a patch, breathing fire.

Shocked at self-consideration, F'lar hurriedly examined his mount's shoulder for telltale score marks.

I duck very quickly, Mnementh told him and veered away from a

dangerously close clump of Threads. A brown dragon followed them down and burned them to ash.

It might have been moments, it might have been a hundred hours later when F'lar looked down in surprise at the sunlit sea. Threads now dropped harmlessly into the salty waters. Nerat was to the east



of him on his right, the rocky tip curling westward.

F'lar felt weariness in every muscle. In the excitement of frenzied battle, he had forgotten the bloody scores on cheek and shoulder. Now, as he and Mnementh glided slowly, the injuries ached and stung.

He flew Mnementh high and

when they had achieved sufficient altitude, they hovered. He could see no Threads falling landward. Below him, the dragons ranged, high and low, searching for any sign of a burrow, alert for any suddenly toppling trees or disturbed vegetation.

"Back to the Weyr," he ordered

Mnementh in a heavy sigh. He heard the bronze relay the command even as he himself was taken *between*. He was so tired he did not even visualize where—much less, when—relying on Mnementh's instinct to bring him safely home through time and space.

Honor those the dragons heed,
In thought and favor, word and deed.

Worlds are lost or worlds are saved.

From those dangers dragon-braved.

Craning her neck towards the Star Stone at Benden Peak, Lessa watched from the ledge until she saw the four wings disappear from view.

Sighing deeply to quiet her inner fears, Lessa raced down the stairs to the floor of Benden Weyr. She noticed someone was building a fire by the lake and that Manora was already ordering her women around, her voice clear but calm.

Old C'gan had the weyrlings lined up. She caught the envious eyes of the newest dragonriders at the barracks' windows. They'd have time enough to fly a flaming dragon. From what F'lar had intimated, they'd have years.

She shuddered as she stepped up to the weyrlings but managed to smile at them. She gave them their orders and sent them off, checking quickly with each dragon to be sure the riders had given clear refer-

ences. The Holds would shortly be stirred up to a froth.

Canth told her that there were Threads at Keroon, falling on the Keroon side of Nerat Bay. He told her that F'nor did not think two wings were enough to protect the meadowlands.

Lessa stopped in her tracks, trying to think how many wings were already out.

K'net's wing is still here, Ramoth informed her. *On the Peak*.

Lessa glanced up and saw bronze Piyanth spread his wings in answer. She told him to get *between* to Keroon, close to Nerat Bay. Obediently the entire wing rose and then disappeared.

She turned with a sigh to say something to Manora when a rush of wind and a vile stench almost overpowered her. The air above the Weyr was full of dragons. She was about to demand of Piyanth why he hadn't gone to Keroon when she realized there were far more beasts a-wing than K'net's twenty.

But you just left, she cried as she recognized the unmistakable bulk of bronze Mnementh.

That was two hours ago for us, Mnementh said with such weariness in his tone, Lessa closed her eyes in sympathy.

Some dragons were gliding in, fast. From their awkwardness it was evident they were hurt.

As one, the weyrlings grabbed salve pots and clean rags, and beckoned the injured down. The numb-

ing ointment was smeared on score marks where wings resembled black and red etched lace.

No matter how badly injured they might be, every rider tended his beast first.

Lessa kept one eye on Mnementh, sure that F'lar would not keep the huge bronze hovering like that if he'd been hurt. She was helping T'sum with Munth's cruelly pierced right wing when she realized the sky above the Star Stone was empty.

She forced herself to finish with Munth before she went to find the bronze and his rider. When she did locate them, she also saw Kylara smearing salve on F'lar's cheek and shoulder. She was advancing purposefully across the sands towards the pair when Canth's urgent plea reached her. She saw Mnementh's head swing upwards as he, too, caught the brown's thought.

"F'lar, Canth says they need help," Lessa cried. She didn't even notice, then, that Kylara slipped away into the busy crowd.

F'lar wasn't badly hurt. She reassured herself about that. Kylara had treated the wicked burns which looked to be shallow. Someone had found him another fur to replace the tatters of the threadbare one. He frowned, and winced because the frown creased his burned cheek. He gulped hurriedly at his *klah*.

"Mnementh, what's the tally of able-bodied? Oh, never mind, just

get 'em aloft with a full load of firestone."

"You're all right?" Lessa asked, a detaining hand on his arm. He couldn't just go off like this, could he?

He smiled tiredly down at her, pressed his empty mug into her hands, giving them a quick squeeze. Then he vaulted to Mnementh's neck. Someone handed him a heavy load of sacks.

Blue, green, brown and bronze dragons lifted from the Weyr Bowl in quick order. A trifle more than sixty dragons hovered briefly above the Weyr where eighty had lingered so few minutes before.

So few dragons. So few riders. How long could they take such toll?

Canth said F'nor needed more firestone.

She looked about anxiously. None of the weyrings were back yet from their messenger rounds. A dragon was crooning plaintively and she wheeled, but it was only young Pridith, stumbling across the Weyr to the feeding grounds, butting playfully at Kylara as they walked. The only other dragons were injured or . . . her eyes fell on C'gan, emerging from the weyring barracks.

"C'gan, can you and Tagath get more firestone to F'nor at Ke-roon?"

"Of course," the old blue rider assured her, his chest lifting with

pride, his eyes flashing. She hadn't thought to send him anywhere yet he had lived his life in training for this emergency. He shouldn't be deprived of a chance at it.

She smiled her approval at his eagerness as they piled heavy sacks on Tagath's neck. The old blue dragon snorted and danced as if he were young and strong again. She gave them the references Canth had visualized to her.

She watched as the two blinked out above the Star Stone.

It isn't fair. They have all the fun, said Ramoth peevishly. Lessa saw her sunning herself on the weyr ledge, preening her enormous wings.

"You chew firestone and you're reduced to a silly green," Lessa told her weyrmate sharply. She was inwardly amused by the queen's disgruntled complaint.

She passed among the injured then. B'fol's dainty green beauty moaned and tossed her head, unable to bend one wing which had been threaded to bare cartilage. She'd be out for weeks but she had the worst injury among the dragons. Lessa looked quickly away from the misery in B'fol's worried eyes.

As she did the rounds, she realized more men were injured than beasts. Two in R'gul's wing had serious head damages. One man might lose an eye completely. Manora had dosed him unconscious with numb-weed. Another man's

arm had been burned clear to the bone. Minor though most of the wounds were, the tally dismayed Lessa. How many more would be disabled at Keroon?

Out of one hundred and seventy-two dragons, fifteen already were out of action; some only for a day or two, to be sure.

A thought struck Lessa. If N'ton had actually ridden Canth, maybe he could ride out on the next dragonade on an injured man's beast, since there were more injured riders than dragons. F'lar broke traditions as he chose. Here was another one to set aside—if the dragon was agreeable.

Presuming N'ton was not the only new rider able to transfer to another beast, what good would such flexibility do in the long run? F'lar had definitely said the incursions would not be so frequent at first, when the Red Star was just beginning its fifty-turn long circling pass of Pern. How frequent was frequent? He would know but he wasn't here.

Well, he *had* been right this morning about the appearance of Threads at Nerat so his exhaustive study of those old Records had been worth while.

No, that wasn't quite accurate. He had forgotten to have the men alert for signs of black dust as well as warming weather. As he had put the matter right by going *between* times, she would graciously allow him that minor error. But he did

have an infuriating habit of guessing correctly. Lessa corrected herself again. He didn't guess. He studied. He planned. He thought and then he used common good sense. Like figuring out where and when Threads would strike according to entries in those smelly Records. Lessa began to feel better about their future.

Now, if he would just make the riders learn to trust their dragons' sure instinct in battle, they would keep casualties down, too.

A shriek pierced air and ear as a blue dragon emerged above the Star Stone.

"*Ramoth!*" Lessa screamed in an instinctive reaction, hardly knowing why. The queen was a-wing before the echo of her command had died. For the careening blue was obviously in grave trouble. He was trying to brake his forward speed, yet one wing would not function. His rider had slipped forward over the great shoulder, precariously clinging to his dragon's neck with one hand.

Lessa, her hands clapped over her mouth, watched fearfully. There wasn't a sound in the Bowl but the flapping of Ramoth's immense wings. The queen rose swiftly to position herself against the desperate blue, lending him wing support on the crippled side.

The watchers gasped as the rider slipped, lost his hold and fell—landing on Ramoth's shoulders.

The blue dropped like a stone. Ramoth came to a gentle stop near him, crouching low to allow the weyrfolk to remove her passenger.

It was old C'gan.

Lessa felt her stomach heave as she saw the ruin the Threads had made of the old harper's face. She dropped beside him, pillowing his head in her lap. The weyrfolk gathered in a respectful, silent circle.

Manora, her face as always serene, had tears in her eyes. She knelt and placed her hand on the old rider's heart. Concern flickered in her eyes as she looked up at Lessa. Slowly she shook her head. Then, setting her lips in a thin line, she began to apply the numbing salve.

"Too toothless old to flame and too slow to get *between*," C'gan mumbled, rolling his head from side to side. "Too old. 'But dragonmen must fly/ When Threads are in the sky . . .'" His voice trailed off into a sigh. His eyes closed.

Lessa and Manora looked at each other in anguish. A terrible, ear-shattering note cut the silence. Tagath sprang aloft in a tremendous leap. C'gan's eyes rolled slowly open, sightless. Lessa, breath suspended, watched the blue dragon, trying to deny the inevitable as Tagath disappeared in midair.

A low moan sprang up around the weyr, like the torn, lonely cry of a keening wind. The dragons were uttering tribute.

"Is he . . . gone?" Lessa asked, although she knew.

Manora nodded slowly, tears streaming down her cheeks as she reached over to close C'gan's dead eyes.

Lessa rose slowly to her feet, motioning to some of the women to remove the old rider's body. Absently she rubbed her bloody hands dry on her skirts, trying to concentrate on what might be needed next.

Yet her mind turned back to what had just happened. A dragonrider had died. His dragon, too. The Threads had claimed one pair already. How many more would die this cruel Turn? How long could this one Weyr survive? Even after Ramoth's forty had matured, and the ones she soon would conceive, and her queen-daughters, too?

Lessa walked apart to quiet her uncertainties and ease her grief. She saw Ramoth wheel and glide aloft, to land on the Peak. One day soon, would Lessa see those golden wings laced red and black from Thread marks? Would Ramoth . . . disappear?

No, Ramoth would not. Not while Lessa lived.

F'lar had told her long ago that she must learn to look beyond the narrow confines of Hold Ruatha and mere revenge. He was, as usual, right. As Weyrwoman under his tutelage, she had further learned that living *was* more than raising

dragons and spring games. Living was struggling to do something impossible—to succeed, or die, knowing you had tried!

Lessa realized that she had, at last, fully accepted her role: as Weyrwoman and mate, to help F'lar shape men and events for many Turns to come—to secure Pern against the Threads.

Lessa threw her shoulders back and lifted her chin high.

Old C'gan had had the right of it. Dragonmen *must* fly

When Threads are in the sky!
And yet—how long would there be dragonmen?

Worlds are lost or worlds are saved

By those dangers dragon-braved.

As F'lar had predicted, the attack ended by high noon, and weary dragons and riders were welcomed by Ramoth's high-pitched trumpeting from the Peak.

Once Lessa assured herself that F'lar had no serious injury, that F'nor's were superficial and that Manora was keeping Kylara busy in the kitchens, she applied herself to organizing the care of the injured and the comfort of the worried.

As dusk fell, an uneasy peace settled on the Weyr: the quiet of minds and bodies too tired, or too hurtful, to talk. Lessa's own words mocked her as she made out the list of wounded men and beasts. Twenty-eight men or dragons were

out of the air for the next Thread battle. C'gan was the only fatality but there had been four more seriously injured dragons at Keroon and seven badly scored men, out of action entirely for months to come.

Lessa crossed the Bowl to her weyr, reluctant but resigned to giving F'lar this unsettling news.

She expected to find him in the sleeping room but it was vacant. Ramoth was asleep already as Lessa passed her on the way to the Council Room, also empty. Puzzled and a little alarmed, Lessa half-ran down the steps to the Records Room, to find F'lar, haggard of face, poring over musty skins.

"What are you doing here?" she demanded, angrily. "You ought to be asleep."

"So should you," he drawled, amused.

"I was helping Manora settle the wounded—"

"Each to his own craft," F'lar drawled. But he did lean back from the table, rubbing his neck and rotating the uninjured shoulder to ease stiffened muscles.

"I couldn't sleep," he admitted. "So I thought I'd see what answers I might turn up in the Records."

"More answers? To what?" Lessa cried, exasperated with him. As if the Records ever answered anything. Obviously the tremendous responsibilities of Pern's defense against the Threads were beginning to tell on the Weyrleader. After all, there had been the stress of the

first battle; not to mention the drain of the traveling *between* times itself to get to Nerat to forestall the Threads.

F'lar grinned and beckoned Lessa to sit beside him on the wall bench.

"I need the answer to the very pressing question of how one understrength Weyr can do the fighting of six."

Lessa fought the panic that rose.

"Oh, your time schedules will take care of that," she replied gallantly. "You'll be able to conserve the dragon power until the new forty can join the ranks."

F'lar raised a mocking eyebrow.

"Let us be honest between ourselves, Lessa."

"But there have been Long Intervals before," she argued, "and since Pern survived them, Pern can again."

"Before there were always six Weys. And twenty or so Turns before the Red Star was due to begin its Pass, the queens would start to produce enormous clutches. All the queens, not just one faithful golden Ramoth. Oh, how I curse Jora!" He slammed to his feet and started pacing, irritably brushing the lock of black hair that fell across his eyes.

Lessa was torn with the desire to comfort him and the sinking, choking fear that made it difficult to think at all.

"You were not so doubtful . . ."

He whirled back to her, ". . . Not

until I had actually had an encounter with the Threads and reckoned up the numbers of injuries. That sets the odds against us. Even supposing we can mount other riders to uninjured dragons, we will be hard put to keep a continuously effective force in the air, and still maintain a ground guard." He caught her puzzled frown. "There's Nerat to be gone over on foot tomorrow. I'd be a fool indeed if I thought we'd caught and seared every Thread midair."

"Get the Holders to do that. They can't just immure themselves safely in their inner Holds and let us do all. If they hadn't been so miserly and stupid . . ."

He cut off her complaint with an abrupt gesture. "They'll do their part all right," he assured her. "I'm sending for a full Council tomorrow, all Hold Lords and all Craftmasters. But there's more to it than just marking where Threads fall. How do you destroy a burrow that's gone deep under the surface? A dragon's breath is fine for the air and surface work but no good three feet down."

"Oh, I hadn't thought of that aspect. But the fire pits . . ."

". . . Are only on the heights and around human habitations, not on the meadowlands of Keroon or on Nerat's so green rainforests."

This consideration was daunting indeed. She gave a rueful little laugh.

"Shortsighted of me to suppose our dragons are all poor Pern needs to dispatch the Threads. Yet . . ." she shrugged expressively.

"There are other methods," F'lar said, "or there were. There must have been. I have run across frequent mention of the Holds organizing ground groups and that they were armed with fire. What kind is never mentioned because it was so well known." He threw up his hands in disgust and sagged back down on the bench. "Not even five hundred dragons could have seared all the Threads that fell today. Yet *they* managed to keep Pern Thread-free."

"Pern, yes, but wasn't the southern continent lost? Or did they just have their hands too full with Pern itself?"

"No one's bothered with the southern continent in a hundred thousand Turns," F'lar snorted.

"It's on the maps," Lessa reminded him.

He scowled, disgustedly, at the Records, piled in uncommunicative stacks on the long table.

"The answer must be there. Somewhere."

There was an edge of desperation in his voice, the hint that he held himself to blame for not having discovered those elusive facts.

"Half those things couldn't be read by the man who wrote them," Lessa said tartly. "Besides that, it's been your *own* ideas that have

helped us the most so far. You compiled the timemaps and look how valuable they are already."

"I'm getting too hidebound again, huh?" he asked, a half-smile tugging at one corner of his mouth.

"Undoubtedly," she assured him with more confidence than she felt. "We both know the Records are guilty of the most ridiculous omissions."

"Well said, Lessa. So, let us forget these misguiding and antiquated precepts and think up our own guides. First, we need more dragons. Second, we need them now. Third, we need something as effective as a flaming dragon to destroy Threads which have burrowed."

"Fourth, we need sleep, or we won't be able to think of anything," she added with a touch of her usual asperity.

F'lar laughed outright, hugging her.

"You've got your mind on one thing, haven't you?" he teased.

She pushed ineffectually at him, trying to escape. For a wounded, tired man, he was remarkably amorous. One with that Kylara. Imagine that woman's presumption, dressing his wounds.

"My responsibility as Weyr-woman includes care of you, the Weyrleader."

"But you spend hours with blue dragonriders and leave me to Kylara's tender ministrations."

"You didn't look as if you objected."

F'lar threw back his head and roared. "Should I open Fort Weyr and send Kylara on?" he taunted her.

"I'd as soon Kylara were Turns as well as miles away from here," Lessa snapped, thoroughly irritated.

F'lar's jaw dropped, his eyes widened. He leaped to his feet with an astonished cry.

"You've said it!"

"Said what?"

"Turns away! That's it. We'll send Kylara back, *between* times, with her queen and the new dragonets." F'lar excitedly paced the room while Lessa tried to follow his reasoning. "No, I'd better send at least one of the older bronzes. F'nor, too . . . I'd rather have F'nor in charge . . . Discreetly, of course."

"Send Kylara back . . . where to? When to?" Lessa interrupted him.

"Good point," and F'lar dragged out the ubiquitous charts. "Very good point. Where can we send them around here without causing anomalies by being present at one of the other Weyr's? The High Reaches are remote. No, we've found remains of fires there, you know, still warm, and no inkling as to who built them or why. And if we had already sent them back, they'd've been ready for today and they weren't. So they can't have been in two places already . . ." He

shook his head, dazed by the paradoxes.

Lessa's eyes were drawn to the blank outline of the neglected southern continent.

"Send them there," she suggested sweetly, pointing.

"There's nothing there."

"They bring in what they need. There must be water for Threads can't devour that. We fly in whatever else is needed, fodder for the herdbeasts, grain . . ."

F'lar drew his brows together in concentration, his eyes sparkling with thought, the depression and defeat of a few moments ago forgotten.

"Threads wouldn't be there ten Turns ago. And haven't been there for close to four hundred. Ten Turns would give Pridith time to mature and have several clutches. Maybe more queens."

Then he frowned and shook his head. "No, there's no Weyr there. No Hatching Ground, no . . ."

"How do we know that?" Lessa caught him up sharply, too delighted with many aspects of this project to give it up easily. "The Records don't mention the southern continent, true, but they omit a great deal. How do we know it isn't green again in the four hundred Turns since the Threads last spun? We do know that Threads can't last long unless there is something organic on which to feed and that once they've devoured all, they dry up and blow away."

F'lar looked at her admiringly. "Now, why hasn't someone wondered about that before?"

"Too hidebound," Lessa wagged her finger at him, dedicated completely to this venture. "And there's been no need to bother with it."

"Necessity . . . or is it jealousy . . . hatches many a tough shell." There was a smile of pure malice on his face and Lessa whirled away as he reached for her.

"The good of the Weyr," she retorted.

"Furthermore, I'll send you along with F'nor tomorrow to look. Only fair, since it is your idea."

Lessa stood still. "You're not going?"

"I feel confident I can leave this project in your very capable, interested hands," he laughed and caught her against his uninjured side, smiling down at her, his eyes g'owing. "I must play ruthless Weyrleader and keep the Hold Lords from slamming shut their Inner Doors. And I'm hoping," he raised his head, frowning slightly, "one of the Craftmasters may know the solution to the third problem . . . getting rid of Thread burrows."

"But . . ."

"The trip will give Ramoth something to stop her fuming." He pressed the girl's slender body more closely to him, his full attention at last on her odd, delicate face. "Lessa, you are my fourth problem." He bent to kiss her.

At the sound of hurried steps in the passageway, F'lar scowled irritably, releasing her.

"At this hour?" he muttered, ready to reprove the intruder scathingly. "Who goes there?"

"F'lar?" It was F'nor's voice, anxious, hoarse.

The look on F'lar's face told Lessa that not even his half brother would be spared a reprimand and it pleased her irrationally. But the moment F'nor burst into the room, both Weyrleader and Weyrwoman were stunned silent. There was something subtly wrong with the brown rider. And, as the man blurted out his incoherent message, the difference suddenly registered in Lessa's mind. He was tanned! He wore no bandages and hadn't the slightest trace of the Thread mark along his cheek that she had tended this evening!

"F'lar, it's not working out! You can't be alive in two times at once!" F'nor was exclaiming distractedly. He staggered against the wall, grabbing the sheer rock to hold himself upright. There were deep circles under his eyes, visible despite the tan. "I don't know how much

longer we can last like this. We're all affected. Some days not as badly as others."

"I don't understand."

"Your dragons are all right," F'nor assured the Weyrleader with a bitter laugh. "It doesn't bother them. They keep all their wits about them. But their riders . . . all the weyrfolk. We're shadows, half-alive, like dragonless men, part of us gone forever. Except Kylara." His face contorted with intense dislike. "All she wants to do is go back and watch herself. The woman's egomania will destroy us all, I'm afraid."

His eyes suddenly lost focus and he swayed wildly. His eyes widened and his mouth fell open. "I can't stay. I'm here already. Too close. Makes it twice as bad. But I had to warn you. I promise, F'lar, we'll stay as long as we can but it won't be much longer . . . so it won't be long enough, but we tried. We tried!"

Before F'lar could move, the brown rider whirled and ran, half-crouched, from the room.

"But he hasn't gone yet!" Lessa gasped. "He hasn't even gone yet!"

To be concluded

THE ANALYTICAL LABORATORY/SEPTEMBER 1967

PLACE	STORY	AUTHOR	POINT SCORE
1.	The King's Legions	<i>Christopher Anvil</i>	1.60
2.	Fiesta Brava	<i>Mack Reynolds</i>	1.91
3.	Lost Calling	<i>Verge Foray</i>	3.43
4.	Important Difference	<i>E. G. von Wald</i>	3.96
5.	The Pearly Gates of Hell	<i>Jack Wodhams</i>	4.05

THE DESTINY OF MILTON GOMRATH

Maybe it isn't necessary to be in your Proper Place
to achieve what you Properly Deserve.

ALEXEI PANSHIN

Milton Gomrath spent his days in dreams of a better life. More obviously, he spent his days as a garbage collector. He would empty a barrel of garbage into the back of the City truck and then lose himself in reverie as the machine went *clomp, grunch, grunch, grunch*. He hated the truck, he hated his drab little room, and he hated the endless serial procession of gray days. His dreams were the sum of the might-have-beens of his life, and because there was so much that he was not, his dreams were beautiful.

Milton's favorite dream was one denied those of us who know who our parents are. Milton had been

found in a strangely fashioned wicker basket on the steps of an orphanage and this left him free as a boy to imagine an infinity of magnificent destinies that could and would be fulfilled by the appearance of a mother, uncle, or cousin come to claim him and take him to the perpetual June where he of right belonged. He grew up, managed to graduate from high school by the grace of an egalitarian school board that believed everyone should graduate from high school regardless of qualification, and then went to work for the city, all the while holding onto the same well-polished dream.

Then one day he was standing by

the garbage truck when a thin, harassed-looking fellow dressed in simple black materialized in front of him. There was no bang, hiss, or pop about it—it was a very businesslike materialization.

“Milton Gomrath?” the man asked, and Milton nodded. “I’m a Field Agent from Probability Central. May I speak with you?”

Milton nodded again. The man wasn’t exactly the mother, or cousin, he had imagined, but the man apparently knew by heart the lines that Milton had mumbled daily as long as he could remember.

“I’m here to rectify an error in the probability fabric,” the man said. “As an infant you were inadvertently switched out of your own dimension and into this one. As a result there has been a severe strain on Things-As-They-Are. I can’t compel you to accompany me, but, if you will, I’ve come to restore you to your Proper Place.”

“Well, what sort of world is it?” Milton asked. “Is it like this?” He waved at the street and truck.

“Oh, not at all,” the man said. “It is a world of magic, dragons, knights, castles, and that sort of thing. But it won’t be hard for you to grow accustomed to it. First, it is the place where you rightfully belong and your mind will be attuned to it. Second, to make things easy for you, I have someone ready to show you your place and explain things to you.”

“I’ll go,” said Milton.

The world grew black before his eyes the instant the words were out of his mouth and when he could see again, he and the man were standing in the courtyard of a great stone castle. At one side were gray stone buildings; at the other a rose garden with blooms of red, and white, and yellow. Facing them was a heavily-bearded middle-aged man.

“Here we are,” said the man in black. “Evan, this is your charge. Milton Gomrath, this is Evan Asperito. He’ll explain everything you need to know.”

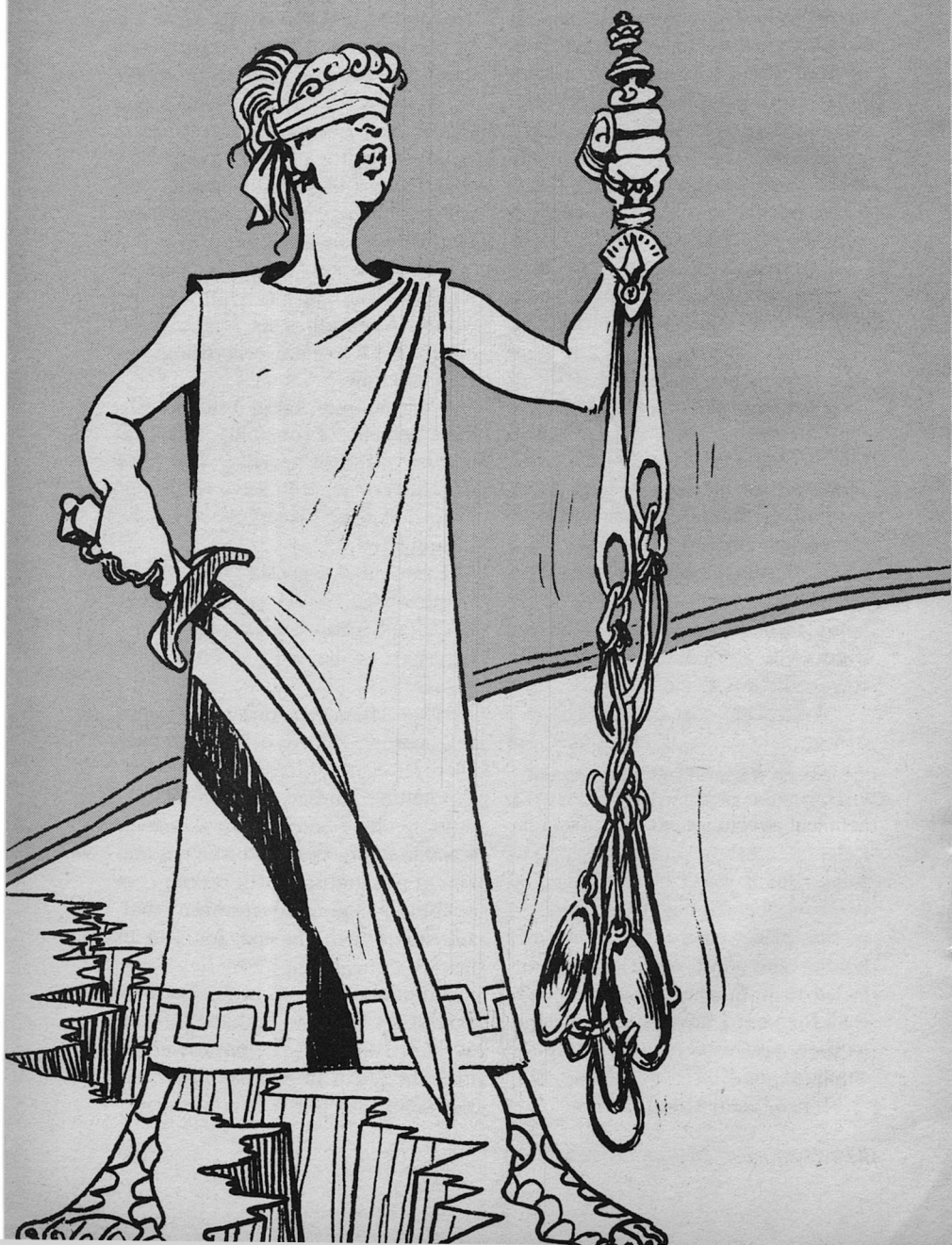
Then the man saluted them both. “Gentlemen, Probability Central thanks you most heartily. You have done a service. You have set things in their Proper Place.” And then he disappeared.

Evan, the bearded man, said, “Follow me,” and turned. He went inside the nearest building, which appeared to be a barn filled with horses.

He pointed at a pile of straw in one corner. “You can sleep over there.”

Then he pointed at a pile of manure, a long-handled fork and a wheelbarrow. “Put that in that, and take it out and spread it on the rose bushes in the garden. After that, I’ll find something else for you to do.”

He patted Milton on the back. “I realize it’s going to be hard for you at first, boy, but if you have any questions at any time, just ask me.” ■





WHOSA WHATSA?

It seems there was a certain (enormous!) amount of confusion, because of a secret agent's disguise. When one considers what technical advance can do to law . . . !

JACK WODHAMS

Illustrated by Kelly Freas

He had the gun in his two hands, the muzzle aimed between his eyes, when his manservant came back into the room.

"Sir, I'm sorry to bother you, but . . . Oh, good heavens!"

Judge Forsett stared at him woodenly. "What is it, Sorff? What do you want? I told you I didn't want to be disturbed."

"But, sir," Sorff said, shocked, "what are you doing? You're not . . . You're not thinking of . . .?"

"Of blowing my brains out? I was considering it." The judge still held the gun to his head. "Why have you interrupted me? What is it you wanted?"

"We've had this communication from the Security Branch and . . . Oh, sir, please put that gun down."

"Put it on the desk," the judge said gruffly. "I'll see to it later."

Sorff slowly placed the report on the desk. "Sir?" He seemed distressed. "Sir, don't let it get you down. There's . . . ah . . . I'll get Miss Anderson to make some tea. It's not as bad as all that, sir, really it isn't."

The judge stared at him and began to blink. His lower lip started to work. "Why don't you just leave me, Sorff? Leave me, there's a good fellow."

"No, sir, no. You mustn't. Think of the adverse publicity, sir," Sorff pleaded. "The . . . the dishonor, sir. Your noble name . . ."

Judge Forsett's aloofness crumbled. He even seemed slightly annoyed. He sagged, and his gun reluctantly descended to rest on the blotter. "Sorff, I can't take it. I'm too old, Sorff."

"You need a rest, sir. That's all."

"I should have retired at seventy-five. I laughed at them, Sorff. But I'm too old."

"A nice long holiday, sir. You've been working too hard." Sorff moved around the desk. "I'll send for Dr. Matthews, sir."

"Too old. The law's not what it was, Sorff. The law's not what it was." The judge gazed distantly at nothing. "I can't handle it. What answer can there be?"

Sorff gently removed the gun from under the now-relaxed hands. He breathed a little easier. "The case has got you down, sir. A vacation. A little fishing, perhaps."

"Straightforward. It used to be reasonably straightforward. But now. I can't handle it any more, Sorff."

"Tut-tut," Sorff said. "You mustn't get so concerned, sir. It is only a case after all. Here, why not forget about it for a while? Go home, sir, and have a good night's rest."

"Court in the morning, eighteen holes in the afternoon, and an evening at the club or the theater. I thought I could do it, Sorff, but I can't."

"There, there, sir, you've just hit a bad patch, that's all. Take a few days off and you'll be all right."

The judge sat gloomily at his desk. He did not answer.

"Come, now, sir," Sorff said anxiously cheerful, "don't despond. It's spring, sir. Things will look better in the morning."

"I'm too old," the judge said bleakly. "I should retire. I can't keep up."

"Nonsense, sir." Sorff put a hand under the judge's elbow. "You're just under a strain at present. Come, sir, we'll get you home where you can relax and take it easy."

"I'll never relax again," the judge predicted morbidly, but he responded to the pressure on his arm and stood up. "I'm past it, Sorff. Too old. I can't cope."

"Now, now, sir," Sorff chided, "you're just being defeatist. You're a little depressed, sir. That's all. We all get that way sometimes."

"Hm-m-m." The judge was not convinced.

"Come, sir, I'll help you on with your coat."

The judge allowed himself to be led to the coatstand where he cooperated listlessly as Sorff struggled to clothe him protectively against the nip in the outside air.

"That's it, sir, that's it. There you are, sir. There." Panting somewhat, Sorff said, "Oh, don't forget your hat, sir. I'll put it on for you, shall I? You'll feel a lot better in a day or two. There."

Sorff opened the door and poked his head out. "Miss Anderson! Judge Forsett is going home. Tell them to bring the car round, will you? And get Dr. Matthews. We'd like him to meet us at Judge Forsett's house. Judge Forsett is not feeling very well."

"Very good, Mr. Sorff."

Sorff turned back to the judge. "There you are, sir. You'll soon be feeling better. First home, then maybe a few days away from it all."

Without enthusiasm, the judge permitted himself to be guided through his outer chambers. "Too old," he muttered. "I'm too old."

"No you're not, sir. You're younger than a lot of us," Sorff soothed. "You'll get over it, sir. This way . . ."

The doctor rested his bag upon a chair. "I've left him a couple of tranquilizers and a couple of sleeping pills."

"Did he take them?" Sorff asked.

Dr. Matthews sighed. "No. You know how he feels about doctors who administer drugs without the patient's consent."

"He still has some of his old life, then," Sorff said.

The doctor shook his head. "Residual pigheadedness. His spirits are very low."

"Will he be all right do you think?"

"Well, he should be. I checked the medicine cabinet. I'll check the kitchen and garage on my way out. Any other guns about the place?"

"Only his shotguns, and I've hidden them away. There was nothing else I could find."

The doctor picked up his bag, "I don't think you have too much to worry about. I don't think that he's determined to do away with himself. I think rather that there was a coincidence of dispiritedness and a convenience of means. You are going to stay the night?"

"Yes, I think I'd better. His housekeeper left yesterday morning."

"Ah. That could be a contributing factor. Do you know why she left?"

"I . . . er . . . No, not really. She, ah . . . presumably . . ."

"Yes. Quite." The doctor swung his bag and turned for the door. "A handsome woman, wasn't she?"

"Oh, hell." The judge turned onto his back and opened his eyes. His lips moved. "Gregg versus Helds-

worth. Gregg versus Gregg. Heldsworth versus Gregg, Heldsworth versus Heldsworth." He groaned. "Decisions, decisions, decisions."

He rolled his head on his pillow. "Mr. Heldsworth and Mrs. Gregg. Mr. Gregg and Mrs. Heldsworth. Mrs. Gregg and Mrs. Gregg. Mr. Gregg and Mr. Gregg. Mr. Heldsworth and Mrs. Heldsworth. Oh, God."

He felt hot and sticky. A three-quarter moon gave enough light to turn the room into an underdeveloped print. His eyes fell on the twin bed alongside his own. It was Emma's bed. Emma had been his wife for forty years and more. How long was it since she had passed away? Three years last month.

Three years. His eyes grew moist. Emma had been gone for three years. They had been the three happiest years of his life.

At seventy-four it had been good to be free again. With experience and wisdom, and with the aid of modern medicines, three good years. "Modern medicine. God curse it. Mrs. Heldsworth and Mr. Heldsworth. Mrs. Gregg and Mr. Heldsworth."

He closed his eyes and opened his mouth to moan, his mind again going back to the courtroom scene . . .

. . . "You, Mr. Carver, are representing Mrs. Heldsworth, and Mr. Gracey is here on behalf of Mr. Heldsworth, is that right?"

"Yes, my lord."

"I see that we also have Mr. Jarvis and two other colleagues of yours that I do not know. Are these gentlemen here to assist you in this matter?"

"Ah, no, my lord." Mr. Jarvis cleared his throat. "I am here to protect the interests of the Right Honorable Clive Muswell Heldsworth, Viscount Brastmanston."

"Oh." The judge looked at him. "He's not the petitioner?"

"No, my lord."

The judge waved a finger at the remaining pair. "And you two gentlemen. You have an interest in this case, or are you just being nosey?"

One smiled. "Yes and no respectively, my lord. I am David Dimattio. I am holding a watching brief for Miss Gayel Olover, who is, ah, intimately connected with this case."

"Oh, I see." The judge raised a querying eyebrow. "And you?"

"Borcoss. Adam Borcoss, my lord." The voice was deep and matched the grave Borcoss features.

"And who do you represent?" the judge asked.

"The Government, my lord."

"Oh." The judge sat back. "That explains the secrecy," he said, somewhat irritably. "Was the screening really necessary? Was it necessary for me to be kept in ignorance? This is merely a divorce case after all, isn't it?"

"There are certain aspects, my lord . . ." Borcoss began.

"Yes, yes, yes. Well, let's get on

with it. The petitioner is Mr. Heldsworth, isn't it? On what grounds is he seeking a divorce, Mr. Gracey?"

"On the recently admitted grounds of mental cruelty, my lord."

"Mental cruelty, hey? Unusual for a man."

"And adultery, my lord."

"Ah. That's where you come in, is it, Mr. . . . er . . .?"

"Dimattio, my lord."

"Yes, yes, of course, Dimattio. Very good. Now, with so many advocates, and a strong inference that this case has special features, I would be pleased to receive some enlightenment." The judge surveyed the five lawyers. "In other words," he said with a touch of irascibility, "would someone mind acquainting me with the problem, whatever it is."

"Yes, my lord, gladly," Mr. Carver said quickly. "My client contends that, ah, she at no time has caused, ah, Mr. Heldsworth any great degree of mental anguish. She . . ."

"Deprivation," Mr. Gracey cut in. "Deprivation of conjugal rights. This is not mental cruelty?"

"In the true sense, no," Mr. Carver said. "Under the circumstances, my client feels that an adjustment period is called for. After all, a few months is not much to ask, to enable a wife to become, ah, familiar with her role."

"Am I to understand, Mr. Carver, they have been wed but a short time?" Judge Forsett inquired?

"In a manner of speaking, my lord . . ."

"And the marriage has not been consummated, is that it?"

Carver looked uncomfortable. "Well, not exactly, my lord. You see, Mrs. Heldsworth has only been Mr. Heldsworth's wife for nine months . . ."

"This is enough time to get adjusted in, surely," the judge said. "It is not enough time to permit the filing of a divorce action. They're not film stars, are they?"

"No, my lord, but . . ."

"If they've only been married nine months they probably need a guidance counselor more than a lawyer."

"There's the custody of the children for one thing," Gracey put in drily.

"Children? What children?" Judge Forsett turned belligerently to Carver. "I thought you implied that their relationship was unsatisfactory?"

"Oh, it is, my lord, but . . ."

"And children did you say? Children? More than one? What are they, twins?"

"No, my lord," Mr. Carver said. "One is ten, one is eight, and the little one is four."

Judge Forsett stared blankly.

"My lord," Mr. Gracey said smoothly, "you have been unintentionally misled. The Heldsworths have been married for twelve years."

"What?" The judge glared sharp-

ly at Carver. "But Mr. Carver distinctly told me that they had been married only nine months!"

"No, no, my lord," Carver protested, "I didn't say that . . ."

"Are you calling me a liar?" the judge pop-eyed.

"Oh, no, my lord, heaven forbid," Carver said hastily. "But what I said, my lord, was that Mrs. Heldsworth had only been Mr. Heldsworth's *wife* for nine months."

"Well?" The judge shook his head testily. "That's the same thing, isn't it? Do you mean that she was his mistress before that? That they married at last and couldn't adjust to one another?"

"No, no, my lord," Carver said. "They've been married for twelve years, only, when they were married, Mrs. Heldsworth was known as Mr. Gregg, my lord."

"Mr. Gregg?" The judge looked at Gracey. "Who's Mr. Gregg?"

"Mrs. Heldsworth was Mr. Gregg," Gracey said. "He changed his sex nearly a year ago."

"Do you mean to say that he was married to Mr. Heldsworth for . . . for eleven years?"

"Er, yes and no, my lord. Perhaps my colleague, Mr. Borcross . . .?"

The judge turned his attention to Borcross.

"My lord," Borcross said heavily, "Mr. Gregg works for a certain government agency. He is skilled and highly trained." He paused.

"Well?"

"My lord, you must understand that the nature of his employment is such that it demands the utmost vigilance and circumspection. His work holds a high element of danger."

"You mean that he is a secret agent?"

"Something of that kind, my lord," Borcross said non-committally.

"And going into hiding, he changed his sex?"

"My lord, specialists such as Mr. Gregg are rarely come by. The training they receive is both expensive and time-consuming. Becoming too well known to certain persons it was thought desirable to extend his service by making use of the feminizing strategem."

"I see," the judge said. His nostrils flared. "I know that such government departments tolerate some peculiar people, but if Mr. Gregg was married to Mr. Heldsworth for eleven years, I'd say that they were carrying toleration too far."

"Er, no, my lord," Gracey said. "Mr. Gregg was then married to Mrs. Gregg. You see . . ."

"Wait a minute," Judge Forsett said. "There was a *Mrs.* Gregg?"

"Of course, my lord. She . . ."

"There's no 'of course' about it," Judge Forsett snapped. "Are you deliberately trying to confuse me?"

"Oh, no, my lord. It's like this . . ."

"Let me get this straight," the judge interrupted. "Mr. Gregg was married to Mrs. Gregg. Then Mr.

Gregg changed his sex. That would make two Mrs. Greggs, wouldn't it?"

"Well, yes, my lord, but . . ."

"Don't distract me. Now then, obviously such a family arrangement would be unsatisfactory, and the marriage would automatically be annulled. I suppose, then, that the former Mr. Gregg met and married Mr. Heldsworth, who probably wondered at the shyness of a bride who already had the custody of three children, hey?"

Judge Forsett smiled. "Does Mr. Heldsworth know the full story?"

"He should my lord," Mr. Gracey said. "He was formerly Mrs. Gregg."

The judge's smile vanished. He snorted. "Why didn't you tell me that in the first place?" He picked up a pencil, and then threw it down again. "Heldsworth. Hah! Gregg! What was the point of changing their names? They're Mr. and Mrs. Gregg, aren't they? Is this some more cloak-and-dagger stuff to drop us in the smog, Mr. Borcoss?"

"No, my lord," Borcoss said gruffly. "It is customary for the female party to assume the name of her spouse. Thus, when they changed places, as it were, Mr. Heldsworth took his maiden name. Mr. Gregg, of course, lost his. It is common practice, my lord."

Judge Forsett glowered at him. He began restlessly to twist his gavel in his hands. "I have some knowledge of wedding procedure," he

said tartly. "Why did Mrs. Gregg have to change *her* sex?"

"She thought that the children needed a father, my lord. That is, a father of their own, a proper father."

"Commendable," the judge said briefly. "Tell me, this . . . this sex-changing business. Is it a simple matter? I've heard of the odd incidence, biological adjustment, correcting nature, and so on, but then this married couple were both . . . I mean, surely they both weren't that way?"

"My lord, they both underwent highly sophisticated treatment. In the case of Mrs. Gregg, the government acted in good faith and sought only to correct the Gregg family balance."

"Quite so. This treatment is not generally available then?"

"No, my lord."

"But if the need, or desire, is great enough, anybody can have his or her sex changed, is that right?"

Misinterpreting the shine in the judge's eye, Borcoss said, "Aged persons would not benefit from the treatment, my lord. In your case, for instance, it would be inadvisable to . . ."

"My case?" the judge yelped. "What do you mean, my case? I don't want to be a woman, do I?"

"I don't know, my lord . . ."

"Well, I don't," Judge Forsett rasped. "I can't stand bald-headed women, and if the bald-headed woman was I, I'd shoot myself."

Dimattio laughed indiscreetly.

"Did I say something funny?" the judge demanded.

Dimattio changed the laugh to a choking fit of near lethal proportions. He gasped and spluttered. "Sorry, my lord," he said hoarsely. "I swallowed and it went the wrong way."

The judge looked at him suspiciously. "Hm-m-m." He returned his regard to the government attorney. "You were telling us about the treatment, Mr. Borcross."

"Ah. Yes, my lord." He took a piece of paper from his pocket. "The concept is not startling, but the technicalities are precise. As you know, my lord, we all evolved from uni-sex creatures. At one time there was only one sex. Evidence to this fact still exists. For example, males have female hormones, and vice versa, and males with too much female hormone tend toward effeminacy, and females with too much male hormone are inclined to grow moustaches. Not long ago experiments with rats revealed that emasculated male embryos developed into females. However, female embryos showed no development toward masculinity when a similar operation . . ."

"What are you talking about, Mr. Borcross? Do rat embryos have anything to do with this case?"

"Indirectly, my lord," Borcross said, unruffled. "The sex change in humans is effected by a combination

of refined surgical attention, and hormonal and enzymatic retardation and stimulation by chemico-glandular excitation and inhibition. Selective, of course."

"Of course," the judge said. He sniffed. "And it works?"

"Works, my lord?"

"Yes, works. Mr. Gregg is now truly a woman, is that right?"

"Oh, yes, my lord. Very definitely."

"And Mrs. Gregg is now positively a man?"

"Yes, my lord."

Judge Forsett threw up his hands. "What's all the fuss about then? Can't they divorce each other in a normal manner without going through all this rigmarole?"

"Ah, my lord," old Jarvis entered the fray, "certain difficulties arise. We must establish beyond doubt the *legal* sex of the participants. We must establish in law whether Mr. Heldsworth is legally a man, my lord, and discover her motives for changing into a man, for changing, not to resolve a sexual doubt, but to make a complete transition from undisputed femininity to radical masculinity."

"Mr. Heldsworth is a man," Gracey said. "We have retained medical opinion of the highest authority . . ."

"Ah, yes," old Jarvis said, "but the fact remains that she was *born* a female, and was registered as such, and while she might choose to *become* a man, she cannot do so

in the expectancy of usurping a position that rightfully belongs to one who is a male by birth."

"That's not so," Gracey said hotly. "The fact that he has become a man, that he is now beyond doubt a male, gives him an unqualified entitlement to the estates and station of a male family member."

"Gentlemen, pardon me," Judge Forsett interposed with some asperity, "but does it make any difference whether she was born a boy or a girl? She is evidently very much a man now."

"My lord," old Jarvis said, "it is a matter of great personal concern to my client. There is no question that Mr. Heldsworth is in fact Mrs. Gregg. It is our contention that, technically and legally, Mr. Heldsworth is *still* Mrs. Gregg, and that, for the purposes of this divorce action, should so be regarded."

"Mr. Jarvis, are you losing your wig?" the judge said techily. "You want me to divorce Mrs. Gregg from Mrs. Heldsworth?"

"No, no, my lord. But, so that the procedure should be carried forward correctly, the parties involved should seek separation under the original name that they bore. That is to say, the case should be regarded as Gregg versus Gregg and not Heldsworth versus Heldsworth."

"They are the same people, my lord," Gracey said. "My elderly learned friend is, I feel, unnecessarily laboring a finer point."

Sensitive as to age, the judge

said, "I have known Mr. Jarvis a number of years, and I am sure that if he wishes to make a point, fine or not, it is not without a valid reason."

Old Jarvis smirked. "Thank you, my lord. The point is not so fine. I represent the Honorable Clive Muswell Heldsworth, the Viscount Brastmanston. Mrs. Gregg and the Viscount Brastmanston are cousins, my lord, and should she establish, in law, that she is a male Heldsworth, her slight seniority in years may be used in an attempt to disinherit the present rightful holder of that title."

"The rightful holder of that title is the eldest male Heldsworth," Gracey objected. "Mr. Heldsworth is a Heldsworth and has always been a Heldsworth. The fact that he was once Mrs. Gregg is immaterial. He is now Mr. Heldsworth, and as such is, by virtue of age, now the true heir to the Heldsworth estate."

"My lord," wily Jarvis appealed, "we cannot here establish such a precedent. If a female can, by changing her sex, demand and assume the role of heir to a title, the very foundations of the nobility will be threatened. Why, even the Queen herself could be replaced by her younger sister."

"Each case should be weighed on its merits," Gracey said firmly. "In this instance there was no prior intent to obtain the title. The claim to the title is incidental to the desire by Mr. Heldsworth to give his children a true father."

"He's not the true father," Mr. Carver said, "Mrs. Heldsworth is."

"He is blood kin and a male," Gracey said loudly, "and furthermore he had government sanction and support. It is the government in fact who encouraged Mr. Heldsworth in his course of action."

"The government cannot be held responsible for the actions of citizens in their private lives," Borcoss said portentiously. "This is purely a domestic family matter. The government in no manner forced or coerced Mrs. Gregg to make the decision that she did."

Gracey was shocked. "Are you trying to say that the government did not influence Mr. Heldsworth at all?"

Stolidly Borcoss said, "It was Mrs. Gregg's idea and the move was condoned by her husband. When consulted, the government department concerned raised no objection, that's all."

"They actively assisted," Gracey asserted. "Without the active help and cooperation of the 'department concerned' Mr. Heldsworth could never have realized his masculine potential."

"Oh-ho?" old Jarvis perked in. "Masculine what? Potential? Mrs. Gregg never had masculine potential. She was a woman, clearly designated so by her long, ah, career as a wife and a mother."

"That Mr. Heldsworth once behaved as a female he does not

deny," Mr. Gracey said, "but it must be admitted that his assumption to manhood was readily effected and highly suggestive of latent pre-disposition to masculinity."

Stung, Jarvis cried, "She was a woman, unmistakably and undeniably. Any tendency she may have had toward masculinity was infinitesimal and irrelevant. She was a woman, the changing of sex for ulterior reasons being no more legitimate than the changing of a name with intent to defraud."

"My client had no ulterior motive," Gracey said vehemently. "Events occurred in a perfectly comprehensible sequence, with results being surprisingly efficacious. So much so that my client feels constrained to question the accuracy of former interpretations of his sex."

"A mother, a mother," old Jarvis wagged his finger at Gracey. "She was a mother. Three times she was a mother. Do you want more evidence of femininity than that? Hey?"

Judge Forsett's head swiveled from side to side like a ping pong addict at a championship meet. He lost track of the play. "Wait, wait, wait," he said, "what's going on here?" He looked questioningly at Mr. Gracey. "Am I to understand, Mr. Gracey, that you are trying to establish that Mr. Heldsworth was more masculine than feminine even before his sex was changed?"

"It is a contingency to be considered, my lord."

"But it is clear that he was a woman, surely? I mean, if he had three children . . . ?"

"My lord, an accurate definition of femininity is not available at this time. As my learned friend, Mr. Borcoss, has said, males have a certain amount of female in their make-up, and females, to a greater or lesser degree, have masculine characteristics. To this moment medical analysis is not employed to determine the truly dominant sexual personality."

"Rubbish," old Jarvis said. "You mean to say that medical analysis is required to tell the difference between a boy and a girl?"

"Certainly," Gracey replied. "The outer physique can be markedly at variance with the inner metabolism. The superficial appearance might not at all be in accord with the inner chemistry."

Old Jarvis raised his voice. "Mrs. Gregg had children. She had three children. Her chemistry must have been suited to childbearing. It is women who bear children. Mrs. Gregg is a woman!"

"Mr. Heldsworth is a man!" Gracey yelled back. "Mr. Heldsworth has always had a high male secretion! Before his operation his hormone count showed an abnormal preponderance of male chromosomes!"

"Oh, did it?" old Jarvis crackled. "And we can guess how . . ."

"Gentlemen, please!" Judge Forsett intervened.

"Hah!" old Jarvis scoffed. He brushed his lapels with his hands. "Sorry, my lord." His chin came up. "It just seems that a deliberate attempt is being made to repudiate even the most obvious facts, my lord."

"I am sure," Gracey said with icy heat, "that His Lordship is well aware that in law the so-called 'obvious' facts are the very ones that need to be re-assessed from time to time."

Old Jarvis grunted.

"I might find the matter less confusing," Judge Forsett said irritably, "if you gentlemen would agree to refer to the principals by a common name. I understood that this case was Heldsworth versus Heldsworth. Yet you, Mr. Jarvis, persist in using the name 'Gregg.' When you are speaking of Mrs. Gregg, you are, in fact, referring to Mr. Heldsworth, is that correct?"

"She started life as Miss Olga Virginia Heldsworth, my lord. She married Mr. Gregg and, for eleven years or so, was known and accepted as Mrs. Gregg." Revealing another defensive angle, Jarvis said, "As the time she has been a woman far exceeds the short period she has been a man, my lord, I feel it more appropriate to refer to her in a manner to which, in her thirty-four years as a woman, she has grown accustomed."

"My learned colleague is merely closing his eyes to the facts, my

lord," Gracey said stiffly. "It is an obvious fact that Mr. Heldsworth is, positively, a man."

"It is the 'obvious' facts, my lord," old Jarvis said slyly, "that need to be re-assessed from time to time."

"A full medical report is available on Mr. Heldsworth, my lord," Gracey said. "This clearly reveals that his is a case of dormant hyper-adrenia . . ."

"Please, please, Mr. Gracey," the judge said hurriedly. "I, at least, am willing to accept that Mr. Heldsworth is now a man." He wiped his forehead with a handkerchief. "For the moment, anyway."

The judge gazed for a while at Dimattio. Without relish he said, "I suppose it is you, Mr. . . ."

"Dimattio, my lord."

"Yes, yes, Dimattio. I suppose it is you, Mr. Dimattio, who, through your client, has direct evidence as to the masculinity of Mr. Heldsworth?"

"Oh, no, my lord."

"Uh? Don't you represent Miss Somebody-or-other in this case? Presumably she is the correspondent?"

"Ah, yes, my lord. She is bringing a paternity suit, my lord."

"Paternity suit? Well, then," the judge said crossly, "that's what I said. That's proof of Mr. Heldsworth's virility, isn't it?"

"No, my lord. The paternity suit is not being brought against Mr. Heldsworth."

"Oh?" The judge was baffled. "Who is it being brought against then?"

"Against Mr. Gregg, my lord."

"Mr. Gregg? Do you mean Mrs. Heldsworth?"

"Yes, my lord."

"But Mrs. Heldsworth"—the judge's hands fluttered—"is a woman!"

"Not at the time when he was Mr. Gregg, my lord," Dimattio said succinctly.

"Oh, good heavens."

It was here that the dike began to spring more leaks than Judge Forsett had fingers, and a young whirlpool formed and started to spin his mind . . .

The memory was vivid. The judge tumbled restlessly onto his back. He kicked back the blankets to allow his body heat to escape with greater facility. He panted.

"Mrs. Gregg versus Mrs. Heldsworth. Mr. Heldsworth versus Mr. Gregg. Miss Gayel Olover versus Heldsworth . . ."

"Does Mr. Gregg deny the charge?"

Mr. Carver got off his seat on the table. "Most definitely, my lord. Apart from the fact that she was somewhere else at the time of the alleged incident, Mrs. Heldsworth, by reason of the imprecise knowledge of her physical condition, would have found it impossible to father the child, my lord."

"You mean that she . . . ah

. . . that is he . . . ah, was then Mr. Gregg, but was in a state of . . . of . . . of transition?"

"Yes, my lord," Carver said confidently. "For reasons not dissimilar to those given by my learned friend, Mr. Gracey, in regard to Mr. Heldsworth, I might say that the female content of Mrs. Heldsworth, even when she was known as Mr. Gregg, was exceptionally high, my lord, and . . ."

"Nonsense," Dimattio interjected. "Mr. Gregg was masculine in every respect. He was rugged, virile, shaved twice a day and engaged in every manly sport, from boxing and wrestling through to rowing and shooting. And he chased women at any and every opportunity."

"Exactly," Mr. Carver said, blithely undismayed. "She had a dissatisfied libido. She was searching for expression. Unaware that she was more woman than man, she desperately tried to adapt herself to the ways of a man. Naturally she chased after other women. She could see that it was the way other men behaved. But did she find reward or fulfillment? Of course not. And so she went on, poor unhappy creature, not knowing where she really belonged."

"He fathered three children of his own," Dimattio said pertinently, "and at least one other."

"Ah yes, Nature in her wondrous bounty. Three children of her own, the last four years ago," Mr. Carver acknowledged. "A miracle."

"My lord," Dimattio said sardonically, "it is patently clear that an effort is being made to cloud the issue. By taking any normal standard, Mr. Gregg was, up until nearly a year ago, the very epitome of manhood. He . . ."

"No, no," Mr. Carver said, "in-describable nervous tension helped cause a physiological . . ."

Dimattio overrode him. "He was masculinity personified. He was tough and strong, handsome and intelligent. His behavior was standardly male. He misused my client, made promises since repudiated, and has caused my client great emotional distress."

"Your client must be mistaken," Carver said stoutly. "As a member of Society circles, she is obviously seeking a certain notoriety, perhaps, and is endeavoring to shield the true father of her child."

"Not so," Dimattio said. "Abundant photographs are available to show that Mr. Gregg and my client at one time had a very close attachment."

"News photographs, or even private photographs, do not prove that an improper relationship existed," Carver pointed out. "Mrs. Heldsworth was, and is, a member of a certain government agency, and in the course of her duties plays her role with skill and dedication."

"He played the role of a man remarkably well," Dimattio agreed.

Carver turned to the government lawyer. "Mr. Borcross, maybe you

can explain to Mr. Dimattio that Mrs. Heldsworth was at this time merely playing a part, was doing a job under orders?"

Borcoss coughed. "I am not at liberty to divulge details," he said ponderously, "but I can admit that Mr. Gregg, in the course of his employment, may have resorted to the means most expedient to the moment."

"The means employed in this case have had the most disturbing results upon my client," Dimattio said bluntly. "The health of my client has been impaired, and her social standing stigmatized."

"It is unfortunate," Borcoss said, "but the dictates of circumstances . . ."

"The dictates of circumstances do not mean that any irresponsible conduct should be condoned, or that an innocent young woman should be thoughtlessly despoiled."

"Hardly innocent, old boy," Gracey said.

"The government can take no responsibility for Mr. Gregg's private actions, or be held responsible for the development of side issues stemming from Mr. Gregg's work. Mr. Gregg is, in effect, his own master, and is free to pursue his, ah, business as he thinks fit."

"The 'business' in this case concerned a high-ranking diplomat of a hitherto friendly power," Dimattio needled. "This diplomat is very naturally concerned at the deception practiced upon his daughter."

Judge Forsett valiantly tried to wrest gist from the mist. "His daughter?" he broke in. "Mr. Dimattio, what was the name of your client again?"

"Miss Gayel Olover, my lord."

"She's not the daughter of Under Secretary Amory Hardfinch Olover, is she?" he asked without hope.

"Yes, my lord."

The judge nodded, assimilating the news. "Oh."

"The young lady's honor is at stake, my lord. Promises made to her were broken, and now, it seems, her seducer hopes to escape scot-free from the consequences of his philandering."

Borcoss frowned. "We have tried to appease the young lady, my lord, even supplying James Boniface, our second-best, ah, man, but we have been finding ourselves persona non grata in that vicinity. It has been most awkward."

"Didn't the young lady realize that, ah, Mr. Gregg was already married?" the judge asked.

"Mr. Gregg intimated that he was soon to become free of his wife, my lord," Dimattio said.

"Harumph," Borcoss cleared his throat. "A rather unusual and intricate assignment calling for the most capable talent brought Mr. Gregg to adopt his present condition, my lord. A faultless disguise, Mr. Gregg, who is a meticulous perfectionist, undertook to become a female to accomplish his, ah, mission, my lord."

"Am I to understand, Mr. Borcoss, that his changing into a female was meant to be only temporary?"

"Ah, originally yes, my lord."

"It would have saved a lot of trouble had it been so," Judge Forsett said with feeling.

"Ah, circumstances, my lord. Unexpected circumstances. His, ah, temperament has changed somewhat. His outlook is less, ah, predictable, my lord. A certain feminine reasoning pervades his thinking, and this, my lord, is not always comprehensible to a male."

"Mrs. Heldsworth is a woman, my lord," Carver said triumphantly. "She thinks, acts, and behaves like a woman."

"He is Mr. Gregg, and if he can be changed back, he should be changed back," Dimattio said.

"She doesn't want to be changed back," Carver stated. "She is content to have discovered her true body at last."

"His true body is the one he was born with," Dimattio said in exasperation. "It has been said that the change-over was intended only as a temporary measure. There is no reason now why he cannot revert to being a man."

Gracey and Borcoss exchanged glances.

"His, ah, present duty has not been, ah, completed," Borcoss said. "The, ah, success of the venture has somewhat delayed . . . This, and the rather changed attitude, is what persuaded Mrs. Gregg to . . ."

Gracey addressed the judge. "His life was not satisfactory, my lord. His natural inclination toward masculinity was aggravated."

"Whose? Mr. Gregg's?"

"No, Mr. Heldsworth's, my lord. To make life more bearable, to end the inner turmoil and frustration, to realize his innate masculinity, and to save their marriage, Mr. Heldsworth made the simple, for him, transfer to full manhood."

"Mrs. Gregg, Mrs. Heldsworth, I wish you'd make up your mind, Mr. Gracey." The judge chewed the end of his gavel handle.

Old Jarvis, who had been keeping shrewd watch on the sidelines, said, "That she tried to save her marriage is not a valid excuse. The attempt was manifestly a failure, and her continued imitation of manliness is no longer necessary."

"The fault does not lie with *my* client," Mr. Gracey said emphatically. "My client has done his best to make Mrs. Heldsworth happy, has gone out of his way to give Mrs. Heldsworth love, consideration, and thoughtful understanding."

The late ally, once again an enemy, Carver declared, "Mrs. Heldsworth has been unduly harassed and pestered by her husband over these last months. However, she is willing to try further to make the marriage work, partly for the sake of her children, my lord, and partly on religious grounds."

"What religious grounds?" Gracey asked, taken aback.

"Mrs. Heldsworth is a Roman Catholic," Carver said piously.

"Up till recently she was a Muhammadan," Gracey accused.

"And he acted like one, too," Dimattio said.

"She has been converted," Carver said, as though he personally had been responsible.

"My client has been converted, too," Gracey said nastily. "He is now a Mormon. Whatever the religion, incompatibility and a persistent refusal by one partner to acknowledge the other's conjugal rights is sufficient grounds for divorce."

"Your Mr. Heldsworth is being thwarted in his efforts to do as he was done by," old Jarvis said craftily.

"Precisely," Gracey said. He stopped. "No. In a manner of speaking . . . Mr. Jarvis, sir, I think that that remark was uncalled for."

Old Jarvis ignored his hurt expression. "I could think that there might be some lack of potency in Mrs. Gregg's amorous advances," he hinted to Carver. "The adjustment cannot be all one-sided."

Carver blinked. "No," he said. "Very true, very true. My client did refer to Mr. Heldsworth as a hulking ape."

Gracey seized the statement. "There, you see, my lord? A hulking ape, truly descriptive of a male, and a voiced opinion of acute distaste for my client."

"There are female apes as well," old Jarvis said tartly, "and I believe

our colleague, Mr. Borcross, made the point that even the most masculine men have female hormones, and that the most feminine women have male hormones."

"To a degree," Gracey said. "In Mr. Heldsworth's case, from as far back as he can remember, he has been conscious of somehow not 'fitting in.' He . . ."

"Your Mr. Heldsworth still produces female hormones, does he not?" old Jarvis persisted. "He has female hormones in his makeup, much as all males have female hormones in their makeup?"

"Ah, well, yes. But Mr. Heldsworth's count is very low. His system is overwhelmingly . . ."

"Yes, yes," old Jarvis was curt, "but just exactly how much of Mrs. Gregg is male? You have made it quite clear with your postulations upon physiology that we are not to believe the evidence of our eyes. Apparently we cannot tell just by looking whether a man is really a man or a woman. The normal criterion of unmistakable physical attributes is no longer valid, correct?"

"Commonly a useful guide," Gracey said carefully, "physical attributes are, in the main, reliable indications. However, in a percentage of cases . . ."

"Bah!" old Jarvis said in disgust. He turned to Adam Borcross. "Mr. Borcross, you have stated that Mr. Gregg's change-over was made so he could better conceal his identity for a short while. The intention was

not to effect a permanent change, right?"

"Ah, that is so. At the time, he was very insistent . . ."

"Yes, quite. And Mrs. Gregg, if she underwent treatment, could be fully restored to her proper female form?"

"I object, my lord," Gracey deprecated. "There is no desire by either party to resume a sex to which they have never been suited."

"Popycock," old Jarvis fluted. "The unnatural treatment by hormones has upset their mental activities. Restored to their God-given shapes they would be what they properly are, Mr. and Mrs. Gregg."

"They are Mr. and Mrs. Heldsworth," Gracey's voice rose, "and that fact is indisputable!"

"Gentlemen, gentlemen, control yourselves," Judge Forsett said. His tone did not carry its customary ring of authority, though. He passed a hand across his eyes. He was still struggling to imagine Mrs. Heldsworth as the father of Gayel Olover's child.

Gracey turned to him. "My lord, this is fundamentally a divorce case. When all is said and done, the real issue is that one jealously possessive, but frigid female is causing her husband great mental anguish and suffering."

"My client is neither jealous nor possessive," Carver protested. "She is sweet, and kind, and gentle. She just will not be bullied, my lord. After all, she is approaching that

time of life when a woman needs to be shown a little thought . . ."

"Along with mental cruelty there is physical cruelty, my lord. As Mrs. Heldsworth is a mistress of karate, judo, and many other rough forms of aggressive expression, my lord, she is, in fact, very difficult to live with," Gracey said.

"Mrs. Heldsworth knows how to defend herself," Carver replied. "Is this bad? Every woman should have such knowledge. I can truly say that Mrs. Heldsworth would not employ her defensive skill unless she was extremely provoked."

"Mr. Heldsworth has behaved in an exemplary manner at all times," Gracey answered. "It is he who has been provoked. Conciliatory at all times, he has been repudiated as a husband. His wife is incapable of running the household, and makes no provision for his welfare and comfort. Much of the time his wife is not even at home."

"Mrs. Heldsworth is a very busy woman," Carver said. "She is doing important work for the government, and we feel that at this time, when she is under great strain, that it is extremely unfair that she should be asked to bear the additional burden of a divorce action."

"She cannot get a divorce as Mr. Heldsworth," old Jarvis said stubbornly. "They were married as Mr. and Mrs. Gregg, and it is as Mr. and Mrs. Gregg that they must seek a divorce. Anything else would be misrepresentation."

"There must be some question as to whether they are legally married at all. For convenience I can accept that the couple *are* married," Gracey said generously, "for they are still the same two people. A legal decision here will settle the matter, and also decide who is to have custody of the children."

"Children need the care and protection that only a woman can give," Carver said. "Mrs. Heldsworth's main reason for wishing to save her marriage is to save her children from the fate of a broken home."

"Here, my lord, I would like to say that, owing to Mrs. Heldsworth's misconduct, the custody of the children should go to Mr. Heldsworth," Gracey observed. "They are his children, after all, and he feels that he is best fitted to give them the love and care which they need."

"Misconduct has not been proved!" Carver disclaimed. "The affair suggested between Miss Olover and my client can in no way be decisively proved."

"I was not referring to Miss Olover," Gracey said smugly. "I . . ."

Dimattio spoke up. "Circumstantial evidence should be sufficient, my lord. I can produce evidence that will reveal that Mr. Gregg deceived my client in the most painful way that a man can deceive a woman."

"An impossibility, my lord," Carver deposed. "Mrs. Heldsworth at that time . . ."

Judge Forsett was holding his

head in his hands. "Tell me, Mr. . . . ah, Dimattio, what . . . what does your client hope to gain from this action? She cannot be hoping to marry Mrs. Heldsworth, can she?"

"My lord, my client is a young lady of rare princip'e. Her desire is to expose Mr. Gregg for what he is, a liar and a cheat and a seducer."

Carver's eyes popped. "That's vindictive slander, my lord!"

"My client feels," Dimattio continued, "that it would be a grave disservice not to warn other young women against the cruel selfishness of this man, and to reveal him as a shallow libertine."

"Vicious, my lord," Carver hissed. "Vindictive. This is nothing but spite, my lord."

"A degree of justifiable vengeance is admitted, my lord," Dimattio said calmly. "My client has been treated heartlessly and cannot be expected to be overly charitable, especially when Mr. Gregg 'temporarily' became a woman, and then refused to resume his male capacity."

"Feminine spite," Carver said, "nothing but feminine spite."

Gracey moved in. "The character of Mrs. Heldsworth is not of the best, my lord. Enough has been said to clearly support a request for a formal decree. It is only right that Mr. Heldsworth should be free to seek a . . . a better home life for himself and for his children."

"At the Brastmanston County seat in Cholmesdowne, I suppose?"

old Jarvis said acidly. "If that is Mrs. Gregg's hope then she is wasting her time. The viscountcy is a birthright, a *birthright*, Mr. Gracey."

"Gentlemen, don't start that again, please," Judge Forsett pleaded. "It . . . it . . ." his eye caught the courtroom clock, "It's four o'clock." He banged his gavel several times. "Case is adjourned," he said. "Case is adjourned till tomorrow morning, ten o'clock."

The judge stood up abruptly, clutched his few notes and, with almost indecent haste, brought the session to a close.

The judge's hands beat the mattress. The courtroom had been bad enough, but the limitations of his brain box had been worse.

A thought ricocheted from inside his skull to travel endlessly as another pinged in a different direction, followed by another, followed by another, followed by another.

Peeyow. Heldsworth versus Heldsworth. Were they legally married? If not, when not? No previous legal definition. Marriage had not been formally dissolved. Custody of the children, zing, whose children were they? Were they Gregg's or Heldsworth's? If Heldsworth's, how would that affect the viscountcy even if their father failed to gain the inheritance personally? Their father? Tee-yong. How male was the maternal father? How female was the paternal mother? Was there really no real difference be-

tween the sexes? Wasn't that taking equality a bit too far?

Kapow. How to reconcile the child of a willful young socialite female, with Mrs. Heldsworth? Was the child a Heldsworth or a Gregg? If the child was a Gregg, then the misconduct was misconduct by Mr. Gregg. Which brought the action back to Gregg versus Gregg. Spang. This would ensure that the Gregg-Olover child would have no possible claim to the Brastmanston estate. But the Gregg-Heldsworth children would be robbed also. Was a female Heldsworth genetically less relevant than a male? Biologically no. But then what happens to the established custom of male succession?

Ting-aaah. If the sexes could be changed with such ease, an early stand had to be taken to curb irresponsible changeovers. This was an early stand.

The judge shivered.

Zow. What constituted an irresponsible changeover? To allow the case to pass as Heldsworth versus Heldsworth would be to open the floodgates to matrimonial chaos. Yet forms of hormone treatment were already being widely employed. Where did medical advisability end and personal desire begin?

Kerzooee. Freedom of choice. Improved technique. Bound to come. Pressure and force. Altered at birth. Before birth. Succession. More men. Women are envious,



aren't they? Men to women profitable. System shot. Gregg versus Heldsworth untenable. Man to man marriage was illegal, not recognized, unacceptable, could not legitimately exist. Woman to woman likewise. But how many couples

exchange medical reports? And how could borderline cases be defined? What is the positive identification of male if not the apparent physical characteristics? What use physical characteristics in law when these could be so readily altered?

Tszing. Mr. Heldsworth had obviously been *Mrs. Gregg*. She had had three children. And *Mr. Gregg* had been the father. Their sex-change had not been legally registered, the couple had not re-married under the Heldsworth name. Therefore, they were still legally Mr. and Mrs. Gregg. Or Mrs. and Mr. Gregg. Or Mr. Heldsworth and Miss Gregg. Which would make their children illegitimate.

I'm too old, the judge thought wretchedly.

Spreeow. But they could be proven Mr. and Mrs. Gregg when they first married. Couldn't they? The children, then, were Gregg's. But their mother was now Mr. Heldsworth. Mr. Heldsworth could possibly claim the viscounty. But her children, as Gregg's, could not.

Zippeeeee. Mr. Gregg became female for occupational reasons.

The marriage became null and void right then. But whose, then, were the children? Were they Mrs. Gregg's or Mrs. Heldsworth's?

Pingpow. The judge licked his lips and gasped for air. Great areas of civil law were threatened. "I leave everything to my nephew, Archibald Nunally Gregg" for instance. Just try to prove that Mrs. Archibald Nunally Heldsworth was the nephew in question.

It was so easy to imagine hypothetical cases. Supposing a man put his business in his wife's name and then she became her husband? Or suppose a wife deserted her husband and married Miss Violet Green?

Sweat rolled off the judge, and he tore open his pajama jacket. He whimpered.

Teeyooo. The Gregg marriage had obviously broken down. Or was it the Heldsworth marriage? The Heldsworths had only been married for a year, if they had been married at all. This was too short a period to qualify for divorce petitioning. Gregg versus Gregg then. Back to the start again. Spooeee. Who gets the children? Mother?

Who is mother? Mr. Heldsworth? And what if Gracey or Carver asks for alimony?

I should have retired.

Dangsping. Put the kids in the care of the Chancery Division. But the problem must be solved. The effect on crime, for example. Three weeks and murdered woman still unidentified. Of course not, if she was a man . . . This kind of thing: ". . . his previous record, my lord. As Fanny Wills, three months for shoplifting. As Frank Wilson, six months for burglary. As Fanny Wilcox, three months for soliciting. As Frank Wilmore, two years for housebreaking, and as Fanny Willing, twelve months for her part in a mugging racket." "And what is his real name?" "Gertrude Fusbaum, my lord."

Buboyoying. The judge writhed and moaned. What was that controversy a few years ago about masculine female athletes?

Gah! Mrs. Gregg does not want to change back. Mr. Gregg does not want a divorce. Why? The children are important. Poor, poor children. "You smell nice, Mummy." "It's after-shave lotion, honey."

"Where's Daddy gone, Mummy?"
"She's gone to the beauty parlor, honey, for a rinse and set."

Aaaaaah! The judge began to twitch all over.

Tackoweee. Give Mr. Heldsworth a divorce and let Mr. Gregg stay married. Turn Miss Olover into a man and let her marry Mrs. Heldsworth. Judo, karate, Yoga. Mr. Gregg is a Catholic? Mental cruelty now allowable. Deprivation not allowable. Physical cruelty, yes. But Mrs. Heldsworth beats up Mr. Heldsworth? To Olover and Mrs. Heldsworth, and Heldsworth versus Gregg, and the Viscount Brastmanston, and the children, ("Why do you pluck your eyebrows, Daddy?"), and hormones, and males are partly females, and rat embryos, and co-ed prisons, and Mr. Olover versus Miss Gregg, and rat embryos, (again?), and Arabs, and doctors, and harems, and new millions of self-made girls dodging the draft, and who can tell? and "Aren't your arms hairy, Mummy?" and divorce actions, and Mrs. Gregg and adultery, or Miss Heldsworth and infidelity, or Mr. Gregg and Mr. Olover, and kazzing, speewee, spingeeooo, zooo-woo, sprow, zoyoying, doowowee, stangoeee, pingzing, deesroowan-garooooee, KAPOW!

"What?! What?! What?!"

"Sir! Sir! Are you all right, sir?"

"What?" The judge looked at Sorff. "What?"

"Sir, please, sir! Take it easy, sir. Please take it easy!"

The judge became aware that he was on his feet. He also became aware that Sorff was gripping his arms with painful tenacity. "Uh? What is it, Sorff? Why have you put the light on?"

"Oh, sir, you were screaming, sir," the worried Sorff said. "How do you feel now, sir? Please say you feel all right, sir."

"Screaming? Me? Surely not, Sorff!"

"Sir, you've been under a strain. Why not take the pills Dr. Matthews left, sir? I'll call Dr. Matthews right away."

The judge shook his arms to free himself of Sorff's clutch. "Let go of me, Sorff," he said, with a touch of his old asperity. "I'm perfectly all right."

Sorff was reluctant to relinquish his hold. "Are you sure, sir?" There was unbelief in his voice. "Won't you sit down, sir? I'll get you a brandy and soda. I'll . . ."

"Let go, Sorff," the judge said impatiently. "I'm all right. I'm quite all right. I'm not going to fall over, man."

"Are you sure, sir? I mean . . ."

"Sorff, I'm all right I tell you." He jerked himself free and he pulled his pajama coat together. He squinted at his man. "Are you sure you are feeling well yourself, Sorff?"

"What, sir? Me, sir? I . . . I feel fine, sir."

"Hm-m-m. You don't look it," the judge said skeptically. "Running around at night without a dressing gown, switching lights on, hanging on to people."

"But . . . but you were screaming, sir! And when I came in . . ."

"Screaming? Me? Nonsense!" The judge walked to the bureau to collect his teeth and thereby improve his articulation. He turned back to Sorff. "You must have been dreaming yourself, Sorff. I may have cried out in my sleep," he admitted, "but then a lot of people do."

"But, sir . . ."

"Exaggeration, Sorff. Nighttime. Often happens."

"But after what happened this afternoon, sir . . ."

"What? This afternoon? Oh, you mean when I was fooling with the gun? Surely you didn't take that seriously, Sorff?"

"I . . . Well, sir," Sorff was nonplussed. "I thought . . ."

"Come now, Sorff, do you really think that I'm the type to shoot myself? Of course not. I was, ah, just privately reconstructing the . . . the Fuller Case. Ha." The judge was pleased with this. "Yes, the Fuller Case."

He took Sorff by the arm and began to walk him to the door. "Your trouble is that you're over-imaginative, Sorff. Now go to bed, there's a good fellow, and try to get some sleep. We have a busy day ahead of us tomorrow."

"I . . . I . . ."

Sorff protested. "You'll be all right now," the judge said pleasantly. "Good night, Sorff."

And Sorff found himself gazing blankly at a closed bedroom door.

The accidental self-induced abreaction had cleared Judge Forsett's mind. He popped his dentures back into their glass, and he smiled as he climbed back into bed and recomposed himself to slumber. He had the answer, and the answer was simple.

Judge Forsett surveyed the four advocates who formed a half-circle before him.

"Mr. Borcoss is absent, I see. Has he sent a message?"

"No, my lord," old Jarvis said.

"Hm-m-m. Well I feel disinclined to hold up the proceedings. He'll have to catch up when he gets here."

Judge Forsett looked them over. "Gentlemen, I have reached a decision." *What younger man, he thought, would have had the knowledge, the experience, the intuitive feel for equity? What other man would have so quickly grasped the essentials? That's why I was chosen for the job. I must have been mad to even have thought of retiring.*

"Gentlemen, this peculiar case has many distressing features. The case, in fact, is unprecedented, and is a good example of what can happen when people take the law into their own hands, and carelessly fail

to study beforehand the moral, ethical and material implications of a novel scientific venture.”

The judge took a sip of water. He was in no hurry. The lawyers waited respectfully.

“These sex-changes were carried out without legal authority. If the judiciary was consulted at all, it was only in the most superficial manner, and the formality of the agreement of the parties directly concerned is not sufficient to legally warrant the act. Before any such thing as drastic as a deliberate sex-change can be authorized, *all* parties likely to be concerned, no matter how indirectly, must be made aware, be made fully cognizant of the proposed, ah, change, and be allowed to dispute, and to arrange protective legal modifications.”

Dimattio raised a finger. “Uh, my lord, how much, uh, indirectly do you mean by indirectly?”

“Huh?” The judge’s expression held disapproval of the interruption. “By indirectly I mean indirectly. Anyway indirectly. Vision. There must be vision. We cannot have people changing sex on a whim. What if a great many women change into men? What will happen to those industries that cater to women, hey? Lipsticks and . . . and high heels, and such. Have you thought of that, hey? Ha. Same with men. Razor blades. Indirectly. Can’t have it. The law is to protect the community as a whole, and the individual in particular . . .”

The judge held up his hand to forestall protest. “A person has a right to change sex, but not for ulterior motives, and not without first giving public notice of intention, and certainly not without first satisfactorily attending to all details that will make such a transition legally acceptable. It is clear that such changes are, at the same time, both a private and a public matter.”

“But in this case, my lord,” Gracey said, “we . . .”

Judge Forsett silenced him with a gesture. “I haven’t finished.”

For a moment Gracey hung, then he closed his mouth and subsided.

“Ahumph.” The judge sniffed. “In this case, clearly, little forethought was applied. What forethought *was* applied was at best of a doubtful nature. Small consideration was given to the children of the marriage, and their confusion could be very damaging, their young minds gravely disturbed by the breakup of their home, and additionally so by the condition of their parents at this breakup. Their sense of security will be shattered.”

The judge shook his head. “This fact alone points up the necessity for a strict control to be placed upon this artificially created phenomenon.

“The parents in their gross self-interest have devised a solution that is in no wise satisfactory, and

this facet alone is enough to reveal the criminally short-sighted attitude of those involved in the undertaking."

The judge settled himself more comfortably in his seat. He felt on top of the job. With a faint air of challenge, he said, "This is a preliminary closed hearing. I have heard enough evidence to conclude beyond doubt that the two principals in the case have, by their actions, been extremely neglectful of their familial responsibilities, and have shown great disregard for their duty to the community and to society as a whole.

"In my report to the Judicial Council I will strongly urge that this form of medical manipulation come under immediate notice for investigation, with a view that necessary legislation may be promptly instigated. And I will strongly recommend that Mr. and Mrs. Heldsworth, be converted back to Mr. and Mrs. Gregg with the greatest possible facility."

Old Jarvis cracked a smile and Dimattio looked pleased. Carver stood stricken, and Gracey was the first to get his breath back. "But . . . but, my lord, you can't do that. You can't change them now!"

Judge Forsett frowned. "And why not, Mr. Gracey?" He raised his eyebrows. "I am under the impression that changing from one sex to another presents only technical difficulty. That is right, isn't it?"

"Er, yes, my lord," Gracey owned, "but . . ."

"Well, then, what's the problem?"

"It's . . . er . . . Mr. Gregg, my lord."

"Mr. Gregg? What about Mr. Gregg?"

"We cannot change him back, my lord."

Teeshooo. "Can't change him back? Why can't you change him back? I was given most clearly to understand . . ."

"Er, yes, my lord, but you see," Mr. Gracey was uncommonly diffident, "there's the adultery charge, my lord. The grounds of the adultery by Mrs. Heldsworth."

"With the Olover woman? So? We've had all that."

"No, my lord," Gracey said quickly. "What I am endeavoring to draw to your lordship's attention is the fact that, during the course of his employment, Mr. Gregg found it necessary to get more than a little familiar with a certain influentially-placed Russian gentleman, my lord."

"Good heavens! You don't mean that . . . ?"

"Exactly, my lord."

Tazingoowow.

"I object, my lord," Carver said indignantly. "The allegation is totally without foundation. Mrs. Heldsworth's, ah, delicate condition is, without a doubt, due entirely to Mr. Heldsworth . . ."

"The important point is that his

condition is delicate," the judge said doggedly. "This is indisputably so?"

"Yes, my lord."

"He . . . can not be . . . changed . . . back . . . then?"

"Not just yet, my lord."

Judge Forsett suddenly felt like bursting into tears. He gripped his gavel and rested his forehead upon his free palm.

A Gregg, a Heldsworth, or a Tovarich? What nationality would it be? Would it be a boy or a girl? Would a child ever be a boy or a girl again? Would the child be registered as Heldsworth? But Mr. and Mrs. Heldsworth were not officially married. And Mr. Gregg could not be registered as the child's mother. Nor as the child's father.

What about Russian inheritance? Did Russians have inheritance? Would the Russian want to take his child back to Russia? No, no, no. As an unmarried mother, Miss Gregg was allowed to keep her child.

Now let's get this straight. The Gregg marriage was automatically nullified as soon as Mr. Gregg became Miss Gregg. Any court of law would have invalidated such a union. At this stage Mrs. Gregg would undoubtedly have won custody of the children. But Mr. Gregg, in his perversity, refused to change back and, rather than have her children maternally over-sup-

plied, Mrs. Gregg had herself changed into a man. Her motives might be suspect, but it was Mr. Gregg who . . .

"My lord," Carver said, seeking the judge's attention.

Judge Forsett raised his head only long enough to say, "Shut up. I'm thinking." And down went his head again.

With Mrs. Gregg as Mrs. Gregg, she could win a divorce with comparative ease. But as a woman, could she provide for her children? Could she claim maintenance, or alimony, from Miss Gregg? Miss Gregg, who was herself about to become a mother? And what about Miss Olover's entitlement? Could Mrs. Gregg better provide for her children if she was Mr. Heldsworth?

Just how strong would her claim to the Brastmanston estate be? Weak. No. He should revert to being Mrs. Gregg. For the sake of her children. Overlook her change. Make the case more straightforward.

Mr. Gregg? The judge clenched his teeth. As the initiator of the whole sequence, Mr. Gregg was primarily answerable for fathering the complete mess. Fathering? Judge Forsett snorted. Definitely and positively the legal position would have to be elaborated and clarified and entered into the statutes.

Judge Forsett lifted his head. "Ah."

Darkly he gazed at the quartet.

"Well, Mr. Gracey, it is going to be my strong recommendation that Mr. Heldsworth be changed back to Mrs. Gregg at the earliest possible time." He fixed Gracey with a forbidding eye. "There is no paternity carelessness on your client's side, I trust?"

"Oh, no, my lord, but . . ."

"Good," Judge Forsett cut him short. "Changed back to Mrs. Gregg she may readily obtain a divorce from the female Mr. Gregg and retain custody of the children. Thereafter, if she wishes to become a man, she may apply through legal channels, which by then I should imagine will contain specific qualifications upon the subject."

"But, my lord, my client is in love . . ."

"You have assured me that your client's relationship, if any, is an honorable one."

"Yes, my lord, but . . ."

"Then make sure that it stays that way. To the moment we have been dealing with matters as yet not adequately covered by the law, but now, if your client deliberately attempts to become a male parent, she, or rather he, can be charged with a misdemeanor. This case is confused enough already."

There was sound of altercation outside the courtroom door, which was presently opened by a guard to admit Adam Borcoss.

Borcoss strode forward to confront the judge.

"I'm sorry to be late, my lord," the Borcoss bass was subdued, "but certain events have taken place relevant to this case and I was unavoidably delayed."

"Hm-m-m." Judge Forsett viewed him with wary calculation. "What is it this time?" he asked, inwardly bracing himself.

"It's, ah, Mr. Gregg, my lord. He . . . ah . . . In the course of his duties he made an error, my lord."

"Another one?"

"A serious one," Borcoss said gravely. "Last night he, ah," Borcoss sighed, "he was shot, my lord."

"Shot?"

"Mortally, my lord."

Judge Forsett sat back. "Oh." Carver was stunned. "My client? My client dead?"

"Ah," Judge Forsett said.

"An occupational hazard, my lord," Borcoss said fatalistically. "In an affair of some delicacy . . ." He shrugged.

Judge Forsett nodded. "I understand." He pondered, then frowned. "I must admit that my opinion of Mr. Gregg has not been high, but that he has forfeited his life presumably in the service of his country . . . I take it that his identity was discovered and he was summarily disposed of by the other side?"

Borcoss coughed. "Ah, not exactly, my lord. The, ah, Russian personage involved has a wife, a very jealous woman apparently,

and she, ah, appeared on the scene rather unexpectedly, my lord.”

“Oh.”

“It was what the French call a ‘crime passionel,’ my lord,” Borcoss further explained, “not a factor normally given great consideration by Mr. Gregg’s, ah, fraternity.”

“No.” Judge Forsett discarded a mitigating sadness he had begun to feel for a brave person who had given his/her life in the line of duty.

“Well, then.” The judge paused for a moment. “This reveals that Mr. Gregg, despite his chosen profession, was still a person and could not, with impunity, flout the standards and mores of society. Naturally I am sorry that he has been killed, but it must be admitted that his conduct has been such as to rob the occurrence of much of its surprise value.”

“My lord, how will this affect my client now?” Gracey asked.

“Hm-m-m? Well, your client will become a widow just as soon as she resumes her female condition. Obviously she cannot be the widower of Mr. Gregg and, from the way Mr. Borcoss speaks, I am sure that in government circles he is still referred to as Mr. Gregg. Am I correct?”

“Yes, my lord,” Borcoss said.

“With the scant forethought that the Greggs have shown, I can suppose that they may have been equally careless in correcting their

insurance commitments, and other compensation and testatory arrangements. What do you think, Mr. Gracey?”

Mr. Gracey was thinking fast. “I cannot say, my lord. This is a contingency . . .”

“Mrs. Heldsworth made out a new will only two months ago,” Carver announced baldly. “It was made in favor of Miss Gayel Olover.”

“What?” Gracey and Judge Forsett cried together. Gracey shook his head and supplicated heaven. The judge clapped his hands to his temples and sank moaning onto his bench.

“No, no, no. No, no, no, no, no, no, no, no. I’m too old.” The judge rested blankly for a full two minutes.

At last the judge’s hands fell, and very tiredly he raised his eyes. “Not content with being troublesome in life, Mr. Gregg has to be equally troublesome in death. The legality of his will, made in the name of Mrs. Heldsworth, is questionable. The Heldsworth marriage is not the Gregg marriage. To make any claim at all, Mrs. Gregg will have to be Mrs. Gregg. The soundness of the testator’s mind might well be taken into consideration.”

The judge scratched an eyebrow. “Miss, ah, Olover, perhaps, may be privately compensated, Mr. . . . ah . . .”

“Dimattio, my lord. Some suit-

able arrangement could possibly be made, my lord."

"And, ah, Mr. Borcross, the funeral arrangements . . . I don't suppose . . . that is, will Mr. Gregg be interred as Mr. Gregg?"

Borcoss pursed his lips. "I dare say that such accommodation could be devised, my lord. There are factors, ah . . ."

The judge switched his focus to the younger trio. "Mr. Carver, I suggest that you and Mr. . . . ah . . . Dimattio, and Mr. Gracey, all get together and thrash the will business out between you. Remember your client's wishes, Mr. Carver, but remember that with Mr. Gregg buried as Mr. Gregg, the will of Mrs. Heldsworth will become meaningless. The onus will be upon you to provide a degree of equity between Mr. Gracey and Mr. Dimattio."

"But, my lord, that cannot be acceptable," Carver protested. "My client's wishes . . ."

"Your client's wishes threaten to demolish our whole legal system," Judge Forsett said, with a return to his old acidity, "and, under the circumstances, I feel we are justified in considering his wishes just about as much as he considered ours."

"My lord," Borcross said, "there is a matter that perhaps has escaped your lordship's notice? I, ah, am referring, of course, to the killing of, ah, Mr. Gregg." Apologetically he elucidated. "A Mrs. Inara Roskalnya is, at this moment, being

held on a charge of murdering Mrs. Heldsworth."

The judge licked his lips. He stared at Borcross. "The affair cannot be hushed up, eh? No, no, of course not. It would be in the Press already, wouldn't it? Yes. Yes, it would. A civil matter."

"It would be extremely difficult at this late stage, my lord."

"Yes. So Mr. Gregg is officially on the record as a woman, hey? Yes, he would be. The morgue, post-mortem, how else?"

The hunted light in the judge's eye turned to one of cunning. "But he's not really Mrs. Heldsworth, not legally. At best he is Miss Gregg. In the family way. Mistress of a Russian diplomat. Leave Heldsworth out of it. Get Mrs. Gregg back to Mrs. Gregg. Husband missing in action, believed killed. How's that?"

"But what about my client, Miss Olover?" Dimattio objected.

"Her innamorato dies on active service. Leaves her a token of his regard through Mr. Carver. What more can she want? What more can she hope to get?"

"My lord," Carver said unhappily, "my client expressly desired . . ."

"I don't give a damn what your client expressly desired. He was in no position to expressly desire anything. Seeking no truly authoritative sanction, he still is, in the legal sense, Mr. Gregg." He had another thought, puppow. "There will be no need to call upon Mrs. Gregg as a

witness in the, ah, the trial of Mr., ah, Miss Gregg's killer, will there?"

"I don't think so, my lord," Borcross said.

"He can be the mysterious Miss Gregg, can't she? There is no need to confuse the issue with extraneous facts, is there?"

"It could perhaps be dealt with in that way, my lord," Borcross assented. "That side may not need to be touched upon at all."

"Good, good, good. A death certificate then for Mr. Gregg, and an amicable arrangement over his will. I'm sure that the parties concerned have no relish for publicity, eh, Mr. Gracey? No. . . Good. All that remains then is for Mrs. Gregg to again physically represent a wife and a mother. Mr. Borcross, you will assist Mr. Gracey in this matter?"

"If you wish, my lord."

"I do wish," Judge Forsett said fervently, and he took out a handkerchief to dab the sweat from his brow.

The judge scanned their faces. "That is all then, gentlemen. There are no other points that you would like to raise?" He paused a fearful moment, his eyes flickering from one to another of them. "Good," he said.

Thankfully he banged his bench with the gavel. "This case is conditionally closed, then." He stood, and swayed a little. "I shall submit my report to the Full Council, and there is no doubt that they will take steps to ensure that the likes of this case

will never occur again. Good day, gentlemen."

Judge Forsett gathered his gown about him and stepped down from his bench to make an exit where only slight wobblings gave the lie to his hardly preserved composure.

"Well, John, I must say you're looking remarkably well. How was the fishing?"

"Quite good, quite good," Judge John Baldwin Forsett replied. "Caught a fourteen pounder and a twelve, and a few smaller."

"Did you now? Sounds like the wrist has not lost its cunning, eh? Water or soda?"

"Ah, water, please. Just a little."

The Lord Chief Justice handed Judge Forsett his glass. "I must say, John, how pleased we all were with your report. Very pertinent and concise. On the basis of your observations, we have been able to outline broad protective measures, and the Bill is expected to pass through Parliament with very little trouble."

Judge Forsett sipped. "Ah," he said.

"We're getting more and more of this kind of thing lately," the Lord Chief Justice continued. "The law is lagging behind, has been slow to get off the mark." He rolled his glass in his hands. "The Gregg Case was an experiment. It was an attempt to speed up the anticipation of the law. And thanks to you, John, it worked out very well."

"Oh," Judge Forsett said.

"You have a good brain, John. You have experience, grasp, and common sense. You are capable of assessing in an hour or two what could take tedious days, weeks, or even months, through the normal processes of litigation."

"Yes, I see, but . . ."

"We are thinking of creating a Special Cases Adjudicator, John," the Lord Chief Justice went on blandly, "someone with the insight and the know-how to handle the increasing traffic in cases arising from unprecedented scientific development."

"But . . ."

"John, you're an obvious choice."

It would seem incongruous for a fifty-nine-year-old to be fatherly in his manner toward a seventy-seven-year-old, but the Lord Chief Justice managed it very well. "Now, you have intimated a wish to retire. This I can't bring myself to believe. Surely not, John? The law is your

life. You are fit and healthy, and the law *needs* you."

"I am too old," Judge Forsett said, but weakening.

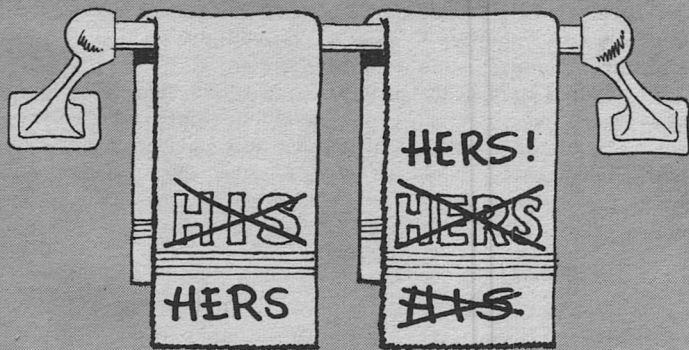
"Nonsense!" the Lord Chief Justice said. "You're letting yourself be a victim to the old idea of automatic redundancy. With you an age limit does not apply."

"I am not sure," Judge Forsett demurred. "I am slower . . ."

"John you must be joking," the Lord Chief Justice said, refusing to take him seriously. "You have perception and knowledge. Surely you're not going to let these talents go to waste? You're not going to pretend that you'd prefer to rusticate in some backwoods retreat, are you?"

"Well, no, I . . ."

"Of course, not. Face it, John, you're not the type. You enjoy your work too much, and this Special Cases Adjudicator is a position just made for you."



"Well, if you really think I . . ."

"The best man. The only man. Here, let me top up your glass." *Clink, gug.* "The post is yours, John. You'll get a forty percent hike in salary, and that should let you afford a decent housekeeper, eh? Is that enough water?"

"Oh, yes. Plenty."

"Good. Now there's an odd case we'd like you to handle, probate. Right up your street. Set down for next Wednesday. Involves the use of a new drug called 'Senicil' . . ."

"I notice that my pistol is no longer in the drawer, Sorff."

Sorff helped Judge Forsett on with his robe. "Ah, no, sir. I've, ah, put it away for safe keeping, sir. I thought if we ever had burglars . . ."

"Hm-m-m." The judge turned to look at him. "Yes, I see." He nodded. "Very wise, Sorff."

The judge pulled back his thin shoulders. "However, I am resigning from the pistol club. Hand's not as steady as it was. You, ah . . . You may wrap the weapon and present it to the club, Sorff. On my behalf. Get Miss Anderson to type up a suitable letter. Ah, we don't want useless armaments cluttering up our working space, do we?"

"Very true, sir, very true," Sorff said gladly.

"Yes." The judge frowned. "Ha." He pulled his gown closer to him. "Senicil, eh?" he muttered. "Right, then," and he walked firmly to the door, "I'd better go and find out what it's all about . . ." ■

IN TIMES TO COME

Our next issue—January—will *not* have a cover by any of our artists—this time it's "Cover By Centaur." It's a color shot of the most spectacular blowup in space-research history—a fireball that looks like an atomic explosion getting started.

The feature story in that issue is entitled "The Bugs That Live at -423° ," and it's no story. It's an 11,000 word article on the engineering bugs that had to be licked before liquid hydrogen—it blows up superbly—could be used to push the magnificently successful Surveyors and Orbiters to the Moon. The most dangerous, ornery, vicious challenge space science has ever tackled! *And licked!*

THE EDITOR

BEAK BY BEAK

PIERS ANTHONY

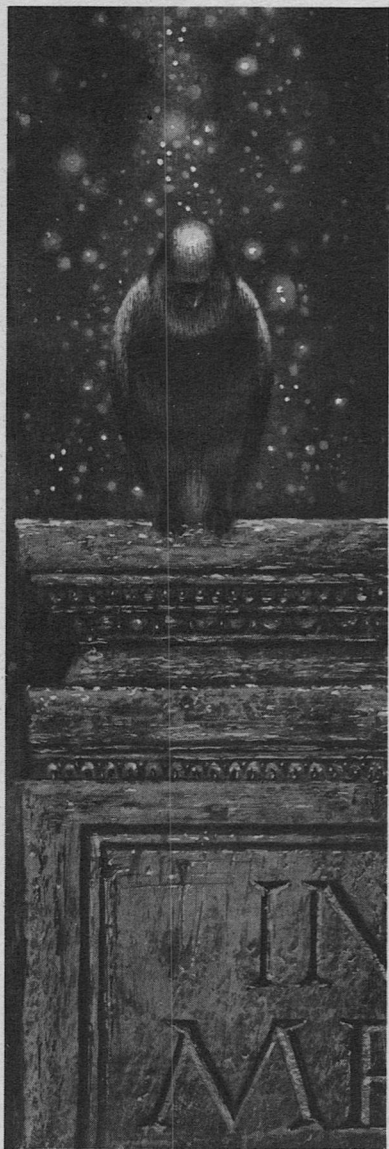
Illustrated by Kelly Freas

There's always the possibility, when you send a lone scout down to investigate a world, that he may meet and fall for a native girl and forget his important mission. . .

The red bird was perched fetchingly on the mailbox as Humbert ambled out in slippers and tousled iron hair to pick up the morning newspaper. A gust of wind blew the front door open behind him, and a squawk came from inside.

The red visitor perked up. It fluttered across the lawn to cling precariously to the front hedge.

Humbert stopped, the banded paper in one hand. "Lost, little fellow?" he inquired. "Why . . . you're no cardinal. You're a parra-keet!"



He peered at it more closely. "A beautiful, blood-red, male parrakeet. I never saw your like before."

There was another angry chirp inside. "My pets don't like the draft," Humbert explained. "I'll have to shut this door."

The red bird hopped to the doorstep and up to the closed screen, fluttering against it and falling back.

"You *are* a tame bird!" he said. He squatted down and held out his hand, but the bird skittered nervously away. He laughed. "Not *that* tame, I see!"

As he opened the screen the bird hopped forward again. "You want to come in? Where's your home?" But he held the door open and allowed it to fly into the living room.

His wife bustled in from the kitchen holding a jar of instant coffee. "Humbert, did you forget the door again? You know Blue doesn't . . ." She froze. "Humbert—there's a bird in here!"

"Several, Meta," he said, gently closing the door.

"I mean a wild bird. Look at that color!"

The red parrakeet flew up to the tall decorative lamp and perched on the shade, looking at her.

"He seemed to want to come in," Humbert said. "He's a remarkable specimen, and half tame."

Her attitude changed immediately. "What a beautiful bird! I've never seen a parrakeet that color."

The bird spied the large cage and flew over to it. The three parrakeets

inside spooked, plastering themselves against the sides in mad retreat.

Humbert approached and put his hand to the stranger again. "Let me have a look at you, Red. I can't put you in with our family without good references. You might have the mites." But it jumped away from him.

"Check the newspaper," Meta said. "Maybe there's an ad for a lost pet. Such a distinctive bird must be valuable." She disappeared into the bedroom with her coffee.

Humbert eased himself into the easy chair. He had made it a point, since his heart attack, to move slowly and remain unexcited. He spread the paper.

The black headline leaped at him. **ALIEN SPACESHIP ORBITS EARTH.**

"Meta!" he called.

"Dear, I have to hurry down to the office," her muffled protestation came back. She was active in numerous volunteer capacities as well as holding a part-time clerical position. She preferred to keep herself occupied, now that their children were married and on their own, even though money was no problem.

Humbert shrugged and did not push the matter. Probably the headline would only upset her. He read through the article, finding the information too scant. The newspaper really knew little more than the fact: a strange ship had appeared a thousand miles above Earth, and

now hung in an oblique orbit. There were statistics: how many minutes it took to circle the earth, at what times it would pass over which cities, and so on, but nothing essential. There had been no communications, no threats. Just—observation?

Meta bustled through. She always bustled, never walked. "Is there any notice?"

He'd forgotten the bird! "I haven't seen it," he said.

She was already through the door, and soon he heard the car start up. She would be gone for several hours. He glanced at the red parrakeet, who was on top of the cage again, searching for some way to enter.

"Oh, all right, Red," he said, smiling. "I'll introduce you." He opened the cage door and reached in to catch a bird. There was the usual panicked flutter; for the birds, tame as they were, did not really like to be handled.

He snared one and brought it out. "Take it easy, Yellow," he said. Yellow was the youngest and most energetic of their family: a spectacular yellow harlequin with a green underside. He set the bird on top of the cage. "Yellow, this is our visitor from Outside. Red, this is Yellow."

Yellow shook out his feathers, stretched one wing, and sneezed. Having suitably expressed his indignation at being handled, he eyed the other bird warily. It was always this way; parrakeets took time to become acquainted.

Humbert reached in for Blue. She was a timid, retiring bird given to nervous starts and loose droppings, but of very pretty hue. In the right light, a green overcast could be seen above the deep blue breast, as though the yellow of her head had diluted the blue. She bit his finger, not hard, and did not struggle as his hand closed over her wings. Sometimes the birds would perch on his finger, but he hadn't really tried to train them. He set Blue down beside Yellow, but she took flight immediately, afraid of the stranger, and came to rest on top of the front curtains. She settled down to preen her wingfeathers.

"Well, that was Blue," he said apologetically.

He did not try to catch Green, but shooed her out with a wave of his hand. Green was the eldest of the brood and had had more than one owner before. She was a conventional green-bodied, dark-winged female with a neat yellow bib sporting four to six black dots—they kept changing—and she bit viciously when handled. She would come quickly to eat some treat from the hand, however.

"And that's Green," Humbert said as she flew to displace Blue from the curtain. "You'll get to know them all in due course." Green was contentedly chewing the edge of the curtain.

Yellow, seldom cowed very long by anything, was already making the first overture. He strode over

to Red and pecked at him. Red sidled away.

"That's the way it is, Red," Humbert said as he reached into the cage to remove the fouled newspaper on its floor. "Very important to establish the pecking order—not that much attention is paid to it here." Yellow was chasing the disgruntled visitor more boldly now. "Just give him a sharp rap on the beak," he advised Red. "You have to assert yourself sometime."

He put in new paper and filled the treat-cups with oats, installing a fourth cup for the newcomer. He stepped back. "Soup's on!"

Green, always alert, arrowed across the room, the beat of her wings washing a breeze past his face. She hopped into the cage and mounted to the row of cups. Seed scattered noisily upon the fresh newspaper as she scraped energetically.

Yellow heard the sound and scrambled across the top and down the side of the cage, using both feet and his beak to hold on. Blue, realizing what she was missing, flew in at the same time. They collided at the door, fluttering for balance, and fell inside. In a moment both were upon the feeding perch, while Green chattered angrily in an effort to protect her claim.

"This is what we call 'King of the Perch,' or maybe 'Musical Treat-Cups,' Humbert explained to Red, who peered through the wire in some alarm. "The object is to get a

cropful of seed without letting anybody else eat in peace. You'll get the hang of it soon enough."

He returned to his chair and watched while Green and Yellow, owners of the two end cups, converged on Blue in the middle. None of the three went near the new cup. While Blue's attention was taken up by Yellow, Green pecked her neck from the other side. Blue squawked and flew across the cage.

"They don't mean anything," he said reassuringly. "It's just a meal-time game, and there's plenty of ordinary seed available in the main dish in case anyone does go hungry. Watch."

Sure enough, Blue flew back immediately to the row of cups, the whir of her wings startling Green into flight. Now Yellow and Blue forgot their differences long enough to do some serious seed-scattering, picking up the hard grains and hulling them adeptly in their beaks. Green scrambled up the side of the cage, using both feet and bill as Yellow had done, and recovered her place before her end cup. All three ate contentedly.

"You'll catch on, Red," he said. "I'll let you be, now." The bird didn't seem to hear him.

Humbert went into his study, turned on the radio, and settled down to work on his toothpick models. The artistic constructions he had fashioned from the simplest materials were all around the house:

boats and statues and geometric shapes made from slender wooden splinters and drops of cement.

The whirl of wings made him look up. "That you, Yellow?" But it was the newcomer. "Not ready to mix yet, huh, Red?"

The bird perched upon his toothpick sculpture of Meta. "Oh . . . you want to know what I'm doing? Well, I make things like that bust of my wife you're sitting on. Don't worry—it's strong enough to hold a hundred of your kind. Well, fifty, maybe. But don't mess on it, if you don't mind. Personal dignity, you know."

He studied the bird more carefully. Its breast and tail feathers were lighter than the back and wings, but still red. Four dark-red dots showed up against the pink throat plumage; otherwise its coloration was nearly uniform. The cere, above the vertical parrakeet bill, was blue, the signal for the male of the species, and this was the only deviation.

"You're a strange one," he said. "Not just your color, but your manner. You aren't tame enough to be handled, yet you're more interested in what I'm doing than in others of your kind. It's almost as if you—"

He stopped as he became aware of the radio news broadcast. ". . . In orbit ten hours without acknowledgment of signals or any apparent effort to communicate with us. Experts are divided on whether it

should be considered friendly, indifferent, or hostile. The present assumption is that its purpose is merely observational. However—"

Humbert tuned the words out of his mind. "It's so hard to trust each other, let alone an unknown quantity. We don't know what that ship is doing in our skies, and probably it doesn't know what to make of us. But I'll bet it isn't much different from any meeting between strangers. You and me, for instance: I've never seen a bird quite like you, and you could be a dangerous alien from some other system for all I know. And you can't afford to trust me, either, because my hand could crush you in a moment. But you see, we get along. In a little while we'll really get to know each other, and then mutual trust will come. Some things just can't be pushed."

He spread a group of picks on the table and heated his cement. "You know, Red, I think I'll make a ship—a spaceship like the one in the sky. There's a picture of it in the . . . no! Stay clear of that glue. It's hot, and it gets awfully hard when it *isn't* hot, and they say the fumes can make hallucinations. You dip your bill in that and I'd have to scrape it off with a file. Believe me, Red, you wouldn't like that."

He rose to fetch the newspaper, and the bird, startled, flew ahead of him into the living room. The three local residents were still inside the cage, though its door was open. Green was braced on one of the

ladders, pecking industriously at its plastic rungs, while Yellow was reaching forward surreptitiously to tweak Blue's unguarded tail.

"That's another thing you'll have to learn, Red," he said, smiling. "Feather-tweaking. Keep your wings and tail out of range, or you'll wind up with a bent feather. It just isn't parrakeet nature to pass up a good tweak." He thought about that a moment. "I hope they don't try to tweak that spaceship before they get to know it well."

Red did not accompany him to the study this time. The radio had lapsed into popular music. The melody of "Sipping Cider" was on.

"Hey . . . I remember that one!" Humbert said, pleased. He matched the words with his own off-key accompaniment:

"So cheek by cheek and jaw by jaw,

We both sipped cider through a straw."

For a little while the years rolled back.

Later he emerged to discover Red inside the cage with the others. Yellow was friendly, but Blue still kept her distance and Green was sleeping on an upper swing, one foot tucked up and head behind a wing. According to the handbook, a sleeping bird never raised a foot and folded back the head simultaneously, but Green evidently didn't read much.

Red cocked an eye at him. "Right," Humbert said. "Stone

walls do not a prison make, nor iron bars a cage.' That's the way Mr. Lovelace put it. Our birds have the run of the house—but a familiar cage is more comfortable than a strange world. I only lock things up at night so nobody can get hurt in the dark."

Red had been largely accepted by the time Meta came home. Less hurried now, she admired him again. "He's just what we needed to fill out the set. Four birds, four distinctive colors. But are you sure he doesn't belong to anybody?"

Humbert admitted he'd forgotten to check the paper. It made no difference, as it turned out; there was no notice about any missing red parrakeet, that day or in the ones following. Red was theirs, as long as he chose to stay.

Weeks passed. While Humbert's elaborate spaceship model grew, Red learned every facet of parrakeet existence as locally practiced. He splashed seed industriously from both the main feeder and the treat-cups, then descended to the floor of the cage to search out the fallen morsels and swallow bits of gravel. He banged at the plastic toys and threw them about as though they were enemies. He raced up and down the ladders and took flying leaps at the dangling length of clothesline. He tweaked tail feathers, and played tug-of-war with stems of millet. When ushered from the cage during cleaning time, he

flew merrily over to Meta's curtains to peck at stray threads.

There were three unusual things about him. The first was his color; the second his almost-intelligent interest in human affairs; and he was mute. Humbert never heard him chirp or warble. But since Red seemed to be perfectly healthy otherwise, it was not a matter for concern. He was one of the family.

The spaceship remained in orbit, uncommunicative. Humbert remembered that it had appeared the same day Red came, so it was easy to keep track. After a while the matter ceased to make headlines. Humbert wasn't certain why no Earth ship was sent to link with the interstellar visitor and attempt direct contact; something about a deadlocked UN session. It was easier to do nothing, in a democracy, than to agree on any positive course of action. Yet this did not explain why the spaceship made no effort to communicate, either. Surely it had not come all this way just to orbit silently?

Red became friendly with shy Blue. They groomed each other's neck feathers and shared a treat-cup. "Do you think they would mate, if we set up a nesting box for them?" Meta inquired. "If that mutation bred true—"

Humbert agreed it was worth a try. He read up on parrakeet nesting procedures, for they had never bred their birds before, and bought a suitable enclosed box. "Beak by

beak," he sang to the melody of "Sipping Cider."

But tragedy struck before the arrangements were complete.

The birds scrambled in normal fashion for their preferred roosts on the highest swinging perches as Humbert turned out the light. They went everywhere in the daytime, but always sought the heights at night.

There was a bump. Alarmed, Humbert turned on the light—and found Blue beating her wings on the floor. Something was wrong: she was unable to fly!

Red came down solicitously, but Blue was not aware of him. She got to her feet and climbed to the lowest perch and clung there, her little body quivering.

Meta came to watch. "What's the matter with Blue?"

"I'm afraid it's a . . . a heart attack," he said. He knew the symptoms too well, and knew that parrakeets, along with men, were subject to such things.

Blue tried to fly back up to the swinging perch, but fell to the floor again. Humbert opened the cage and reached in to pick her up. She struggled, afraid of him, but had no strength to fight. He held her and stroked her neck with a finger, knowing he could not help her.

After a while she became quiet, and he returned her to the cage. He set her on a lower perch, afraid she might fall again, but her feet grasped it securely. He turned out

the living-room light, but as an afterthought left the hall light on so that she could see enough to find the top perch, just in case. It would be better if she remained put, but—

There was a flutter. He and Meta could not resist checking—but Blue remained where she was. Red had come down to join her. "Isn't that sweet," Meta said.

In the morning Blue was dead. She lay on her back on the bottom of the cage, and her eyes were open and already shrunken. The two others seemed not to notice, but Red hopped about nervously.

"You don't know what to make of it, do you?" Humbert said. He felt unaccustomed tears sting his eyes as he picked up the fragile body.

He inspected Blue carefully, but there was no way to bring her back. He wrapped her tenderly in his handkerchief and took the body into the back yard for burial.

Red came with him. "We all have to go sometime," Humbert said as he dug a shallow grave beside a rose bush.

He laid the body in the ground and covered it over. "I know how you must feel," he said to Red on the bush. "But you did what you could to give her comfort. I'm sure you made her life brighter, right up to the end. I think she died knowing she was loved."

Red flew to the fence and looked at him. Humbert knew even before

the bird took flight again that this was the end of their acquaintance.

Meta was too upset to go to work that day. She looked at the cage, suddenly too large for the two birds within, and turned away, only to look again, perversely hopeful, a moment later. Humbert turned on the radio and sat before his toothpick spaceship, the model almost complete, but could not work.

"We interrupt this program for a special news bulletin," the radio said urgently. "The alien spaceship is gone. Just a few minutes ago—"

Humbert listened, surprised. Just like that? It had left without ever making contact with Man. All that effort to come, then a departure as mysterious as the arrival.

He smiled. Perhaps they had been wise to avoid contact with Earth's officialdom, for that was representative in name only. Still, in their place he would at least have sent down a representative, perhaps incognito, in an attempt to come to know the temper of the common man of the planet. That was where the truth inevitably lay—in the attitudes of the common individual. Once that was known, little else was required for decision.

Yes—he would have gone down quietly, and not for any overnight stand. He would have observed for a reasonable length of time, and if the standards of the world differed somewhat from his own—well, there were still ways to judge, given sufficient time.

His hand halted before the model. A representative—perhaps a creature very like a native animal, neither wild nor tame. Something like a parrakeet, free to enter certain homes without being challenged or held; free to observe intimately . . .

Free also to love a native girl, who might not be as intelligent, but still was beautiful and affectionate. Free to love her—and lose her?

Free to run from grief—but never to escape it entirely, though a world be forgotten, and its other inhabitants never contacted at all. ■

Statement Required by the Act of October 23, 1962; Section 4369, Title 39, United States Code showing the Ownership, Management and Circulation of Analog Science Fiction—Science Fact, published monthly, for October 1, 1967.

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7.	<i>Average No. Copies each issue during preceding 12 months</i>	<i>Single issue nearest to filing date</i>
A. Total No. copies printed	151,373	154,236
B. Paid Circulation		
1. Sales through Dealers and Carriers, Street Vendors and Counter Sales	63,041	65,000
2. Mail Subscriptions	31,745	32,911
C. Total Paid Circulation	94,786	97,911
D. Free Distribution (<i>including samples</i>) By Mail, Carrier or Other Means	990	1,009
E. Total Distribution (<i>Sum of C and D</i>)	95,776	98,920
F. Office use, left-over, unaccounted, spoiled after printing	55,597	55,316
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I certify that the statements made by me above are correct and complete.

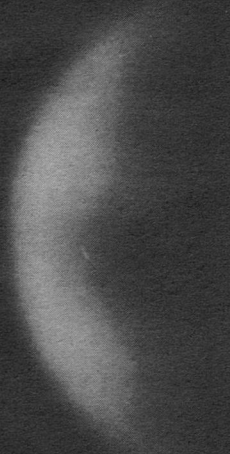
(Signed) Robert E. Park, Business Manager

VENUS AND MERCURY

— LOCKED PLANETS?

Once upon a time, astronomers were sure that Mercury was locked, by the immense solar gravity, so that one side always faced the Sun. And that Venus rotated very, very slowly— Now about all they can be sure of is that neither belief was correct!

ROBERT S. RICHARDSON



Venus photographed in ultraviolet light shows transient markings in perpetual cloud cover. Planet's axial rotation is too slow to be detected by the spectrograph. Radar measures give sidereal rotation period of 245.1 days, retrograde. (Photograph by F. E. Ross with 60-inch telescope of Mount Wilson and Palomar Observatories. Reproduction from original negative by Paul Roques, Griffith Observatory, Los Angeles.)

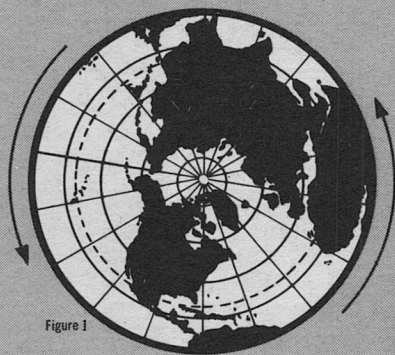


Figure 1

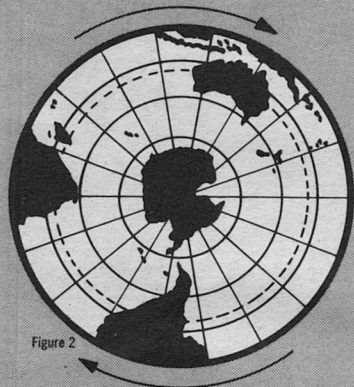


Figure 2

Figure 1. North pole of Earth identified by direct (counterclockwise) motion of markings. Figure 2. South pole of Earth identified by retrograde (clockwise) motion of markings.

The carnivals that used to visit small country towns held more fascination for the juvenile mind than anything TV producers ever dreamed of today. I recall one exhibit in particular. The sign said "See The Horse With Its Tail Where Its Head Ought To Be." The sight of such a remarkable animal, I decided, should surely be worth the price of a dime. Inside the tent I found a perfectly normal representative of *Equus caballus*, only it was standing in its stall the wrong way around, with its tail toward the feedbox. Well . . . it was somewhat of a disappointment. Yet I didn't feel exactly cheated either.

Neither do I feel so today. Rather I look back upon it as one of the most thought-provoking experiences of my early career.

The present situation with regard to the axial rotation of Venus reminds me of that "Horse With Its Tail Where Its Head Ought To Be." Recent radar observations of Venus have shown that her south pole is where we would expect her north pole to be. There is this difference: Whereas you could never possibly be mistaken as to which end of a horse is which, how do you know which end of a planet is which? How do you distinguish the north end of a planet's axis of rotation

from its south end? Especially a perpetually cloud-covered planet like Venus that looks the same all over.

Radar has also yielded puzzling data on the rotation of Mercury which are of great theoretical interest. Let us see how we proceed to keep our facts straight in the case of such little known bodies.

Forward Around the Backway

Imagine yourself a hundred million miles, say, above one of the poles of the sun, watching Earth, Venus, and Mercury revolving in their orbits. Observations over a few days would show that all three are revolving around the sun in the same direction. Additional observations would show the orbits of Venus and Earth to be nearly circular, but the orbit of Mercury definitely elliptical. Also, that the orbit planes in which Venus and Mercury revolve lie close to the orbital plane of Earth. We decide to adopt Earth's orbit plane as our standard of reference.

Now the question arises: How do we tell somebody else where we are relative to our standard reference plane? How do we determine which is the "north" side and which the "south" side?

Nothing kills interest in a subject quicker than that phrase "by definition." When it comes to planetary revolution and rotation, however, I'm afraid we can't avoid it. We have to define what we mean and then hold on tight to our definition. Otherwise the result would be chaos.

Sometime long ago astronomers agreed that in the solar system revolution and rotation opposite or "counter" to the motion of the hands of a watch shall be called *direct*. Furthermore, if you see a body revolving or rotating in a counterclockwise direction you are looking at its north side. Conversely, revolution and rotation in the *same* direction as the hands of a watch shall be called *retrograde*. And if you see a body revolving or rotating clockwise you are looking at its south side. You probably are thinking it would seem more reasonable to make it the other way around. But the system is now firmly entrenched in astronomy and we have no choice but to stick with it. (My wife never has been able to get it straight.)

If you could view the solar system from the constellation of Draco, the planets would all be seen revolving counterclockwise.

This would tell you immediately that you were looking at them from the north side. Viewed from the constellation of Doradus you would see the planets revolving around the sun clockwise, and you would know you were looking at them from the south side.

We can apply the same scheme to fixing the poles of a planet. We spend some time navigating around the watery world called "Earth" in the guidebook, inspecting the markings on its surface. Eventually we locate a region covered with snow which evidently is one of its poles. But *which* pole? We follow the markings turning around the white spot as a center. They are turning counterclockwise, so that this must be the north pole. A check on the opposite end of Earth's axis shows it turning clockwise, confirming our identification.

For bodies that show easily identifiable markings such as Earth, moon, Mars, and Jupiter, only a few observations will give us a fairly good value for their periods of rotation, and axial directions in space. Planets that do not show markings give more trouble, forcing us to resort to other lines of evidence. In some cases the direction of the rotation axis is obvious from the planet's equatorial bulge. The axial tilt of Uranus was established from observations of its four large moons. Their orbits are all circular and lie

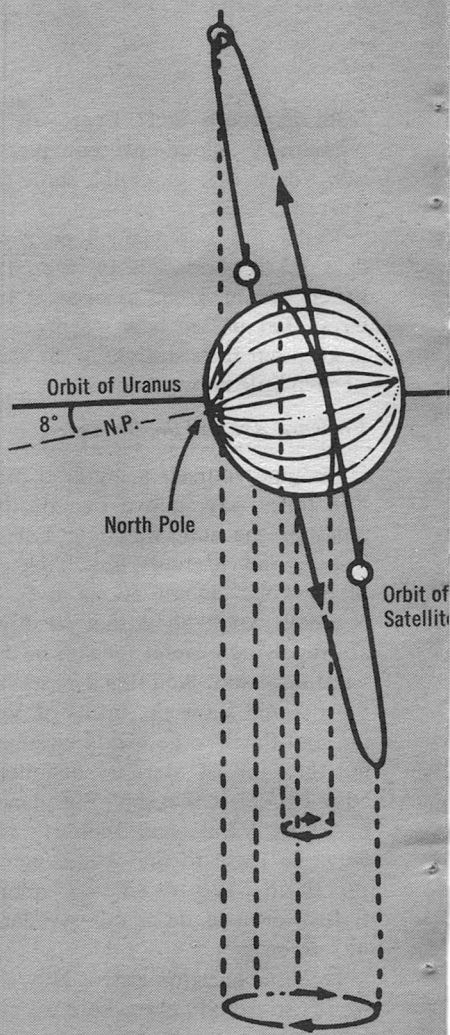


Figure 3. Satellites of Uranus revolve in plane of planet's equator.

in the same plane. This plane was presumed to lie in the plane of the planet's equator, otherwise it would have undergone slow changes caused by the oblateness of Uranus.

One side of a rotating body must be approaching us and the opposite side receding. (Unless we happen to be looking at it pole-on!) Lines in the spectrum of the planet on the side approaching should show a Doppler shift to the violet relative to the center of the disk, and a corresponding shift to the red on the side receding. Observations with the

spectrograph gave measurable line shifts for Uranus and Neptune, showing them to be in rapid rotation. But when applied to Venus the line shifts were so small that nothing definite could be said about the rotation, except that it must be very slow. It is perhaps significant that everyone who has tried to detect the rotation of Venus spectrographically, beginning with V. M. Slipher in 1903, has gotten results indicating a retrograde rotation. (Slipher also discovered the red shift of the extragalactic nebulae.)

Table 1

Polar Stars of the Sun and Planets*

OBJECT	NORTH POLE		NORTH STAR	SOUTH STAR**
	RA	DEC.		
Sun	19 ^h .2	+ 63°.7	Delta Draconis	Alpha Pictoris
Venus	6.0	- 66.7	Canopus	Zeta Draconis
Earth		+ 90.0	Alpha Ursae Minoris	?
Moon	18.0	+ 65.0	Zeta Draconis	Canopus
Mars	21.2	+ 54.7	Alpha Cephei	Kappa Velorum
Jupiter	17.9	+ 64.6	Zeta Draconis	Canopus
Saturn	2.8	+ 82.4	Alpha Ursae Minoris	Delta Apodis
Uranus	5.1	+ 15.0	Aldebaran	Eta Ophiuchi
Neptune	19.7	+ 41.7	Deneb	Zeta Puppis

*The orientation of the axes of Mercury and Pluto are still uncertain.

**To get position of a planet's south celestial pole, add or subtract 12^h to the position of north celestial pole and change sign of declination. Thus the position of Saturn's south celestial pole is 14^h.8, - 82°.4.

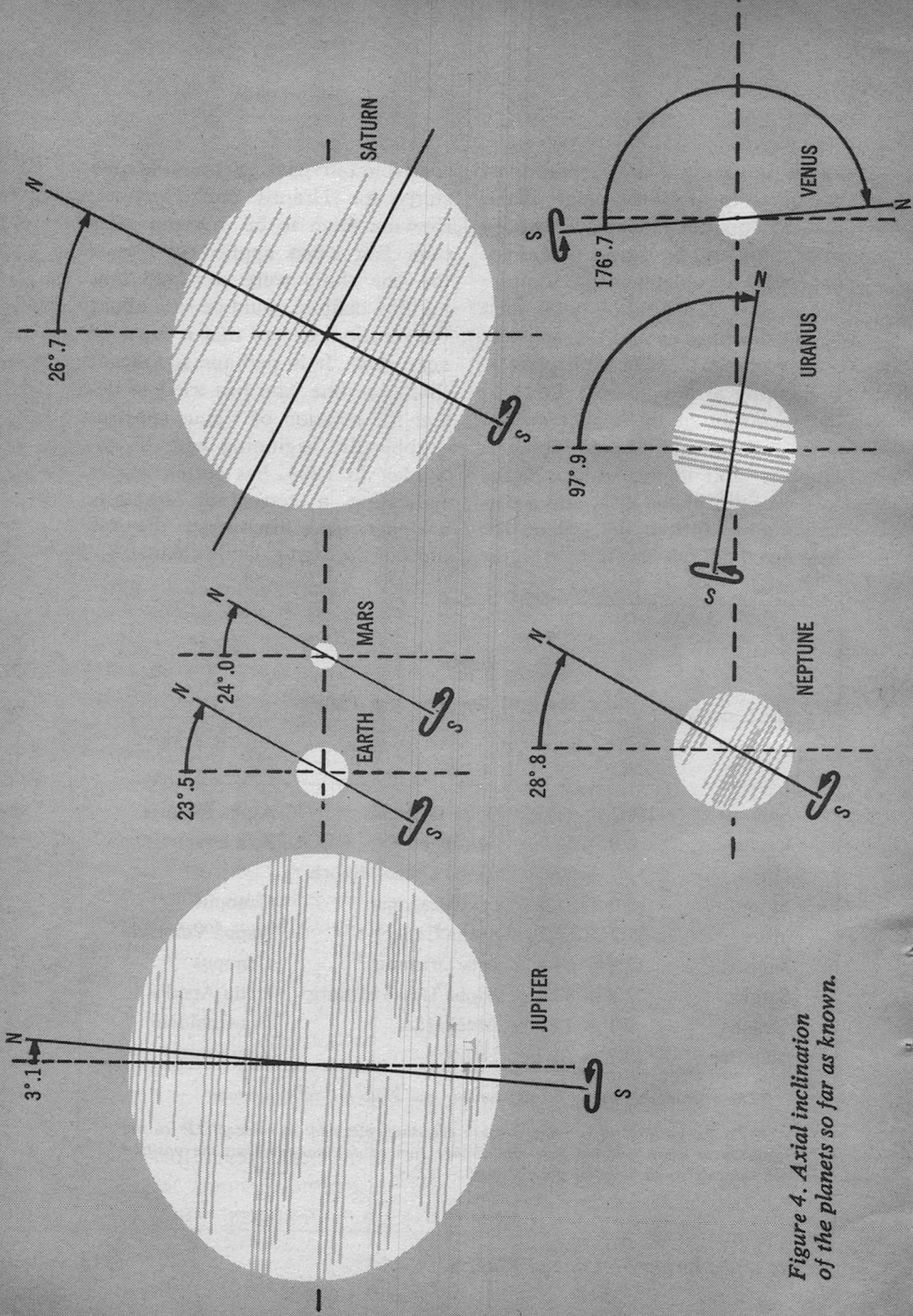


Figure 4. Axial inclination of the planets so far as known.

Where the Poles Point

Suppose the planets were balls with long pins stuck through them to mark their axes of rotation. The north ends of the axes are colored red. A quick survey of the solar system would show that in almost every case the red end was on the north side of the planet's orbit plane. The red end does not project vertically upward, however, but is aimed in various directions over the celestial sphere. The best way to show this is by prolonging the axes north and south until they pierce the celestial sphere. When we plot these positions on a star map we find that they do not fall at random over the sky, but show a preference for the northern constellation of Draco, and for Mensa and Volans in the south.

Table 1 gives the positions of the north poles of all the planets that are accurately known. We still know practically nothing about the axis of Pluto. The orientation of the axis of Mercury is also uncertain, except that the north end is on the north side of its orbit plane, and "seems to be inclined to the normal to the orbital plane by less than 28 degrees." Locate these positions on some large-scale star charts such as those in Norton's "Star Atlas." Then pick out the North Star and South Star for the planets. You probably will not agree with some of our selec-

tions. The difficulty generally comes in trying to decide whether to choose a bright star rather distant from a planet's pole position, or a star that is fainter but much closer.

Axial Tilts

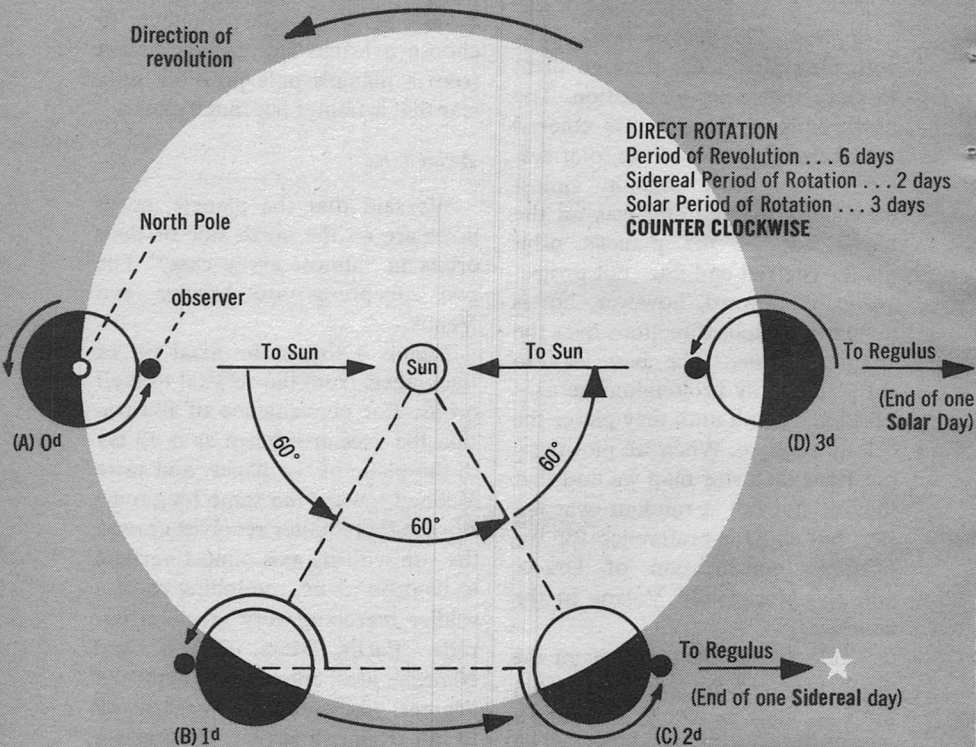
We said that the planets' north poles are on the north side of their orbits in "almost every case." The two exceptions are Uranus and Venus.

Figure 4 shows the axial tilt of the planets from the vertical to their orbits. For convenience of illustration the axes are shown as if all lay in the plane of the paper, and were inclined toward the same longitude. We see that Jupiter revolves around the sun with its axis almost vertical to its orbit plane, reminding us of a soldier marching very erect on parade. Earth, Mars, Saturn, and Neptune are bent over by about 25 degrees, like soldiers almost ready to fall from exhaustion. Uranus is a soldier sprawled on the ground with his head slightly lower than his feet. And Venus . . . well, Venus is a Wac knocked upside down who is spinning on her head. But the metaphor is becoming a bit strained.

Pro Bono Publico

Anyone trying to write a story with Venus or Mercury for its locale must perforce insert some description of the phenomena attend-

Direction of
revolution



Figures 5a and 5b. Hypothetical planet showing effect of direct and retrograde rotation on length of solar day.

ing night and day on these bodies, occasional references to the "pitiless rays from the brazen disk of the sun beating down on the baked Mercurian plain" or the "crepuscular glow that passes for Day on Hesperia," et cetera. Radar has drastically altered the duration of

these phenomena. It is highly desirable that this new knowledge be available in the literature of science fiction for reference purposes. Purely as a public service we herewith present this information without obligation, or reservation, on our part, since it is unlikely anyone

Direction of
revolution

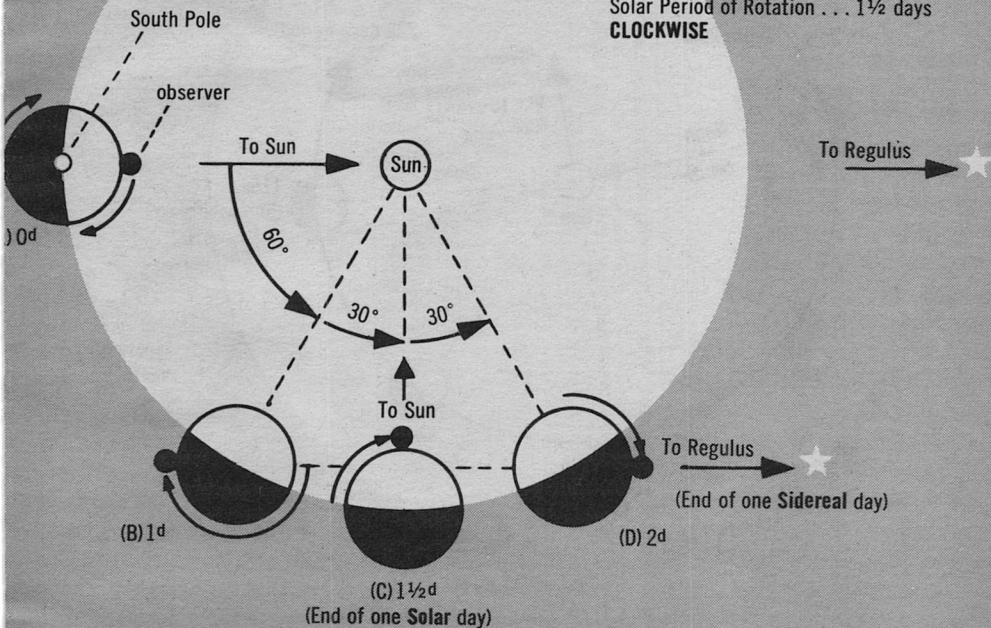
RETROGRADE ROTATION

Period of Revolution . . . 6 days

Sidereal Period of Rotation . . . 2 days

Solar Period of Rotation . . . 1½ days

CLOCKWISE



else will be so foolish as to go through the considerable amount of numerical computation involved.

The stars are so distant that we can assume them to be virtually at infinity for all practical purposes. This means that regardless of where we view a star in the solar system

we always see it in the same direction. Thus in Figures 5a and 5b the direction of the bright star Regulus lies along parallel lines wherever we happen to view it. By the sidereal day we mean the time required for a planet to complete one rotation relative to the stars. The sidereal

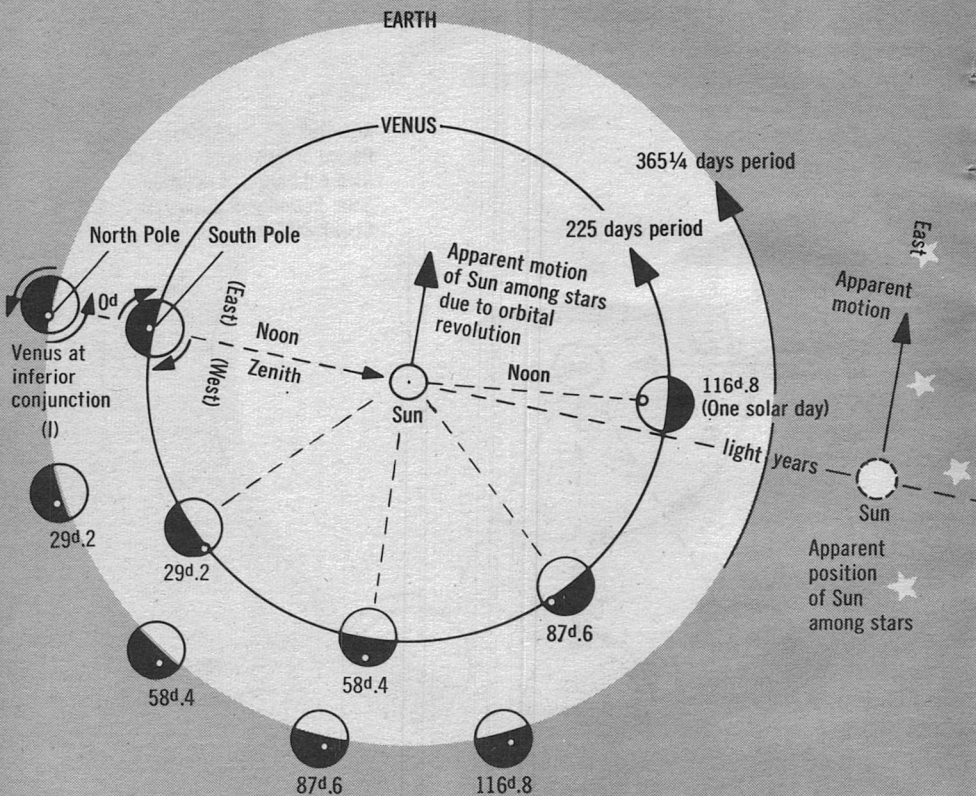


Figure 6. Revolution of both Earth and Venus around sun is direct or counterclockwise. Rotation of Venus is opposite to direction of revolution or retrograde. The retrograde rotation and direct revolution of Venus combine to give solar rotation period of 117 days, retrograde.

day is what we generally have in mind when we speak of the “real” rotation period of a planet, or “how long it takes to turn clear around.”

In Figure 5a we are looking down on the north pole of a hypothetical planet revolving around the sun in a period of 6 days, or at the rate of 60

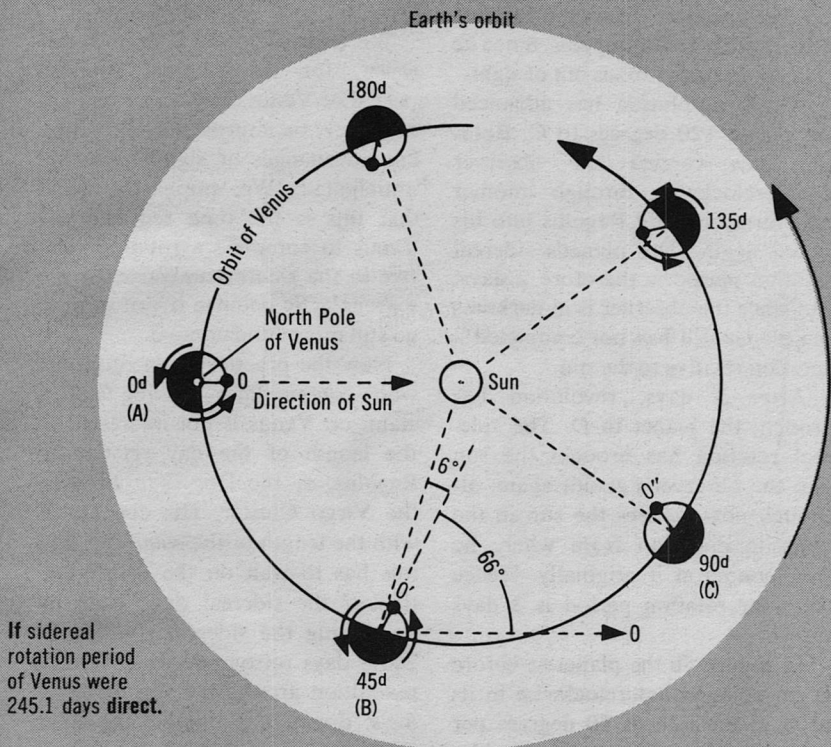


Figure 7. Direct rotation of Venus would give solar rotation period of 2,707 days, retrograde.

degrees per day. The planet's sidereal rotation period is 2 days direct, so that relative to the stars its rate of rotation is 180 degrees per day. We wish to find its rotation period with respect to the sun or the length of its solar day. The observer is at the subsolar point and hence sees

the sun directly overhead in his zenith. If the sun were not in the way, he would see the bright star Regulus in the same direction. We start counting time at noon of 0^d.

In 1 day, *revolution* carries the planet 60 degrees onward in its orbit to B. *Rotation* carries the ob-

server 180 degrees, or half a turn counterclockwise from his original position relative to Regulus. Since he is in darkness the sun is out of sight.

At 2^d, revolution has advanced the planet 120 degrees to C. Rotation has carried the observer counterclockwise through another half turn, bringing Regulus into his zenith again. The planet's sidereal rotation period is therefore 2 days. But since the observer is in darkness the planet still has not completed a rotation relative to the sun.

After 3 days, revolution has brought the planet to D. The sidereal rotation has brought the sun into the observer's zenith again, although now he sees the sun in the opposite direction from where he was looking at it originally. Hence the solar rotation period is 3 days direct.

In Figure 5b the planet as before is revolving counterclockwise in its orbit at the rate of 60 degrees per day. The planet has the same sidereal rotation rate as before of 180 degrees per day, but *retrograde* instead of direct. We start again with the sun at noon in the observer's zenith. But now we see that revolution and rotation combine to return the sun to his zenith at C in the solar period of 1½ days. The planet then has to rotate clockwise through an additional quarter turn to complete the sidereal period of 2 days with respect to Regulus, at D.

We take 245.1 ± 2 days, retrograde, for the sidereal rotation period of Venus. This value will undoubtedly be improved in the future but no changes of significance are anticipated. We emphasize again that this is the time required for Venus to complete a rotation relative to the sidereal universe, or the extragalactic nebulae if you want to go still more fundamental.

Now the practical man of affairs who contemplates staking out a claim on Venus is not interested in the length of the day relative to Regulus, or the Dog Star, or even the Virgo Cluster. His concern is with the length of the *solar day*. But this has to wait on the determination of the sidereal day. Then by combining the sidereal rotation of 245.1 days retrograde with Venus's revolution around the sun of 224.7 days, direct, one obtains the solar rotation period of 117.2 days, retrograde.

Figure 6 shows Earth and Venus from the north side, so that they are revolving counterclockwise in their orbits as we are used to seeing them in illustrations. Earth is shown rotating counterclockwise around its north pole, displaced $23\frac{1}{2}$ degrees from the vertical to its orbit. Notice that Venus is rotating clockwise or opposite to its direction of revolution. Therefore we are look-

ing—not at its north pole—but at its *south* pole.

Imagine yourself on the equator of Venus at the subsolar point (Figure 6). You are standing with your back to the reader facing north. Axial rotation is carrying you toward your right. Hence the sun would seem to be moving in the sky to the left or east. Readers may object that under the circumstances this is “west.” But east “by definition” is the direction of the sun’s apparent yearly motion relative to the stars due to Earth’s orbital revolution.* (Not the sun’s apparent *daily* motion due to Earth’s axial rotation.) Venus revolves around the sun in the same direction as Earth. So on Venus the sun would appear to move in the same direction among the stars as seen from Earth, only faster. (The fact that on Venus we couldn’t see the stars owing to clouds is beside the point.)

Since the orbit of Venus is the most nearly circular of the planets, its velocity of revolution changes scarcely at all. The sun’s apparent motion among the stars is correspondingly steady. The apparent motion of the sun due to rotation would therefore not be affected by irregularities produced by the orbital motion. The sun would move

**Explanatory Supplement to the Ephemeris*, prepared jointly by the Nautical Almanac Offices of the United Kingdom and the United States of America, 1961, p. 24.

uniformly across the sky toward your left where it would sink below the eastern horizon after 29 days. The Venerian night would then ensue of nearly two months duration. Probably a murky glow on your right would be the first indication that the sun was rising over in the west. The sun slowly gains altitude until it attains the zenith again at Hesperian noon after 117 days.

(We have adopted the adjectival forms for Venus recommended by Philip N. Bridges in “Space Age Terminology.” “Venusian” is as absurd as would be “Sunian” or “Moonian.” “Cytherean” is also incorrect since it refers not to Venus but to the isle where Venus was worshiped. Preferred forms are *Venerian*, *Venustian*, and *Hesperian*.)

What if the sidereal rotation were 245.1 days direct?

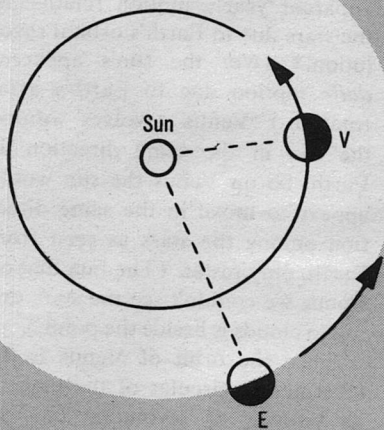
The resulting motion is shown in Figure 7. We start counting time at noon of 0^h with the sun in the observer’s zenith. In 45 days the planet has advanced in its orbit 72 degrees counterclockwise. The planet has also rotated counterclockwise by 66 degrees bringing the observer to 0′. Thus rotation has fallen behind revolution so that the sun appears to have retrograded in the sky by 6 degrees. This is an apparent solar motion of only 0.133 degrees per day which is scarcely any motion at all. At this rate the

0d

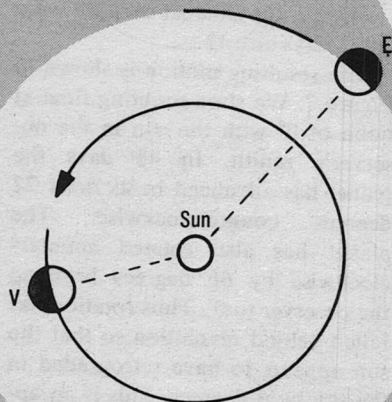
Venus at inferior conjunction.



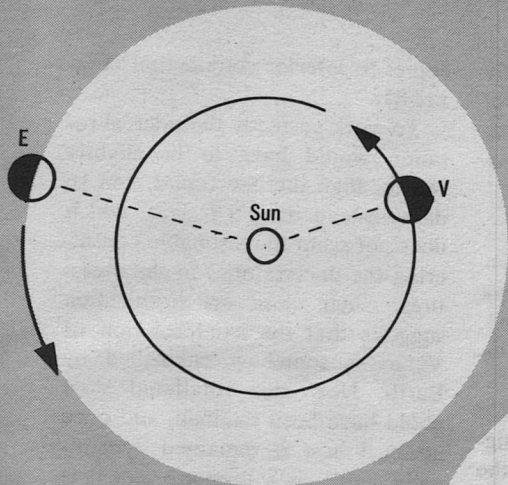
116d.78



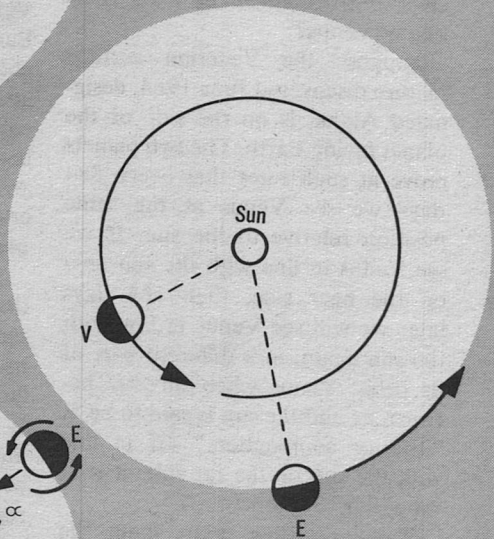
233d.56



350^d.34



467^d.12



583^d.90

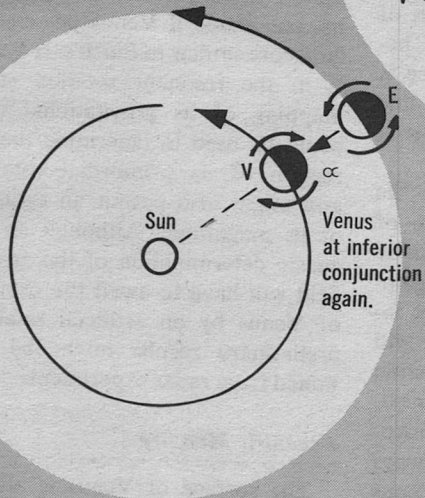


Figure 8.
Venus rotates at such a rate that same side of planet always faces Earth at inferior conjunction. Such close synchronization suggests that rotation of Venus is somehow controlled by Earth.

sun would take 2,707 days or nearly 7½ years to complete a circuit of the sky. Obviously the present retrograde rotation is a much more satisfactory arrangement.

Venus Controlled by Earth?

Here is something to think about on nights when you can't go to sleep. Does Earth control the axial rotation of Venus?

Suppose the Venerian surface feature discovered June 1964, designated Alpha, is on the side of the planet facing Earth. The two planets move at such rates that every 584 days we see Venus at the same position relative to the sun. If we see Venus in line with the sun now on the near side, then 584 days later we will see Venus in line with the sun again, in a different part of its orbit. Venus when directly between us and the sun is said to be at "inferior conjunction." (If in line with the sun on the far side, it is at "superior" conjunction.)

The interesting thing about the situation is that the same side of the planet facing us originally would be turned our way again. That is, if Alpha is facing us at inferior conjunction this time, it will be facing us at inferior conjunction next time, and the next and the next. In fact, like some evil spirit returning to haunt us, Alpha will always be facing us every time Venus

comes to inferior conjunction (Figure 8).

To work perfectly the sidereal rotation would have to be slightly shorter than the one found, 243.16 days instead of 245.1 days, which does not seem unreasonable considering the uncertainties in the measures. Such close synchronization suggests that the axial rotation of Venus is somehow controlled by Earth. How this rotational state could have been attained, and once attained how it remained dynamically stable, is a mystery. Yet it is hard to believe that such a "lock" with Earth is mere coincidence. Several groups are at work on this problem.

Latest results announced indicate that trapping of Venus in the observed resonant rotation state can be understood if Venus possesses a fluid core similar to Earth's. If Venus is in the resonant rotation state, mapping of its gravitational field could be used to determine the direction of its primordial rotation and might also permit an estimate of its magnitude. Although an accurate determination of the gravity field will have to await the orbiting of Venus by an artificial satellite, preliminary results might be obtained from radar experiments.

Eccentric Mercury

The surface of Venus is always

hidden by clouds, a fact that has never deterred us from talking about its surface. In the last century we have had Venus dripping wet, bone dry, completely covered by ocean, and red hot in spots. Mercury, on the other hand, has its bare surface exposed to our view. Yet we know little more about surface conditions on Mercury than we do on Venus. Even when seen through a large telescope under fairly favorable circumstances Mercury is a discouraging object, only a blank gray disk resembling the crescent moon. On occasions I have suspected faint markings, but never anything I could be sure about.

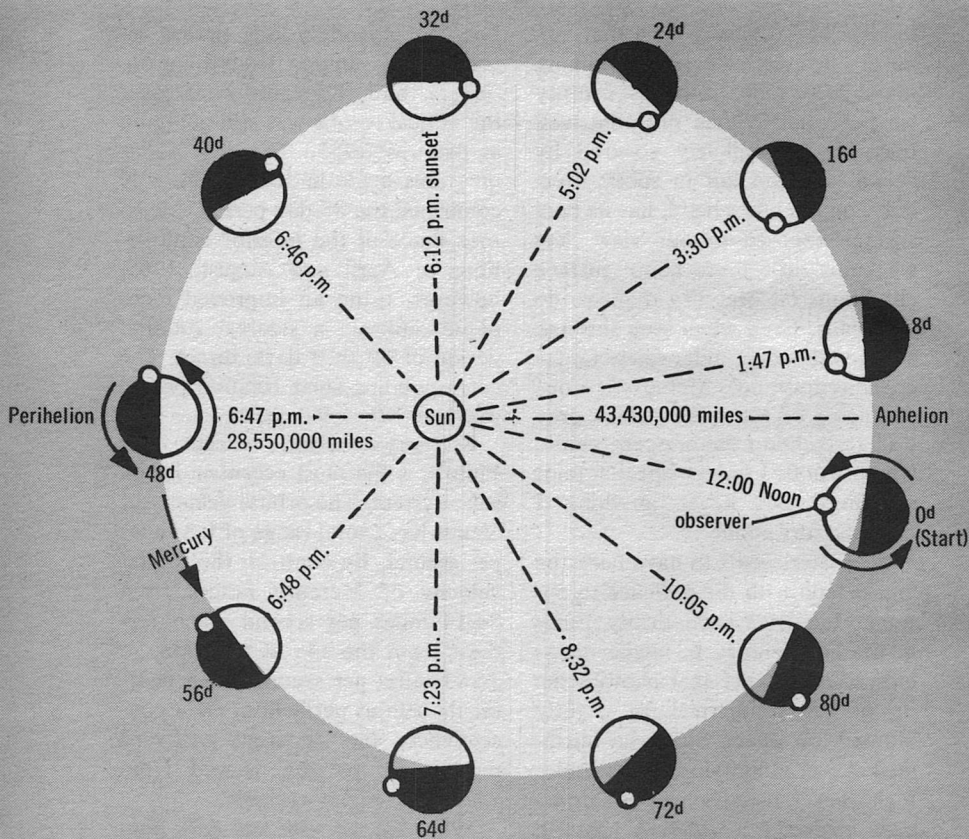
Schroeter seems to have been the first person with the patience to observe Mercury systematically. Early in the last century he made drawings of the planet that showed the tip of the southern horn slightly blunted, an effect which he attributed to a mountain twelve miles high. Bessel, using Schroeter's drawings, deduced a sidereal rotation period for Mercury of 24 hours 00 minutes 35 seconds, direct. So great was Bessel's reputation that his 24-hour period was accepted without question for more than half a century. It was first challenged in 1889, when Schiaparelli published his long series of observations of Mercury, indicating a sidereal period of rotation of 88 days, the same as the planet's orbital period of revolu-

tion. Schiaparelli's long period received some support from other observers, and the controversy over the optical results was still going on as late as 1953. The first radar measures made in 1963 apparently confirmed the 88-day period. Measures made at the inferior conjunctions of April and August, 1965, however, using an improved technique, indicate a sidereal rotation period of 59 ± 3 days, direct. The corresponding solar rotation period averages 176 ± 9 days, direct.

Mercury's orbit, except for Pluto's, is the most eccentric in the solar system. The orbital velocity of Venus has a total range of 0.3 miles per second. By contrast, the orbital velocity of Mercury ranges from 24.14 miles per second when farthest from the sun at aphelion, to 36.63 miles per second when nearest the sun at perihelion. As a consequence, the apparent eastward motion of the sun viewed from Mercury is highly variable.

What are the light and dark phenomena attending the Mercurian day?

In Figure 9a we have resisted the compulsion toward symmetry by starting to count time 8 days before Mercury reaches aphelion. Since the direction of the axis is still uncertain, we have assumed it vertical to the orbit plane. Again it is convenient to put the observer on the equator at the subsolar point, where



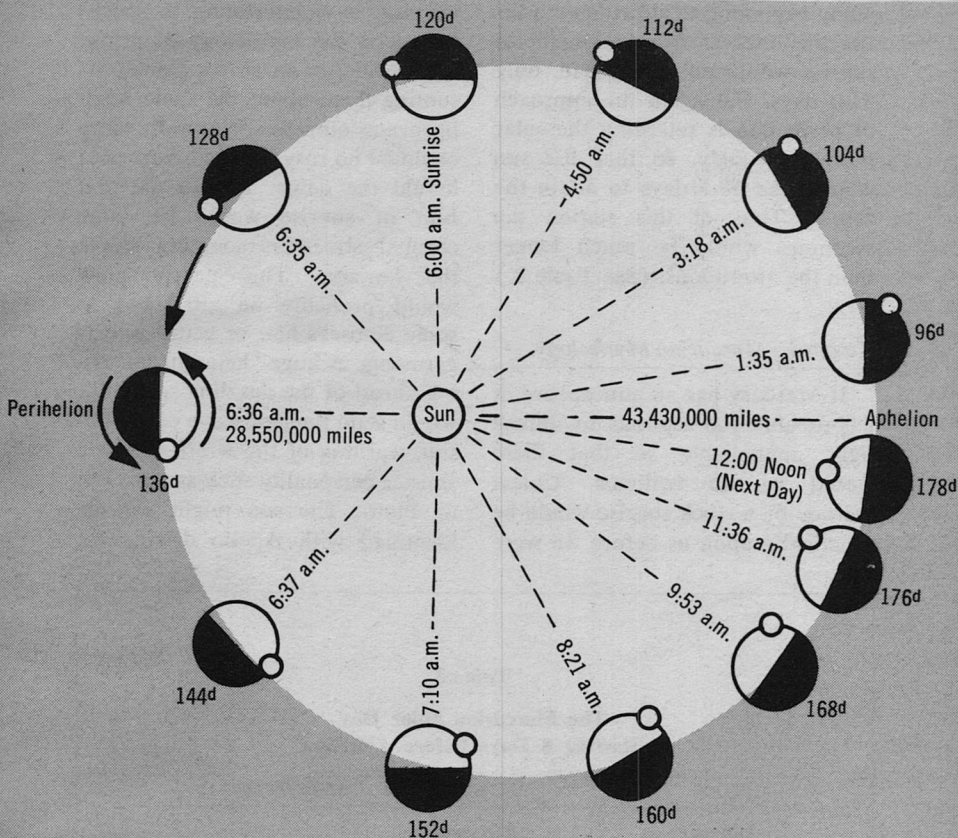
Figures 9a and 9b. Eccentric orbit of Mercury causes wide

he is standing with his back to the reader facing south.

The sun would descend on his right at the rate of about 3 degrees per day, which here would correspond to a distance in the sky roughly three times the width of the solar disk. The sun would set below

the western horizon after 31.5 days. If the horizon were irregular as is probably the case, this interval could be shorter by several hours, should the sun go down behind a crater or mountain peak.

Mercury is approaching perihelion rapidly and its orbital velocity



variations in apparent motion of sun during the Mercurian day.

increasing. Its rate of rotation, of course, remains constant. Revolution gains on rotation to such an extent that for about 8 days before and after perihelion the sun hangs practically motionless in the sky. Although our man on Mercury would not be able to see the sun, the effect

on his time would be the same. Finally at about 64 days the sun begins to show signs of life, but the slowdown at perihelion would drag out the interval from sunset to midnight to 57.5 days.

Midnight occurs near aphelion when the sun is moving rapidly.

(Figure 9b). Hence although already beginning to slow down a little, the interval from midnight to sunrise would not be so bad, only 31.0 days. But again the approach of perihelion is retarding the solar motion strongly, so that the sun would take 58.5 days to attain the zenith. Thus at this station the mornings would be much longer than the afternoons. (See Table 2.)

Toward a Mercurian Mythology

If Mercury has an atmosphere, it is probably too tenuous to diffuse light appreciably so that there would be no twilights. Unless warned by a clock sunrise would be practically upon us before we were

aware the sun was anywhere in the vicinity. It is interesting to speculate upon the mythology of primitive people on an airless planet, assuming them about the same intelligence as ourselves. Naturally there could be no rosy fingered Aurora to herald the dawn. Instead the first hint of sunrise would be some coronal streamers looming above the horizon. This pearly glow would probably be attributed to some damsel's hair or gauzy undergarments. A huge "heliosaurus" rising ahead of the dazzling solar disk would stain the landscape dull crimson, warning of the wrath of some sinister personality such as our Loki or Pluto. The sun might still be identified with Apollo driving his

Table 2
The Mercurian Solar Day
Starting 8 Days Before Aphelion

EPOCH	TIME	TIME INTERVAL
Noon	0.0 days	31.5 days
Sunset	31.5 days	57.5 days
Midnight	89.0 days	31.0 days
Sunrise	120.0 days	58.5 days
Noon	178.5 days	

chariot across the heavens, although its irregular motion would necessitate some changes in the script. The slow-down could mean that his horses were getting tired. He stops to hitch on a new team. Then charges forth gathering speed as he nears aphelion.

Mercury Locked

Mercury's sidereal rotation and revolution are in the ratio $59/88 = 0.6705$, or almost exactly $2/3$. In view of the ± 3 days uncertainty in the sidereal period, it is tempting to assume it is $2/3$, or 58.65 days. Mercury then would be unique in the solar system in having its axial rotation related in a definite way to its orbital motion.

We can *assume* such a lock. But can we *account* for it?

If we start with Mercury orbiting around the sun and rotating direct in 10 hours, the solar system is scarcely old enough for tidal dissipation to have reduced the rotation to its present value. And, if Mercury's rotation is now stable, why were its earlier states unstable?

Another possibility is that originally Mercury was moving in a retrograde orbit about Venus. Tidal interaction eventually resulted in Mercury and Venus always presenting the same face to each other. Although the hypothesis has the advantage of accounting for Venus's

retrograde rotation, it puts us under the necessity of devising a scheme by which the sun could have captured Mercury in the first place, as well as Mercury's evolution into its present orbit.

In scarcely five years radar has not only given us long-sought information on Venus and Mercury, but given it with a degree of accuracy we would have declared impossible of attainment a few decades ago. Planetary radar data have also yielded values for basic astronomical constants which exceed the best obtainable from standard optical methods by several orders of magnitude.

All of which raises a most depressing question: Should we work our heads off today trying to measure something barely on the limit of observation? Or just sit tight until a new technique is developed that makes it easy?

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A QUESTION OF ATTITUDE

Simulated danger situations are a great way
of testing a man to—and beyond!—the verge of Death.
Yeah—and who was it said a brave man dies but once?
Not in those tests!

CHRISTOPHER ANVIL

Illustrated by Harry Bennett



Dan Bergen lay motionless on his narrow limb amongst the big green leaves, and wished he had never heard of the Interstellar Patrol.

A yard from Bergen's nose, the constrictor glided ahead, then stopped. A small bump on its back bulged up and an eye looked out. The eye swiveled around like a rotating radar antenna, then came to a stop with its gaze fixed on Bergen.

Bergen didn't move. He looked at the eye. The eye looked at him.

A long moment passed.

The eye swung away again. Bergen instantly looked away. The eye swung back, its gaze again fixed on Bergen. Bergen didn't move. The eye swung around, then pulled inside. The bulge on the constrictor's back diminished to a small bump. The snake glided ahead.

Bergen allowed himself the luxury of a breath of air. He relaxed.

The snake continued to glide ahead.

Before, the constrictor had moved, at most, a few feet at a time. Now, yards of it were sliding past.

Frowning, Bergen looked around.

About three feet above the level of his head, and perhaps eight feet away, the big leaves thrust aside. A pair of large opaque green eyes looked at Bergen over a blunt green-and-brown snout.

Bergen for a split-second balanced the question whether he

should roll off the limb. That would send him in a headlong plunge through wide-spaced branches toward the forest floor a hundred and eight feet below. Or should he—

The snake's head blurred. Its jaws clamped, in a burst of pain, on his left shoulder.

Bergen struck at it with his right fist.

The head twisted and wrenched, sinking its fangs deep into his shoulder. There was a steady hiss as the rest of the snake slid forward. A thick coil looped around him.

Bergen sucked in a deep breath, and stabbed at the snake's eyes with his extended forefingers.

A thick skin blurred down over its eyes. Another loop passed over Bergen's body. The muscular coils tightened. There was a crushing pressure at his ribs.

Through a red haze, Bergen's right hand found the snake's eyes. The head moved, something gripped his hand, mashed and snapped and ground it, then crushed it at the wrist.

Somewhere within Bergen, a cool sense of calculation told him the fight was all over. But at the same time, he knew he *had* to get free.

For one white-hot instant, this urgent need took control of his body. For this instant, the contractions of the constrictor's huge muscles were blocked, and Bergen struck savagely at its head with his mangled right arm. His left hand, caught in the loops of the snake's

body, nevertheless contracted in a grip that tore a section of tough hide from the underlying muscles.

A savage yell of defiance burst from Bergen, and for just a fleeting instant the snake's gaze held a look of blankness—such as might appear in the eyes of a constrictor in the jungles of Earth, when the victim it has selected turns out to be an adult male gorilla.

The instant passed. The energy was gone, and in place of defiance, Bergen felt a wave of exhaustion. There was a final, horrible, increasingly-distant sense of crushing pressure, and then dizziness. For an instant something took place that Bergen could not quite recall afterward.

And then he was lying on his back, looking at a gray ceiling overhead.

Very cautiously, Bergen drew up his right hand and looked at it. It was unharmed. He felt of his left shoulder. His left shoulder was unharmed. He sat up. A slight dizziness passed as he swung his feet to the floor.

The memory of the past few instants came back, and Bergen could vividly see the head of the constrictor twist and wrench as the big loops settled around him—

Bergen sprang to his feet and swore savagely. Full consciousness had now returned.

"Damn it," he said, forcing the mental picture of the constrictor

out of his mind by focusing his attention on the immediate cause of the trouble—the people who gave these tests.

A buzzer sounded its peremptory warning. Bergen again became conscious of his surroundings. He noted the gray bulkheads, gray steel deck, and gray ceiling overhead. There were three short rows of steel cots in the room, and above each cot was a long wide bulge in the ceiling. With a sense of relief, Bergen noted that the other cots were empty—had been empty when he'd gained consciousness. That meant that, though he had failed at the end, he had at least outlasted the other candidates.

A small speaker nearby said, "Bergen to Evaluation. Candidate Daniel Bergen report to Test Evaluation Office."

"Coming," said Bergen. He braced himself for the walk through the Special Effects storeroom. He drew a deep breath, opened the airtight hatch, and stepped into a shadowy space jammed with apes, alligators, imitation dead trees, grizzly bears, hollow lichened boulders, simulated rotten logs covered with moss, rolled-up bolts of spider web with spiders attached, one dozen wharf rats packed head-to-tail in a crate, and other unattractive odds and ends that loomed, half-recognizable, through the gloom. Bergen was grumbling to himself as he reached the hatch leading to the corridor. Then he

straightened up, assumed an alert, resolute look, and stepped out into the corridor.

A brisk walk brought Bergen to a hatch marked: "Test Evaluation. Colonel Sanders." Bergen knocked, heard the colonel's crisp "Come in," and stepped inside. He was in a small compartment lined with filing cabinets and electronic equipment, and with wires and odd headsets dangling from the ceiling. A spare athletic individual with colonel's leaves, a shock of crew-cut hair and a look of cool objectivity eyed Bergen from behind a bare-topped desk. Bergen reported his presence. The colonel motioned him to an olive-colored drum that doubled as a chair.

Bergen thoughtfully eyed the drum, which was labeled: "RAT-TLESNAKES, 1 doz. (assorted)." He made sure the lid was on tight, and gingerly sat down. He looked at the colonel. The colonel looked back coolly. A period of time passed. Bergen forced himself to wait.

The colonel cleared his throat, clasped his hands behind the back of his neck and leaned back in his chair. His eyes came to a sharp focus. He said accusingly, "That was a stupid stunt, Bergen."

"Sir?" said Bergen, pathetically uncertain which particular stunt the colonel had in mind.

"Why didn't you just put both hands out in front and dive straight down his throat?"

Bergen cast around mentally, then said, "Oh, you mean the constrictor, sir?"

The colonel snorted, and Bergen felt an overpowering sense of stupidity. Whenever he entered this room his I. Q. seemed to drop off twenty or thirty points. He would recover his lost intelligence when he returned to the corridor, and then he would *really* see how dull he had been.

"Well?" snapped the colonel.

"Sir?"

"'Sir?'" mimicked the colonel. His face reddened, and he roared, "*Answer the question!*"

Bergen looked at him blankly.

The colonel sat up and leaned forward on the desk. "Why," he said, "didn't you just put your hands over your head and jump down the constrictor's throat? You'd have accomplished exactly the same thing, and with a great saving of energy." The colonel had the air of a person putting forth a reasonable suggestion.

"Well," said Bergen, trying dully to synchronize his reactions with those of the colonel, "my purpose, sir, wasn't to get killed."

The colonel nodded, and leaned back. "But so far as the simulation was concerned, that's exactly what you accomplished, isn't it?"

Bergen could now see he had walked into a trap. Gloomily he said, "Yes, sir."

"Why?"

"Sir?"

"Tell me, *why* did you get killed?"

"I guess I did the wrong thing."

"*What* wrong thing?"

Bergen hesitated.

The colonel waited.

Bergen shook his head. "If I'd dropped off that limb, sir, I'd have smashed right to the bottom of the forest floor. That was certain death. I don't see that I had much choice."

The colonel shook his head. "You made a series of mistakes. To begin with, you looked directly into the constrictor's dorsal eye. That was the first error, and a serious one. When you stand at attention during an inspection, do you look *into* the eyes of the inspecting officer?"

"No, sir."

"What do you do?"

"I look straight ahead."

"Why?"

"Well . . . it's regulations."

The colonel nodded. "It's regulations. But there's a reason *why* it's regulations. If you look *into* the eyes of the inspecting officer, you make, as it were, personal contact with him. He will notice it, and of necessity he will have to respond. An inspection is an impersonal matter, and he will reprimand you. And yet, you had no hesitancy about looking into the dorsal eye of that constrictor. Did you think that because the constrictor came from another planet, it wouldn't sense you were looking at it?"

"Well, I—" Bergen paused.

"Yes?" prompted the colonel.

Bergen finished lamely, "I guess I just didn't think about it at the time, sir."

The colonel nodded. "That was your basic error, underlying all the other errors. You didn't think about it. The next thing you didn't think about was looking *away*. The constrictor looked away, *you* looked away; then the constrictor looked back, and promptly noticed the change in the position of your eyes. Next, you didn't think about the snake's *motion*. You saw it glide forward, knew it was moving a lot farther than it had before, knew it had seen you, and yet *you didn't change your position*."

Bergen stared at him, blinked, and shook his head in weary disgust. "Yes, sir. Now I see it."

"You've been talking," said the colonel, "as if your only alternative was to jump off the limb. Not so. The snake *had to get into position to strike*. While it was doing that, you could have moved, and at least gained time."

"I see it now, sir."

"But you didn't see it when it counted."

"No, sir. I didn't."

"All right. You made a number of mistakes. First, you stared the snake in the eye, then when it looked away, you looked away; both of these things the snake noticed and correctly interpreted. Next, you stayed where you were till it was all set to get you. Then, in addition, you *still* stayed where

you were when there was just an instant left to act."

"Well, sir, I admit I was wrong before. But there was still *some* chance the snake wouldn't do anything. Whereas, if I dropped off the limb—"

"You'd have caught a vine about nine feet below," said the colonel.

Bergen slowly brought his jaw shut.

"Pretty stupid, wasn't it?" said the colonel.

Bergen drew a deep breath.

"Yes, sir, I guess it was, at that."

The colonel sat back. "Most of us are accustomed to think of ourselves as intelligent people. We move through life in our accustomed orbits, expect things always to remain basically as they are now, have repeated opportunities to rehearse our behavior patterns for the few standard situations we meet, and nevertheless we fall into one mess after another—because we don't really think. If things turn out badly for us, our reaction is to complain that the situation *wasn't set up right in the first place.*"

The colonel looked at Bergen intently, and Bergen sensed that this comment had a personal application. "Yes, sir," he said.

The colonel leaned back, and said thoughtfully. "There are two basic attitudes, or ways of looking at things. The human race uses these two attitudes to move forward, much as a man uses his legs to walk. And it's just as catastrophic

for a member of the human race to misplace these two attitudes as it is for him to cross his left leg in front of his right leg, and then try to take a step with his right leg.

"The first attitude is that of recognizing the defect. In one form, this is pure gripe, the attitude of 'headquarters is too stupid to get their head out of their boot.' But it's also the attitude of the man who looks around, and asks himself if things couldn't be improved. From this attitude arises a lot of noise, but, properly used, it's also one of the main driving forces for progress. If men had always been satisfied, who would ever have tried anything new?

"So, you see, it's useful to see imperfections. But it's useless to *keep our minds focused on imperfections.* Having seen the imperfections, next we shift our attention to look for some means of improvement. We see the obstacle, then look for the way through or around. And that is what you *didn't* do. Right?"

"Yes, sir," said Bergen miserably.

"Don't worry about it," said the colonel. "It takes time to develop the right attitude. But you have to show strong enough signs of it or you can't pass this last test. You've got to be alert. Never be dismayed at the most stunning examples of basically unfair mechanisms and situations. Assume that somewhere in the mess there is something you

can use, an opening you can get through, and set yourself to find it. Remember, mountain climbers regularly go up vertical rock faces that the average man wouldn't think a fly could climb. It is obviously *unfair* to expect a man to climb a thing like that. And yet, the holds are there, if you can find them, and if you have the few pieces of fairly simple equipment that will help you get a grip."

"And if you slip," said Bergen drily, "you're finished."

The colonel shrugged. "You could also say, 'Why climb?' That's beside the point. The object is to show what people *can* accomplish if they look for the handholds, instead of deciding at a glance that the slope is too steep, so it's impossible."

This was a longer lecture than Bergen had got any of the other times, and he was starting to feel uneasy. The colonel was watching him intently, and seemed to be waiting for the significance to sink in.

"Yes, sir," said Bergen dutifully.

"Now," said the colonel, "I wouldn't bother to say all this if you hadn't gotten up into a respectable category for a candidate. You started off with a class of fifty, distributed to various testing facilities. This fifty has so far been given a total of four tests. About half of you flunked the first test, and roughly the same proportion have flunked

each test since. One candidate died of heart failure. One candidate blew up and quit. That leaves exactly three of you coming up for the fifth test."

Bergen blinked. "Forty-seven out of fifty are washed out already?"

"That's right."

"How many more tests after this one?"

"The fifth test is the last, unless there are special circumstances."

"And only one of us can pass this test?"

"No. All or none of you may pass the fifth test. We've had both things happen."

"Suppose I flunk it? Is there any second chance?"

The colonel shrugged. "You can take the tests as often as we offer them. Moreover, taking these tests isn't the only way to get in. But it's the only way open to you right now, and even if we should offer them again, you have to take the full series each time. We'd advise you to put everything you've got into passing this one test you've still got in front of you."

Bergen thought of the miserable spot he'd been in and to which he'd return if he failed this test. Bergen, a natural hater of authority, had had the poor luck, when called up for military training, to find himself under a natural martinet. The fellow tore beds open to inspect the mattresses, then sent the recruits on K.P. because their beds were unmade. Accompanied by a few toad-

ies, he would snap on the barracks lights at 2:00 on stormy nights, and order everyone outside into the rain, while he and his sycophants searched the barracks for concealed liquor. Returning to the outside steps of the barracks he would note angrily that these men were up after taps, and would order them marched through the soaking downpour all night for punishment. On the following day, he would harass them for their sluggish unsoldierly bearing, and, to correct their attitude, would give them close-order drill till they were dead on their feet.

One day, following a lengthy lecture on soldierly behavior, some worn strand of Bergen's self-control snapped.

The officer and an admiring toady strolled past in front of Bergen as he stood in ranks. Bergen's right hand reached out as if of its own accord, gripped the officer by the uniform jacket and jerked him around. The hand released him, then came up again, to strike him full in the face. As Bergen stepped out of ranks, several companions came to life and grabbed him. Bergen was about to bash the officer's head against a post when they finally got him stopped. On the resulting court-martial, the officer's numerous and flagrant misdeeds came to light, but Bergen nevertheless was still in the stockade when Sergeant Hale of the Interstellar Patrol came through search-

ing for recruits, with his talk of good pay, forgiveness of past sins, and a splendid future—if he could pass the tests.

"Now," said the colonel, his cool voice snapping Bergen back to the present, "we might as well get on with this final test."

Bergen once again found himself lying flat on his back. This time, the cots to either side were empty, as no other candidate on the ship had got this far. Bergen closed his eyes, and was conscious of a drifting sensation such as he had felt before the previous tests. Then a voice was speaking to him, saying, "You have passed each of the first four tests. Each was designed to test certain elements of your physical or mental make-up, and of your basic character. The test which follows is intended to examine one particular personal trait. This trait has been tested only incidentally in previous tests. But it is a trait especially important to a member of the Interstellar Patrol.

"History shows that in any given situation, certain individuals tend to survive. In a group of gunfighters, for instance, certain men stand out over a period of time. Is this a matter only of reflexive speed, or is there also *something else*? Amongst politicians, some rise rapidly to prominence, then fade into insignificance. Others remain steadily in office. Some businessmen maintain a high position while oth-

ers rise and sink around them. Why? Is it a matter only of luck, friends, special skills, or inherited wealth? Men have had all of these and failed. Others have begun with none of them, and succeeded. Why? Is there some special skill—or perhaps some higher skill that enables a man to use other skills and advantages, combining them to gain his ends? If there is, you will need it badly as a member of the Interstellar Patrol. You have already been given some idea of what we consider this special skill or attitude to be. We will give you just one more hint:

“Julius Caesar, like many other great leaders of the past, had this quality in good measure. Caesar was once confronted by a walled town on a steep rocky hill. To attack it, he must advance uphill. The enemy could hurl their missile weapons down at him, while his troops had to throw theirs uphill. The enemy was sheltered. Caesar’s troops were exposed. The walls were strong. The enemy had an abundance of food stored inside, and, for water, had built close to the site of a spring. To besiege the place would be a long slow time-consuming process. To try to overwhelm it suddenly was likely to result in heavy losses.

“What should Caesar do? Should he attack with all his troops? Or should he carry out a slow, methodical siege?

“Answer: Caesar *cut the under-*

ground channel that fed the enemy’s spring. With the spring dried up, there was no water, and the enemy quickly surrendered.

“The test will now begin.”

The drifting, floating sensation ended. Bergen opened his eyes to find himself lying on a sloppily made-up cot. He was in one corner of a cabin, with a window-opening sawed through the log wall near the head of the cot. The log at the bottom of this window had been smoothed to form a rough sill, and on this sill sat a crude earthenware jug with a corncob in it for a cork. As Bergen watched, a dirty hand reached up from outside, and took the jug off the sill. There was a *pop!* followed by a gurgling sound. Then there was a long sigh. The jug reappeared on the sill.

Bergen frowned, and looked around. The situation seemed to make no sense. But the apparent senselessness might itself be part of the test.

Bergen carefully sat up and looked around the room. A double-bitted ax with broken handle lay on the rough plank floor across the room. A long-barreled gun had been slammed against a corner of the stone fireplace with enough force to chip the stone and knock the gun barrel out of line. The gun lay on the floor near the ax. A number of smashed handmade tables, chairs and benches made several heaps of wreckage that cluttered the room. Large chunks had been

chopped out of the log wall, and chips were strewn around on the floor amidst the wrecked furniture, ax, and gun. The general effect was as if someone had gone into a maniacal rage, and wrecked everything in sight. As Bergen's eyes adjusted to the gloom, he could see the remains of a smashed earthenware bowl, and bits of pieces of what had evidently once been a rough window glazed with a cheap transparent plastic.

Evidently, he was on a colony planet of the most primitive kind. And, somewhere nearby, was whoever had been driven half-crazy by the conditions that just naturally existed on such a colony planet.

Bergen cautiously put one hand on the foot of the cot, and leaned on it to step across a pile of debris. The cot teetered and collapsed. Bergen was struggling to regain his balance when a billet of wood came through the open window and struck him in the back of the neck, knocking him into a pile of broken furniture with jutting legs and braces. One of these caught him in the middle of the forehead. He saw a dazzling burst of sparks.

Outside, someone spat.

Bergen dizzily picked himself up. His head was throbbing painfully. In the previous tests, he'd at least had a definite purpose. Now, he was told to manifest some obscure quality that was supposed to distinguish successful gunmen, politicians, businessmen, and generals. Bergen

snorted. He wasn't even sure there was any such quality.

From outside came a deep male voice, "Coming out? Or do I *drag* you out?"

A burst of laughter followed, as if two or more men were outside, enjoying the situation.

Bergen was now sure that he must be on a colony planet in an early stage of development. Only on such a planet would he be likely to find a roughly-built log cabin, with ax and gun used as tools, and with a light plastic, flown in by the supply ship, to serve the function of glass.

As he was thinking this, the cabin door flew open, and an individual whose shoulders spanned the doorframe came in, glanced around and slung a billet of wood at him.

Bergen ducked. His opponent sprang across a pile of trash, gripped him by the shirt and slammed him against the log wall. There was a burst of lights, then blackness and dizziness.

The colonel's voice was saying, "You're very close to failing this test, Bergen. If your total score had been a little lower in the other tests, we'd flunk you now. Do you hear me?"

"Yes, sir."

"Anyone with a brain in his head could have made better use of his time than you have. The room was filled with potential weapons. You had more than enough time to select one. Instead, you did your

meditating on the situation before you were armed, even though that block of wood in the back of the neck should have shown you had enemies. When your opponent came in, his vision was momentarily dim because of the bright light outside. But he found you in full view and empty-handed. Your performance so far is pathetic."

"Yes, sir."

"Thanks to this pitiful start, the simulator has you on a track where you'll find yourself completely at the mercy of petty opponents. This is going to be an unpleasant experience. If your performance is no better than it's been so far, you'd be better off to stop now. If you want, we'll end the test."

"No, sir. I want to go on."

"You're warned, Bergen."

"Yes, sir. Thank you."

"All right."

Bergen felt dizzy.

A voice was saying, "Tickle him again, Con."

"Happy to, Milt."

A white-hot pincers took hold of the calf of Bergen's right leg and tore out a piece of flesh.

The pain snapped Bergen wide-awake. He found himself sitting up, his back toward the outer edge of the cabin's porch, with two men bent over him, one of them holding in a leather glove what looked like a large insect. Bergen tried to spring to his feet, but his hands, tied behind his back, jerked him off bal-

ance, so that his head banged back against a badly weathered post that supported the porch roof.

A familiar voice said, "Let him see how they *taste*, Con."

The nearer man leaned toward him, forced open Bergen's mouth and shoved something in. A multitude of sharp claws scraped at his tongue, teeth, and the inside of his mouth.

Bergen was wide-awake again. For an instant, he felt an uprush of rage. But then a sense of cold calculation told him that, in this spot, the rage wouldn't work. Bergen concentrated on this cool inner thought, nearly lost it, then brought it into full awareness, and suddenly he was perfectly cool himself, his mind concentrated on finding some opening. After a moment's intense thought, he saw one possibility—then an instant later he saw another. And then his thoughts moved from point to point like a lightning bolt seeking the line of least resistance, and suddenly he had a plan.

Bergen shifted his position to test his wrists and ankles. His wrists were tightly tied. His legs were free. No one was in sight save the two men bent over him. One of these was the broad-shouldered man, apparently named Milt, who had knocked him out. The other was an older man, called "Con," who now jammed the large struggling many-clawed insect further into Bergen's mouth.

Bergen turned slightly, his left foot hooking behind the left ankle of the broad-shouldered Milt, his right leg drawing back as if he would try to roll to his left to get up. At the same time, he expelled the air in his mouth, closing his lips without clenching his teeth.

He slammed his right foot forward, to hit the broad-shouldered Milt at the left knee. Bergen's left foot was already hooked behind Milt's left ankle. Milt slammed back against the wall of the cabin.

But this was only one part of his problem. Meanwhile, the big insect squirmed violently in his mouth, its light and air cut off. Bergen opened his mouth slightly. The insect urgently thrust out into the light and Bergen spat it towards the other of the two men, who sprang back out of the way.

Bergen got his feet under him and stood up, his hands, still tied together behind him, around the post of the porch. This post felt about five inches thick, was smooth to the touch, and soft enough so that his fingernails could dig into the surface.

Meanwhile, the older of the two men, Con, was just reaching to pick up a billet of wood from a stack at the corner of the cabin. His large friend, Milt, was starting to get to his feet, a savage light in his eyes. To either side were tumbled-down cabins, with no one else in sight but a woman who now leaned against the front wall of the nearest cabin,

impassively watching the fight. Bergen cast a glance over his shoulder. Behind him was a large furrowed weedy field dotted with mounds from three to fifteen feet across, and from two to ten feet high. The whole place had a desolate, deserted look.

At the corner of the porch, Con had now selected his bolt of wood, and Milt was on his feet.

Bergen was facing Milt, with the post at the center of his back. He glanced at Con. "What's the matter? Milt too yellow to fight his own fight?"

Con glanced at Milt. Milt hurled himself at Bergen. Bergen dropped.

Milt hit the post solidly.

With a splintering crack, the post gave way.

Bergen, twisting as he fell, landed heavily on his side, his hands still tied around the post, the dazed Milt on top of him.

Bergen wormed his way along the post, and got his still-tied hands over the end.

Con was now coming toward him, holding a billet of wood ready to throw. Bergen rolled to his feet, and jumped onto the porch.

The earthenware jug with the corncob cork still sat there on the window sill. Bergen remembered the sigh of pleasure he'd heard earlier.

"Throw that, and I smash the jug."

Con hesitated. Bergen climbed in

the window, twisted, and closed his fingers around the neck of the jug. "Start trouble and I smash it."

Milt now struggled to his feet. Con spoke to him in a low voice. Bergen picked his way over the wreckage to the corner of the room, dropped to a sitting position, let go of the jug, and found the broken double-bitted ax.

His eyes were becoming accustomed to the relative dimness of the cabin. Holding the ax head by the remnant of its splintered handle, he crossed the room to a still dimmer corner behind a clutter of wreckage. He crouched behind an overturned table, took a fresh grip on the ax head, and carefully worked it back and forth as the blade cut through the rope.

At the window, Milt, swaying slightly, looked into the room. Bergen massaged his wrists, quietly picked up a solid round table leg.

The door opened, and Con eased in, blinking and holding a billet of wood in either hand.

Bergen tossed a small broken stool across the room at the jug. The jug smashed. Con slung a billet of wood toward the noise. Bergen sprang past the pile of wreckage, and rammed the end of the table leg into Con's stomach. The rush carried him out the door. He caught a glimpse of Milt climbing in the window, smashed him on the back of the neck, knocking him all the way in, followed him inside, hit him over the head, and looked around.

Con was stretched out by the door. Milt was stretched out by the window. Bergen glanced outside. The woman was leaning against the porch post of the next cabin, watching him.

From one of the tall circular mounds in the field, a column of marching insects was winding out across the field, its far end nowhere in sight. Bergen stepped out on the porch, and looked all around.

When he glanced back, the woman was standing about six feet away, smiling. Her eyes had a glazed look.

"Honey," she breathed, and swayed toward him.

Bergen uneasily stepped back.

From somewhere came a peculiar rustling. He looked around, to see that the ribbon of insects issuing from the mound in the field had changed direction, and was approaching the cabins in a wide lane. As he watched, the insects burst out of the grass onto the porch.

The woman looked around, screamed, and fainted.

Bergen swore, heaved her onto his shoulder, and stumbled toward the next cabin. The rustling continued, apparently all around him, and he saw another wide line of insects pour onto the porch of the cabin in front of him.

A faint shadow swung across the side of the cabin in front of him.

Bergen whirled and strode toward the edge of the field. For a moment, his thinking processes

were almost blotted out by the realization of what must be happening to the unconscious men in the cabin. But there was nothing he could do about it.

Meanwhile, as his thoughts dwelt on this, the shadow he'd briefly noticed streaked fast across the field, there was a rush of wind, sharp talons sank in at the base of his neck and left shoulder, there was an agonizing wrench, and then the ground was falling away, the woman lying on the ground looking blankly up at him, huge leathery wings creaking around him, and he was carried up, and up, to hover high over a large stained boulder, and then he was let go.

There was a terrific concussion.

Bergen dazedly opened his eyes.

The colonel was standing by the cot. He beamed. "I had my doubts for a while there. But you made it."

Bergen sat up dizzily. He took a deep breath. "Your mind has to be always on the problem, doesn't it? You have to keep looking for a chance, an opening, and be poised to take advantage of it."

"Let's say," said the colonel, "that there's a certain hard-to-define attitude you have to attain, a certain frame of mind. In the other tests, it was incidental, though lack of it would finish you in time. In this test, it was central. Self-pity, complaining, prolonged indecision, fear, dread, any of a number of distractions would finish you in short

order. The test was programmed to keep the crises coming at you faster and faster. You bungled the first part, but once you straightened out you did well. We're proud of you."

Bergen felt the heady flush of victory. He had succeeded. He had outwitted the stockade.

The colonel gripped his hand, then turned toward the hatch. "Follow me, my boy, and we'll get you your outfit. Then you can begin training immediately." He led the way out through a storeroom filled with temporarily paralyzed gorillas, alligators, grizzly bears, and other assorted tools-of-the-trade.

To make conversation as he passed through this place, Bergen remarked, "It'll be a relief to get to work. That's the roughest entrance exam I've ever heard of."

"Oh, sure," said the colonel, brushing aside a sack full of coral snakes. "But we have to make the process of selection tough, so you can survive the training." He gave Bergen a look of fatherly pride. "The time will come, my boy, when you'll look back on these admission tests and *smile*."

The colonel stepped out into the corridor.

A chill passed through Bergen as he followed.

As he trailed the colonel down the hall, now a full-fledged recruit in the Interstellar Patrol, a little question occurred to Bergen:

"Just what was so bad about the stockade?" ■

Supervisor Lee Chang Chu said, "But Sid, are you sure? I have never approved of personal assassination."

Sidney Jakes, of Section G, Bureau of Investigation, Department of Justice, Commissariat of Interplanetary Affairs, of United Planets, was less than his exuberant self. His face was as unhappy as his colleague's. "There's no alternative, Lee Chang. This is the third troupe we've had swallowed up in the maw of El Primero's goonies. He's built a police state unknown since Adolf the Aryan's under Himmler. We've got to get rid of him."

She was less than convinced. "Why the immediacy? Suppose it came out? The reputation of Section G is already so high that if something like this . . ."

Sid Jakes was making negative motions with a forefinger to interrupt her. "That's the point. This Michael Ortega, El Primero of the planet Doria, has our number and is

Psi Assassin

The trouble with launching an assassin is that the situation may change between the time your deadly missile is launched and its arrival. Then the assassin may be as hard to recall as an ICBM!

MACK REYNOLDS

using it in an attempt to club us over the head. Commissioner Metaxa made a big mistake when he revealed to so many chiefs of state the true nature of United Planets. That the basic *raison d'être* of our organization is to push scientific, industrial, and socioeconomic progress, no matter what institutions might stand in the way. Too many were allowed into the secret. Some, evidently leaked it."

The diminutive Chinese woman—more a girl, in physical appearance—shifted her slight, *cheong-sam* clad figure in her chair. "But what is he doing?"

Sid Jakes grunted disgust. "Seemingly not much. He invokes Article One of the United Planets. *The United Planets organization shall take no steps to interfere with the internal political, socioeconomic or religious institutions of its member planets.* And he threatens, if we persist in opposing his policies, to pull out of UP, and, further, to reveal to the total membership of the confederation the fact that Section G, in particular, has been subverting the institutions of the more backward worlds."

"I'm not up on Doria. What are the particular institutions stymieing progress there?"

"A personal dictatorship interested in maintaining the status quo at any price."

Lee Chang said, in protest, "We have many tyrannies in UP. Religious hierarchies, industrial feu-



Illustrated by Kelly Freas

dalism, matriarchies, patriarchies and so on . . .”

Sid Jakes was wagging his finger at her again. “Not like this. He’s comparable to Russia’s Stalin, to the Dominican Republic’s Trujillo, back in the twentieth century.”

A frown on Lee Chang’s face was a gentle thing. She said, “I’ve heard of Stalin, of course.”

“Trujillo. Rafael Trujillo,” Sid Jakes said impatiently. “Trained by the U.S. Marines in the days when at the drop of a sombrero, the marines landed in any Latin American country that didn’t toe the United States mark. Back in the 1920s when the marines were making the world safe for those who had them.” He snorted amusement, the usual Sid Jakes showing face for a moment. “With American backing, he seized power in 1930 and held onto

it until he was shot in 1961. During those thirty years he ruled absolutely for himself, his family, and a small circle of associates. He milked his little country dry. Finally, even the American elements that had originally supported him, got fed up. But he lasted more than a generation, Lee Chang. We can’t afford to have Ortega do the same.”

Lee Chang Chu looked unhappily and unseeingly about the Octagon office in which they sat. She said, at last, “But assassination. My ex-

perience has been that it seldom accomplishes the desired. Take the Grand Duke Ferdinand. The South Slavonian patriots who shot him, there on the streets of Sarajevo, hardly expected his death to precipitate the First World War. Take Philip of Macedon, an extremely capable organizer, cut down in his capital. The result? Alexander, his son, evidently a god in physical appearance but no great brain, ram-paged through the civilized world with Philip's army, butchering millions in building his empire. And what happened to it on his drunken death? It fell apart, and for generations his generals and their sons, and their sons, fought it out, destroying Greece and the Near East to the point that the stolid Romans were able to take over."

"Two examples," Sid Jakes grimaced.

Lee Chang said softly, "The most famous lynching of all time didn't accomplish that which was desired. That is the silencing of the teachings of the Rebel."

Sid Jakes looked at her in speculation. His own voice was impatient. "Are you so sure? I assume you refer to the troubles in Jerusalem. True enough, His name went on, but did His teachings? Assuming He had original teachings, which has been debated."

Lee Chang frowned. "The Sermon on the Mount went on, even though He died."

"There is nothing original in that

sermon. It is all to be found in the writings of the latter prophets in the Old Testament. I was referring to original teachings. If He had any, they were soon forgotten, or"—he twisted his mouth cynically—"deliberately suppressed by those who called themselves followers, but who had their own axes to grind."

"But . . . the Golden Rule."

"Ye Gods, you babe in the woods," Jake snorted. "The Golden Rule hardly originated with Joshua of Nazareth. There hasn't been a religion, a holy man or even a philosopher, who hasn't stated that bit of truth, down through the ages." He turned grimly serious. "There's no use arguing, Lee Chang. El Primero must go. We can't allow him to hang on for a generation or two. Doria is crucial in the economic development of United Planets. We can't have this ruling hierarchy, headed by Ortega, continue to drag their heels. We need an assassin. You say we have one in this Special Talents group of yours?"

"Yes, we have one," Lee Chang Chu said lowly. She came to her feet, preparatory to leaving.

Sid said, "Send him in. We've lost too many good operatives on Doria. El Primero has got to go."

She hesitated before turning to leave. "Any word from Ronald?"

Again his face was empty. "No. We can't raise him. Ronny Bronston, nor any of his troupe. We can only assume the secret police got to him, Lee Chang."

Her words were so low as hardly to be heard. "I see. I'll send Sam in, Citizen Jakes."

"Sam?"

"The assassin you wanted."

At the knock on his partly ajar door, Sid Jakes called, "Come in, come in! It's open. It's always open!" He looked up expectantly.

And frowned.

The little man said, hesitantly, "Citizen Jakes?"

Sid Jakes said: "Ah, come in. Take a chair. Excuse me for a minute."

While the colorless newcomer found himself a seat and settled down, hands in lap, Sid Jakes flicked on his orderbox.

"Irene," he complained. "Didn't I tell you I was expecting a top priority . . ."

The box squawked and Sid Jakes flinched. He grinned. "All right, all right, I love you, too. But the thing is, I'm sure this"—he looked over at the newcomer—"ah, gentleman, has something very important. If he got past *you*, it must be something important. However, I'm momentarily expecting one of Lee Chang's new Special Talents agents and . . ."

The orderbox squawked.

Sid Jakes did a double take.

He switched off the interoffice communicator and said accusingly, "You're Sam?"

The other flushed embarrassment and nodded.

Sid Jakes closed his eyes for a

long moment. His face worked slightly. He shook his head. Finally, it was as though something new had occurred to him. He opened his eyes again, hopefully.

He said, "Cosmetics and Wardrobe have certainly done a fine job on you, ah Citizen . . ."

"Goodboy," the other squeaked. He cleared his throat apologetically.

"I beg your pardon?" Sid Jakes said.

"Goodboy," the other said. "Samuel Goodboy."

"Oh." Sid Jakes said, forcing heartiness into his voice. "Well, they certainly did do a good job on you. You'll snake past the Dorian immigration and police like . . ."

"Who?" the little man said.

Jakes looked at him. "Who what?"

"Who did a good job on me?"

"The Wardrobe and Plastic Surgery people over in the Department of Dirty Tricks."

Sam Goodboy looked at him blankly.

Sid Jakes said, "Oh, no."

It was the newcomer's turn to say, "I beg your pardon?"

"Never mind," Jakes said painfully. "Lee Chang is our most stute recruiter. She's never pulled a bad fling yet." He took in the other again and repeated his last word. "Yet."

"Yes, sir," Goodboy said apologetically.

Jakes looked at him for a long time, an element of bafflement

there. Finally, he took a deep breath and said, "All right, here's the assignment." Something came to him and he said, "This is your first?"

"Yes."

"You've never even been on a minor assignment, along with a troupe of operatives? Something to, well, kind of blood you?"

"No, sir." The little man swallowed. "Supervisor Chu just signed me up last week."

"Last week! What kind of training've you been through?"

"Training?"

Sid Jakes counted down for a moment. Then, "Look, ah, Goodboy. In the old days, it would take up to five years to turn out a Section G agent. A couple of years to locate a potential with the required mental and physical elements and especially the dedication."

"Oh," the other said in a wistful sort of way. "I've got the dream. The United Planets dream."

The Section G higher-up ignored him. "Then another three years of training and apprentice level work. Most didn't make it. It took a lot to become a full fledged agent, complete with silver badge."

"Oh, I've got a badge," the other said proudly. His hand fumbled over his pockets. He frowned apologetically. "I'm sure I had it right here, somewhere."

Sid Jakes closed his eyes again. When he opened them the little fellow was displaying a bronze badge, lettered simply *Samuel Goodboy*,

Section G, Bureau of Investigation, United Planets. It seemed to glow in the small, inoffensive man's hand.

"Who gave you that!"

"Why, Supervisor Chu."

"Oh, she did. After recruiting you only last week?"

The other nodded.

"Well, you can tell Supervisor . . ." Sid Jakes broke it off. "No, sir," he said. "I won't do it. She's sucked me in on others in this Special Talents gang of hers. If Lee Chang says you're an assassin, I'll ride along with her until she takes a Brody. She's issued you a communicator and a Model H gun?"

"No, I'm afraid of guns."

There was another lengthy silence. Sid Jakes said, after a while, "I get the feeling that I came into this conversation half an hour too late."

Sam Goodboy said, "She didn't think I ought to take a Section G communicator with me. Or anything else they might detect. There's only one spaceport on Doria and the police are ever so sharp about detecting anything like a weapon, or a cloak and dagger device such as a Section G communicator."

Sid grunted. "She's right." His built-in optimism fought its way to the surface. "Undoubtedly, that's where your special talent comes in. You've got a better way of assassinating El Primero than with a gun. But we'll get to that later. First, let me give you a rundown on the assignment."

He settled back in his chair. "Down through the ages, we've always had assassins. In the past, no man in power could adequately defend himself against a really dedicated assassin. The very term comes from an organization which, high on Indian hemp, pulled off some of the most notable political killings on record." Jakes was warming to his tale. "The story is told that Richard the Lion Heart was first inclined to give Hasan Ben Sabbah, the Old Man of the Mountain, and head of the assassin sect, a hard time. But when he awoke one morning, there was a knife on the pillow next to him. He doubled his guard, but the next morning, there was another knife. In a rage, he again doubled his security. And the next morning, another knife. Richard made his peace with Hasan Ben Sabbah."

"Yes, sir," the other said, as though encouragingly.

"Then there were the Nihilists of Russia; at least, some of them, one wing of the organization. They were convinced they could scare the aristocracy into granting reforms. They were wrong, for various reasons, but they tried. They thought that individuals were at the root of Russia's evils. They pulled off some noteworthy assassinations, sometimes blowing up whole trains to get a Czar or a Grand Duke."

Sid Jakes shook his head. "No. In the past, a political figure had no chance against a determined, or-

ganized group which wished to assassinate him. Even individuals could pull it off, given determination, since a political figure could not avoid the public. To maintain himself, he had to show. Take the American presidents, for example. Lincoln, at a theatre, killed by a single man—Booth. McKinley, again in public, shaking hands with a long line of people. The anarchist, Czolgosz, approached with his hand supposedly in a bandage, actually concealing a gun. The first Kennedy, driving in a procession; once again, killed by an individual."

Sam Goodboy said, "Yes, sir. You make your point." He cleared his throat. "Ah, what is your point?"

Sid Jakes scowled at him. How in the name of Holy Jumping Zen could Lee Chang have ever turned up this yoke in the name of recruiting Section G operatives?

However, he went on. "The point is that almost invariably, before, the ruler, the victim of assassination, was got to by the assassin while appearing in public, a thing he could not avoid." He paused. "Today, it is no longer necessary. Since the advent of radio and especially television, centuries ago, and now Tri-Di, the public figure no longer need appear *in person* to the people. And politicians, and those in power in general, soon found it out. Until, today, such potential victims of the assassin as El Primero, never, but never, leave the security of their quarters."

Sam Goodboy nodded, and tried to project earnest intelligence, failing miserably.

Sid Jakes said, "El Primero's defense is as strong as any the human race has ever seen. If our information is correct, he has a method, utilizing brain surgery and psychedelic drugs, of insuring the faithfulness of his bodyguard and those connected with his security. They are incapable of being seduced by his enemies, incapable of betraying him. The first troupe we sent to undermine his regime, made that mistake."

Sam swallowed. "He had them shot?"

"No. He had them treated. After spilling everything they knew about Section G and the workings of United Planets, they became members of his bodyguard and hold that position now."

"Oh."

"So we sent in another troupe. This one with orders to bring El Primero down, whatever. They decided to get him from a distance and set up some special weapons from the Department of Dirty Tricks."

"And?"

"The first troupe, now faithful members of Michael Ortega's bodyguard, knew all about such special weapons. The second group was captured by the first and became part of his bodyguard, too."

Sam winced. "You said that three troupes preceded me."

"Yes. We finally went the whole hog and sent three of our top men, headed by Ronny Bronston, our best field man. We lost communication with them last week."

"And?"

"And assume they're either dead or now part of El Primero's bodyguard, completely devoted to him." Sid Jakes let a flash of his characteristic humor, albeit a bit on the sour side, come through. "So now, after the expenditure of ten of our veteran agents, we have you, Sam. With one week of seniority to your credit."

"Yes, sir," Sam said, cooperatively.

"And now, would you mind telling me just what this neat trick of yours is? Why it was that Lee Chang made you an agent after only one week of, uh, training?"

"Yes, sir. My special talent is I can kill people." He cleared his throat. "People, or anything else."

"How?" Sid Jakes blurted.

"I think them to death."

Lee Chang Chu, her small feet twinkling in the ages old shuffle of the Chinese woman, burst into the office of Irene Kasansky, secretary extraordinary of Ross Metaxa, Commissioner of Section G.

Irene looked up from her banks of orderboxes, her switches and buttons. The dourness faded from her harried face. Supervisor Chu was one of the very few in the department who was immune from

the acid of Irene Kasansky. She began a greeting but Lee Chang, her face pale, snapped, "I've got to see the Commissioner."

The other had never heard that particular tone of voice from the Chinese operative before. She said into one of her orderboxes, "Shut up, I'll call you back." She looked up at Lee Chang again. "The Commissioner is in conference but . . ."

The feminine supervisor was sweeping past. "With Jakes?"

"Yes, but . . ." Irene's voice rose. "You can't go in there now. I had definite orders that . . ."

But Lee Chang was past her and through the door to the sanctum sanctorum. Irene Kasansky stared after her. She caught herself, flicked a switch and bit out, "Commissioner, I told you. You've put too much on poor Lee Chang. She's obviously gone driveling and . . ."

Ross Metaxa looked up, taken aback as his only female supervisor darted in the door, unannounced. He was a middle-aged man, sloppy of dress, weary of expression—but he was a disciplinarian.

Across from him, Sid Jakes lounged, hands in trouser pockets. His eyebrows went up as well. He grinned. "That's what I like about this department," he chortled. "Informality."

"Shut up, you laughing hyena," Metaxa growled. He glowered at Lee Chang. "What'd you think this is, the ladies' room? What's the idea of bursting in . . ."

She ignored him, snapped at Sid Jakes, "Where's Sam?"

"Easy, easy," Sid said soothingly. "I took your word for it. Well, not exactly. I made him demonstrate. You know, he killed that fern I had in my office at twenty paces." He grinned and looked over at his superior. "Just by concentrating on it. How's that for a secret weapon? Neat trick, eh?"

Ross Metaxa looked from one of them to the other. "What are you two yokes blithering about?"

Lee Chang still ignored the Commissioner of Section G. She said, her voice in agony, to Sid Jakes, "Where's Sam Goodboy?"

Sid Jakes didn't understand as yet. "I tested him still further, with a chimp from the zoo. A chimpanzee at half a mile distance. One minute he was as chipper as . . ."

"Where's Sam Goodboy!"

Jakes broke it off. Both he and Ross Metaxa stared at the diminutive Section G supervisor.

Sid said, "Why, he's on his assignment to Doria. He's on his way. I had him shuttle over to Nuevo Albuquerque yesterday. By now, he's on his way."

"Get in contact, immediately! Order him back!"

"Order him back?" Jakes said plaintively. "You're the one recommended him. He's gone to crisp old El Primero. Couldn't happen to a nicer cloddy. I can't get in touch with him. He has no communicator. If he had one, the secret po-

lice'd detect it. He's on his own."

Metaxa roared, "What is going on here?"

Lee Chang sank into a chair, thin shoulders slumped. She said, "Ronny Bronston broke silence."

"Broke silence," Metaxa said. "We haven't heard from him for at least . . ."

She looked up wearily, "Don't you see what must have happened? The agents who were captured and treated by Ortega's police—they had communicators. Doria's scientists aren't cloddies. They've obviously been able to analyze the subspace band utilized. In other words, tune in on our communications. Ronny must have found out and discontinued calling us."

Sid Jakes said, "He could have used code."

"Any code is breakable, especially by the stutes on police state worlds. They devote any given amount of time to such items."

Ross Metaxa was scowling again. He reached into a desk drawer and brought forth a squat brown bottle and a glass. He didn't offer any of the clear liquid the bottle contained to his subordinates, knowing better. He knocked a jolt back over his palate, then growled, "Then why'd he break silence now?"

There was an embarrassed element in Lee Chang's voice. She said, "We . . . that is, in our, uh, personal relationship. Well, for amusement, I taught him a few words of Mandarin."

"Mandarin?" Sid Jakes queried.

She looked at him. "Chinese. It's a dead language everywhere except on Han, the planet of my birth."

"Oh," Sid said. Then the meaning came home to him. He laughed. "Chinese. Their cryptograph people would have their work cut out deciphering that. What'd Ronny say?"

"He only has a few words. A very few." She looked down at a note she held in a small hand. "He said . . ." for a moment her voice broke. She took a deep breath and started again. "He said, 'Me take Number One . . . Me change face . . . Me Number One.'"

They bug-eyed her, speechlessly.

Her eyes went from one to the other, in desperation. "Don't you see? Somehow, somehow, Ronny has pulled off the biggest romp of his career. He's kidnapped Michael Ortega. Somehow, somehow. He's evidently undergone plastic surgery. Somehow, somehow, he's taken El Primero's place."

Metaxa said hoarsely, "Did he say anything else?"

"Yes. The rest of the message was, 'Me make big talk . . . No more Number One.'"

Sid Jakes who had been sitting erect in unwonted fashion, said excitedly, "He's going to address the whole planet. All of Doria. Make some sort of announcement. Free elections or something."

"Impossible," Metaxa rumbled. "Fantastic." He glared at Lee

Chang. "How do you know it was really Ronny?"

"Who else on Doria would know Mandarin, or, even if they did, know enough to beam a message to Section G in that tongue?"

"Kidnap El Primero?" Sid Jakes said in second thought. "What kind of curd is that? We all know he's the most security conscious dictator in United Planets. How could you ever kidnap the funkier, not to speak of substituting someone else in his place?"

Lee Chang looked at him strangely. "I can think of only one possibility. According to our dossier on Michael Ortega, he has one Achilles' heel. Remember Svetlana Alliluyeva? Or, better, Svetlana Stalin?"

Sid Jakes bothered to shake his head. Metaxa poured himself another drink of Denebian tequila and waited for her to go on.

"The only person Joseph Stalin evidently ever really cared for," Lee Chang said. "His daughter and one of the very few relatives, friends and associates that long survived him. Well, from what I hear, Michael Ortega has the equivalent in Concha Ortega."

Metaxa growled, "What's this got to do with Bronston and his taking over the position of El Primero?"

Lee Chang made a feminine move. "It wouldn't be the first time our quiet, unassuming Ronald has made his mark with the ladies. Remember Amazonia?"

Sid laughed suddenly. "So one of our teams tried to bribe El Primero's guards. The second troupe tried to blow him up from a distance. But Ronny turns on the Bronston charm and . . ." Sid Jakes ground to a halt. "Holy jumping Zen," he yelped. "Sam Goodboy. He's zeroing-in on Ronny!"

Ross Metaxa spun in his chair and blurted into his orderbox, "Irene! Sam Goodboy, a new agent. On assignment to Doria. What's his cover?"

Lee Chang and Sid Jakes failed to make out the answer.

Metaxa snapped, "Find out, soonest. A mistake has been made. He's on assignment to kill Ronny Bronston."

"And . . . he . . . never . . . fails . . ." Lee Chang added lowly.

"And he never fails," Metaxa repeated into the interoffice communicator.

For a moment, Irene Kasansky held silence, then she said, the rasp gone from her voice, "I didn't handle Goodboy's cover. I'll check immediately."

Metaxa looked back at his two top supervisors.

Sid Jakes chortled, "Get that sudden change in voice. Irene's sugar on our Ronny."

Metaxa glared at him, but then turned his eyes to Lee Chang. "What'd you mean he never fails?" he demanded sourly. "Anybody can fail, no matter how proficient. Certainly, professional killers can."

Lee Chang was shaking her head. "Ross . . . this one doesn't use weapons. He's one of my Special Talent recruits."

Her superior looked at her blankly. "You mean judo or one of those other old . . ."

She was still shaking her head. "He doesn't know how he does it." She added, as though that explained everything, "He comes from the planet Rubata."

"Rubata!" Jakes snorted. "Those crackpots."

She turned to him, frowning again. "If you will." She went back to Metaxa. "You'll recall the planet originally colonized by would-be witches, spiritualists, psi adepts, or would-be adepts, so forth and so on?"

"Vaguely," Metaxa growled. "As Sid says, crackpots."

Lee Chang shrugged prettily. "I would have said the same, until I began my search for special talents to recruit for Section G. Quite a few of them have come from Rubata. I don't pretend to explain; however, few would deny that down through the ages the human race has thrown some, well, out of the ordinary persons. Do you deny, for instance, that occasionally a human turns up with total recall? That others have the ability to do mathematical problems in their heads that put computers to shame? I am not mentioning such oft recorded phenomena as telepathy, clairvoyance and even precognition."

"All right," Metaxa growled. "So from time to time offbeat talents have shown. I'll accept that, in a limited way. What's it got to do with this Sam Goodboy?"

"The original colonists of Rubata numbered but a few thousands," Lee Chang pursued. "However, they bred—with each other." She shrugged again. "Not only did the posterity continue and strengthen the as-you-say, offbeat talents, but evolved some new ones. Among the original colonists were witch doctors and libans, sorcerers and wizards, hex doctors and shamanists, practitioners of black magic, of voodoo, of the left hand path. Admittedly, as Sid has put it, largely crackpots. But you can't explain away, with that term alone, all the evidence that has come down to us through the ages of such items as bantu witchmen, voodoo priests and hex doctors killing persons through their . . . special talents. At any rate, Sam's own belief is that he numbers at least several of these among his ancestors, not to speak of telepaths, clairvoyants and so forth. The thing is, this talent of his *works*."

The orderbox spoke up. Irene said, "Commissioner, I've tracked down Goodboy's cover. He's going in as a tourist. Doria makes a play for tourism, it's supposed to be very scenic."

"All right, all right. How's he getting there? We'll have to contact him on his ship."

"He's on the Space Passenger

Freighter *Mola*." She hesitated, then added, "Commissioner, it's a Dorian spacecraft."

"That doesn't make any difference. We'll contact him in our own code."

Lee Chang said emptily, "He isn't checked out on Section G code, Commissioner. Even if he was, Dorian security is familiar with our codes. Remember, they number two of our former troupes in their secret police."

Sid Jakes was on his feet. He bent over the orderbox. "Irene," he snapped. "Get a move on. Arrangements for Supervisor Chu and me to depart soonest for Doria. If necessary, requisition a Space Forces four-manner."

Ross Metaxa scowled at him. "We can't risk your neck on a driveling happy romp like this."

Jakes looked at him bleakly. "Ronny Bronston is my best field man, Ross. On top of that, Doria is the biggest sore thumb in United Planets right now. If that planet spills all it knows about the inner workings of Section G, then the member planets will drop out of UP like dandruff."

Lee Chang was standing as well. "I'll get ready," she said.

The trip was an agony.

They were lobbed over to Nuevo Albuquerque to the spaceport. And jittered while waiting for the small Space Forces craft which had to be recalled from Calisto.

"Isn't there any way this could be speeded up?" Lee Chang murmured, knowing as well as her colleague that there wasn't.

Sid Jakes looked at her in understanding. "There is no speed in underspace, Lee Chang. Before entering it, yes; after leaving it, yes. But in underspace, there is no speed. The most sluggish freighter gets there as fast as the nattiest Space Forces one-man scout."

"Sam'll be on Doria two days before we arrive, then."

He didn't bother to answer that.

They spent most of their time on the *Gremlin* in the tiny mess. They tried to play battle chess to kill the time, but couldn't concentrate. They sought out the ship's small library and played tapes, but only the lightest fictional things would come through. And even then they were hard put to follow the story line.

They must have been halfway when Lee Chang blurted, "*Why?* Why is it that after all these centuries of supposed civilization we wind up with such worlds as Doria? Why should there be a need for a Section G, to try and contain such planets? How did they ever evolve? How can man be so stupid?"

Sid Jakes grinned sourly. "You know the answer as well as I. Weren't you born in a commune, on the planet Han, settled by disgruntled followers of . . . what was his name?"

"Mao," Lee Chang murmured unhappily.

Sid Jakes grunted amusement. "The pioneers in space travel must never have dreamed of the method by which the suitable worlds eventually would be colonized. Once the basic breakthroughs were made, we took to space like an eruption of lemmings. Every religious sect, every socioeconomic system group, every race that thought it wasn't getting a fair shake on Mother Earth, took off seeking its own version of Utopia." He chortled. "It was bad enough when outfits such as the anarchists settled their own planet, but you know one that I ran into the other day?"

She looked at him. Anything to divert her mind.

He laughed ruefully. "A couple of thousand colonists with I.Q.'s of less than one hundred. They figured they were a minority, had to take too much jetsam. So they've found their own world. Refuse to join United Planets, by the way."

Lee Chang's face mirrored the nearest thing to a scowl of which it was capable. "But, Sid, what will happen to them?"

He shrugged. "Who knows? Perhaps they'll go back to the Neanderthal. Or, who knows? Perhaps the ruggedness of existence will be such that they'll breed up their I.Q.'s. The fit will survive, the too stupid go under. It's the way the race started."

She returned to her point. "But what I meant was, now that humanity is faced with a common danger,

the intelligent alien life form that we've finally come in contact with. Why don't we meet it together?"

Sid chuckled ruefully, and gave up trying to look at the historical fiction Tri-Di show they'd been projecting. "Lee Chang, Lee Chang, you dreamer. Man stops being a thinking animal when you deal with his institutions, his subconscious beliefs, his religion. The Christians were willing to die in the arena before giving up their creed. The Aztecs fought it out, almost to the last man, although Cortez daily offered them surprisingly good terms, in view of the fact they didn't have a chance. Hitler tried to the very last to bring down the whole Third Reich in flames, rather than surrender. Earlier in that same war, the Russian communists slugged it out, long, long after the world thought that the Wehrmacht had defeated them.

"No, it's a fallacy to think man will give up his beliefs to meet a danger. When the H-Bomb first threatened universal destruction, did man patch up his politico-economic difficulties? *Better dead than red*, was one slogan, and the other side had just as strong ones. When the population explosion threatened to lead to complete chaos, did the old religions, the old institutions, in such lands as Europe and India change? Not by a long shot. Man is at his most stubborn when his religious, political or socioeconomic beliefs need change."

She sighed deeply and her eyes went back to the Tri-Di stage.

They were met at the Doria spaceport by what would have been described as an honor guard of twenty men. They hardly had any illusions. Before landing, the ensign who skippered the four-man crew of the little *Gremlin* had been required to state the purpose of the set down, and to enumerate the passengers who expected to disembark. They had made no effort to disguise their identities, if for no other reason than that there had been no time to improvise a cover, had that been possible, considering the craft in which they had arrived.

The guard snapped to attention, presented arms, as Lee Chang Chu and Sid Jakes emerged from the United Planets Space Forces ship.

A nattily uniformed officer approached and came to the salute. "Supervisor Jakes, Supervisor Chu," he clipped out. "Welcome to Doria."

Sid Jakes grinned at him, ruefully. "Hi, Desmond." He held out a hand.

The other hesitated, then shook. "It's been a long time, Sid."

Sid Jakes turned to Lee Chang. "You know each other?"

Desmond bowed over her hand. "We operated in different sections, but I have heard a great deal of Supervisor Chu."

Lee Chang said demurely, "Thank you."

Sid Jakes chuckled. "We hardly

expected quite this reception, Desmond. How are the rest of the boys?"

The other was a man in his mid-thirties. Healthy; at least on the surface, adjusted and at ease. His eyes were as clear as those of his former superior. He smiled, a faint mocking quality in the background. "Like myself. For the first time in life, really happy and at peace with themselves. Doria is a great planet, Sid."

The smile on Sid Jakes's face faded. He said, his voice slightly tight. "Nothing like being coked up to make the world rosy."

But the now Dorian security officer only laughed. "If you don't understand it, Sid, don't knock it. Somebody wrote once that censors were mostly illiterates. Suffice to say, that we former Section G agents, now serving El Primero, are considerably happier than we were taking orders from Ross Metaxa and trying to live up to the way *he* thought things ought to be."

Sid said snappishly, "And does El Primero needle himself with the same happy dust he gives you?"

There was the most distant of glints in the other's eye, but he said, still pleasantly, "Sid, you remind me of those fat old ladies I saw depicted on a historical fiction Tri-Di show not so long ago. They belonged to an outfit called the WCTU, an anti-alcohol organization. They'd beat the drums against drinking guzzle and then after the

meeting serve refreshments of cakes, cookies, pies, candy and well sweetened lemonade or tea. I imagine nobody ever got around to telling them that alcohol and sugar do much the same thing in the human body. After the meeting, they'd go home and lie around, eating chocolates and fouling up their health by going to lard."

Lee Chang said mildly, "There are some small differences between guzzle and candy."

Desmond looked at her. If he had lost any of his composure, he had regained it now. He said, "Either, taken moderately, won't hurt you. Either taken in excess, can jetsam up your health, irreparably." He switched the subject. "May I ask that you accompany me to Interrogation? Formality, upon landing on Doria."

They followed. A noncommissioned officer bit out a command and the guard very briskly wheeled and fell in behind.

At the edge of the field, they entered an attractive administration building and, now followed only by the noncom and two of his men, proceeded down a short hall to a door lettered, in small, simple gold type, *Interrogation*.

The room beyond was most comfortably furnished. A desk, several comfortable chairs, a small bar in a corner.

The ex-Section G agent went through the formalities, held a

chair for Lee Chang, offered them both a drink, which they refused in view of the morning hour. He finally took his place behind the desk. The two soldiers had remained outside the door. The noncom had entered behind them and stood to one side, his face expressionless; however, his side arm was in a quick-draw holster.

Sid Jakes said testily, "You had the last word on that WCTU thing, that, 'if you don't comprehend it, don't knock it,' routine. Would you mind elaborating?"

"Not at all," Desmond smiled. "You've got the United Planets dream, Jakes. I've got the Dorian dream. It's an easier dream. All we want on Doria is to be left alone, and leave others alone, including any bogeyman alien life forms. You're patriotic—the old term. You come from Earth, the mother planet. You bleed for Earth and want to impose on all the rest of the humanity settled planets, the things that Earth stands for. To accomplish this, you beat the drums about the need to unite against an alien foe. It's a new takeoff on the old Roman adage, if you have trouble at home, stir up war abroad."

"You think patriotism is stupid?"

Desmond smiled still once again. "It's according to what epoch you're living in. In early society, it was a necessity if the tribe—or later the city-state—was to survive. But in late society, if indulged in, it meant suicide for the whole race."

Lee Chang said hesitantly, "I don't believe I follow that."

The Dorian security officer looked at her and nodded. "In the old days, before man left his home world, you had a multitude of nations. A man would say, 'I'm proud to be an Englishman. God save the king. I'm patriotic. I'd die for England.' And he often did. Why was he proud to be an Englishman? He hadn't done anything to achieve that status. By an accident of fate, he had parents who were living in England at the time of his birth. Had he been born in India, he could then have been proud of being an Indian, and willing to kill other nationalities—including English—in the name of patriotism. It particularly became nonsense, after the advent of nuclear fission."

He waved a hand negatively. "Patriotism belongs to the childhood of the species. But let us get to the point. The purpose of your landing on Doria. In view of your office . . ."

Sid Jakes said, "I'll be glad to tell you all about it."

Desmond nodded. "Do you mind if I put a truth beam on you?"

Sid Jakes hesitated only momentarily. "Of course not."

A light, centered on the desk, lit up, white.

Desmond said, "In the way of test: Are you opposed to the government of El Primero?"

"Yes," Sid said.

The light burned green.

"Do you think Supervisor Lee Chang Chu an ugly woman?"

Sid grinned. "Yes," he said. "Very ugly."

The light burned red. Both Desmond and Lee Chang smiled.

Desmond said, "Have you stopped beating your mother?"

Sid chuckled. "Well, yes and no," he said.

The light remained white.

Desmond said, his voice sharper now, "What is the purpose of your visit to Doria?"

"To apprehend a killer and return with him to Earth."

The Dorian security officer's eyes widened infinitesimally, and he darted a glance at the light which turned green.

"Where did the killer come from?"

"Earth." The light was green.

"Did he come here to kill someone?"

"Yes." The light was green.

"Who?"

Sid Jakes said, very slowly, "El Primero. Michael Ortega."

The other was suddenly on his feet, his face chalk, his voice shrill. "That is impossible!"

Sid Jakes shook his head. "Do you think that I, assistant to Commissioner Metaxa, would be here on a mission less important?"

The other, his eyes bugging, leaned over the desk, his fists supporting him. "Section G has been trying to destroy El Primero and

his government. Do you contend that now you are trying to prevent him from being assassinated?"

Sid Jakes answered evenly. "Supervisor Chu and I have come from Earth to save the life of the present El Primero."

The light burned green.

The other stared at it, momentarily, then brought his eyes back to the Section G second-in-command. "It is impossible to assassinate El Primero. His security is impregnable. Even now he is preparing to address the entire population on a matter of the utmost importance, but he will never leave the palace grounds."

Lee Chang spoke softly. "Do you think we are not familiar with all this, Citizen? But no security can thwart this killer."

The light burned green, acknowledging the truth of her statement.

The other slumped back in his chair, his mouth working, a trickle of saliva at its side.

"Sir!" the noncom said anxiously.

"Shut up!" his superior rasped. Then to Jakes, "Who?"

Sid Jakes shook his head. "I must have assurance that if and when we apprehend him, we will be allowed to return with him to Earth."

"No! We of the Dorian police will see to him!"

Sid Jakes shook his head again. "This is not an ordinary assassin, Desmond. You have not the time to put pressure to bear on us. He may strike momentarily. Your guaran-

tee, sent in a subspace cable to the Octagon, on Earth, that he will be put in our custody, or we do not reveal his identity. Otherwise, I guarantee the present El Primero will die shortly."

The light burned green, and the security officer, once again stared unbelievably at it.

Psycho-altered he might be, but his reflexes were still the same as those required, years before, when his application as a Section G trainee had been accepted. He flicked on an orderbox.

"Crash priority! Clear channels to Generalissimo Chavez!"

At the door of the room in the tourist hotel, Sid Jakes turned to the three security officers who were escorting him and Lee Chang.

He said, "I suggest you remain here, until we have dealt with him. This is the most dangerous man in all United Planets."

Desmond said, "Our orders are to cooperate with you to the utmost."

Sid Jakes knocked and, without waiting for an answer, flung open the door. Lee Chang entered first. They didn't want to startle the other, and were aware that Sam Good-boy knew her the best.

The drab little man was in the process of seating himself before the room's Tri-Di stage. He looked up in surprise. "Why, Supervisor Chu!" he said. He blinked and his eyes went in turn to Sid Jakes. Sid

closed the door behind him, blocking the view of the security men beyond.

Lee Chang blurted, "Sam! Everything has been changed! You mustn't kill El Primero."

He looked at her blankly, and then at Sid Jakes. He was aghast. "But . . . but I have already killed him."

Lee Chang collapsed into a chair. "Oh, no."

For the briefest of moments, Sid Jakes closed his eyes in pain. But then he brought himself back to the immediate reality. He snapped, "The fat's in the fire now. We've got to rescue what we can. We've got to get out of here, somehow; and back to the *Gremlin*. Ronny's gone, and there's nothing we can do about it."

Sam Goodboy was looking back and forth between them, his face in dismay, ineffectual appearing as never before. "I . . . I don't understand. I . . . I followed orders exactly. I've never done this sort of thing before. On my home planet, I used to work occasionally for the police. Some escaped killer, or something like that."

Sid's eyes had been darting about the room, looking for another exit. There was none. He went to the window and stared down. Four stories of smooth wall.

"You killed the wrong man," he bit out.

"But . . . I never kill the wrong man."

"One of our agents, Ronny Bronston, somehow infiltrated the palace and took Ortega's place."

"Oh, *that*," Sam Goodboy said, in relief.

"Oh *that*," Lee Chang echoed. "You're talking about . . ."

"Oh, I didn't kill *Ronny*," Sam explained seriously. "My orders were to kill El Primero, not somebody disguised as him. And just in time, too. He had managed to escape from where Ronny had him locked up and was about to reorganize his men to recapture the palace. Oh, he's very dead."

The Tri-Di stage lit up, and there, standing simply alone, garbed in a Dorian enlisted man's uniform, without decoration, stood a strong faced, domineering personality.

The three-dimension figure, life-like, save in size, stared out at them for a moment, then spoke. "Citizens of Doria!" he began. "I have a most important message."

"There's Ronny now," Sam Goodboy said in satisfaction.

Sid Jakes and Lee Chang stared at him, turned and stared at the Tri-Di figure, now fully launched into its epic speech.

"How did you know!" Sid demanded.

The little man squirmed. "I don't know," he said in apology. "It all just kind of comes to me. But I never make mistakes. I never kill the wrong person. That would be awful." ■

the reference library *P. Schuyler Miller*

THE ROAD TO "1984"

Another of those books that "isn't science fiction" slipped quietly by most people early in the year. To compound the confusion, most bookstores and libraries considered it a murder mystery, though the murder is off-stage and implied—until you look deeper, and discover that the theme is the murder of human society in a country that is presumably Sweden, some time between now and the total regimentation of Orwell's "1984."

"The Thirty-First Floor," by Peter Wahloo (Alfred A. Knopf, New York; 1967; 207 pp.; \$4.95) was published in Sweden in 1964 and in England last year; it has been translated from the Swedish by Joan Tate, presumably for the English edition. The author is a journalist, radio and TV scriptwriter, novelist and editor of a Swedish literary magazine. Like other "mainstream" writers before him, he is using the mechanisms of science fiction to project trends in our society a little way

into the future. Because the time of the story is closer to us than Orwell's 1984, it is easier to see the shift to merciless regimentation taking place.

As the book begins, the managers of a great publishing empire have received a bomb threat. In retaliation for a murder allegedly committed by the Company, their building is to be destroyed. The police are called in; they find no bomb, but Chief Inspector Jensen is given a week to find and arrest whoever made the threat. For his own satisfaction, he intends to find out whether there was indeed a hushed-up murder.

As he prowls through the offices of the publishing monarch, trailed by a shadow, as he finds and talks with one suspect after another, the author paints the portrait of an almost totally homogenized society—one in which "Marxism has been fused with plutocracy" with deadly results. There is no juvenile delin-

quency, almost no adult crime except drunkenness . . . and if there were, it would not be mentioned lest the people be stirred out of their comfortable and convenient lethargy. Yet it is by no means comfortable by our standards; it is simply what they have become used to—the dull, drab, decaying norm from which no one dares or cares to deviate. The public housing and the high-rise apartments and town house complexes which we are raising in our time have been allowed to decay—and no one cares, or notices.

Little by little Jensen discovers the techniques by which bureaucracy and plutocracy have joined forces to submerge dissidence and keep society trundling quietly downhill into the hog-wallow. The key is not government's seizing the right of censorship, but a publishing empire's building the ability to censor what the people know, want and think . . . indeed, to blot out the power of independent thought by steady, ruthless conditioning.

"Everywhere, points of view were being pulled nearer and nearer toward each other. . . . The problems were lied away. They were smothered by the constantly rising material standard of living, or clouded by meaningless talk which was pumped out via the radio and

television. The cover word for this was . . . 'harmless entertainment.' The idea was, of course, that the sealed-in infections would meanwhile heal themselves. . . . The individual felt himself cared for physically, but spiritually he felt incapacitated, politics and society became something diffuse and incomprehensible, everything was acceptable but uninteresting. Reaction in the individual was first confusion and then gradually indifference."

Sound like a conservative attack on the "Great Society"? On the "credibility gap"? This, remember, is a book that Sweden found believable three years ago, England last year? These are charges leveled against Western society, and perhaps against human society. And the deadly clincher, which makes all the rest possible, is the Thirty-First Floor, the sealed-off "Special Department" whose secret Jensen learns when he finds his bomber.

"Thriller"? Certainly not. "Science fiction"? Not if you insist on gadgets, intricately intertwined plot gimmicks, a *deus ex machina*—the things by which readers and publishers like to identify the genre. But extrapolation the book certainly is, and of a deadly and frightening kind. This is how we can get from 1967 to 1984, right on schedule.

THE PRODUCTIONS OF TIME

By John Brunner • Signet Books,
New York • No. P-3113 • 139 pp.
• 60¢

First, a word from the author:

"I'd be obliged if you would include . . . an apology from me to the prospective readers for the following unpalatable fact. . . . the text of this novel has been—one cannot say edited, but—mutilated. I have neither the heart nor the patience to count all the changes, but there are fifty-five in the first chapter alone. Not one is an improvement over what I originally wrote, and a great many errors not merely of usage and punctuation but even of story detail have been introduced which were not there before."

American readers, in this case, have not the option of a hardbound edition which English readers may have, and which they have had in the case of other massive editorial changes that I've mentioned here from time to time when authors complained. Ethically, maybe you should refuse to buy the mangled book. Practically, you'll be missing a very good story if you do. "The Squares of the City" could probably have stood by itself without the chess gimmick and the science-fictional aspects. This time they're essential, but bowdlerized or not, the book shows that John Brunner is approaching the point where it will profit him more to write "straight" novels than science fiction.

This is the story of a strange author-producer who assembles a collection of neurotic has-beens from the world of the English theater, locks them up in a country mansion, and embarks on a far-out extension of Method acting in which they improvise the play as they go along. It works—and the author persuades you that it is working—but something else is working at the same time. The real meaning of Delgado's production—one of a series of "productions of time" which have driven other unbalanced actors to murder, suicide and insanity—is the problem the protagonist, the formerly suicidal drunkard Murray Douglas, must solve.

Why is liquor slipped into his room? Why is a drug addict liberally supplied with uncut heroin? What is the meaning of the pattern of fine wire woven into the mattress of every bed, directly under the sleeper's head? Why is a tape recorder built into the bed, and a maze of extra circuits into each room's television set? Why is the set always on? What is in Room 13? Who are the very unservantlike servants?

I don't know what John Brunner's experience in the theater may have been, but he makes it every bit as convincing as he did the city planning in "Squares of the City." Maybe, in time, some other publisher will bring out the intact novel and you can see for yourself what

damage has been done to an intricately constructed and professionally polished book.

* * *

P.S. I'm told that the forthcoming English (not U.S.) Penguin paperback edition will have Brunner's own version. You'll have to get this through a British bookseller; the Signet copyright on the bowdlerized edition prevents the English Penguin from being sold in the United States.

BERSERKER

By Fred Saberhagen • Ballantine Books, New York • No. U-5063 • 190 pp. • 60¢

The "berserker" stories have been appearing off and on in the *Galaxy* magazines for the last four or five years. They are a series, detailing episodes in an all-out galactic war of humanity against a swarm of planetoid-sized cybernetic juggernauts, launched into space millennia—or even millions of years—before by an unknown race, and programmed to exterminate any living thing except their makers. The original war and the races that fought it have long since vanished, but the berserkers hunt on and at last they encounter the fringes of expanding humanity.

Some of the stories are simply vignettes in the ensuing struggle of man against machine, looking at the concept from various angles to round it out and give it reality. Others are fuller-bodied stories which show what the berserker wars do to

human relations. The best of the stories fall into this last group, and some key characters appear more than once. By far the best of the eleven episodes is "Stone Place," a novelette long enough to allow the author room to build both characters and situations among his human personnel: Johann Karlsen, the High Commander; his ruthless brother, High Lord Felipe Nogara; the interworld rivalries and enmities that become more important than the struggle for survival; the poet-fighter, Mitchell Spain, who stands for the individualist amid conformists. If more stories in the series were on a par with this one, it would be memorable; as it is, it misses the mark.

BABEL-17

By Samuel R. Delaney • Ace Books, New York • No. F-388 • 173 pp. • 40¢

This is one of the best original books Ace has had in a long time. It is a candidate for the best novel "Nebula" award of the Science Fiction Writers of America, and it should certainly be a "Hugo" contender—both issues settled long before you read this, I feel sure.

Delaney's "Lord of the Flames" trilogy demonstrated this young author's striking ability to create complex worlds and societies and to handle the ramifications of the most intricate of plots. In this book he has entered the preserve that "Cordwainer Smith" explored so well, creating a universe almost as bi-

zarre, almost as complex, almost as richly imagined—yet totally his own. He has also, by making the strangely powerful language of the title the key that unlocks the doors leading into the heart of his cosmos, made painfully clear how trivial and superficial a use of semantics A. E. van Vogt really made in his classic of Astounding's great years, "World of Null A."

I suspect this is also a book that will reveal more and more each time it is reread . . . or perhaps Delaney, as "Smith" has done, will place other stories in his universe of galactic warfare, of decadent pockets of humanity, of cyborg navigators and disembodied crewmen, and of Rydra Wong, poet, linguist, telepath, single-minded, many-faceted, and totally fascinating. There are stupendous tapestry-like set pieces and violent action, there are some of the strangest characters ever encountered in science fiction. Don't miss them.

STARSHINE

By Theodore Sturgeon • *Pyramid Books, New York • No. X-1543 • 174 pp. • 60¢*

You wonder why the paperback publishers haven't been keeping Theodore Sturgeon's older books in print? Me, too. You wonder why they haven't at least put together new collections of his older stories in place of some of the stuff they have been publishing? Maybe he won't let 'em reprint anything that

falls below his current standards. At any rate, here is a new collection for which we can be duly thankful—six stories, of which only one has been anthologized before.

The stories may have been revised for this collection; at any rate, the publisher does not credit previous publication, which the Day and MIT indexes pinpoint as ranging from *Unknown* and *Astounding* of 1940 and 1941 to *Galaxy* and *Universe* in the 1950s. (One I failed to locate: it may be too recent for the MIT index, or new, or appearing under a new name.)

What the collection does most effectively is illustrate the tremendous range and variety of which Sturgeon is capable, not very apparent to readers who know only his later, psychologically oriented stories. The two stories from *Unknown*, "Derm Fool" and "The Haunt," also demonstrate that that lamented magazine was by no means limited to "kooky" stories—had the term been invented then?—though "Derm Fool"—once reprinted in Groff Conklin's "Crossroads in Time"—does have the humorous tone that was characteristic of some of the best *Unknown* stories and wouldn't have been out of place if the story had been signed "Lewis Padgett." Its hero, infected by an "Indian devil" of a snake, sloughs off portions of his skin like a growing reptile. Being a pragmatic soul, he converts his misfortune into a thriving business—then has to pro-

tect it from the suspicious Law. "The Haunt" is just that—a nothing plot: hero fakes haunted house but encounters real spooks—saved by sheer story-telling ability.

With "Artnan Process," here in Astounding in June 1941, we have a nice scientific problem story which pretty obviously *has* been updated to make the scientific puzzle tenable. Nobody was writing quite so glibly about a process for making Uranium 235 back a year before Pearl Harbor. Again, Sturgeon is wearing the Padgett mantle that really belonged to Henry Kuttner—the humor of the method that a pair of Earthlings use to swindle a team of Martian spies is an important ingredient.

"World Well Lost" and "The Pod and the Barrier" bring us to the modern Sturgeon, the Sturgeon preoccupied with exploring the varieties of human relationships against the background of a science-fictional structure. The "Baby Is Three" portion of his novel, "More Than Human," is still the greatest of these, but these two stories are good. The theme of "World Well Lost" can't be explained without giving away a kind of trick ending; suffice it to say that a pair of fugitive extraterrestrial lovers are being returned for execution, but their human captors slowly come to understand the true nature of their "crime." In "The Pod and the Barrier" another scientific problem story is solved by psychology rather

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than physics. The author had changed a lot since the rather similar "Artnan Process" was published sixteen years before.

"How to Kill Auntie," which closes the book, probably isn't indexed because it isn't science fiction and didn't appear in a science-fiction magazine. Alternatively, it may be new. It is a black-humor yarn about a crippled old woman trying to egg her nephew on to the point of murdering her, but never quite letting him succeed. I'd really rather have seen one of Sturgeon's other unreprinted SF stories.

GETTING ACQUAINTED WITH COMETS

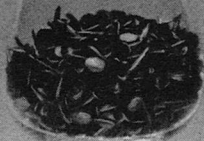
By Robert S. Richardson • McGraw-Hill Book Company, New York/Toronto/London/Sydney • 1967 • 306 pages • \$7.50 • Reviewed by R. A. Hall

In the author's foreword he states that no attempt has been made to discuss comets and meteors in detail or to explore the numerous controversial questions connected with them. This is the fact of the matter. The book is straightforward in its discussion of comets and their relation to meteors and asteroids. It gives practical suggestions for anyone short on money but long on night time who wishes to get started in a hobby of looking for comets. This is a great occupation for people who need self-aggrandizement. If you are so lucky as to be

the first to report it—follow the detailed instructions in the book for reporting—the comet will be named after you and will be forever so designated. Dr. Richardson points out with humor characteristic of the whole book that if you have an unpronounceable name like Pajdusáková, Tcherepashtshuk, Skjellerup, and Väisälä you may have better luck judging from past records. There are also cash awards for the lucky ones.

The book is well illustrated and easy reading. An imagined collision of Earth with comet is dramatized wherein an astronomer reports a newly discovered comet then disappears on a vacation in Mexico leaving the rest of the world of astrophysicists, and astronomers to wrestle with the mathematics of an inevitable smash-up. The story unravels with double-takes, second looks, and confusion that smacks of authenticity. As a matter of fact it is probably a paraphrase of several actual experiences, of lesser consequence, of course. You may get the feeling of *déjà vu* when Dr. Richardson gives his personal account of the discovery of Icarus by Dr. Baade.

With the first-person experience of an amateur trying to compile meaningful tables on periodic comets, it can be unequivocally said that this book is a treasure. This book is recommended to all who wish to have a talking acquaintance with comets and meteors.



brass tacks

Dear Mr. Campbell:

I have just finished reading Poul Anderson's remarkable yarn, "Star-fog" and I am now sitting here with Mr. Bonestell's splendid cover illustration beside me on the desk as I write this to you. I have not finished the rest of the magazine yet and will have to send in my Analytical Laboratory ratings later, but right now I know that this story has to rate number one with me. I hope that this one will in the future turn up in an Anderson hardcover collection because I would like to have it in more permanent form. And I would hope that some very bright publisher would have the sense to include with it your fine editorial or an introduction by you

concerning the red-and-blue giant sun pictured on the cover. My word, how I hope there are some more Anderson-Bonestell-Campbell collaborations in the offing in the not too distant future.

Besides being a just plain fine piece of science fiction, this story had a great deal of food for thought in it and, if an attorney who happens to be interested in astronomy like myself may be permitted to do so, I would here briefly comment on a couple of them:

First, I'm sure you are right about that blue dwarf core at the heart of the red giant sun, provided, of course, that a red giant is what we now believe it to be. As you pointed out, when the star has used up all of the hydrogen in its core the core begins to shrink and finally reaches a temperature something like ten times that at the center of Sol as it presently exists, then helium fusion begins with a "skin" of fusing hydrogen around a core of fusing helium. So on upward through more and more expansion of the outer layers to form the red giant as we know it, while the core gets denser and hotter and carbon and nitrogen fusion come into play. Cores within cores form until the star reaches a stage where iron composes the inner core and then friend star as we say has "had it" because it can obtain no energy from iron whether it fuses it into higher elements or breaks it down by fission. So we have, as you sug-

gest and the artist has painted it, a nebulous outer star which is the red giant we see—that monster which has engulfed its own planets—and inside it a super dense blue dwarf being the core of the star. It is interesting to note that the central stars of such objects as the Crab Nebula, probably the remains of a fairly recent supernova, are blue dwarfs with extremely hot temperatures. It is quite possible that after the red giant has passed through a shrinking stage or had a portion of its mass blown off in a nova or supernova outburst, the blue, super dense core remains to become later a white dwarf and then a red one heading slowly toward eternal blackness and that state of matter described in another story by Poul Anderson which appeared in *As-tounding-Analog* some years ago, the title of which completely escapes me at the moment. So it would seem quite natural that you are right and that there really is a terribly glowing blue diamond in the center of that stellar red cherry we see as Betelgeuse, Myra or Antares. It is an interesting thought. Thanks for pointing it out to us, Mr. Campbell. Oh, incidentally, the idea of the swelling red giant vaporizing the hydrohelium gas envelopes of the outer jovian and sub-jovian planets is something to think about in itself. Something that man may someday watch, from a respectful distance I would think.

There was much to contemplate

in this yarn, not the least of which was the idea of a globular cluster passing through the galactic dust clouds and, without doubt, coming out of the encounter about as Mr. Anderson pictured it. But the story conjured up in my mind once again something that has been in the back of my mind for some time. Apparently the heavier elements are created in the hearts of stars and spewed into the interstellar medium in the nova and supernova cataclysms of prior generations. Now, as Mr. Anderson points out, succeeding generations of suns will produce more such materials and slowly but unquestionably their percentage in the interstellar medium must rise. Now being but an amateur I could not possibly guess how much pollution can be tolerated before the condensing suns start to feel the effect, but it would seem that the universe has a sort of time clock built into it for a time must come when the interstellar medium will become too rich in heavy materials to produce stable hydrogen fusing stars. An abnormally high percentage of heavy materials would tend to make the core of a star unstable and one wonders how many generations of stars can be made from the dust and gas of space before this point is reached. Perhaps, if some other force does not intervene first, in hundreds of billions or even trillions of years the end may come when there is just too much heavy stuff around to allow the making

of any more proper stars and planetary bodies. Then might come a darkness filled with super-dense bodies composed of very heavy elements and then . . . Well, forget it, this whole thing is making me feel cold already.

Anyway, thanks for the story and for the continually high quality of Analog. And thanks to Poul Anderson for this and so many other fine stories and for bringing to science fiction something it needs and lacks so much, intelligent astronomical speculation.

JAMES S. VELDMAN
910 Elgin Avenue
Forest Park, Illinois 60130
It's not superheavy elements that mean the end of stars—those elements yield energy by fission. Iron means the end of stars—it cannot yield energy either by fission or fusion. It is indeed "cold iron"!

Dear Mr. Campbell:

In reply to the Reverend C. Callaway III's letter concerning "Star Trek," I, too, feel that there is a need for good science fiction on TV. However I do not think "Star Trek" fills the bill. To put it bluntly I have never seen a commander as stupid and ignorant as Captain Kirk.

Space limits my examples, but captains just aren't supposed to be the first ones to make planet-falls especially with the executive officer, the ship's doctor and a few other top-ranking officers. Meanwhile who is minding the ship?

Also when a crew member goes berserk the good old captain is after him, leaving minor problems like running the ship to someone else.

Other problems with the series included where are the fuses, who are the structural engineers, and why can't the ship get into a stable orbit when coming in from outer space?

Anyway, it's the best we've got, and let's hope for better luck next time.

STEPHEN F. RYNAS
7319 Maple Avenue
Chevy Chase, Maryland 20015
*This is known as "artistic license"!
You can't have a story if nothing unexpected or unusual happens.*

Dear Mr. Campbell:

In Analog for July 1967 (p. 170) L. Sprague de Camp suggests that the authors of the articles on Velikovsky in *The American Behavioral Scientist* (September 1963) and the book "The Velikovsky Affair" (1966), "instead of trying to psychoanalyze Velikovsky's critics in absentia, might do better to learn a little physics and astronomy." As one of those authors, I feel compelled to reply.

De Camp states that his writings in connection with Velikovsky comprise a review of "Worlds in Collision" (1950) and a paraphrase of this review in a book, "Lost Continents" (1954). His writings on this subject also include remarks in an article on "Orthodoxy in Science" in

Astounding Science Fiction for May 1954, and it is from this essay that he is quoted in *ABS*:

"Thus when Velikovsky quotes Herodotos about a battle between Zeus and Typhon . . . and Isaiah on the destruction of Sennacherib's army by fire, you have only to turn to the books cited to learn that Herodotos . . . and Isaiah said nothing of the sort." (This passage, as quoted in *ABS*, was faulty, in that the first ellipsis was inadvertently omitted and the name Herodotos appeared in its more widely accepted form—Herodotus.)

Now de Camp reports that he not only read "Worlds in Collision" but still owns a copy. This is admirable, especially since so many of Velikovsky's detractors wrote scathing denunciations without ever having seen the book. It is singular, however, that de Camp's criticism should so closely parallel that offered earlier by astronomer Cecilia Payne-Gaposchkin, and particularly when both criticisms are entirely baseless. Not only do both Gaposchkin and de Camp cite three identical "examples" of alleged misrepresentation of sources by Velikovsky, but they base their identically false accusations upon identical extractions from context and identical misreadings of the extracted material (see "The Velikovsky Affair," Appendix II). The odds against such a coincidence must be astronomical—the more so since the "examples" are supposed

to be drawn from a work characterized by one astronomer, who had not read it, as "nothing but lies."

If de Camp is so certain that his remarks are original, let him share Mrs. Gaposchkin's guilt in a type of behavior branded "outrageous" by the late classicist, Moses Hadas of Columbia University.

In reading his personal copy of "Worlds in Collision," perhaps de Camp scanned too hastily. In a letter to the editor of *ABS* (January 1964) he ascribes to Velikovsky the idea of a "grazing collision" between the earth and Venus; now he writes that "in any collision . . . they would behave like spheres of liquid and simply splash." Another, more careful, reading of Velikovsky's book—for example, the section "The Battle in the Sky"—should clear up de Camp's confusion on this point; the collisions alluded to in the book's title were close passages, not bodily contacts.

Both de Camp and you, Mr. Campbell, in your remarks at the end of de Camp's letter, offer some rather meaningless arguments: De Camp claims that "no comet [is] known to have a mass greater than one-millionth that of the earth"; you remind us—as does Velikovsky, "Worlds In Collision," p. 384—that "Venus has an almost perfectly circular orbit—anything but a cometary one!" It is interesting, therefore, to note that astronomer Fred Whipple recently suggested that Pluto once was a comet and that

astronomer Lloyd Motz just lately had occasion to insist—*Yale Scientific Magazine*, April 1967—that “the orbit of a comet differs only in degree and not in kind from that of a planet.” This last comment, by Professor Motz, is found in the context of a discussion of Velikovsky’s theories, so one must concede that what’s sauce for the goose . . . et cetera.

As the editors of *ABS* pointed out in reply to de Camp—January 1964—“time has provided significant evidence in support of Velikovsky’s claims, and this evidence has convinced a growing number of scientists, if not of the validity of his hypotheses, then of their right to be examined seriously.” De Camp, who would do well to reread his own article on “Orthodoxy in Science,” misses the whole point of the *ABS* Velikovsky issue. The point is neither that “Velikovsky has the right to publish all the absurdities he likes” nor that “his critics do not have an equal right to call them absurd,” but that an honest scholar should be entitled to an honest appraisal of his work instead of a frantic and emotional outburst of personal abuse, such as continues to be heaped upon Velikovsky by poor losers.

As for physics and astronomy, I think we all might take to heart your own remarks about the “Arrogance of Ignorance”—*Analog*, June, p. 6. A great many “facts” of science, besides those you point out,

are still “utterly without proof.”

RALPH E. JUERGENS

416 South Main Street
Hightstown, N.J. 08520

I'd prefer to drop the whole Velikovsky affair; in this business I've come to be reasonably acquainted with assorted honest crackpots, sincere fanatics, and True Believers.

The entire essence of the Velikovsky Affair can be summarized in the following terms:

1. *Velikovsky claims that carefully garnered reports from certain multi-millennia-old reports can be interpreted as evidence that Venus originated somehow—manner not specified—from Jupiter, as an incandescent body, flying off in a cometary orbit, passing very close to Earth, Mars and Jupiter on successive orbits around the Sun, causing enormous disruptions on Earth—upsetting the entire planet, causing its rotation to cease—Joshua made the Sun stand still—and various other immensely spectacular items. His evidence derives entirely from documents of some three thousand years ago, from some areas of the world.*

2. *The opposition centers about the present empirically observed behavior of celestial mechanics, basically the conservation of momentum and of energy.*

True, a cometary orbit differs only in degree of ellipticity from a planetary orbit. It's also true that the reaction in an atomic bomb differs from that in a power plant

not in kind but only in rate.

Pluto may have been a comet; we know practically nothing about it because of the extreme observational difficulties—but we do know that it now has an orbit so highly elliptical that it, unlike any other planet, crosses inside the orbit of another planet—Neptune.

Venus's orbit is spectacularly circular.

Observe the immense difficulty space scientists have getting one of the synchronous satellites into an exactly circular orbit—and consider the probability that Venus could have gone from a cometary ellipse to a planetary circle in only a few score revolutions by sheer accident.

3. In other words, basically it comes down to "Should we abandon the belief in the Laws of Motion in favor of the Velikovsky readings of multi-millennia-old fragments, or should we put Velikovsky's readings into the Myths and Fantasies department at the library?"

Now, if Velikovsky wants to say "These things happened in this manner because the Lord God Jehovah decreed it," then I have no objection to his claims. But, if he says "These things happened by the operation of natural laws," then he'd better explain how all the observational phenomena of celestial mechanics broke down.

4. On another angle—Velikovsky has used highly selected ancient reports—and ignored the absence of

otherwise to be expected reports. The events he described were immense, catastrophic, and worldwide. Now, if someone collects reports from a weekly newspaper in central Kansas, and one from a Mexican newspaper from central Chihuahua, and a report from a steamer stop on the upper Amazon, to the effect that the Moon left its orbit, swooped down near the Earth and made tides so violent the oceans swept into the towns on July 23, 1958—but newspapers of July and August such as the New York Times, the London Times, and principal papers of Mexico City, Rio de Janeiro, Tokyo and San Francisco don't report it—I get suspicious.

The events Velikovsky is discussing are of a class no one on Earth could have ignored.

They were alleged to have happened at a period when there were a number of highly developed civilizations with written records. The effects of those stupendous events would have upset every culture on the planet.

There wouldn't be merely scattered records here and there to be discovered by patient, persistent, careful digging—there would be laments and reports and records and statements of what was done here, and how the course of life was woven together again there from every culture then extant.

The Great Calamity would certainly be better known than the love affairs of the Greek Gods—today!

If the Homeric tales survived—do you think tales of the clashing of worlds would be lost?

Yet according to Velikovsky, the whole stupendous affair was little noted nor long remembered. So little noted that only the most diligent search among the most obscure sources found any trace of the occurrence.

How could people who had experienced the Earth suddenly stopping its rotation, fail to make extensive records of it? I'd like very much to know what happened when the Earth stopped turning—and how it was restarted. Did a magical zone of force grip the total planet in a penetrating network of rigid forces so that the hydrosphere and atmosphere as well as the total immense mass of the lithosphere suddenly stopped all of a piece, so that some people could survive? How long did this stupendous braking action take? Surely if there were no rigid force-net gripping the planet as a whole, the hydrosphere would have scoured around the suddenly stopped planet at one thousand miles an hour, the crust would have skidded around on the deep magma, and the entire biosphere would have been tumbled out of existence.

Gravitational, electrostatic and/or magnetic forces couldn't do that.

I think it would take the command of God Almighty—not natural laws.

I suggest that Dr. Velikovsky

might take up the study of Pyramidology with equally interesting results.

Dear Mr. Campbell:

In the Brass Tacks section of the August issue, on page 171, you state "Spanish is also a highly evolved language—but it's very easy to learn, and has a nearly faultless orthography."

I think that you have erred here. Spanish is certainly a highly evolved language—it is still evolving; and it has a nearly faultless orthography. The ease with which it may be learned, however, depends upon the level used. The simpler part, such as "*Se van a Dios mi bateria. Quiero comprar uno de nuevo. ¿Cuanto me cuesta?*" is, as you say, easy to learn. If, however, you try to write a radar operations manual in Spanish, you will have a most difficult time making definite and unambiguous statements, pinning down the antecedent of *lo*, and trying to find the correct rendering of *amplificacion de boosh bool*. Before you get through, you will probably lament "*Se van a Dios mi mente.*"

RONALD L. IVES

2075 Harvard St.

Palo Alto, Calif. 94306

Yes—and there are a number of things for which English has to use phrases from other languages because they can't be translated—from *weltschmerz* through *gemütlichkeit* to *naïve* and *com si com sa*!

LIBERAL CRUELTY

continued from page 7

trated unbearably—and has a tendency to demonstrate that he *does* have power by destructive acts, since he's incapable of constructive acts.

Such people thrive best when—where there are massive tensions dividing groups of people. Hitler had post-war Germany, which had gone through revolutions so rapidly you could talk about R.P.Year. They hadn't quite reached R.P.M. His Nazi party thrived in that milieu. Oswald had tried to excite a Communist movement into functioning in the United States. Wrong approach, of course, and he lacked any talent anyway. Even if he'd been right, even if it had been the time-place when—where a Communist movement could be started, he didn't have any ability. So—he proved his Power by a vast destructive act.

His plan was thwarted by another weak soul—Jack Ruby, who killed him before Oswald had the satisfaction of basking in the glory of worldwide acknowledgment of his Power.

The current Black Power leaders specialize in destruction and threats of destruction. (Shades of "Heil Hitler" and racial murder camps.) They do have a background to work against—the massive unrest of the urban Negroes. Their

principal difficulty is that they're more in the Oswald and John Wilkes Booth class—they lack any personal talent for leadership, and can attract attention only through destructive tactics.

The Negro leaders who are really accomplishing—who do have ability, talent for leadership, and high intelligence—are most unfortunately generally neglected by the news media. They don't make headlines; they simply solve problems, smooth over rough spots so that Whites and Negroes can cooperate and make sense. This doesn't make newspaper headlines, the way H. Rap Brown's Hitleresque mouthings do. H. Rap Brown and the late (and not very widely lamented) Leader of the American Nazis, George Rockwell, make a sort of well-matched pair. Each was a personal-Power seeker; the only major difference was that Brown, being Negro, talked about Black Power, while Rockwell, who couldn't, because of skin color, grab onto that movement, had to yammer about White Power. And neither one had a *constructive* program; just a violent program for destruction.

Since destruction is usually vastly simpler to understand, the motto "Kill! Kill!" is much easier to put over than "Build Work! Learn!" To carry out the "Kill!" motto is simple, definitive, quick, and releases sudden passion in a sudden fulfillment.

To build involves continuing slow

effort, while results come only slowly, after a period of time. It's all the difference between going on a spending spree, and saving up a bank account to be able to afford the spree.

But the compulsive power-hunger of the individual is wholly frustrated so it gnaws at his vitals, if he can't find or arouse a group of followers who will give him that Power he aches for—the Oswald and Booth syndrome. You can't become a Leader if you can't find people who will admire, respect, and follow your brilliant, your ingenious and wonderful plans.

And here is where the cruel activities of the Liberals come in. It's the Intellectual Liberals who are responsible for the violence in our cities—and for building the disorganized masses of discontent that the Black (personal!) Power would-be leaders are building on.

If you tell a thirteen-year-old boy that he has just as much right to drive the family car as his older brother does, you're telling him something that he already kind of feels is true, and that he very much wants to believe. It's quite easy to argue him into believing that.

But for his parents and eighteen-year-old brother to argue him out of it is not going to be so easy. They're trying to get him to believe something he does not want to believe—which is orders-of-magnitude more difficult than arguing him into believing what he wants.

Or maybe it's his eighteen-year-old sister, who doesn't know *anything* about what makes a car run, while *he* can give a really knowledgeable dissertation on compression ratios, gear ratios, the advantages of fuel injection, and why diesels are no good in automobiles. It's perfectly obvious to him that he's a lot better qualified to drive the car than *she* is.

Is it possible to make one who lacks judgment, recognize he hasn't yet developed wise judgment? No, it is not—because he lacks the judgment necessary to judge that truth. Can you induce such a one to see that while his position is logically perfect, it isn't rational because of false postulates? No, because he judges that your postulates are "opinions" and believes deeply that his postulates are "self-evident facts."

The Congolese were encouraged into battles, during the various revolutions, by being assured by their witch doctors that the juju charms they were given would make bullets turn to water, and not harm them. So knowing their invulnerability, they took their spears and charged the heavy machine guns. Those that got perforated obviously had lacked the faith that was required; those that weren't killed *knew* that their juju, and their faith, were strong and kept them safe.

Real cute way for the witch doctors to get men who lacked educa-

tion and understanding to attempt the impossible. When you lack judgment, and would like to be invulnerable, it's easy to be assured that you *are* invulnerable—that what you want you can have.

The intellectual Liberals in America have been teaching the Negroes ideas that are on a par with the invulnerability jujus. They have been insisting that the incompetent, uneducated, illiterate and unskilled have a right—simply by being born—to all the things they want and see that other people have.

It's easy to convince a man that he should have just what he wants—that his "right" to it should not be dependent on his earning it, but on his having been born. That's the way he wants it; it's, therefore, exceedingly easy to convince him.

It's easy to convince him that the world owes him a living—called Welfare—and that he should have all the good things he wants that he sees other people have. New cars—color television—fine, spacious, well-kept homes. And that he not be enslaved, driven under threat of starvation, to learn things he's not interested in learning. That he not be forced to give up his personal ideas of How Life Should Be.

An uneducated, illiterate and poor-judgment group can be convinced of anything they'd like to believe, with a mere suggestion from others that it's true. The combined efforts of every philosopher from Moses to Ayn Rand couldn't show

him the idea was wrong, once he's had it offered him. Ages of human experience have shown that for that you need not a philosopher, but an army. The philosophy of the Roman population, that they had a right to be fed and amused—"bread and games"—was not changed by philosophers. It was removed by Vandals and the collapse of Rome.

The intellectual Liberals have the knowledge and intelligence to know that it is physically impossible for everyone to have the high standard of living everyone wants—but they have passionate convictions. Like Carrie Nation and her famed hatchet, they "know" what people should have, and what's good for them, and they're going to carry out their high-ideals beliefs.

It is physically impossible for everyone to have everything.

The population explosion is making the physically possible standard of living drop steadily. But the intellectual Liberals assure the Welfare recipient additional income for every child born—which assures the non-welfare family higher taxes for every state-supported unlimited breeder born.

This is, perfectly obviously, an absolutely assured way of increasing the proportion of nonproductive individuals while inhibiting the reproduction of competent, productive individuals. This is perfectly obvious cultural suicide. It's a positive-feedback genetic selective mechanism for producing collapse.

It assures a rapid reproduction of the high-birth-rate nonproducers, and a suppressed birth rate for the productive-and-heavily-taxed producers.

The system is insane, on a long-term basis.

And on a short-term basis, the Welfare group is being frustrated, deprived of their rights, and made more and more angry that the promises of the intellectual Liberals aren't being fulfilled. They aren't getting the new cars, color television, and fine homes properly maintained for them that they have been told they had a right to.

What these people *believe* they should have, like any other human being, they will hold to be "only Justice—our natural rights." "Justice," in any man's opinion, is *what he believes he should have*.

The urban Negro ghettos are unquestionably rat- and louse-infested, garbage strewn, disgraceful slums.

Many of the Negroes of the ghetto are on relief and Welfare in one form or another—largely because so many of them were Southern rural Negroes who moved to the cities for promised Welfare. They are uneducated, untrained and unskilled—and there are, today, mighty few jobs for such people. The one class of jobs unskilled people can handle, and earn high wages these days, is as domestic servants—which they so strongly refuse to take that hundreds of girls from Eu-

rope are moving over here, taking such jobs, and making small fortunes doing it. It's beneath the "dignity" of most Negro people who can, of course, be supported on relief; only Swedish, Finnish, and Scotch-English girls can accept such "undignified" jobs.

Now please note and remember a simple observable fact. The Negro ghettos are filthy because they are *Negro* ghettos, not because they are *ghettos*. In any major United States city you can also find another ghetto—a compact area of high population density, inhabited by a racial minority, marked by physical distinguishing characteristics—which is usually an old, rather worn section of the city, but which is clean, well maintained, and has a conspicuously low crime rate. Chinatown. There is absolutely nothing whatever about ghetto conditions that compels the inhabitants to be slovenly, undisciplined, or poorly educated. The term "ghetto" came from the European cities which forced the Jews to live in a section apart. Those ghettos were *really* under pressure, and their inhabitants *really* rejected. They weren't allowed to go to the great schools at all.

Ghettos don't force people to be uneducated; the Jews managed to develop their own schools—schools so good that the Jews were, for centuries, recognized as the most highly educated group in Europe.

That those slums need to be cleaned up is obvious; a major, all-

out, constructive campaign to clean up, repair, paint, and sweep, to de-rat and de-louse, is clearly absolutely necessary.

But how about employing all those unemployed people in the ghetto, who are on relief and/or one form of Welfare or another, to do it? There are thousands of able-bodied people, unemployed because unskilled, who could do that job. The cities are already paying them money to live on; why shouldn't they be employed by the city to do the essential job of cleanup?

The intellectual Liberals raised a most horrendous howl of anguish and cries of "Inhuman—slavery!" when the City of Newburgh, New York, started doing just that sort of thing. These poor Welfare recipients were being enslaved—forced to work at irksome chores under threat of having their food, rent, spending and clothing money cut off. They'd lose their TV sets and their cars! They were being *forced* to work! Slavery! Wickedness!

How many of you readers are being ruthlessly compelled to do something useful under threat of having your supply of money cut off?

Resign! Quit! Go on Welfare, take a *loooooong* vacation! Then everybody can live on Welfare, and nobody will have to work anymore, and the government can print money for all of us.

The intellectual Liberal's Utopia will have arrived, and they can all live happily ever after.

Make a promise like that to people who can't appreciate—because of lack of education—it's insanity, and you will presently have a disorganized mass of frustrated people who *know* their Rights and Justice are being denied them.

Even a quite incompetent Personal Power compulsive can stir up violence in such a ready-made mass. The power-hungry wouldn't have the patience to organize themselves to work steadily and persistently to produce such a mass of discontent—but they're just the ones to use it when the unworldly, unrealistic, idealists of the intellectual Liberals have cruelly deluded masses of people.

There is almost nothing quite so cruel as promising a trusting man something you know is absolutely impossible.

That he believes the impossible is understandable; the man lacks the wide data necessary to appreciate that the government is *not* a *source* of money—that only working, creative human beings produce wealth. But the intellectual Liberal who promises unlimited everything without working—

He's on precisely the same level with the witch doctor who sends his people into battle against machine guns armed with a spear and a "magic juju." To promise the impossible to someone who trusts you—

Know any more vicious way to trick a human being?

The Editor.



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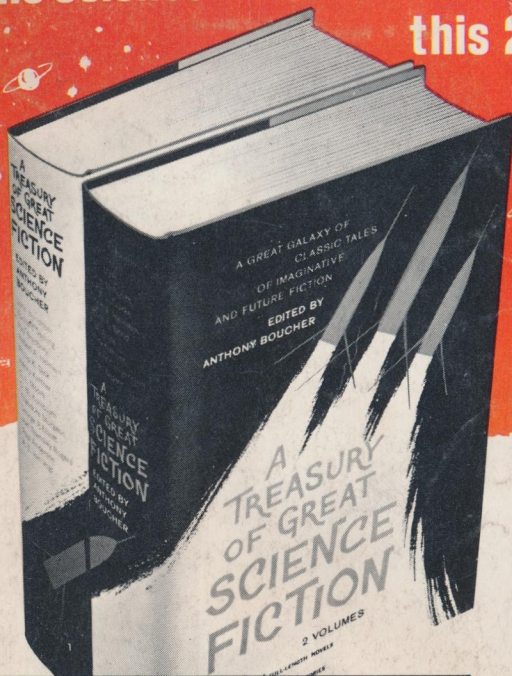
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