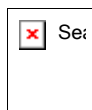


**H. BEAM PIPER**

**ULLER  
UPRISING**

[vi]





## ACE SCIENCE FICTION BOOKS

### NEW YORK

---

This Ace Science Fiction Book contains the complete text of the original hardcover edition. It has been completely reset in a typeface designed for easy reading, and was printed from new film.

#### PRINTING HISTORY

Twayne edition/ 1952

Ace edition/ June 1983

Copyright © 1952 by Twayne Publishers, Inc.

Copyright © renewed 1983 by Charter Communications, Inc.

Introduction © 1952, 1983 by Dr. John D. Clark

New Introduction © 1983 by John F. Carr

Cover art by Gino D'Achille

---

## CONTENTS

	PAGE
Introduction by John F. Carr	v
Introduction by Dr. John D. Clark	xi
PROLOGUE--On Satan's Footstool	1
I. Commander-in-Chief Front and Center	10
II. Rakkeed, Stalin, and the Rev. Keeluk	27
III. Four-and-Twenty Geek Heads	36
IV. If You Read It in Stanley-Browne	44
V. You Can Depend on It It's Wrong	54
VI. The Bad News Came After the Coffee	65
VII. Bismillah! How Dumb Can We Get?	74
VIII. Authority of Governor-General von Schlichten	86
IX. Don't Push Them Anywhere Put Them Back in the Bottle	102
X. The Geek Luftwaffe and the Kragan Airlift	115
XI. Of Princedoms Which Have Been Won by Conquest	125
XII. The Shadow of Niflheim	136
XIII. A Bag of Tricks We Don't Have	149
XIV. The Reviewers Panned Hell Out of It	162
XV. A Place in my Heart for Hildegard	178



# Introduction to *ULLER UPRISING*

by John F. Carr

With the publication of this novel, *Uller Uprising*, all of H. Beam Piper's previously published science fiction is now available in Ace editions. *Uller Uprising* was first published in 1952 in a Twayne Science Fiction Triplet—a hardbound collection of three thematically connected novels. (The other two were Judith Merrill's *Daughters of Earth* and Fletcher Pratt's *The Long View*.) A year later it appeared in the February and March issues of *Space Science Fiction*, edited by Lester Del Rey.

The magazine version, which was abridged by about a third, was believed by many bibliographers to be the only version—and as a novella it was too short for book publication. The Twayne version had a small print run and is so scarce that few people have seen it. Those bibliographers who knew of its existence assumed that both versions of *Uller* were the same. It was through a telephone conversation with Charles N. Brown, publisher of *Locus* and correspondent with Piper, that I learned about the Twayne edition and its greater length. Brown allowed me to photocopy his original, for which we owe him a debt of thanks; because the Twayne version is not only novel length, but far better than the shorter one that appeared in *Space Science Fiction*.

Probably the most surprising and interesting thing about the Twayne edition is the essay that forms the introduction to that volume, and is reprinted here. The essay is by Dr. John D. Clark, an eminent scientist of the forties and fifties and one of the discoverers of sulfa, the first "miracle drug." It describes in great detail the planetary system of the star Beta Hydri, and gives the names of those planets: Uller and Niflheim. A publisher's note states that Clark's essay was written first, and given to the contributors as background material for a novel they would then write.

The fans of H. Beam Piper seem to owe a great debt to Dr. Clark. *Uller Uprising* became the foundation of Piper's monumental Terro-Human Future History; the first story where we encounter the Terran Federation. In it we learn about Odin, the planet that will one day be the capital of the First Galactic Empire; and humble Niflheim, which in more decadent times will become a common expletive, a word meaning hell. This is also where Piper introduced and explained the Atomic Era dating system (A.E.). *Uller Uprising* is set in the early years of the Terran Federation's expansion and exploration, an epoch of great vitality. In "The Edge of the Knife" Piper compares this time of discovery to the Spanish conquest of the Americas. This feeling of vigor and unlimited possibilities runs through all the early Federation stories: *Uller Uprising*, "Omnilingual," "Naudsonce," "When in the Course—," and, to a lesser degree, in the late Federation novels, *Little Fuzzy*, *Fuzzy Sapiens*, and *Fuzzies and Other People*. (See *Federation* by H. Beam Piper for a good overview of this period.)

In these stories we see Terro-Humans at their best and at their worst: Individual heroism and bravery in the face of grave danger in *Uller Uprising*; Federation law and justice in *Little Fuzzy* and its sequels; and, in "Omnilingual" and "Naudsonce," the spirit of science and rational inquiry. Yet we also see colonial exploitation and subjugation in *Uller Uprising* and "Oomphel in the Sky," the greed and corruption of Chartered land companies in *Little Fuzzy*, and political corruption in *Four-Day Planet*. These stories are about a living Terro-Human culture, not a utopia.

It was Piper's attention to historical realism and his use of actual historical models that have helped his work to pass the test of time and have led to his becoming the favorite of a new generation of readers more than twenty-five years after his death.

*Uller Uprising* is the story of a confrontation between a human overlord and alien servants,



with an ironic twist at the end. Like most of Piper's best work, *Uller Uprising* is modeled after an actual event in human history; in this case the Sepoy Mutiny (a Bengal uprising in British-held India brought about when rumors were spread to native soldiers that cartridges being issued by the British were coated with animal fat. The rebellion quickly spread throughout India and led to the massacre of the British Colony at Cawnpore.). Piper's novel is not a mere retelling of the Indian Mutiny, but rather an analysis of an historical event applied to a similar situation in the far future.

---

Like many philosophers and social theorists before him, Piper attempted to chart the progress of human-kind; unlike most, however, he did not envision or try to create a system of ethics that would end all of humanity's problems. The best he could offer was his model of the self-reliant man: The man who "actually knows what has to be done and how to do it, and he's going to go right ahead and do it, without holding a dozen conferences and round-table discussions and giving everybody a fair and equal chance to foul things up for him."

[viii]

Piper brought his own ideas and judgments about society and history into all of his work, but they appear most clearly in his *Terro-Human Future History*. While not everyone will agree with Piper's theories they give his work a bite that most popular fiction lacks. One cannot read Piper complacently. And one can often find a wry insight sandwiched in between the blood and thunder.

Other future histories may span more centuries or better illuminate the highlights of several decades, but until a rival is created with more historical depth and attention to detail, H. Beam Piper's *Terro-Human Future History* will stand as the Bayeux Tapestry of science fiction histories.

In many ways—certainly during his lifetime—Piper was the most underrated of the John W. Campbell's "Astounding" writers. He was probably also the most Campbellian; his *self-reliant man* is almost a mirror image of Campbell's "Citizen."

Piper died a bitter man, a failure in his own mind; shortly before his death he believed he could no longer earn a living as a writer without charity from his friends or the state.

Now he's the cornerstone of Ace Books. Had he lived long enough to finish another half dozen books, he would have been among the sf greats of the sixties....

But maybe he does know, after all. Jerry Pournelle, who was very much influenced by Piper and in many ways considers himself Beam's spiritual descendant—and incidently was John W. Campbell's last major *discovery*—has said that sometimes, when he's gotten down a particularly good line, he can hear the "old man" chuckle and whisper, *atta boy*.

---

## Introduction

[xi]

**Dr. John D. Clark**

**THE SILICONE WORLD**



## 1. THE STAR AND ITS MOST IMPORTANT PLANET

The planet is named Uller (it seems that when interstellar travel was developed, the names of Greek Gods had been used up, so those of Norse gods were used). It is the second planet of the star Beta Hydri, right ascension 0:23, declension -77:32, G-0 (solar) type star, of approximately the same size as Sol; distance from Earth, 21 light years.

Uller revolves around it in a nearly circular orbit, at a distance of 100,000,000 miles, making it a little colder than Earth. A year is of the approximate length of that on Earth. A day lasts 26 hours.

The axis of Uller is in the same plane as the orbit, so that at a certain time of the year the north pole is pointed directly at the sun, while at the opposite end of the orbit it points directly away. The result is highly exaggerated seasons. At the poles the temperature runs from 120°C to a low of -80°C. At the equator it remains not far from 10°C all year round. Strong winds blow during the summer and winter, from the hot to the cold pole; few winds during the spring and fall. The appearance of the poles varies during the year from baked deserts to glaciers covered with solid CO<sub>2</sub>. Free water exists in the equatorial regions all year round.

## 2. SOLAR MOVEMENT AS SEEN FROM ULLER

As seen from the north pole—no sun is visible on Jan. 1. On April 1, it bisects the horizon all day, swinging completely around. April 1 to July 1, it continues swinging around, gradually rising in the sky, the spiral converging to its center at the zenith, which it reaches July 1. From July 1 to October 1 the spiral starts again, spreading out from the center until on October 1 it bisects the horizon again. On October 1 night arrives to stay until April 1.

At the equator, the sun is visible bisecting the southern horizon for all 26 hours of the day on January 1. From January 1 to April 1, the sun starts to dip below the horizon at night, to rise higher above it during the day. During all this time it rises and sets at the same hours, but rises in the southeast and sets in the southwest. At noon it is higher each day in the southern sky until April 1, when it rises due east, passes through the zenith and sets due west. From April 1 to July 1, its noon position drops down to the north, until on July 1, it is visible all day, bisected by the northern horizon.

## 3. CHEMISTRY AND GEOLOGY OF ULLER

Calcium and chlorine are rarer than on earth, sodium is somewhat commoner. As a result of the shortage of calcium there is a higher ration of silicates to carbonates than exists on earth. The water is slightly alkaline and resembles a very dilute solution of sodium silicate (water glass). It would have a pH of 8.5 and tastes slightly soapy. Also, when it dries out it leaves a sticky, and then a glassy, crackly film. Rocks look fairly earthlike, but the absence or scarcity of anything like limestone is noticeable. Practically all the sedimentary rocks are of the sandstone type.

All rivers are seasonal, running from the polar regions to the central seas in the spring only, or until the polar cap is completely dried out.

## 4. ANIMAL LIFE

As on Earth life arose in the primitive waters and with a carbon base, but because of the abundance of silicone, there was a strong tendency for the microscopic organisms to develop silicate exoskeletons, like diatoms. The present invertebrate animal life of the planet is of this type and is confined to the equatorial seas. They run from amoeba-like objects to things like crayfish, with silicate skeletons. Later, some species of them started



taking silicone into their soft tissues, and eventually their carbon-chain compounds were converted to silicone type chains, from

 Table\_01

with organic radicals on the side links. These organisms were a transitional type, with silicone tissues and water body fluids, resembling the earthly amphibians, and are now practically extinct. There are a few species, something like segmented worms, still to be seen in the backwaters of the central seas.

A further development occurred when the silicone chain animals began to get short-chain silicones into their circulatory systems, held in solution by OH or NH<sub>2</sub> groups on the ends and branches of the chains. The proportion of these compounds gradually increased until the water was a minor and then a missing constituent. The larger mobile species were, then, practically anhydrous. Their blood consists of short-chain silicones, with quartz reinforcing for the soft parts and their armor, teeth, etc., of pure amorphous quartz (opal). Most of these parts are of the milky variety, variously tinted with metallic impurities, as are the varieties of sapphires.

These pure silicone animals, due to their practical indestructibility, annihilated all but the smaller of the carbon animals, and drove the compromise types into odd corners as relics. They developed into a fish-like animal with a very large swim-bladder to compensate for the rather higher density of the silicone tissues, and from these fish the land animals developed. Due to their high density and resulting high weight, they tend to be low on the ground, rather reptilian in look. Three pairs of legs are usual in order to distribute the heavy load. There is no sharp dividing line between the quartz armor and the silicone tissue. One merges into the other.

The dominant pure silicone animals only could become mobile and venture far from the temperate equatorial regions of Uller, since they neither froze nor stiffened with cold, nor became incapacitated by heat. Note that all animal life is cold-blooded, with a negligible difference between body and ambient temperatures. Since the animals are silicones, they don't get sluggish like cold snakes.

## 5. PLANT LIFE

The plants are of the carbon-metabolism, silicate-shell type, like the primitive animals. They spread out from the equator as far as they could go before the baking polar summers killed them. They have normal seasonal growth in the temperate zones and remain dormant and frozen in the winter. At the poles there is no vegetation, not because of the cold winter, but because of the hot summer. The winter winds frequently blow over dead trees and roll them as far as the equatorial seas. Other dead vegetation, because of the highly silicious water, always gets petrified unless it is eaten first. What with the quartz-speckled hides of the living vegetation and the solid quartz of the dead, a forest is spectacular.

The silicone animals live on the plants. They chew them up, dehydrate them, and convert their silicious outer bark and carbonaceous interiors into silicones for themselves. When silicone tissue is metabolized, the carbon and hydrogen go to CO<sub>2</sub> and H<sub>2</sub>O, which are breathed out, while the silicone goes into SiO<sub>2</sub>, which is deposited as more teeth and armor. (Compare the terrestrial octopus, which makes armor-plating out of calcium urate instead of excreting urea or uric acid.) The animals can, of course, eat each other too, or make a meal of the small carbonaceous animals of the equatorial seas.



Further note that the animals cannot digest plants when they are cold. They can eat them and store them, but the disposal of the solid water and  $\text{CO}_2$  is too difficult a problem. When they warm up, the water in the plants melts and can be disposed of, and things are simpler.

---

## II

### THE FLUORINE PLANET

#### 1. THE STAR AND PLANET

The planet named Niflheim is the fourth planet of Nu Puppis, right angle 6:36, declension -43:09; B8 type star, blue-white and hot, 148 light years distant from Earth, which will require a speed in excess of light to reach it.

Niflheim is 462,000,000 miles from its primary, a little less than the distance of Jupiter from our sun. It thus does not receive too great a total amount of energy, but what it does receive is of high potential, a large fraction of it being in the ultra-violet and higher frequencies. (Watch out for really super-special sunburn, etc., on unwarned personnel.)

The gravity of Niflheim is approximately 1 g, the atmospheric pressure approximately 1 atmosphere, and the average ambient temperature about  $-60^\circ\text{C}$ ;  $-76^\circ\text{F}$ .

#### 2. ATMOSPHERE

The oxidizer in the atmosphere is free fluorine ( $\text{F}_2$ ) in a rather low concentration, about 4 or 5 percent. With it appears a mad collection of gases. There are a few inert diluents, such as  $\text{N}_2$  (nitrogen), argon, helium, neon, etc., but the major fraction consists of  $\text{CF}_4$  (carbon tetrafluoride),  $\text{BF}_3$  (boron trifluoride),  $\text{SiF}_4$  (silicon tetrafluoride),  $\text{PF}_5$  (phosphorous pentafluoride),  $\text{SF}_6$  (sulphur hexafluoride) and probably others. In other words, the fluorides of all the non-metals that can form fluorides. The phosphorous pentafluoride rains out when the weather gets cold. There is also free oxygen, but no chlorine. That would be liquid except in very hot weather. It sometimes appears combined with fluorine in chlorine trifluoride. The atmosphere has a slight yellowish tinge.

#### 3. SOIL AND GEOLOGY

Above the metallic core of the planet, the lithosphere consists exclusively of fluorides of the metals. There are no oxides, sulfides, silicates or chlorides. There are small deposits of such things as bromine trifluoride, but these have no great importance. Since fluorides are weak mechanically, the terrain is flattish. Nothing tough like granite to build mountains out of. Since the fluoride ion is colorless, the color of the soil depends upon the predominant metal in the region. As most of the light metals also have colorless ions, the colored rocks are rather rare.

#### 4. THE WATERS UNDER THE EARTH

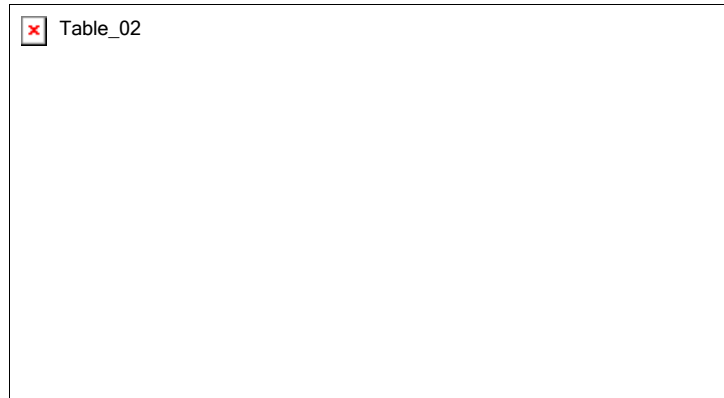
They consist of liquid hydrofluoric acid (HF). It melts at  $-83^\circ\text{C}$  and boils at  $19.4^\circ\text{C}$ . In it are



dissolved varying quantities of metallic and non-metallic fluorides, such as boron trifluoride, sodium fluoride, etc. When the oceans and lakes freeze, they do so from the bottom up, so there is no layer of ice over free liquid.

## 5. PLANTS AND PLANT METABOLISM

The plants function by photosynthesis, taking HF as water from the soil, and carbon tetrafluoride as the equivalent of carbon dioxide from the air to produce chain compounds, such as:



and at the same time liberating free fluorine. This reaction could only take place on a planet receiving lots of ultra-violet because so much energy is needed to break up carbon tetrafluoride and hydrofluoric acid. The plant catalyst (doubling for the magnesium in chlorophyll) is nickel. The plants are colored in various ways. They get their metals from the soil.

## 6. ANIMALS AND ANIMAL METABOLISM

Animals depend upon two main reactions for their energy, and for the construction of their harder tissues. The soft tissues are about the same as the plant molecules, but the hard tissues are produced by the reaction:



resulting in a teflon boned and shelled organism. He's going to be tough to do much with. Diatoms leave strata of powdered teflon. The main energy reaction is:







The blood catalyst metal is titanium, which results in colorless arterial blood and violet venous, as the titanium flips back and forth between tri and tetra-valent states.

## 7. EFFECT ON INTRUDING ITEMS

Water decomposes into oxygen and hydrofluoric acid. All organic matter (earth type) converts into oxygen, carbon tetrafluoride, hydrofluoric acid, etc., with more or less speed. A rubber gas mask lasts about an hour. Glass first frosts and then disappears. Plastics act like rubber, only a little slower. The heavy metals, iron, nickel, copper, monel, etc., stand up well, forming an insoluble coat of fluorides at first and then doing nothing else.

## 8. WHY GO THERE?

Large natural crystals of fluorides, such as calcium difluoride, titanium tetrafluoride, zirconium tetrafluoride, are extremely useful in optical instruments of various forms. Uranium appears as uranium hexafluoride, all ready for the diffusion process. Compounds of such non-metals as boron are obtainable from the atmosphere in high purity with very little trouble. All metallurgy must be electrical. There are considerable deposits of beryllium, and they occur in high concentration in its ores. [xx]

---

# PROLOGUE

## On Satan's Footstool

The big armor-tender vibrated, gently and not unpleasantly, as the contragravity field alternated on and off, occasionally varying its normal rate of five hundred to the second when some thermal updraft lifted the vehicle and the automatic radar-altimeter control acted to alter the frequency and lower it again. Sometimes it rocked slightly, like a boat on the water, and, in the big screen which served in lieu of a window at the front of the control cabin, the dingy-yellow landscape would seem to tilt a little. If unshielded human eyes could have endured the rays of Nu Puppis, Niflheim's primary, the whole scene would have appeared a vivid Saint Patrick's Day green, the effect of the blue-predominant light on the yellow atmosphere. The outside 'visor-pickup, however, was fitted with filters which blocked out the gamma-rays and X-rays and most of the ultra-violet-rays, and added the longer light-waves of red and orange which were absent, so that things looked much as they would have under the light of a G0-type star like Sol. The air was faintly yellow, the sky was yellow with a greenish cast, and the clouds were green-gray.

A thousand feet below, the local equivalent of a forest grew, the trees, topped with huge ragged leaves, looking like hundred-foot stalks of celery. There would be animal life down there, too—little round things, four inches across, like eight-legged crabs, gnawing at the vegetation, and bigger things, two feet long, with articulated shell-armor and sixteen legs, which fed on the smaller herbivores. Beyond, in the middleground, was open grassland, if one could so call a mat of wormlike colorless or pastel-tinted sprouts, and a river meandered through it. On the skyline, fifty miles away, was a range of low dunes and hills, none more than a thousand feet high.

No human had ever set foot on the surface, or breathed the air, of Niflheim. To have done so would have been instant death; the air was a mixture of free fluorine and fluoride gasses,



the soil was metallic fluorides, damp with acid rains, and the river was pure hydrofluoric acid. Even the ordinary spacesuit would have been no protection; the glass and rubber and plastic would have disintegrated in a matter of minutes. People came to Niflheim, and worked the mines and uranium refineries and chemical plants, but they did so inside power-driven and contragravity-lifted armor, and they lived on artificial satellites two thousand miles off-planet. This vehicle, for instance, was built and protected as no spaceship ever had to be, completely insulated and entered only through a triple airlock—an outer lock, which would be evacuated outward after it was closed, a middle lock kept evacuated at all times, and an inner lock, evacuated into the interior of the vehicle before the middle lock could be opened. Niflheim was worse than airless, much worse.

The chief engineer sat at his controls, making the minor lateral adjustments in the vehicle's position which were not possible to the automatic controls. One of the radiomen was receiving from the orbital base; the other was saying, over and over, in an exasperatedly patient voice: "Dr. Murillo. Dr. Murillo. Please come in, Dr. Murillo." At his own panel of instruments, a small man with grizzled black hair around a bald crown, and a grizzled beard, chewed nervously at the stump of a dead cigar and listened intently to what was—or for what wasn't—coming in to his headset receiver. A couple of assistants checked dials and refreshed their memories from notebooks and peered anxiously into the big screen. A large, plump-faced, young man in soiled khaki shirt and shorts, with extremely hairy legs, was doodling on his notepad and eating candy out of a bag. And a black-haired girl in a suit of coveralls three sizes too big for her, and, apparently, not much of anything else, lounged with one knee hooked over her chair-arm, staring into the screen at the distant horizon.

"Dr. Murillo. Dr. Mur—" The radioman broke off in mid-syllable and listened for a moment. "I hear you, doctor, go ahead." Then, a moment later "What's your position, now, doctor?"

"I can see them," the girl said, lifting a hand in front of her. "At two o'clock, about one of my hand's-breadths above the horizon."

The man with the grizzled beard put his face into the fur around the eyepiece of the telescopic-'visor and twisted a dial. "You have good eyes, Miss Quinton," he complimented. "Only four personal armors; Ahmed, ask him where the fifth is."

"We only see four of your personal-armors," the radioman said. "Who's missing, and why?" He waited for a moment, then lowered the hand-phone and turned. "The fifth one's inside the handling-machine. One of the Ullerans. Gorkrink."

The larger of the specks that had appeared on the horizon resolved itself into a handling-machine, a thing like an oversized contragravity-tank, with a bulldozer-blade, a stubby derrick-boom instead of a gun, and jointed, claw-tipped arms to the sides. The smaller dots grew into personal armor—egg-shaped things that sprouted arms and grab-hooks and pushers in all directions. The man with the grizzled beard began talking rapidly into his hand-phone, then hung it up. There was a series of bumps, and the armor-tender, weightless on contragravity, shook as the handling-machine came aboard.

"You ever see any nuclear bombing, Miss Quinton?" the young man with the hairy legs asked, offering her his candy bag.

"Only by telecast, back Sol-side," she replied, helping herself. "Test-shots at the Federation Navy proving-ground on Mars. I never even heard of nuclear bombs being used for mining till I came here, though."

"Well, if this turns out as well as the other job, three months ago, it'll be something to see," he promised. "These volcanoes have been dormant for, oh, maybe as long as a thousand years; there ought to be a pretty good head of gas down there. And the magma'll be thick, viscous stuff, like basalt on Terra. Of course, this won't be anything like basalt in composition—it'll be intensely compressed metallic fluorides, with a very high metal-



content. The volcanoes we shot three months ago yielded a fine flow of lava with all sorts of metals—nickel, beryllium, vanadium, chromium, indium, as well as copper and iron."

"What sort of gas were you speaking about?" she asked.

"Hydrogen. That's what's going to make the fireworks; it combines explosively with fluorine. The hydrogen-fluorine combination is what passes for combustion here; the result is hydrofluoric acid, the local equivalent of water. See, the metallic core of this planet is covered, much less thickly than that of Terra, with fluoride rock—fluorspar, and that sort of thing. There's nothing like granite here, for instance. That's why those big dunes, out there, are the best Niflheim has in the way of mountains. The subsurface hydrogen is produced when the acid filters down through the rock, combines with pure metals underneath."

"Dr. Murillo's inside, now," the radioman said. "Just came out of the inner airlock. He'll be up as soon as he gets out of his pressure-suit."

"As soon as he gets here, I'll touch it off," the bearded man said. "Everything set, de Jong?"

"Everything ready, Dr. Gomes," one of his assistants assured him.

The door at the rear of the control-cabin opened, and Juan Murillo, the seismologist, entered, followed by an assistant. Murillo was a big man, copper-skinned, barrel-chested; he looked like a third-or fourth-generation Martian, of Andes Indian ancestry. He came forward and stood behind Gomes' chair, looking down at the instruments. His assistant stopped at the door. This assistant was not human. He was a biped, vaguely humanoid, but he had four arms and a face like a lizard's, and, except for some equipment on a belt, he was entirely naked.

He spoke rapidly to Murillo, in a squeaking jabber. Murillo turned.

"Yes, if you wish, Gorkrink," he said, in the English-Spanish-Afrikaans-Portuguese mixture that was Sixth Century, A.E., Lingua Terra. Then he turned back to Gomes as the Ulleran sat down in a chair by the door.

"Well, she's all yours, Lourenço, shoot the works."

Gomes stabbed the radio-detonator button in front of him. A voice came out of the PA-speaker overhead: "In sixty seconds, the bombs will be detonated ... thirty seconds ... fifteen seconds ... ten seconds ... five seconds, four seconds, three seconds, two seconds, one second...."

Out on the rolling skyline, fifty miles away, a lancelike ray of blue-white light shot up into the gathering dusk—a clump of five rays, really, from five deep shafts in an irregular pentagon half a mile across, blended into one by the distance. An instant later, there was a blinding flash, like sheet-lightning, and a huge ball of varicolored fire belched upward, leaving a series of smoke-rings to float more slowly after it. That fireball flattened, then spread to form the mushroom-head of a column of incandescent gas that mounted to overtake it, engorging the smoke-rings as it rose, twisting, writhing, changing shape, turning to dark smoke in one moment and belching flame and crackling with lightning the next. The armor-tender began to pitch and roll; it was all the engineer and one of the assistants could do, together, to keep it level.

"In about half an hour," the large young man told the girl, "the real fireworks should be starting. What's coming up now is just small debris from the nuclear blast. When the shockwaves get down far enough to crack things open, the gas'll come up, and then steam and ash, and then the magma. This one ought to be twice as good as the one we shot three months ago; it ought to be every bit as good as Krakatoa, on Terra, in 59 Pre-Atomic."

"Well, even this much was worth staying over for," the girl said, watching the screen.

"You going on to Uller on the *City of Canberra*?" Lourenço Gomes asked. "I wish I were; I



have to stay over and make another shot, in a month or so, and I've had about all of Niflheim I can take, now. The sooner I get onto a planet where they don't ration the air, the better I'll like it."

"Well, what do you know!" the large young man with the hairy legs mock-marveled. "He doesn't like our nice planet!"

"Nice planet!" Gomes muttered something. "They call Terra God's Footstool; well, I'll give you one guess who uses this thing to prop his cloven hoofs on."

"When are you going to Terra?" the girl asked him.

"Terra? I don't know, a year, two years. But I'm going to Uller on the next ship—the *City of Pretoria*—if we get the next blast off in time. They want me to design some improvements on a couple of power-reactors, so I'll probably see you when I get there."

"Here she comes!" the chief engineer called. "Watch the base of the column!"

The pillar of fiery smoke and dust, still boiling up from where the bombs had gone off far underground, was being violently agitated at the bottom. A series of new flashes broke out, lifting and spreading the incandescent radioactive gasses, and then a great gush of flame rose. A column of pure hydrogen must have rushed up into the vacuum created by the explosion; the next blast of flame, in a lateral sheet, came at nearly ten thousand feet above the ground, and great rags of fire, changing from red to violet and back through the spectrum to red again, went soaring away to dissipate in the upper atmosphere. Then geysers of hot ash and molten rock spouted upward; some of the white-hot debris landed almost at the acid river, half-way to the armor-tender.

"We've started a first-class earthquake, too," the Hispano-Indian Martian Murillo said, looking at the instruments. "About six big cracks opening in the rock-structure. You know, when this quiets down and cools off, we'll have more ore on the surface than we can handle in ten years, and more than we could have mined by ordinary means in fifty."

About four miles from the original blast, another eruption began with a terrific gas-explosion.

"Well, that finishes our work," the large young man said, going to a kitbag in the corner of the cabin and getting out a bottle. "Get some of those plastic cups, over there, somebody; this one calls for a drink."

"That's right," Gomes said. "You do something once, it may be an accident; you repeat the performance, and it's a success." He began pushing papers aside on his desk, and the girl in the too-ample coveralls brought drinking cups.

The Ulleran, in the background, rose quickly and squeaked apologetically. Murillo nodded. "Yes, of course, Gorkrink. No need for you to stay here." The Ulleran went out, closing the door behind him.

"That taboo against Ullerans and Terrans watching each other eat and drink," Murillo said. "What is that, part of their religion?"

"No, it's their version of modesty," the girl replied. "Like some of our sex-inhibitions, which they can't even begin to understand.... But you were speaking to him in *Lingua Terra*; I didn't know any of them understood it."

"Gorkrink does," Murillo said, uncorking the bottle and pouring into the plastic cups. "None of them can speak it, of course, because of the structure of their vocal organs, any more than we can speak their languages without artificial aids. But I can talk to him in *Lingua Terra* without having to put one of those damn gags in my mouth, and he can pass my instructions on to the others. He's been a big help; I'll be sorry to lose him."



"Lose him?"

"Yes, his year's up; he's going back to Uller on the *Canberra*. You know, it's impossible to keep some trace of fluorine from the air in the handling-machines, or even out on the orbiters, and it plays the devil with their lungs. He wanted to stay on another three months, to help with the next shot, but the medics wouldn't hear of it.... He's from Keegark, wherever on Uller that is; claims to be a prince, or something. I know all the other geeks kowtow to him. But he's a damn good worker. Very smart; picks things up the first time you tell him. I'll recommend him unqualifiedly for any kind of work with contragravity or mechanized equipment."

They all had drinks, now, except the chief engineer, who wanted a rain-check on his.

"Well, here's to us," Murillo said. "The first A-bomb miners in history...."

---

## I.

### Commander-in-Chief Front and Center

General Carlos von Schlichten threw his cigarette away, flexed his hands in his gloves, and set his monocle more firmly in his eye, stepping forward as the footsteps on the stairway behind him ceased and the other officers emerged from the squat flint keep—Captain Cazabielle, the post CO; big, chocolate-brown Brigadier-General Themistocles M'zangwe; little Colonel Hideyoshi O'Leary. Far in front of him, to the left, the horizon was lost in the cloudbank over Takkad Sea; directly in front, and to the right, the brown and gray and black flint mountains sawed into the sky until they vanished in the distance. Unseen below, the old caravan-trail climbed one side of the pass and slid down the other, a sheer five hundred feet below the parapet and the two corner catapult-platforms which now mounted 90-mm guns. On the little hundred-foot-square parade ground in front of the keep, his aircar was parked, and the soldiers were assembled.

Ten or twelve of them were Terrans—a couple of lieutenants, sergeants, gunners, technicians, the sergeant-driver and corporal-gunner of his own car. The other fifty-odd were Ulleran natives. They stood erect on stumpy legs and broad, six-toed feet. They had four arms apiece, one pair from true shoulders and the other connected to a pseudo-pelvis midway down the torso. Their skins were slate-gray and rubbery, speckled with pinhead-sized bits of quartz that had been formed from perspiration, for their body-tissues were silicone instead of carbon-hydrogen. Their narrow heads were unpleasantly saurian; they had small, double-lidded red eyes, and slit-like nostrils, and wide mouths filled with opalescent teeth. Except for their belts and equipment, they were completely naked; the uniform consisted of the emblem of the Chartered Uller Company stencil-painted on chests and backs. Clothing, to them, was unnecessary, either for warmth or modesty. As to the former, they were cold-blooded and could stand a temperature-range of from a hundred and twenty to minus one hundred Centigrade. Von Schlichten had seen them sleeping in the open with their bodies covered with frost or freezing rain; he had also seen them wade through boiling water. As to the second, they had practically no sex-inhibitions; they were all of the same gender, true, functional, hermaphrodites. Any individual among them could bear young, or fertilize the ova of any other individual. Fifteen years ago, when he had come to Uller as a former Terran Federation captain newly commissioned colonel in the army of the Uller Company, it had taken some time before he had become accustomed to the detailing of a non-com and a couple of privates out of each platoon for baby-sitting



duty. At least, though, they didn't have the squaw-trouble around army posts on Uller that they had on Thor, where he had last been stationed.

An airjeep, coming in out of the sun, circled the crag-top fort and let down onto the terrace next to von Schlichten's command-car. It carried a bristle of 15-mm machine-guns, and two of the eight 50-mm rocket-tubes on either side were empty and freshly smoke-stained. The duraglass canopy slid back, and the two-man crew—lieutenant-driver and sergeant-gunner—jumped out. Von Schlichten knew them both.

"Lieutenant Kendall; Sergeant Garcia," he greeted. "Good afternoon, gentlemen."

Both saluted, in the informal, hell-with-rank-we're-all-human manner of Terran soldiers on extraterrestrial duty, and returned the greeting.

"How's the Jeel situation?" he asked, then nodded toward the fired rocket-tubes. "I see you had some shooting."

"Yes, sir," the lieutenant said. "Two bands of them. We sighted the first coming up the eastern side of the mountain about two miles this side of the Blue Springs. We got about half of them with MG-fire, and the rest dived into a big rock-crevice. We had to use two rockets on them, and then had to let down and pot a few of them with our pistols. We caught the second band in that little punchbowl place about a mile this side of Zortolk's Old Fort. There were only six of them; they were bunched together, feeding. Off one of their own gang, I'd say; the way we've been keeping them up in the high rocks, they've been eating inside the family quite a bit, lately. We let them have two rockets. No survivors. Not many very big pieces, in fact. We let down at Zortolk's for a beer, after that, and Captain Martinelli told us that one of his jeeps caught what he thinks was the same band that was down off the mountain night-before-last and ate those peasants on Prince Neeldink's estate."

"By God, I'm glad to hear that!" There'd been a perfect hell of a flap about that business. Before the Terrans came to Uller, it was a good year when not more than five hundred farm-folk would be killed and eaten by Jeel cannibals. The incident of two nights ago had been the first of its kind in almost six months, but the nobleman whose serfs had been eaten was practically accusing the Company of responsibility for the crime. "I'll see that Neeldink is informed. The more you do for these damned geeks, the more they expect from you.... When you get your vehicle re-ammoed, lieutenant, suppose you buzz back to where you machine-gunned that first gang. If there are any more around, they'll have moved in for the free meal by now." This breakdown of the Jeels' taboo against eating fellow-tribesmen was one of the best things he'd heard from the cannibal-extermination project for some time.

He turned to Themistocles M'zangwe. "In about two weeks, get a little task-force together. Say ten combat-cars, about twenty airjeeps, and a battalion of Kragan Rifles in troop-carriers. Oh, yes, and this good-for-nothing Konkrook Fencibles outfit of Prince Jaizerd's; they can be used for beaters, and to block escape routes." He turned back to Lieutenant Kendall and Sergeant Garcia. "Good work, boys. And if the synchro-photos show that any of that first bunch got away, don't feel too badly about it. These Jeels can hide on the top of a pool-table."

He climbed into the command-car, followed by Themistocles M'zangwe and Hideyoshi O'Leary. Sergeant Harry Quong and Corporal Hassan Bogdanoff took their places on the front seat; the car lifted, turned to nose into the wind, and rose in a slow spiral. Below, the fort grew smaller, a flat-topped rectangle of masonry overlooking the pass, a gun covering each approach, and two more on the square keep to cover the rocky hogback on which the fort had been built, with the flagpole between them. Once that pole had lifted a banner of ragged black marsh-flopper skin bearing the device of the Kragan riever-chieftain whose family had built the castle; now it carried a neat rectangle of blue bunting emblazoned with the wreathed globe of the Terran Federation and, below that, the blue-gray pennant which bore the vermilion trademark of the Chartered Uller Company.



"Where now, sir?" Harry Quong asked.

He looked at his watch. Seventeen-hundred; there wasn't time for a visit to Zortolk's Old Fort, ten miles to the north at the next pass.

"Back to Konkrook, to the island."

The nose of the car swung east by south; the cold-jet rotors began humming and then the hot-jets were cut in. The car turned from the fort and the mountains and shot away over the foothills toward the coastal plain. Below were forests, yellow-green with new foliage of the second growing season of the equatorial year, veined with narrow dirt roads and spotted with occasional clearings. Farther east, the dirty gray woodsmoke of Uller marked the progress of the charcoal-burnings. It took forty years to burn the forests clear back to the flint cliffs; by the time the burners reached the mountains, the new trees at the seaward edge would be ready to cut. Off to the south, he could see the dark green squares, where the hemlocks and Norway spruce had been planted by the Company. With a little chemical fertilizer, they were doing well, and they made better charcoal than the silicate-heavy native wood. That was the only natural fuel on Uller; there was no coal, of course, since fallen timber and even standing dead trees petrified in a matter of a couple of years. There was too much silica on Uller, and not enough of anything else; what would be coal-seams on Terra were strata of silicified wood. And, of course, there was no petroleum. There was less charcoal being burned now than formerly; the Uller Company had been bringing in great quantities of synthetic thermoconcentrate-fuel, and had been setting up nuclear furnaces and nuclear-electric power-plants, wherever they gained a foothold on the planet.

Beyond the forests came the farmlands. Around the older estates, thick walls of flint and petrified wood had been built, and wide moats dug, to keep out the shelloosaurs. But now the moats were dry, and the walls falling into disrepair. Some of the newer farms, land devoted to agriculture with the declining demand for charcoal, had neither moats nor walls. That was the Company, too; the huge shell-armored beasts had become virtually extinct in the Konk Isthmus now, since the introduction of bazookas and recoilless rifles. There seemed to be quite a bit of power-equipment working in the fields, and big contragravity lorries were drifting back and forth, scattering fertilizer, mainly nitrates from Mimir or Yggdrasill. There were still a good number of animal-drawn plows and harrows in use, however.

As planets went, Uller was no bargain, he thought sourly. At times, he wished he had never followed the lure of rapid promotion and fantastically high pay and left the Federation regulars for the army of the Uller Company. If he hadn't, he'd probably be a colonel, at five thousand sols a year, but maybe it would be better to be a middle-aged colonel on a decent planet—Odin, with its two moons, Hugin and Munin, and its wide grasslands and its evergreen forests that looked and even smelled like the pinewoods of Terra, or Baldur, with snow-capped mountains, and clear, cold lakes, and rocky rivers dashing under great vine-hung trees, or Freya, where the people were human to the last degree and the women were so breathtakingly beautiful—than a Company army general at twenty-five thousand on this combination icebox, furnace, wind-tunnel and stonepile, where the water tasted like soapsuds and left a crackly film when it dried; where the temperature ranged, from pole to pole, between two hundred and fifty and minus a hundred and fifty Fahrenheit and the Beaufort-scale ran up to thirty; where nothing that ran or swam or grew was fit for a human to eat, and where the people....

Of course, there were worse planets than Uller. There was Nidhog, cold and foggy, its equatorial zone a gloomy marsh and the rest of the planet locked in eternal ice. There was Bifrost, which always kept the same face turned to its primary; one side blazingly hot and the other close to absolute zero, with a narrow and barely habitable twilight zone between. There was Mimir, swarming with a race of semi-intelligent quasi-rodents, murderous, treacherous, utterly vicious. Or Niflheim. The Uller Company had the franchise for Niflheim, too; they'd had to take that and agree to exploit the planet's resources in order to



get the franchise for Uller, which furnished a good quick measure of the comparative merits of the two.

Ahead, the city of Konkrook sprawled along the delta of the Konk river and extended itself inland. The river was dry, now. Except in spring, when it was a red-brown torrent, it never ran more than a trickle, and not at all this late in the northern summer. The aircar lost altitude, and the hot-jet stopped firing. They came gliding in over the suburbs and the yellow-green parks, over the low one-story dwellings and shops, the lofty temples and palaces, the fantastically twisted towers, following a street that became increasingly mean and squalid as it neared the industrial district along the waterfront.

Von Schlichten, on the right, glanced idly down, puffing slowly on his cigarette. Then he stiffened, the muscles around his right eye clamping tighter on the monocle. Leaning forward, he punched Harry Quong lightly on the shoulder.

"Circle back, sergeant; let's have a look at that street again," he directed. "Something going on, down there; looks like a riot."

"Yes, sir; I saw it," the Chinese-Australian driver replied. "Terrans in trouble; bein' mobbed by geeks. Aircar parked right in the bloody middle of it."

The car made a twisting, banking loop and came back, more slowly. Colonel Hideyoshi O'Leary was using the binoculars.

"That's right," he said. "Terrans being mobbed. Two of them, backed up against a house. I saw one of them firing a pistol."

Von Schlichten had the handset of the car's radio, and was punching out the combination of the Company guardhouse on Gongonk Island; he held down the signal button until he got an answer.

"Von Schlichten, in car over Konkrook. Riot on Fourth Avenue, just off Seventy-second Street." No Terran could possibly remember the names of Konkrook's streets; even native troops recruited from outside found the numbers easier to learn and remember. "Geeks mobbing a couple of Terrans. I'm going down, now, to do what I can to help; send troops in a hurry. Kragan Rifles. And stand by; my driver'll give it to you as it happens."

The voice of somebody at the guardhouse, bawling orders, came out of the receiver as he tossed the phone forward over Harry Quong's shoulder; Quong caught it and began speaking rapidly and urgently into it while he steered with the other hand. Von Schlichten took one of the five-pound spiked riot-maces out of the rack in front of him. Themistocles M'zangwe had already drawn his pistol; he shifted it to his left hand and took a mace in his right. The Nipponese-Irish colonel, looking like a homicidally infuriated pixie, had an automatic in one hand and a long dagger in the other.

Harry Quong and Hassan Bogdanoff were old Uller hands; they'd done this sort of work before. Bogdanoff rose into the ball-turret and swung the twin 15-mm's around, cutting loose. Quong brought the car in fast, at about shoulder-height on the mob. Between them, they left a swath of mangled, killed, wounded, and stunned natives. Then, spinning the car around, Quong set it down hard on a clump of rioters as close as possible to the struggling group around the two Terrans. Von Schlichten threw back the canopy and jumped out of the car, O'Leary and M'zangwe behind him.

There was another aircar, a dark maroon civilian job, at the curb; its native driver was slumped forward over the controls, a short crossbow-bolt sticking out of his neck. Backed against the closed door of a house, a Terran with white hair and a small beard was clubbing futilely with an empty pistol. He was wounded, and blood was streaming over his face. His companion, a young woman in a long fur coat, was laying about her with a native bolo-knife.





Von Schlichten's mace had a spiked ball-head, and a four-inch spike in front of that. He smashed the ball down on the back of one Ulleran's head, and jabbed another in the rump with the spike.

"*Zak! Zak!*" he yelled, in pidgin-Ulleran. "*Jik-jik*, you lizard-faced Creator's blunder!"

The Ulleran whirled, swinging a blade somewhere between a big butcherknife and a small machete. His mouth was open, and there was froth on his lips.

"*Znidd suddabit!*" he screamed.

Von Schlichten parried the cut on the steel shaft of his mace. "*Suddabit* yourself, you geek bastard!" he shouted back, ramming the spike-end into the opal-filled mouth. "And *znidd* you, too," he added, recovering and slamming the ball-head down on the narrow saurian skull. The Ulleran went down, spurting a yellow fluid about the consistency of gun-oil. Then, without wasting words, he maced another of the things.

Ahead, one of the natives had caught the wounded Terran with both lower hands, and was raising a dagger with his upper right. The girl in the fur coat swung wildly, slashing the knife-arm, then chopped down on the creature's neck. To one side, a native somewhat better dressed than the others, to the extent of a couple of belts with gold ornaments, drew a Terran automatic. Von Schlichten hurled his mace and drew his pistol, thumbing off the safety as he swung it up, but before he could fire, Hassan Bogdanoff had seen and swung his guns around; the double burst caught the native in the chest and fairly tore him apart.

Another of them closed with the girl, grabbing her right arm with all four hands and biting at her; she screamed and kicked her attacker in the groin, where an Ulleran is, if anything, even more vulnerable than a Terran. The native howled hideously, and von Schlichten, jumping over a couple of corpses, shoved the muzzle of his pistol into the creature's open mouth and pulled the trigger, blowing its head apart like a rotten pumpkin and splashing both himself and the girl with yellow blood and rancid-looking gray-green brains.

Hideyoshi O'Leary, jumping forward after von Schlichten, stuck his dagger into the neck of a rioter and left it there, then caught the girl around the waist with his free arm. Themistocles M'zangwe dropped his mace and swung the frail-looking man onto his back. Together, they struggled back to the command-car, von Schlichten covering the retreat with his pistol. Another rioter—a Zirk nomad from the North, he guessed—was aiming one of the long-barreled native air-rifles, holding the ten-inch globe of the air-chamber in both lower hands. Von Schlichten shot him, and the Zirk literally blew to pieces.

For an instant, he wondered how the small bursting-charge of a 10-mm explosive pistol-bullet could accomplish such havoc, and assumed that the native had been carrying a bomb in his belt. Then another explosion tossed fragmentary corpses nearby, and another and another. Glancing quickly over his shoulder, he saw four combat-cars coming in, firing with 40-mm auto-cannon and 15-mm machine-guns. They swept between the hovels on one side and the warehouses on the other, strafing the mob, darted up to a thousand feet, looped, and came swooping back, and this time there were three long blue-gray troop-carriers behind them.

These landed in the hastily cleared street and began disgorging native Company soldiers—Kragan mercenaries, he noted with satisfaction. They carried a modified version of the regular Terran Federation infantry rifle, stocked and sighted to conform to their physical peculiarities, with long, thorn-like, triangular bayonets. One platoon ran forward, dropped to one knee, and began firing rapidly into what was left of the mob. Four-handed soldiers can deliver a simply astonishing volume of fire, particularly when armed with auto-rifles having twenty-shot drop-out magazines which can be changed with the lower hands without lowering the weapon.

There was a clatter of shod hoofs, and a company of the King of Konkrook's cavalry came



trotting up on their six-legged, lizard-headed, quartz-speckled mounts. Some of these charged into side alleys, joyfully lancing and cutting down fleeing rioters, while others dismounted, three tossing their reins to a fourth, and went to work with their crossbows. Von Schlichten, who ordinarily entertained a dim opinion of the King of Konkrook's soldiery, admitted, grudgingly, that it was smart work; four hands were a big help in using a crossbow, too.

A Terran captain of native infantry came over, saluting.

"Are you and your people all right, general?" he asked.

Von Schlichten glanced at the front seat of his car, where Harry Quong, a pistol in his right hand, was still talking into the radio-phone, and Hassan Bogdanoff was putting fresh belts into his guns. Then he saw that the Graeco-African brigadier and the Irish-Japanese colonel had gotten the wounded man into the car. The girl, having dropped her bolo, was leaning against the side of the car, one foot heedlessly in what was left of an Ulleran who had gotten smashed under it, weak with nervous reaction.

"We seem to be, Captain Pedolsky. Very smart work; you must have those vehicles of yours on hyperspace-drive.... How is he, colonel?"

"We'd better get him to the hospital, right away," O'Leary replied. "I think he has a concussion."

"Harry, call the hospital. Tell them what the score is, and tell them we're bringing the casualty in to their top landing stage.... Why, we'll make out very nicely, captain. You'd better stay around with your Kragans and make sure that these geeks of King Jaikark's don't let the riot flare up again and get away from them. And don't let them get the impression that they can maintain order around here without our help; the Company would like to see that attitude discouraged."

"Yes, sir, I understand." Captain Pedolsky opened the pouch on his belt and took out the false palate and tongue-clicker without which no Terran could do more than mouth a crude and barely comprehensible pidgin-Ulleran. Stuffing the gadget into his mouth, he turned and began jabbering orders.

Von Schlichten helped the girl into the car, placing her on his right. The wounded civilian was propped up in the left corner of the seat, and Colonel O'Leary and Brigadier-General M'zangwe took the jump-seats. The driver put on the contragravity-field, and the car lifted up.

"Them, see if there's a flask and a drinking-cup in the door pocket next to you," he said. "I think Miss Quinton could use a drink."

The girl turned. Even in her present disheveled condition, she was beautiful—a trifle on the petite side, with black hair and black eyes that quirked up oddly at the outer corners. Her nails were black-lacquered and spotted with little gold stars, evidently a new feminine fad from Terra.

"I certainly could, general.... How did you know my name?"

"You've been on Uller for the last three months; ever since the *City of Canberra* got in from Niflheim. On Uller, there aren't enough of us that everybody doesn't know all about everybody else. You're Dr. Paula Quinton; you're an extraterrestrial sociographer, and you're a field-agent for the Extraterrestrials' Rights Association, like Mohammed Ferriera, here." He took the cup and flask from Themistocles M'zangwe and poured her a drink. "Take this easy, now; Baldur honey-rum, a hundred and fifty proof."

He watched her sip the stuff cautiously, cough over the first mouthful, and then get the rest of it down.



"More?" When she shook her head, he stoppered the flask and relieved her of the cup. "What were you doing in that district, anyhow?" he wanted to know. "I'd have thought Mohammed Ferriera would have had more sense than to take you there, or go there, himself, for that matter."

"We went to visit a friend of his, a native named Keeluk, who seems to be a sort of combination clergyman and labor leader," she replied. "I'm going to observe labor conditions at the North Pole mines in a short while, and Mr. Keeluk was going to give me letters of introduction to friends of his at Skilk."

With the aid of his monocle, von Schlichten managed to keep a straight face. Neither M'zangwe nor O'Leary had any such aid; the African rolled his eyes and the Japanese-Irishman grimaced.

"We talked with Mr. Keeluk for a while," the girl said, "and when we came out, we found that our driver had been killed and a mob had gathered. Of course, we were carrying pistols; they're part of this survival-kit you make everybody carry, along with the emergency-rations and the water-desilicator. Mr. Ferriera's wasn't loaded, but mine was. When they rushed us, I shot a couple of them, and then picked up that big knife...."

"That's why you're still alive," von Schlichten commented.

"We wouldn't be if you hadn't come along," she told him. "I never in my life saw anything as beautiful as you coming through that mob swinging that war-club!"

"Well, I never saw anything much more beautiful than those 40-mm's beginning to land in the mob," von Schlichten replied.

The aircar swung out over Konkrook Channel and headed toward the blue-gray Company buildings on Gongonk Island, and the Company airport, swarming with lorries and airboats, where the ten thousand-ton *Oom Paul Kruger* had just come in from Keegark, and the Company's one real warship, the cruiser *Procyon*, was lifting out for Grank, in the North. Down at the southern tip of the island, the three-thousand-foot globe of the spaceship *City of Pretoria*, from Niflheim, was loading with cargo for Terra.

"Just what happened, while you and Mr. Ferriera were in Keeluk's house. Miss Quinton?" Hideyoshi O'Leary asked, trying not to sound official. "Was Keeluk with you all the time? Or did he go out for a while, say fifteen or twenty minutes before you left?"

"Why, yes, he did." Paula Quinton looked surprised. "How did you guess it? You see, a dog started barking, behind the house, and he excused himself and...."

"A dog?" von Schlichten almost shouted. The other officers echoed him, and on the front seat, Harry Quong said, "Coo-bli'me!"

"Why, yes...." Paula Quinton's eyes widened. "But there are no dogs on Uller, except a few owned by Terrans. And wasn't there something about ...?"

Von Schlichten had the radio-phone and was calling the command car at the scene of the riot. The sergeant-driver answered.

"Von Schlichten here; my compliments to Captain Pedolsky, and tell him he's to make immediate and thorough search of the house in front of which the incident occurred, and adjoining houses. For his information, that's Keeluk's house. Tell him to look for traces of Governor-General Harrington's collie, or any of the other terrestrial animals that have been disappearing—that goat, for instance, or those rabbits. And I want Keeluk brought in, alive and in condition to be interrogated. I'll send more troops, or Constabulary, to help you." He handed the phone to M'zangwe. "You take care of that end of it, Them; you know who can be spared."



"But, what ...?" the girl began.

"That's why you were attacked," he told her. "Keeluk was afraid to let you get away from there alive to report hearing that dog, so he went out and had a gang of thugs rounded up to kill you."

"But he was only gone five minutes."

"In five minutes, I can put all the troops in Konkrook into action. Keeluk doesn't have radio or TV—we hope—but he has his forces concentrated, and he has a pretty good staff."

"But Mr. Keeluk's a friend of ours. He knows what our Association is trying to do for his people...."

"So he shows his appreciation by setting that mob on you. Look, he has a lot of influence in that section. When you were attacked, why wasn't he out trying to quiet the mob?"

"When they jumped you, you tried to get back into the house," M'zangwe put in. "And you found the door barred against you."

"Yes, but...." The girl looked troubled; M'zangwe had guessed right. "But what's all the excitement about the dog? What is it, the sacred totem-animal of the Uller Company?"

"It's just a big brown collie, named Stalin, like half the dogs on Terra. Somebody stole it, and Keeluk was keeping it, and we want to know why. We don't like geek mysteries; not when they lead to murderous attacks on Terrans, at least."

The aircar let down on the hospital landing stage. A stretcher was waiting, with a Terran interne and two Ulleran orderlies. They got the still-unconscious Mohammed Ferriera out of the car.

"You'd better go with them, yourself, Miss Quinton," von Schlichten advised. "You have a couple of nasty-looking bruises and bumps. A couple of abrasions, too, where those geeks grabbed you; they have hides like sandpaper. And better have that coat cleaned, before that goo on it hardens, or it'll be ruined."

"Yes. You have a lot of it on your uniform, too."

He glanced down at the blue-gray jacket. "So I have. And another thing. Those letters Keeluk was going to give you, the ones to his friends in Skilk. Did you get them?"

She felt in the pocket of her coat. "Yes. I still have them."

"I wish you'd let Colonel O'Leary have a look at them. There may be more to them than you think.... Hid, will you go with Miss Quinton?"

---

## II.

[27]

### **Rakkeed, Stalin, and the Rev. Keeluk**

Von Schlichten, in a fresh uniform, sat at the end of the table in Sidney Harrington's office; Harrington and Eric Blount, the Lieutenant-Governor, faced each other across it, over the three-foot disc of an Ulleran chess-board. Harrington had the white, or center, position. Blount, sandy-haired and considerably younger, was playing black, and his pieces were



closing in relentlessly from the outer rim.

"Well, then what?" Harrington asked.

Von Schlichten dropped ash from his cigarette into the tray that served all three of them.

"Nothing much," he replied. "Keeluk bugged out as soon as he saw my car let down. We picked up a few of his ragtag-and-bobtail, and they're being questioned now, but I doubt if they'll tell us anything we don't know already. The dog had been kept in a lean-to back of the house; it had been removed, probably as soon as Keeluk called in his goon-gang. At least one of the rabbits had been kept on the premises, too, some time ago. No trace of the goat."

He watched Blount move one of his pieces and nodded approvingly. "The riot's been put down," he continued, "but we're keeping two companies of Kragans in the city, and about a dozen airjeeps patrolling the section from Eightieth down to Sixty-fourth, and from the waterfront back to Eighth Avenue. There is also the equivalent of a regiment of King Jaikark's infantry—spearmen, crossbowmen, and a few riflemen—and two of those outsize cavalry companies of his, helping hold the lid down. They're making mass arrests, indiscriminately. More slaves for Jaikark's court favorite, of course."

"Or else Gurgurk wants them to use for patronage," Blount added. "He's been building quite a political organization, lately. Getting ready to shove Jaikark off the throne, I'd say."

Harrington pushed one of his pieces out along a radial line toward the rim. Blount promptly took a pawn, which, under Ulleran rules, entitled him to a second move. He shifted another piece, a sort of combination knight and bishop, to threaten the piece Harrington had moved.

"Oh, Gurgurk wouldn't dare try anything like that," the Governor-General said. "He knows we wouldn't let him get away with it. We have too much of an investment in King Jaikark."

"Then why's Gurgurk been supporting this damned Rakkeed?" Blount wanted to know, hastily interposing a piece. "Gurgurk can follow one of two lines of policy. He can undertake to heave Jaikark off the throne and seize power, or he has to support Jaikark on the throne. We're subsidizing Jaikark. Rakkeed has been preaching this crusade against the Terrans, and against Jaikark, whom we control. Gurgurk has been subsidizing Rakkeed...."

"You haven't any proof of that," Harrington protested.

"My Intelligence Section has," von Schlichten put in. "We can give sums of money, and dates, and the names of the intermediaries through whom they were paid to Rakkeed. Eric is absolutely correct in making that statement."

"Personally, I think Gurgurk's plan is something like this: Rakkeed will stir up anti-Terran sentiment here in Konkrook, and direct it against our puppet, Jaikark, as well as against us," Blount said. "When the outbreak comes, Jaikark will be killed, and then Gurgurk will step in, seize the Palace, and use the Royal army to put down the revolt that he's incited in the first place. That will put him in the position of the friend of the Company, and most of his dupes will be rounded up and sold as slaves, and King Gurgurk'll pocket the proceeds. The only question is, will Rakkeed let himself be used that way? I think Rakkeed's bigger than Gurgurk ever can be. And more of a threat to the Company. Everywhere we turn, Rakkeed's at the bottom of whatever happens to be wrong. This business, for instance; Keeluk's one of Rakkeed's followers."

"Eric, you have Rakkeed on the brain!" Harrington exclaimed impatiently, then moved the threatened piece counterclockwise on the circle where he had placed it. "He's just a barbarian caravan-driver."

Eric Blount moved the piece that had taken Harrington's pawn.

"Your king's in danger," he warned. "And Hitler was just a paper-hanger."



"Rakkeed has no following, except among the rabble." Harrington puffed furiously at his pipe, trying to figure the best protection for his king.

"You just think he hasn't," Blount retorted. "Here in Konkrook, he's always entertained by one or another of the big ship-owning nobles. They probably deprecate his table-manners, but they just love his politics. And the same thing at Keegark, and at the Free Cities along the Eastern Shore."

"The last time Rakkeed was in Konkrook, he was the guest of the Keegarkan Ambassador," von Schlichten stated. "Intelligence got that from a spy we'd planted among the embassy servants."

"You sure this spy wasn't just romancing?" Harrington asked. "You get so confounded many wild stories about Rakkeed. Three days after he was reported here at Konkrook, he was reported at Skilk, five thousand miles away, said to be having an audience with King Firkked."

"No mystery to that," von Schlichten said. "He travels on our ships, in disguise, coolie-class, on the geek-deck."

"Be a good idea if he could be caught at it, some time," Blount said, making another move. "One of the lower-deck loading ports could be left unlocked, by carelessness, and he could blunder overboard at about five thousand feet." He watched Harrington make a deceptively pointless-looking move. "Sid, this damn dog business worries me."

"Worries me, too. I'm fond of that mutt, and God only knows what sort of stuff he's been getting to eat. And I hate to think of why those geeks stole him, too."

"Well, at risk of seeming heartless, I'm not so much worried for Stalin as I am about why Keeluk was hiding him, and why he was willing to murder the only two Terrans in Konkrook who trust him, to prevent our finding out that he had him."

"A Mr. Keeluk, a clergyman," von Schlichten quoted. He chain-lit another cigarette and stubbed out the old one. "Maybe the Rev. Keeluk wanted Stalin for sacramental purposes."

Blount looked up sharply. "Ritual killing?" he asked. "Or sympathetic magic?"

Von Schlichten shrugged. "Take your choice. Maybe Rakkeed wanted the dog, to kill before a congregation of his followers, killing us by proxy, or in effigy. Or maybe they think we worship Stalin, and getting control of him would give them power over us. I wish we knew a little more about Ulleran psychology."

That wasn't the first time he'd made that wish. Even if sex weren't the paramount psychological factor the ancient Freudians believed, it was an extremely important one, and on Uller most of the fundamental terms of Terran psychology were meaningless. At the same time, the average Ulleran probably had complexes and neuroses that would have had Freud talking to himself, and they certainly indulged in practices that would have even stood Krafft-Ebing's hair on end.

"One thing," Blount said. "It doesn't take any Ulleran psychologist to know that about eighty percent of them hate us poisonously."

"Oh, rubbish!" Harrington blew the exclamation out around his pipe-stem with a gush of smoke. "A few fanatics hate us, and a few merchants who lost money when we replaced this primitive barter economy of theirs, but nine-tenths of them have benefited enormously from us, and continue to benefit..."

"And hate us more deeply with each new benefit," Blount added. "They resent everything we've done for them."



"Yes, this spaceport proposition of King Orgzild of Keegark looks like it, now doesn't it?" Harrington retorted. "He hates and resents us so much that he's offered us a spaceport at his city...."

"What's it going to cost him?" Blount asked. "He furnishes the land—sequestered from the estate of some noble he executed for treason—and the labor—all forced. We furnish the structural steel, the machine-equipment, the engineering. We get a spaceport we don't really need, and he gets all the business it'll bring to Keegark. Considering the fact that Rakkeed is a welcome guest at his embassy here, and at the Royal Palace at Keegark, I'm beginning to wonder if he isn't fomenting trouble for us here at Konkrook to make us willing to move our main base to his city."

He made a move. Instantly, Harrington slashed out from the middle of the board with one of his heavy-duty, all-purpose pieces and took a piece, then moved again.

"Now look whose king's threatened!" he crowed.

"Yes, I see." Blount brought a piece clockwise around the board and took the threatening piece, then moved again. "I hope you see whose king's threatened, now."

Harrington swore, reached out to move a piece, and then jerked his hand back as though the piece were radioactive. For a while, he sat puffing his pipe and staring at the board.

"In fact, Orgzild's so sure that we're going to accept his offer that he's started building two new power-reactors, to handle the additional power-demand that'll result from the increased business," Blount continued.

"Where's he getting the plutonium?" von Schlichten asked.

"Where can he get it?" Harrington replied. "He just bought four tons of it from us, off the *City of Pretoria*."

"That's a hell of a lot of plutonium," Blount said. "I wonder if he mightn't have some idea of what else plutonium can be used for, beside generating power."

"Oh, God, I hope not!" Harrington exclaimed. "You're going to get me started seeing burglars under the bed, next...."

"Maybe there are burglars," Blount said, pointing with his cigarette-holder to Harrington's threatened king. "Can't you do something about that, Sid?" Then he turned to von Schlichten. "Before we get off the subject, how about those letters the Rev. Keeluk gave to the Quinton girl?"

"All addressed to Skilkans known to be Rakkeed disciples and rabidly anti-Terran," von Schlichten replied. "We radioed the list to Skilk; Colonel Cheng-Li, our intelligence man there, teleprinted us back a lot of material on them that looks like the Newgate Calendar. We turned the letters themselves over to Doc Petrie, the Ulleran philology sharp, who is a pretty fair cryptanalyst. He couldn't find any indications of cipher, but there was a lot of gossip about Keeluk's friends and parishioners which might have arbitrary code-meanings. I'm going to explain the situation to Miss Quinton, and advise her to have nothing to do with any of the people Keeluk gave her letters to."

Harrington had gotten his king temporarily out of danger, losing a piece doing it.

"Think she'll listen to you?" he asked. "These Extraterrestrials' Rights Association people are a lot of blasted fanatics, themselves. We're a gang of bloody-handed, flint-hearted, imperialistic sons of bitches in their book, and anything we say's sure to be a Hitler-sized lie."

"Oh, they're not as bad as all that. I never met the girl before today, but old Mohammed



Ferriera's a decent bloke. And their association's really done a lot of good. For one thing, they put an end to the peonage system on Yggdrasill, and I know what conditions were like, there, before they did."

A calculating look came into Harrington's eye. He puffed slowly at his pipe and slid a piece from the center toward the sector of the board nearest him. Blount whistled softly and made a quick re-arrangement.

"Carlos, did you say she told you she was going to Skilk, in the near future?" Harrington asked. "Well, look here; you're going up that way, yourself, with that battalion of Kragans, on the *Aldebaran*. Why don't you invite her