

No. 7

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Tales of Scientifiction •••

# ASTRO-

## Adventures

Sort of Like Atlas

by *Raymond Z. Gallun*



A New *Professor Jameson* adventure

***Exiles from Below*** by *Neil R. Jones*

... Tales of Scientifiction

The logo for 'ASTRO-Adventures' is presented within a stylized, elongated oval shape that resembles a rocket or a space capsule. The word 'ASTRO-' is written in a large, bold, sans-serif font, while 'Adventures' is in a smaller, italicized script font. To the right of the oval, there are three short, horizontal lines suggesting motion or a tail. Above the oval, the text '... Tales of Scientifiction' is written in a small, simple font.

# ASTRO- Adventures

April 1989

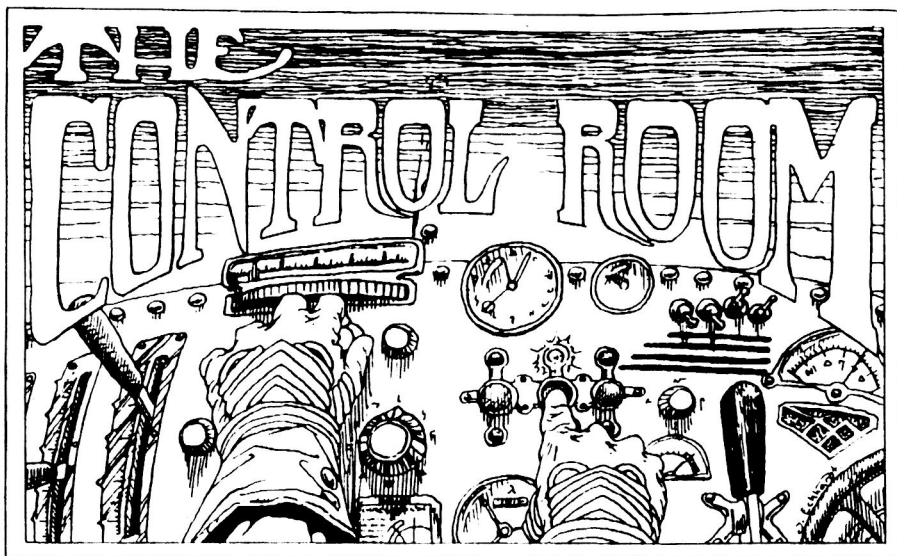
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Number Seven

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Captain Astro here, issuing your orders for this seventh flight of Astro-Adventures! You're to sit back, relax, and enjoy three fantastic futuristic feasts of far-flung fiction by some of the most trusty ray-gun slingers and asteroid-hoppers this side of Saturn!

Science fiction historian Mike Ashley introduces Neil R. Jones' "Exiles from Below," the latest in a series of adventures of pulp hero Professor Jameson that began in 1929. Author Jones, alas, died just about a year ago (just a week after fellow space-spanner Lin Carter) and did not see this publication which makes a sixty-year span for a single series by the same author!

Void-veteran Carl Jacobi returns to earth long enough to contribute

"Pursuit to Perihelion," an ultra-tellurian tale written fifty years ago. Fans of Jacobi familiar only with the title of this saga from lists of his unpublished work will leap into orbit with joy!

Also fresh from our time-portal is a hitherto-unpublished galactic goodie by Raymond Z. Gallun, "Sort of Like Atlas." We know last issue's double-barrel zap from Gallun had only whetted your astro-appetite.

Next issue we'll be back from our quasar-quest for more space-opera extravaganzas with new classics by Carl Jacobi, Don Wilcox, and Lin Carter! Till then, over and out!

Captain Astro

# THE IMMORTAL PROFESSOR

by Mike Ashley

Back in 1979 I was corresponding with Neil R. Jones about a book I was planning (and am at last now writing) about Hugo Gernsback. I happened to mention that I was also toying with the idea of assembling a volume of "lost" stories, stories that had been accepted by magazines for publication but which for one reason or another, usually the magazine folding, were not published and have remained unpublished. Neil Jones promptly sent me two lost Professor Jameson stories, "Battle Moon" and "Exiles from Below." Both had been written for Super Science Stories in 1951, and "Battle Moon" had been accepted, but Super Science folded. Jones was keen to see one of these stories in print in order to establish the Professor Jameson stories as the longest surviving series. I was only too pleased to oblige but somehow never got round to completing that book.

A year ago Bob Price showed interest in running one of the stories and on February 11, 1988, I wrote to Neil Jones to say that at last Professor Jameson would live again. Alas, that letter never reached him. On February 15th Neil R. Jones died at the age of 79. I was very sad to realise that he would not know that his wish was achieved, and that after 57 years a new Professor Jameson story is in print. This article, originally envisaged as a history of the Jameson stories, must also now serve as a tribute to one of the legends of the sf pulps.

The Professor Jameson stories were amongst the most popular in the sf pulps of the 1930s. The

basic premise of the series was simple, but revolutionary. Professor Charles Jameson schemed in his final years for a way to preserve his body after death and finally hit upon the idea of being encased in a satellite and shot into orbit around the Earth at a distance of 65,000 miles. Here the vacuum of space would keep his body as fresh as the day he died. After forty million years, long after all life on Earth has perished, the Zoromes, errant space explorers from the planet Zor, enter our solar system and discover Professor Jameson's satellite. The Zoromes had perfected their own means of immortality by encasing their brains in robot bodies. They now did the same for the professor, and he was brought back to life as a Zorome. Thereafter the series traced his adventures around the universe.

That first story had been called "The Jameson Satellite," but in its original form was completely different from the one that finally saw print. Jones had thought of the idea in 1929 and worked on the piece as his third completed story. At that stage the story ended with the professor's death and the firing of the rocket into space. The manuscript concluded with a series of questions about the fate of the satellite and Jones, somewhat audaciously, penned on the bottom of the manuscript: "A sequel, '40,000,000 Years After,' will be written following the publication of the story."

He submitted the manuscript to Hugo Gernsback at Science Wonder Stories, who had already accepted two of Jones's stories. Gernsback

was attracted by the concept but felt that the story as it stood did not contain sufficient action. Noting Jones's reference to a sequel, he wrote to the author on December 12, 1929, and suggested that he use the essential details from the story as a prologue to the main story.

This Jones did, working on the revised story during early 1930. By now he was having problems with Gernsback's delays in payments for his first two stories and the rub came when Jones received only \$40 for his 22,000-word story "The Electrical Man" published in the May 1930 Scientific Detective Monthly. Even at the anticipated miserly rate of half-a-cent a word Jones had expected at least \$110. He wrote to Gernsback to complain and received in response a five-page letter explaining the need for the reduced payment. Gernsback had said that the manuscript had needed retyping, at a cost of \$11; time was then spent in copyediting the manuscript which had not been anticipated, bringing the total to \$70 and this had been deducted from the author's payment!

Jones was not going to be caught twice. Although he had now rewritten "The Jameson Satellite" in its complete form, he submitted it instead to T. O'Connor Sloane at Amazing Stories, who promptly accepted it but, with his usual reckless haste, took over a year to publish it. "The Jameson Satellite" eventually saw the light of day in the July 1931 Amazing Stories and was an instant hit with the readers.

One of those readers was a young Isaac Asimov, who remained sufficiently fond of the story to include it in his bumper anthology Before the Golden Age (Doubleday, 1974). In his postscript to the story Asimov remarked that the concept of the kindly Zoromes had stayed with him when he came to write his first robot stories and served as the source that made him make his robots

benevolent. "It was the Zoromes, then," Asimov wrote, "who were the spiritual ancestors of my own 'positronic robots,' all of them, from Robbie to R. Daneel."

Frederik Pohl was also enraptured by the stories and in his autobiography, The Way the Future Was (Ballantine, 1978), he tells of another influence of the stories. Young fan Robert Ettinger had read the stories and years later, recalling Jones's concept of deepfreezing Jameson's body, began his own scientific exploration of the idea. Ettinger went on to become the father of cryogenics, the concept of a body being deepfrozen after death in the hope of a possible future revival. If any are thawed out and brought back to life, "they will owe quite a bit to Neil R. Jones," Pohl wryly mused.

In his book Seekers of Tomorrow (World, 1966), Sam Moskowitz suggests that Jones may have drawn his idea of the Zoromes from Edmond Hamilton's story "The Comet Doom" (Amazing Stories, January 1928), and remembering that Jones was originally working on his story less than eighteen months after Hamilton's appeared, its influence is entirely possible. In that story a race of benign aliens who have also transferred their brains to metal bodies befriend a human and offer to take him on a galactic tour. Neil Jones conceded that "The Comet Doom" was one source of inspiration, but equally so was H. G. Wells's War of the Worlds, where his far from friendly Martians had transferred their weak bodies to mighty war machines. Further influence came from Sewall Peaslee Wright's Commander Hanson stories then running in Astounding Stories. "It was Wright's space patrol stories which helped give me inspiration for continuing adventures of the machine men of Zor," Jones told me.

We all have many to thank. With the public response to "The Jameson

Satellite," Jones went to work on the sequel, "Planet of the Double Sun," which appeared in the February 1932 Amazing Stories. There would be twelve in all published in Amazing under editor T. O'Connor Sloane. Jones felt that Sloane had something of a soft spot for Professor Jameson, since Sloane was also an ageing professor, approaching his eighties, and only too aware of his own mortality. Sloane, however, was not the most exciting of editors, turning out editorials on such riveting subjects as the light bulb, and firmly of the belief that man would never conquer Everest, let alone venture into space. Amazing Stories during the thirties, therefore, became a less than exciting magazine and its circulation inexorably spiralled downwards. It is entirely possible that the Professor Jameson stories were amongst the few items that retained loyal readers to the magazine and caused it to survive long enough to be purchased and brought back to life, almost in Jamesonian fashion, by Ziff-Davis Publications in 1938. Since Amazing is still going today (with a circulation not much different from that of 1937) and after 62 years the oldest surviving magazine, we have something else to thank Neil R. Jones for.

Commenting on "The Jameson Satellite" in Before the Golden Age, Isaac Asimov was generous in his views of Jones's writing ability, calling the piece "probably the least skillfully written story in this anthology." He was right. Jones was not a particularly good writer. David Lasser at Wonder Stories and Harry Bates at Astounding regularly rejected his stories because they were badly written or inadequately plotted. How many of these Jones salvaged himself and how many were rewritten by the assistant editors, I don't know, but to the readers Jones was tops. The letter columns were full of praise. Guy Saunders of Brooklyn,

writing in the July 1932 Amazing, said:

"Planet of the Double Sun" was a story which had me on edge to the very end. The superb way in which it was written cannot be described by mere words. Neil R. Jones, as an author, is one in a thousand.

In the following issue James Dawley wrote in to say:

I have just finished reading the story "The Return of the Tripeds" and I would like to compliment Mr. Jones on it. It was equally as interesting as the first two 'adventures' of Professor Jameson. The interest in these stories, I think, is because they have plots that possess originality and have characters that are different from the usual story. However, these weren't the only good features, for the story was very well written. In general the story was an excellent example of science fiction. . . .

Isaac Asimov may have been considering the story from the more sophisticated seventies, but it is clear that to all the readers of the thirties the writing was more than adequate, and Jones had also captured a depth of vision and wonder in Jameson's adventures that kept the readers clamouring for more. It is interesting to consider that if Gernsback had not been so cautious with his fee for Jones's earlier stories he might have been publishing the Jameson series and it might even have saved Wonder Stories from its early grave in 1936.

When Amazing passed to a new publisher in 1938, Raymond Palmer became the new editor. Along with Bernard Davis (father of Joel Davis, publisher of Isaac Asimov's SF Magazine and Analog today), Palmer radically changed Amazing's publishing policy by introducing stories written to appeal to a much younger

audience. The space-hopping adventures of Professor Jameson may have seemed ideally suited to this change but Neil Jones was having none of it. "It would have meant changing the tradition on which the series was based," he told me. "New readers might not have known the difference, but the old readers would have been disenchanted. The series would have lapsed into limbo."

He was fortunate in finding a new market in Astonishing Stories, edited by former Jameson fan Frederik Pohl. Pohl was editing two science fiction pulps, Super Science Stories being the other. Astonishing published four Professor Jameson stories before the war put an end to the pulp. After the war Astonishing was left to rest in peace but Super Science Stories was revived and Professor Jameson with it. Editor Ejler Jakobssen helped Jones plot several of the stories, and a further five appeared before Super Science was again laid to rest.

There it might have ended, after twenty-one published stories. At that time the series was already the longest-running in the sf field, and according to some sources it had notched up the greatest wordage. In 1965 it would be overtaken by Edward Elmer Smith's Skylark Duquesne stories but, amazingly, Professor Jameson fought back.

Donald Wollheim, the editor at Ace Books, decided to publish the series in book form. Five books appeared in all, reprinting fourteen of the stories, including all of the first--and the best--twelve, and adding two more. Before the

series was stopped Jones had set to writing some more stories, bringing the total series to thirty, but the other stories remained unpublished until now, when you at last have a chance to read "Exiles from Below."

There are other features of Jones's work which are worth recalling, albeit briefly. He is credited with inventing the word "astronaut," which he used in his first published story, "The Death's Head Meteor" (Air Wonder Stories, January 1930). More significantly, however, he also used a common historical background to his stories and was thus the first author to project the concept of a future history in the sf magazines. The idea was later honed to perfection by Robert A. Heinlein, but it was Neil R. Jones who started it all.

Jones was also a pioneer in another field. After the war he invented an interplanetary discs-and-counters game that became quite popular. Jones, therefore, had the pre-competitor age forerunner of the space invaders!

Perhaps the affection with which Professor Jameson is held was best expressed by Donald Wollheim. Back in 1967, when Ace Books were reviving the series, Wollheim's assistant, Terry Carr, suggested a plot that would finalise the series. Wollheim would have none of that, "Don't kill him off," he cried.

Well, we haven't. Neil R. Jones may have passed on to that great satellite in the sky, but Professor Jameson and the Zoromes continue to explore the spaceways. Come in, 21MM392, the stage is yours.

# THE PROFESSOR JAMESON STORIES

The following lists all the Professor Jameson stories including the unpublished titles. I have only listed the sources of original publication plus the books in the series.

1. "The Jameson Satellite," Amazing Stories, July 1931 [collected in A].
2. "Planet of the Double Sun." Amazing Stories, February 1932 [in A].
3. "The Return of the Tripeds." Amazing Stories, May 1932 [in A].
4. "Into the Hydrosphere." Amazing Stories, October 1933 [in B].
5. "Time's Mausoleum." Amazing Stories, December 1933 [in B].
6. "The Sunless World." Amazing Stories, December 1934 [in B].
7. "Zora of the Zoromes." Amazing Stories, March 1935 [in C].
8. "Space War." Amazing Stories, July 1935 [in C].
9. "Labyrinth." Amazing Stories, April 1936 [in C].
10. "Twin Worlds." Amazing Stories, April 1937 [in D].
11. "On the Planet Fragment." Amazing Stories, October 1937 [in D].
12. "The Music Monsters." Amazing Stories, April 1938 [in D].
13. "The Cat Men of Aemt." Astonishing Stories, August 1940.
14. "Cosmic Derelict." Astonishing Stories, February 1941.
15. "Slaves of the Unknown." Astonishing Stories, March 1942.
16. "Doomsday on Ajiat." Astonishing Stories, October 1942 [in E].
17. "The Metal Moon." Super Science Stories, September 1949 [in E].
18. "Parasite Planet." Super Science Stories, November 1949.
19. "World without Darkness." Super Science Stories, March 1950.
20. "The Mind Masters." Super Science Stories, September 1950.
21. "The Star Killers." Super Science Stories, August 1951.
22. "In the Meteoric Cloud." Doomsday on Ajiat, 1968 [E].
23. "The Accelerated World." Doomsday on Ajiat, 1968 [E].
24. "The Voice across Space." Unpublished.
25. "Battle Moon." Unpublished.
26. "The Lost Nation." Unpublished.
27. "Exiles from Below." Astro-Adventures #7, April 1989.
28. "The Satellite Sun." Unpublished.
29. "Hidden World." Unpublished.
30. "The Sun Dwellers." Unpublished.

## BOOKS

- A. Planet of the Double Sun (New York: Ace Books, 1967 [stories 1, 2, 3]).
- B. The Sunless World (Ace Books, 1967 [stories 4, 5, 6]).
- C. Space War (Ace Books, 1967 [stories 7, 8, 9]).
- D. Twin Worlds (Ace Books, 1967 [stories 10, 11, 12]).
- E. Doomsday on Ajiat (Ace Books, 1968 [stories 22, 23, 17, 16]).

# EXILES FROM BELOW

by Neil R. Jones

## Chapter I The Plunge

Professor Jameson clung more tightly to his precarious perch on the sloping mountainside. His metal tentacles curled about treacherous knobs of slippery rock. His mechanical eyes circling the coned metal head regarded gloph, the intelligent space creature who, too, fought for his life against the face of the looming peak. Around them shone the stars of space, and several little moons moved visibly in ever-changing phases. Out of the darkness, a blazing sun threw sharp-etched shadows all about them. Far beneath them, they saw the haze of the planet's low-lying, dense atmosphere up out of which the towering mountains reached beyond and into space, a bleak region, a veritable top of the world, where only Gloph and his species lived. The space ship of the Zoromes was gone. It had fallen when a part of the mountain peak had slid away. Weathering had weakened the mountain peak beneath the atmosphere line. The professor remembered 65G-849 remarking about this characteristic as they had approached and examined the strange world from out in space.

"There is no weathering on the mountain tops in space, other than what results from temperature changes when the sun shines," 65G-849 had assured his fellow Zoromes. "It is different, however, below the atmosphere line. Because of the presence of atmosphere and moisture, a good many of the mountain peaks are undermined around the edges."

Besides the space ship and those

inside it, the five machine men who had come out of the space ship with the professor to talk with the friendly space creatures had gone hurtling to their doom. The professor had seen 6W-438, 119M-5, 29G-75, 777Y-46 and 7H-88 grab frantically for something to stay their plunge. Only the professor and 119M-5 had been successful in gaining a hold, and 119M-5's respite had been but a brief one. The machine man's hold on the slippery surface had been even more insecure than the professor's. 119M-5 had shot by the professor, radiating a departing farewell.

Among the group of space creatures accompanying the machine men, all had fallen, too, except Gloph, who with the professor and 119M-5 had been farthest from the edge of the great break. Before the catastrophe, the space creatures had formed a funeral cortege in the performance of strange rites for two of their dead, and the machine men had watched. At the climax of the rites, it was the custom, the machine men had learned, to hurl the two dead bodies off the precipice and into the atmospheric sea far below. It was never just one. There always had to be two.

Professor Jameson looked across at Gloph and envied the latter's soft, shaggy feet which gave him some measure of support in avoiding the inevitable. "Are you all right?" he radiated.

"For the moment," the long, thin creature with the luminous eyes formed the thought. "But I can get nowhere from here." He gazed up helplessly at the steep slope they were on.

His four long arms clung to scanty holds on the steep face of the mountain; four shaggy hooves settled against uneven spots on the slippery rock, while the long, gray body hugged the wall closely.

"We can't get up farther," the machine man told him. "If we could only climb down. It would be easier to climb if we were below the atmosphere line."

"I could not live very long down there, even if we did," said Gloph. "I do not know why, but it is so."

"Have you ever been down there?" Professor Jameson asked.

"Yes--twice. Once, I was quite young and venturesome. I almost did not come back, and if it had not been for others who came in search of me, I would have died."

"What happened?"

"I became very weak. I felt death come very close. I lost my senses on the way back up and did not revive until some time after I was back up here. Another time, I journeyed with many others to another mountain where we had to descend and pass a low area. Again, I felt the old symptoms, but we were prepared for this, and we hurried and gained the higher levels again before it was too late."

"Is there life down there?" the professor asked.

"Yes. Strange life that stands with its feet in the ground and never moves out of that spot as long as it lives, moving only back and forth as the strange, thin medium which surrounds it moves it. Other life moves about off the ground on long flat arms which are waved vigorously to keep it from falling."

Professor Jameson regarded Gloph's triangular face thoughtfully. The only features were the three large, luminous eyes. "You never eat anything, do you?" he inquired, forming the idea and planting it in the creature's mind.

"Take something inside our bodies to keep us alive?" Gloph considered

gravely. "Why, no. Why should we? It is a stupid idea--but wait. I have heard it told that the creatures below practice such a strange ceremony--those why fly about on their long flat arms. Do you eat?"

"No," the professor confessed.

"You are much like us, only different," pursued Gloph. "Where did you come from?"

The professor shifted his position, trying to use his useless metal legs, finding nothing against which to cling. "It is a long story. I was once such a kind of creature like those you tell about on this world below the atmosphere line, except that I was formed differently in appearance. I had to eat to live, also breathe the gas similar to what you have twice descended to. I died on my planet which was called Earth. I had my dead body shot into space in a rocket to keep it from disintegrating. Forty million years afterwards, machine men from another distant world, Zor, came and found me in my space rocket which had become a satellite of the earth. They recalled my brain to life and put it into one of these metal machines such as I am now. I have travelled with them ever since."

"Much of what you say is strange to me," confessed Gloph, "but I like you. You must have had many wonderful experiences."

"This may well be my last one," the professor observed gloomily. "My companions have all been hurled to their doom. If the space ship ever recovered itself and was not destroyed by the edge of the mountain sliding away, it would have been back by now looking for survivors."

"Hang on and do not give up hope," Gloph encouraged his new metal friend. "We have a saying that 'it is not well to fear that which may never happen.'"

"Gloph, all life, whether plant or animal, must be maintained with sustenance, yourself included. There



is no reason to suspect that you are given a lifetime of energy at birth. I've reached the conclusion that you live on a constant bombardment of cosmic rays, or a conversion of naked sunlight."

"What is that?" the space creature puzzled.

But the professor never answered. He was gone. In the vacuum of space, his body made no sound as it shot down the rocky slope and over the edge. Gloph was all alone.

Professor Jameson hurtled downward. His tentacles and feet had slipped off the rock, just as those of 119M-5 had done. His body performed a slow turn, and the eyes of his coned metal head caught a dizzying passage of escarpment beyond him. Underneath, a haze obscured the atmosphere and what lay beyond. The haze rushed up to engulf him with frightful speed, and he found himself falling through the planet's atmosphere. It was like being struck suddenly by a giant pillow, and the professor became audibly aware of a whirring sound made by his rapid passage. Once in the atmosphere, the pattern of the topography below became distant. He saw land and water spread out in irregular design.

As he tried to gain his bearings and pick his probable landing spot, he became aware of circling dots below him. They grew larger swiftly, then expanded less rapidly. In perplexity, the professor all at once realized they, too, were falling, but at a slower rate of speed than himself. He came up with and passed them, yet something reached out and seized hold of a metal leg and continued to fall with him, yet at diminishing speed. Something dove by him from below, and he had another of the flying creatures holding back his speed. More of them dove at him as he passed them. He was surprised to find that he was no longer falling but was being carried across water, now quite close to the surface and

in the direction of land.

These were the flying things which Gloph had talked vaguely about. The professor examined one of them as well as he could while they carried him up the coast from the towering mountain peak where he had fallen. His first impression visualized a pair of streamlined, membranous wings through which the sunlight struck a netted pattern of veins and skeletal structure. Folded back in under each wing lay an anterior arm and digits at the extremity. A pair of slender legs flowed out behind in bird-like flight. Why had they rescued him? He probed at their minds, finding them possessed of a simple intelligence. Two bright eyes and a horny beak gave them a sharp appearance. A short, thick fur covered their bodies. He gathered vaguely that they had stopped his headlong flight for selfish reasons.

Far over the land they sped to a low mountain ridge which connected with the series of tall peaks. At a dizzying speed, the professor was carried by this weird bevy over a strange pattern of criss-crossed poles built in a community of cave mouths in the mountain side. Perched on these were more of the winged creatures in various stages of growth. Professor Jameson quite suddenly felt himself released and hurtling at one of these grids cradled above a cave mouth. His metal cubed body struck it at such speed as to crash through it where he ricocheted off the mountain side close to the cave mouth, then rattled to a stop against foundations of the overhead network.

Before he had a chance to gain his bearings, the flock of bird-things which had brought him were down upon him in a swarm of competitive assault as he felt their strong beaks snapping at him ineffectually amid weird sounds and guttural mouthings. In vain, their horny beaks grated at the edges

of his cubed body, tried with persistent leverage to snap his metal tentacles. Weird, conversational sounds issued out of their throats, and Professor Jameson caught the ideas from their simple minds.

"He is too hard to eat," one of them with red wings remarked.

"It was never before so," observed another.

"The outside might be hard sometimes, but never like this."

"This one was so heavy," an ugly, broken-beak specimen of the species complained. "It took many of us to catch him and save him from the water."

"I thought there would be more for us to eat, he was so heavy."

Red Wing gave him an experimental peck. "It is like the rock of our caves we live in."

"We have caught an idol dropped from above," ventured Broken Beak.

Professor Jameson remained immovable. He was undamaged, and once the bird-things lost interest he intended to escape by darkness.

"We have had our labour for naught," remarked Lame Leg, hopping about awkwardly to contemplate the machine man from a different angle. "I thought my wings were going to be torn off when I seized him. Never have I fallen so fast."

"Better had we let this one fall into the sea. It is no good."

"What about those-who-came-out-of-the-water?" Broken Beak suggested. "They might buy him from us."

"No, they want only the glittering stones and the dark-blue plants which grow high up in the mountains."

"They might want this thing, too. We could try."

The inspiration was acted upon. Professor Jameson was dragged out into the open. Once more, several of the bird-creatures seized upon him and with great flapping wings carried him aloft. This time, the trip was a little longer, yet they were still in the vicinity of the mighty peak from which the professor

had fallen. They approached a small city and swooped down into what appeared to be a public square. The machine man's attention was drawn from the smooth, cylindrical buildings with their overhanging, flat roofs to the new kind of creatures converging on the square where the bird-things waited with him.

They were long and graceful, approaching with a slow, bobbing walk on two feet seemingly growing out of one lower appendage. The feet were long and flapping, and soled with a tough growth. Somehow, the professor could not recognize them as having been meant for ground travel. It was more as if the creatures had learned to use them for this mode of travel. The long bodies of the creatures were translucent. The machine man could dimly ascertain the outlines of their internal organs. The body narrowed at the top. The head of the new arrivals seemed almost a straight continuation of the body until the head turned, and then it seemed almost like being on a swivel. A fleshy hood came down to flow harmoniously into streamline with the rest of the body. Lidded eyes blinked open in surprise at sight of the machine man. Nostrils dilated. A wide, loose mouth worked thoughtfully in conjecture. Instantly, Professor Jameson sensed an intelligence vastly superior to that of the space creatures up among the mountain tops.

The professor listened to the bickerings of the two species, as the bird-things sought to sell him to the citizens of the community. He heard the Flipper Feet refer to the birds as Glyj-ogs. The Flipper Feet exhibited a lively scientific interest among themselves over this new find of the Glyj-jogs but did not allow awareness of it to escape them. Following a bit of haggling, several large boxes were brought, one for each of the winged creatures. Experimentally, each Glyj-og broke open his box

for weight, and flew off satisfied with the bargain.

Not until the birds were gone, and the Flipper Feet crowding around to examine their new acquisition with subdued mouthings, did the professor show evidences of being other than just the idol the Glyj-ogs had exhibited him as. Then he took several steps, and the nearest Flipper Feet jumped back upon those crowding behind them in a hubbub of alarm.

"Don't be afraid," Professor Jameson placated them with calming radiations. "I am harmless to you. Your bargain, I hope, was a good one, for you have more than what you expected me to be. I am alive. I am made of metal, all except my brain which is organic, like your own."

He told his story briefly. A tall spokesman in the group then addressed the Zorome, accompanying his thoughts with spoken sounds.

"I am Byb-phry-tim. You say that you have come from beyond this world--that you have lost the means of travel you came here in--along with those who came with you. We know that there is life high in the mountains above the atmosphere, but we do not know what it is like. We cannot go above a certain height due to pressure and breathing. The Glyj-ogs go a great deal higher than we do. In fact, they live at a higher level than we, but they are an unreliable source of information. They are not very intelligent, and they are superstitious besides. They tell conflicting tales. Those below, from whom we originate, are also superstitious and have strange legends of a ghost-like life above the atmosphere which they call the Jung-juj."

"Those below from whom you originate," the professor repeated the thought. "What do you mean?"

"You will find but few cities like this above water. These few are founded by those of us who have been exiled from below. We were originally water creatures. There

are many such underwater cities, for we exiles are a small minority. Those below, known as the Jyg-fyps, can only come out of the water for a short time, and then they must return. On the other hand, we can never more live in the submerged cities because our undersea breathing faculties have been surgically removed, and we are able to breathe atmospheric gas instead."

Byb-phry-tim pushed back his loose, flapping hood to show the machine man healed scars where his underwater breathing organs had been removed.

"But why?" the professor puzzled. "Why was this done to you? For what reason were you exiled?"

"Ostensibly because we are no longer able to propagate our species. That is the reason given us. It is true that with the strange transformation which comes over a very small percentage of us, we lose our sex. We become virtually a third sex, or sexless you might say, depending on viewpoint. All our physical characteristics undergo change, and we appear distinctly different from either sex and come to look like you see us regardless of whether formerly male or female. Myself, I was once a male, but by looking at the others you will notice no difference among us."

"You hint at a more primary reason for your exile," the professor reminded him.

"Yes. With the change, we become superior to the others in intelligence. Long ago, our kind automatically became the ruling class. It had to be that way. Those so gifted with the mysterious transformation naturally strove ahead of the others. Their superior intelligence put them into the best positions of living, influence and power. A certain amount of indolence usually accompanies such a rise to the top when the goal is once attained, with the result that our ordinary species, the Jyg-fyps, vastly in the majority, became em-

bittered and resentful. They not only felt their mental inferiority but realized that unless they underwent this transformation they were forever closed off from the higher attainments of life. They rebelled. The third sex was overcome and taken into custody. There was talk of putting them to death, and dealing with each new case likewise. But there were other factors which gave them pause. For one thing, each and every Jyg-fyp never knew but what some time he might become one of the third sex. The transformation might even come to him in his old age. It showed no discrimination among either sexes or age groups. And with the entire group destroyed, the Jyg-fyps would never more enjoy many of the inventions and conveniences of life furnished them by the intelligence of the third sex. So it was decided to exile us to the surface and remove our ability to breathe in the water. Ironically, it was the genius of the third sex which discovered this operation. We also originated many other forms of progress which advanced the race of Jyg-fyps and its science, but these have fallen into disuse, and since the rebellion there has been a slow growing tendency in the direction of what was primitive and backward."

"Then I suppose whenever a transformation occurs, there is an immediate operation for the removal of the undersea organs of breathing," the professor noted. What causes this strange phenomenon?"

"We have never found out," replied Byb-phry-tim. "It just happens--like life and death."

"And are you happy to be up here instead of down there?"

"We are not happy at first--not for a long time. Afterwards, we just don't seem to care much, after becoming used to our new life. But it takes years. There is more to the change than our initial operation, and it is often a painful transformation. Sometimes, we die. There is the difference in pressure,

for one thing, even though the underwater cities are not very far down. Then we have to accustom ourselves to direct sunlight. Our first year above, we avoid sunlight almost exclusively. Our bodies undergo other changes, too, such as the lack of buoyancy we find up here on the land. It is more difficult for us to maintain our balance, and it is harder on our feet in walking because out of the water we are heavier upon them. If you would know which of us have been here longer, look at our feet. They are turned from a light red to a dark gray and are heavily calloused on the bottoms."

## Chapter II

### At the Edge of the Abyss

"Have you seen any others like me?" Professor Jameson inquired. "Have there been any reports of anything resembling the craft in which we machine men came to your world?"

Byb-phry-tim's reply was negative. "If there had been, the birds who brought you here would have told us. The great landslide occurred at night and woke all of us who were sleeping. It dropped into the sea. These events are not uncommon in our history, but this one was by far the greatest in our recorded history above water."

"What of those below? Will not the cities of the Jyg-fyps be in danger?"

"The undersea communities are not located very close to shore," Byb-phry-tim told the professor. "Karg is the nearest city, and you must journey quite a ways to reach it."

"Then the space ship must have fallen into the ocean along with the rest of my companions--and part of the mountain," the professor mused. "They are all down there, buried, perhaps, beneath all that rock slide."

Byb-phry-tim nodded.

"How do I get down there?" the professor asked.

"There are various ways. The submersible transportation is poor and uncertain. We of the third sex originally invented it. Since the rebellion, it degenerated. You would have to wait until more like me are sent up here. It might be a long time before another transformation took place in Karg or another of the nearer cities."

"Why can't I just walk down there on the bottom?"

"You can, when I show you where to go," Byb-phry-tim told the machine man. "If you proceed uninstructed, you might fall into the depths. It would be the same as falling off the edge of a cliff up here, except that you would not fall rapidly. You would likely not be smashed by gravity, but you would never return. The pressure would not bother you, however."

"Why would I never return?"

"No one ever has."

"What is down there?"

"Pressure, steep walls, great monsters."

"Has anyone ever been down there?"

"Before the rebellion, plans were formulated by the third sex, to descend in a sealed and weighted compartment, but nothing ever came of it. The Jyg-fyps in the undersea cities do not have the intelligence to undertake such a venture. Once in a great while, one of the monsters braves the low pressure to come up and raid one of the undersea communities. A few are taken off guard and eaten, before the monster is killed, dies from release of his own internal pressure, or descends into the depths once more probably to die just the same."

"I want to go below and search for my companions," Professor Jameson told his host. "Those five who were with me when the avalanche broke off must be down there somewhere."

During the ensuing days which

followed, the professor learned a great deal about the undersea cities, the Jyg-fyps and the venture he was about to go on. Byb-phry-tim and the rest of the strange mutants assisted him in every way possible. As for discovering the secret, or any clue as to why the peculiar transformation took place among various Jyg-fyps who suddenly found themselves sexless and greatly advanced in intelligence, the professor was unable to even advance a theory to Byb-phry-tim from his great store of interstellar lore.

When the time came for his descent into the sea, Byb-phry-tim and a good share of the community bobbed along on their awkwardly adapted flippers. Many of the newest mutants experienced tired or sore feet, became disinterested and dropped out.

At a selected point Byb-phry-tim had previously pointed out to the machine man on a map, the mutant pointed out to sea. "Walk into the water here and down the gradual incline. Keep away from the right hand side, or you will suddenly drop off into the depths. When darkness falls, halt and wait if you are not in sight of the lights of Karg. Daylight penetrates deeply, and you will need use but ordinary caution while it lasts. When you finally reach Karg, you will be taken before Pal-gol-keesp who is chief there. Tell him that Byb-phry-tim sent you."

Professor Jameson thanked them for their help and for buying him from the flying Klyj-ogs. He walked slowly into the water until it swirled above his coned head. His last impression of the third sex was a blurred caricature of them as water closed above the apex eye of his coned head. He walked down the incline which gradually leveled off. Where the sunlight shone down through the fathoms, it was almost as bright as on land. He kept on, mindful of the peril to his right. Something far ahead loomed mistily. He approached its

swelling bulk. It was a rock. There was something fresh about one side as he examined it; the surface was sharp and rough. It was a part of the avalanche from the heights reaching into space. He kept on as sunlight faded and murky shadows succeeded it, realizing he was on the right track. He found more fragments of the great rock slide yet no traces of his comrades. Where was 119M-5 who had fallen long after the avalanche had taken the others? He could not be buried. Feeling that 119M-5 might be damaged but still alive, the professor sent out frequent strong radiations. Nothing came back to answer the anticipations of his eagerly attuned brain. Darkness overtook his steps. He was still not in sight of Karg. Yet he did not stop as Byb-phry-tim had warned him to do. He put on his body lights and proceeded.

With the coming of darkness, he caught frequent glimpses of marine life dimly retreating from him, yet circling curiously in and out of the aura of his body lights which had attracted them to him. The boulders and stone fragments from the stellar pinnacles finally grew less and eventually disappeared entirely from his path.

Professor Jameson walked a long ways on the bottom before a greenish effulgence far ahead heralded his approach to the city of Karg. The light grew brighter and a lighter green which gradually resolved itself into a soft yellow. Shadowy forms, seemingly different from the marine life he had previously glimpsed, hung just out of reach of his body lights, sometimes momentarily visible on the edge of lesser light. They kept pace with him--all around him, he noticed--as he neared Karg. A subtle mental omniscience suggested to the professor that he was being escorted--in fact, that his coming had been anticipated. He thought of Byb-phry-tim who had previously spoken once of communication among the surface

cities of the exiles. Why not with the underwater cities, too?

The professor was not surprised at being surrounded and led into the city of Karg. What surprised him was the matter-of-fact way these submarine counterparts of the exiled mutants above accepted him. This was unlike his usual reception by a species which had never before seen a Zorome. It gave the machine man a ray of hope. These creatures might have become familiar with the sight of other machine men--his lost companions. As the escort closed in upon him on all sides, he noted the important differences between them and the third sex. Here in the water, their hoods floated out like a skirt hanging from their heads. Their progress in the water was more stately, and as they bobbed along their feet scarcely touched as they walked.

"Are there more like me down here?" Professor Jameson asked hopefully, as they gathered about him.

There was no acknowledgment of his query, with an ill-concealed bluff at not having quite understood his question. He saw that their bodies were of a lighter hue than the mutants living above in the sunlight.

"We go now before Pal-gol-kesp," the leader of the group told him. "I am Juf-rim-byk."

The buildings in the underwater city were much like those he had seen on the surface, except that these were older and more ornately built. Inside the city, he saw distinctive differences between the sexes. Juf-rim-byk and his group carried long cables which the professor had no doubts about. They were meant in some way to insure his subjection in case his own plans should run counter to what they had planned for him. As they turned into a broad avenue, he saw at the far end a multiple joining of cylindrical structures. Into this building, he was led.

There were no windows, nor were there airlocks of any kind. Water

coursed through the structure from the several doorways. The professor became aware of a slight current, like a draft of air blowing. There were no lights inside, nor did it seem necessary. The walls gave off a luminescence. Where corners had been knocked off, and the walls were pocked, the illumination was absent beyond a thin depth. Carefully guarded, the professor was taken before Pal-gol-kesp and several lesser dignitaries of Karg.

"So this is the great wonder Byb-phry-tim sends us," Pal-gol-kesp jibed. "For a great intellectual, Byb-phry-tim is behindhand. We have five others just like this one. As for it being something beyond this world, that is more drivel concocted by the third sex. These metal creatures are really demons from the high parts of the mountain where there is neither water nor air to live in, and where only demons can live. They are the Jung-juj. Our sexless brethren have become foolish from an overdose of breathing too much atmosphere and believing these lies told them by the demons. For ages, we have waited to see what the Jung-juj from up above looked like. Now, with the opportunity before us, Byb-phry-tim would have it something else. Really, the bird people had the better of the bargain with him."

"What have you to say." Juf-rim-byk leaned forward and put the question to the professor. "Do you broadcast the same lies the others told us?"

"Where are the others?" the machine man asked.

"You will get to see them soon enough," Pal-gol-kesp promised. "Come, do you admit yourself to be a Jung-juj of the airless heights, or do you spin the same kind of fantastic lies as the others? We know there are no other worlds than Skrempdek."

"Whatever my five companions told you is true," the professor maintained.

"Take him to them," ordered Pal-gol-kesp imperiously, waving him off. "Put him to something useful. Give Byb-phry-tim eleven credits."

"He will want more or the demon back again," one of the councillors intervened. "He did not get him from the Klyj-ogs for nothing."

"He has no choice in the matter-- if we consider the metal creature an invader from above. He must be kept under control and have no chance to do harm. The third sex have no such means. They would foolishly let this demon wander all over Skrempdek and do all the damage it wished."

"We have no intentions of doing anyone harm," Professor Jameson told him. "We wish only to find our own kind we have lost on this world."

"They will turn up one by one," promised Pal-gol-kesp. "Our scatter-brained brethren above who can no longer procreate their kind will foolishly buy them one at a time from the crafty bird-people. Now, off with this animated piece of junk to do something really useful for us Jyg-fyps."

Juf-rim-byk threw a cable about the professor; then another of the escort did likewise. The cables fastened to the machine man and to each other with magnetic tenacity and made him a fast prisoner. He was dragged out of the building and down the street. Those they passed on the street laughed at him. Already, the word had spread that this was the great wonder those above water had sent down to them-- and they already had five Byb-phry-tim and his friends had not known about.

Their way led in the direction of the abyss from which Byb-phry-tim had warned the professor. They came to a region of bulky stones which dotted the sea bottom. The machine man was minded of the rock fall from above until he noticed that these stones bore a finished look, as if they had been quarried.

On closer approach, he found most of them perfectly cubed or rectangular, while others varied in geometric shape. Then he saw the machine men. They were engaged in moving one of the stones with odd apparatus and levers. Quickly, he counted them. There were five.

"We thought you were lost in under the rock fall until 119M-5 joined us," 6W-438 greeted him. "He said that you did not fall."

"What are you doing here?" the professor asked them.

"Moving these stones off the edge," 29G-75 answered. He pointed with a tentacle.

Not far away, the professor saw the ocean bottom abruptly disappear. Beyond lay the deep.

"Look," said 77Y-46, "they are making you fast, too, like us."

Professor Jameson watched one of the Jyg-fyps fastening the cables to a strong metal band which circled a huge boulder. He noticed that his companions were likewise secured.

"These cables are different from the ones they used on you in bringing you here," 119M-5 explained. "They extend and stretch a good ways, but they are too tough to break or wear away. It is an alloy which the third sex invented."

"They will keep you from falling off into deep water," Juf-rim-byk jibed, "or becoming lost. Now, get to work and help move these over the edge."

"What are these great blocks?" the professor asked. "They seem to have been shaped for construction of some kind."

Juf-rim-byk chuckled. "Our foolish friends above water had the senseless idea they would build a tower above the water's surface for regular examination of the sky above them. That was before the revolution, of course, before we unseated them and put them where they could no longer rule and build such silly things at the labor and expense of others."

"Were these blocks quarried somewhere down here?" the professor inquired.

"No," said 6W-438. "From what the Jyg-fyps say, the blocks were made of a rock-like composition. We do know, from having handled them, that they have a magnetic attraction for each other, which was to have helped in holding the structure together."

Only two overseers were left to watch the six Zoromes, and they relaxed into indifferent vigilance once Juf-rim-byk and the others had departed back to nearby Karg. They gave few orders to the machine men and conducted themselves more in the capacity of guards.

"Where have you been?" the professor was asked. "What happened to the space ship and the others?"

"I know no more about them than you do," the professor confessed. He went on to tell them about the flying Klyj-ogs, and how they had arrested his fall, and how they had bartered him to the third sex.

"We were hunting around the edges of the landslide here in the ocean when we were surprised and taken by the Jyg-fyps," 6W-438 related. "We are of the opinion that the space ship was not destroyed beneath the slide."

"Have you tried to escape?" the professor asked them.

"Not actually," 29G-75 admitted. "We have tested the cables, and they are very tough and durable."

"Escape to where?" 240Z-42 asked. "If the space ship is drifting on the ocean somewhere, disabled, 744U-21 and the others will come and find us eventually."

"That is well for a time," Professor Jameson conceded. "We are as well off here as anywhere, but they may be stranded and in trouble somewhere. If nothing happens, we would do better above with the more intelligent third sex. Through them, we might be able to enlist the aid of the Klyj-ogs to search for the space ship. By the way,



what happened to the space creatures who fell when we did?"

"They must have died when they hit the water," 29G-75 replied. "They sank with us but more slowly. I never saw but one of them after we reached bottom, and then not for very long. Several fish came and ate it."

"I know of only one who still hung on when I slipped off," said the professor.

Moving the stones over the edge of the chasm was a slow business, using the means the Jyg-fyps had supplied them.

"Everything mechanical has fallen into decadence down here since the third sex was ousted and sentenced to exile above," 6W-438 pointed out. "Only a few undersea vehicles are still used for travel, and they are inferior to what the Jyg-fyps once knew."

"The Jyg-fyps would do better to get together with their exiled third sex and come to an understanding for mutual betterment," 29G-75 argued. "The third sex is handicapped because it is so much dependent on the Jyg-fyps for commodities it cannot obtain above water, principally many food items, so we have learned. The Jyg-fyps also tie them to restrictions in regards to manufacture, so there will be no opportunity or means for a counter-revolt. Items of sea food on which the lives of the third sex depend are traded by the Jyg-fyps for what manufactured goods the mutants are allowed to make. In this way, the Jyg-fyps have retained a mastery over them, as the third sex cannot return to the sea once their water-breathing organs have been removed by the Jyg-fyps. The Jyg-fyps can get along without the manufactured goods if they chose, but the third sex cannot subsist on what food they find above water."

"How far down is it?" the professor asked, as they tipped over a great cube of stone and watched

it grow dim and smaller in the watery depth beyond the subterranean cliff's edge.

6W-438 clung to the professor to keep from toppling over the edge as he felt himself caught in the sudden rush of water. "Very deep. How deep, the Jyg-fyps either don't know or else won't tell. The third sex probably have records and could tell you."

Successions of daylight and darkness followed each other. During the period of darkness, a soft green glow from Karg spread an eerie radiance upon the machine men and the forest of stones in which they were cabled. The Jyg-fyps, unaware that the machine men were tireless, allowed them a rest period during the darkness. Either night or day, two guards were always in attendance upon the six Zoromes. From them, the machine men learned whatever they wanted to know. A guard car visited the spot four times every day.

Then one day the monotony was broken. It was 777Y-46 who first saw the dark spot in the green depths swell upward rapidly. He called the other machine men.

"What is it?"

The two Jyg-fyps joined the group; then made cries of alarm. "The monsters from below!"

Quickly, they ran in terror among the great stones. The machine men followed and watched to see what would happen. Like a great, black cloud of doom, they saw the great mass sway above them and poke questioningly among the stones. The giant fish found the hiding spot of the two guards, as if it had smelled flesh. Paralyzed with fright, the two Jyg-fyps were drawn into the cavernous mouth to their doom. Then the monster, vomiting bubbles, slipped down over the edge and into the murky depths from which it had risen. The machine men rushed to the edge. The bubbles still coursed upwards for some time after the great black raider had dwindled

out of sight.

Not until the guard car came for the change of personnel did the Jyg-fyps of Karg learn that they had been visited by one of the deep-sea monsters.

"It will not live long," an official explained to the machine men. "The bubbles you saw prove it. These things are not accustomed to the low pressure near the surface. Something inside it bursts."

"Why did it not take you?" one of the Jyg-fyps asked the machine men in wonder.

"Possibly because it found us inedible."

"I think the demons from above are in league with the devils from below," the official suggested darkly. "We would do well to cast them all into the abyss."

"Wait until they have performed their job," another counselled. "Then--maybe."

When only the two guards remained with them, and the machine men were once more at work slowly moving another of the huge blocks in the direction of the drop, the professor made a suggestion. "We had best escape."

"When and how?"

"The next darkness."

"Can we wear our cables through in that length of time?"

"It will not be necessary," said the professor. "I still have the heat ray in a fore tentacle, and they know nothing about it."

"Where can we go?" 777Y-46 demanded. "On one side of us we have the precipice into unknown depths, while every other direction is guarded. We might fight our way through a good many of the Jyg-fyps, but with only your heat ray we would be overcome again by their magnetic cables. There are too many of them."

"The guard car," the professor reminded them. "We can overcome our guard and the driver, and escape in that. We can reach land."

During the next darkness, Professor Jameson burned through his own cables and those of his five companions. The job was performed as far from the guards as possible with many of the rocks in between. When freed, each Zorome returned to where the guards might see him yet not observe that he held the broken ends of his cables in a tentacle close to his metal body. The hissing and the bubbles occasioned by the use of the heat ray made the six machine men fearful of detection, but the pair of indolent Jyg-fyps guarding them rested lazily against a rock, their eyes upon the abyss where the monster had lately risen and sank again.

"It will be a long time before another comes," one of them told the machine men. "It has been ever so, yet it is well to be watchful of them."

The six Zoromes stood as if resting, waiting for the submarine car with its guard relief. As always before, it would bring four Jyg-fyps. Two operated the little craft while the other two comprised the new guard detail.

### Chapter III

#### On the Bottom of the World

The machine men waited and watched from among the great blocks. 777Y-46 heralded the coming of the undersea craft. Not until the two new guards had left the little submersible did the machine men act. They made a concerted rush and boarded the vehicle, overpowering and tossing out its two occupants taken by surprise. All six Jyg-fyps made a run for the car, brandishing slender explosion rods.

"Take off!" Professor Jameson urged his companions.

6W-438 fumbled with unfamiliar controls. The guards surrounded the car, blazing away at it. Not entirely enclosed, the machine men were rocked by the blasts which

would have killed them had they been Jyg-fyps or other organic species. The professor retaliated with his heat ray, but its effect was partly nullified in its boiling passage through the water, and only burned the guard. But it was enough to cause their withdrawal. They ran in the direction of the city.

With the help of 7H-88, 6W-438 finally got the guard car under way. They started up on a long slant in the direction of the distant shoreline.

"Look back there!" 119M-5 exclaimed. The machine man pointed towards the green glow which spread above Karg.

A strong, piercing light clove the water in their wake. As they watched, they recognized that the light did not come from a stationery source.

"We are being followed!"

The light grew brighter.

"More speed!" the professor urged. At this rate, we'll never make the surface and land in time."

Yet none of the machine men could get any more speed out of the vehicle, and the pursuing craft rapidly neared them to prevent their escape. And now a colored shaft darted angrily at them, and their little vessel bounced around so crazily that 29G-75 almost fell out. The ship from Karg seemed not only to overtake them, but it rose above them as well. Professor Jameson dispelled the illusion.

"We are dropping!"

"And our forward speed has stopped!" 6W-438 added.

Their assailant curved about to drop down with them, ready to intercept them when they landed. Quite suddenly, the green haze above nearby Karg blacked out, like a giant hand sweeping up and across it.

"We're in the abyss!" 777Y-46 announced.

It was true. The following Jyg-fyps had disabled their escape car above the abyss, and they were fall-

ing into it. That the net results had not been fully intended by the Jyg-fyps, the six Zoromes had good reason to doubt. Those on the pursuing craft, realizing what was happening, were making desperate attempts to come up with them and stop their fall. As the larger submersible craft approached their own in a long, circling dive, the machine men saw that it carried armament.

Attempts were made by the Jyg-fyps to grapple their own little car as both vehicles sank deeper into the undersea abyss. The six Zoromes looked on, unmoving, curiously examining the excited mental agitations of their late captors. The deeper undersea mysteries could be no worse than the bondage of the Jyg-fyps. Further chances of escape by the machine men would be reduced to a minimum, they gathered from the thoughts of the Jyg-fyps. Efforts to hook their car missed fire, mainly because both moved independently. The six Zoromes watched the distance between them and the larger vehicle widen perceptibly, and when their pursuers abandoned the chase entirely, sweeping back upwards to disappear quickly. Suddenly without the lights of the larger ship, they found themselves in complete darkness. Daylight did not penetrate very far into the abyss. The machine men turned on their body lights.

"They can't stand the growing pressure," said the professor who had analyzed the final mental emanations of the baffled Jyg-fyps. "They were compelled by physical limitations to give up following us."

The machine men were limited by no such physical handicaps as had bothered the Jyg-fyps, yet they were uncertain about what might await them at the bottom of the abyss. Down they dropped, ever downward, until they wondered if there was a bottom, or if this water did not extend clear through the

the planet. They held misgivings about ever finding a way out. Byb-phry-tim had spoken to the professor during their brief acquaintanceship of sheer, unscalable walls, although the outcast mutant had no knowledge of what lay at the bottom.

A few times, shadowy figures darted past the lost vehicle in its descent, momentarily illuminated by the body lights of the machine men. One of these was enormous.

"I wonder how far we have fallen?"

"Hard to say. - We had no measure of distance," said the professor. "At least several of my miles. Probably much more."

"We had better--"

The advice of 119M-5 terminated abruptly as the vehicle struck bottom, sending the six Zoromes clattering into a heap at the end which had hit first. It was a rough landing, yet none of them were dazed. The little craft they had stolen from the guards was a wreck, and they climbed out of it upon the ocean floor. Their body lights shone but a short distance.

"We might as well see what can be done," said the professor. "At least, we are safe from the Jyg-fyps down here. Byb-phry-tim said there was no escape out of here, but he was never down here."

Neither the professor nor the rest of the Zoromes felt the optimism of his logic. The third sex had made soundings and knew the ocean bottom near which they had once lived.

"It may take us a long time," 29G-75 suggested, "but our best chance is to keep walking in a straight direction until we come up against one of the perpendicular walls, then follow it around."

"Did Byb-phry-tim say what the distances were down here?" queried 6W-438.

"Not exactly," the professor replied. "I gathered that it is quite a broad area."

They walked for a long time.

All around them beyond the aura of their body lights lay the underwater gloom. Except for the occasional odd and grotesque forms of sea life, both great and small, there stretched the same monotonous flat bottom with here and there the sparse deep sea vegetation gently swaying in the water.

How long this might have gone on, they never found out. A dark mountain of flesh suddenly descended and engulfed them. The professor felt great, pulpy objects working against his metal body, forcing him along a close, dark passage of solid flesh. The thought that he was being swallowed forced immediate, excited reflection in the minds of the other five Zoromes, and metal clicked on metal as another of the machine men was pushed close to him. It was 7H-88, he quickly ascertained. In turn, both he and 7H-88 were forced along the constricted passage into a more spacious area which they guessed to be the fish's stomach. Here, the walls were soft and yielding. There was freedom of some movement and even open spaces, probably made so by stomach gases of the huge leviathan.

"Now what are we to do?" asked 777Y-46.

"Just what we have been doing," came the mental answer out of the dark. "Or if you become tired of riding inside the fish you can always cut your way out and leave the thing to die."

The six Zoromes from the labor camp of the Jyg-fyps gave a start of surprise, for this was a seventh voice which spoke. And an eighth voice added further information before they had a chance to recover and realize that another Zorome had spoken. It was 41C-98.

"19K-59 and I have been riding around inside this fish for some time."

Questions leaped upon one another with the rapidity of thought as the six fugitives from Karg sought

explanations from the two Zoromes who had been among those in the space ship when the avalanche started.

"The space ship is down here," 41C-98 told them. "Hurling rocks damaged it when it fell into the sea beneath a rain of boulders. A good many of us were damaged, and all of us were knocked out upon impact with the water. That is when the boulders did their damage. From those who regained consciousness first and saw it happen, we learned that the space ship drifted and slowly sank. Because we have found but little debris from the avalanche down here, and because the ship settled not far from one of the sheer walls, we gather that the main body of the avalanche hit a shallower area above us."

"Why haven't you repaired the ship and pumped it out, so as to rise to the surface?" asked the professor.

"We lack the necessary metal," 19K-59 confessed. "There is a small amount of it in the landslide. We know there is much of it in the mountains above the atmosphere because we both saw it and detected it, and it can probably be mined in the lower surface areas, but that does not help us down here. As for the necessary gas to expel the water and bring us to the surface, we have the chemical means of generating that by extraction from the water, but we must first repair the ship."

"I am surprised that the fish swallowed us, inasmuch as we are metal," said the professor. "Up above near the village of Karg, we were left alone."

"You were swallowed down here because you were in motion," 41C-98 explained. "Before, you probably remained still."

"Why do you stay in the fish?" the professor asked them.

"Because 744U-21 is hopeful of a long chance. We have found the dead remains of a rare instance where one of these fish had risen

to higher levels and possible escape."

"Probably the one we saw," the professor mused. "It is such an unusual event, so the Jyg-fyps told us."

"We have pressure detectors and also know when we are above higher sea bottom," 19K-59 added. "744U-21 only allows two of us to each fish."

"And what if two of you finally achieve the coincidence of being inside a fish which takes the extreme notion it wants to violate its better instincts to explore the higher altitudes of lesser pressure?"

"We shall find sufficient metal to cast down into this great hole in the sea for repair of the space ship."

At this point, Professor Jameson related his own adventures, and told of the various forms of life he had encountered in his descent from the mountains of space to this lowest strata of the sea. He told what he knew, too, of their social problems and relationships.

"Then it may not be too easy to accomplish our mission even if two of us should reach the surface," 41C-98 observed thoughtfully.

"If you could reach the city of the third sex, Byb-phry-tim might help you, but stay away from the underwater cities or you will be taken prisoners as we were. The third sex are more intelligent and imaginative. The group from which for some unaccountable reason they rise is stupid, unappreciative but practical."

"Is there no other possible escape from this undersea pit?" 6W-438 wanted to know.

"We have explored the entire bottom, and there are only steep, unscalable walls," 19K-59 confessed.

"Is there no way of making this fish take us to the surface?" Professor Jameson asked. "Can we not control its brain?"

"We gave that up long ago," said 41C-98. "The intelligence is so minute and so far beneath ours that

we have no possible communication with it whatever. Any ascent to the surface by the fish will result purely from sudden impulse or whimsy."

Professor Jameson was strongly minded to leave the fish and hunt out 744U-21 and the space ship. There must be some way they could reach the surface. Yet knowing they could free themselves at will from the deep sea giant, he was fascinated by the novelty of their situation--possibly also by the long gamble. After all, he had seen one of the great undersea beasts in the shallow neighborhood of Karg. There would be time enough to free themselves and take council with the other Zoromes. He and the others were temporarily content to ride inside the darkness of the big fish and wait.

For one thing, the professor had to try his mental persuasions on their mammoth host. After all, his brain structure was different from that of the Zoromes, and in several past instances he had found it possible to accomplish with it what lay beyond their own grasp. Conversely, he had sometimes found in peculiar instances where their own mental faculties solved problems with which his own brain could not cope. But he, too, admitted himself baffled. It was an intelligence too weak, too uncomprehending of any mental influence it might have felt.

The machine men were often churned around in the great stomach but never digested. They put on their body lights and saw lesser fish swallowed, watched them fade and deteriorate into eventual assimilation. Sometimes, the fish's huge stomach contracted, and they were jammed close together and immovable. Other times, the stomach lay more relaxed, and they moved about by easy resistance to the blubbery walls. Gas, too, created spaces for movement and observation.

In the endless progress of di-

gestion, Professor Jameson finally saw something which excited him and also aroused the interest of his seven companions when he drew their attention to it.

"The body of a space creature!"

It was true. One of those from the mountains in space lay in the fish's stomach, recently swallowed, his body bent at a grotesque angle.

"There has been another funeral," said the professor. "I wonder what happened to the second body."

"Possibly caught while it was falling and eaten by those birds you told us about," 41C-98 ventured.

They saw the body of the space creature longer than the marine food the great fish had swallowed. It took longer to digest. It held its solidity for a longer time and did not become translucent so quickly before breaking up and disappearing.

It was not very long after the eight Zoromes had experienced the novelty of seeing the space creature slowly digested that they noticed an erratic behavior on the part of their host. It had changed its habits.

"Our instruments show a great deal less pressure outside than formerly," 19K-59 announced. "This is a much higher altitude for the fish to be swimming in than has been its usual habit since we were swallowed. Although not a danger to its continued life, it cannot be a comfortable feeling for the fish."

The machine men scarcely dared hope that the great fish would ascend and cruise about the shallow levels of the ocean where the undersea cities of the Jyg-fyps lay. On the contrary, the fish once more descended to its natural habitat. Yet its movements and habits persisted in staying eccentric. It was the professor, periodically probing away at the dwarfed intelligence of the fish, who struck a flash of hope for them.

"I believe I am making progress.

I can just barely grasp the thing's mental faculties. As yet, I have caused no influence of any kind that I can recognize." The others bent their mental perceptions upon the beast's little mind. The professor was proved to be right, and all eight machine men excitedly focussed the one impulse, the one thought, their one desire--for the fish to take them to the surface. That their efforts were not entirely ineffective was manifest as the deep sea monster cruised upwards, then slanted down again to familiar depths, only to rise again restlessly and hover uncertainly at higher levels. It almost seemed as if its instincts fought subconsciously with a new exciting urge.

"If we could only get it up over the edge," 7H-88 hoped.

"It would be even better to reach the shore and get to the city of the third sex," Professor Jameson told them. "It is well not to go near the undersea cities of the Jyg-fyps."

The great beast suddenly shot for the surface, as if its uncertainty had suddenly vanished and its impulse became sharply defined. Professor Jameson and his metal companions concentrated on it to guide them close to shore.

"Be ready to kill it and cut our way out once it reaches the higher level, in case it shows a change of mind," 41C-98 warned.

19K-59 announced highly satisfactory readings from his altometer and pressure indicator. "We are now over the edge of the abyss!"

Under the direction of the eight Zoromes, the huge fish sped through the shallow water for shore. The machine men remained poised for instant action in the event that the deep sea monster should turn capricious and head back for the depths. It was doomed, now, to a slow death at best from ruptured organs unnaturally freed of the tremendous water pressure. But their fears were groundless. The

fish headed shoreward with fatalistic precision. Not until it was almost grounded did the fish stop.

Quickly, the eight machine men acted. 19K-59 and 41C-98 unfolded big cutting instruments. The great fish was quickly and expertly killed, and the Zoromes leisurely cut their way free.

"This is better than 744U-21 ever hoped for," 19K-59 exulted. "There are now eight of us up here instead of just two."

They followed the gradual incline and broke water. Before them lay the coast. Wading out, Professor Jameson climbed to high ground and looked hopefully up and down the coast. In the near distance, looming into the sky beyond their visibility, towered the mighty peaks reaching up beyond the atmosphere and into space. In the opposite direction, tiny and dim with distance, rose the flat rooftops of the city where the exiled third sex lived. Professor Jameson pointed to this as their destination. There dwelled Byb-phry-tim upon whom the professor felt that he could rely.

#### Chapter IV The City of the Third Sex

Behind them lay the soaring pinacles as they picked their way to the city of the exiles. Only Professor Jameson had previously seen the world from its surface near the sea. Lesser mountains receded from their taller neighbors in a long ridge stretching inland into obscurity. The machine men were not more than halfway to the city when vehicles met them, bobbing along and touching the ground only momentarily in long, low bounces. These vehicles were more aerial in travel than otherwise, even though their highest altitude never exceeded a few yards.

One of the third sex familiar to the professor stepped out of

the leading vehicle which bounced to a stop near the eight Zoromes. His great loose mouth worked thoughtfully as he spoke what the alert Zoromes had already ascertained from his mind.

"Byb-phry-tim sent us to bring you to the city once we saw you coming. We have been told to watch for your kind."

The long, graceful creature hopped along on his single, split, lower appendage, his eyes blinking excitedly. His loose hood fluttered as he turned his head to motion the remaining vehicles to pull up. The machine men divided up among the vehicles and glided back to the city in long, bounding hops, the cars seeming scarcely to make contact with the ground.

Byb-phry-tim greeted the professor warmly. "I hear that you found Karg safely."

"Those of Karg found me," Professor Jameson corrected him, "and I was given safe conduct."

Byb-phry-tim did not miss the barb, and he shrugged. "You have been to the bottom of the abyss and returned. What is it like down there?"

Briefly, the professor satisfied the creature's scientific curiosity. Then he turned to the subject which had brought them there.

"The rest of us and the ship of space in which we entered your planetary system are at the bottom of that undersea abyss. We need material in the way of metals for its repair and raising. Can you help us locate and mine these?"

"Yes--of course," Byb-phry-tim agreed enthusiastically. "Let us have a consultation with technicians and find what kinds you will want that we have. Some are easy to get. Others are not only distant from here but must be dug and smelted."

"We saw metal outcrops up in the mountains above the atmosphere which would serve our purpose and would not take much processing," the machine man told Byb-phry-tim.

"In fact, my people could process it down there--in the water."

"Anything that high up, we cannot help you with. Not even the flying Glyj-ogs could get that high, and they often bring us from high altitudes bits of metal we have never before seen."

The machine men met the technicians. There was agreement between them and the Zoromes, but much argument among the technicians themselves as to ways and means. There were frequent adjournments. These creatures had to eat and sleep periodically. Three days and a half passed, when Byb-phry-tim came to where the eight machine men were quartered, his hood flaring outward in a state of high excitement.

"Quit the city as quickly as you can!" he warned them. "Pal-gol-kesp has orders out to take you into captivity. I am supposed to lure you into a trap this afternoon. Jyg-fyps from Karg are already in the city ready to take you back. Now that they know your friends are at the bottom of the abyss, they plan to build and lower long cables to tempt them out and then make them all slaves along with yourselves. But it is a program which will take years to perform, even with our scientific aid. Pal-gol-kesp has no intelligent conception of the distance down to your friends and the amount of labor and materials involved. Meanwhile, don't let them catch you. They have grown wiser in your ways, and next time you will not escape them so easily, if at all. We exiles on the surface will be turned against you. We dare not defy the Jyg-fyps from which we emerged. They have natural advantages over us we have not as yet been able to overcome even with our superior intelligence. They have made us depend on them."

"How can we get out of the city without being seen?" 6W-438 asked.

"I will show you a tunnel which leads out upon the plain between here and the mountains. Take it.



Leave the city and hide yourselves. Go into the forests near the slopes of the mountains."

Byb-phry-tim led them by an obscure route through several buildings and fenced-in areas to a cellar. Here, they entered a tunnel. The leader of the third sex did not accompany them. "It is an open route all the way to the end. You will come out among low shrubbery. Hide there until darkness, which will come soon."

"We shall see you again, Byb-phry-tim," Professor Jameson promised him, "when the space ship is raised. If we can get high enough into the mountains, we shall be able to get our own metal."

"I wish that I could do more for you, but I dare not. Pal-gol-keep would have me killed for what I am now doing, if he should learn of it. Goodbye, metal men of space!"

The eight Zoromes hurried down the tunnel. Behind them, Byb-phry-tim closed the opening, and they were plunged in darkness. The machine men used their body lights. The tunnel ran straight and long. They caught a tiny glow of light at the distant end which grew as they approached it. Weak daylight shone through overgrown shrubbery. They stepped forth.

Not until they were all out of the tunnel did a break in the silence come. Then, many bodies broke through the bushes, and they suddenly became the center of a milling throng. Several Jyg-fyps with their cables led and urged on a score or more of the third sex. The exiles aimed weapons at the machine men, and metal projectiles ricocheted and hummed off the bodies and heads of the machine men. The third sex showed a respect and reluctance in attacking the eight Zoromes, but not so with the Jyg-fyps. With contempt and reckless abandon, the Jyg-fyps threw themselves at the machine men in close quarters, entangling them with their long cables. One of them Professor

Jameson quickly recognized as Juf-rim-byk.

"Stop where you are, slaves!" the Jyg-fyp shrielled. "Get back to the water! We'll have all of you yet!"

The professor seized the suddenly surprised creature with two of his tentacles and twisted his head off. The others were being dealt with roughly by the Zoromes who fought their way out of the throng.

"We can distance them by running," said the professor.

They broke into a quick trot. Behind them, they left two dead Jyg-fyps and a third one badly injured. The third sex, too, counted several casualties. If the machine men were being chased, they were not aware of it. Distant forests on the rising slopes beckoned. Untiring, they clattered on. They saw no pursuit. None of their late assailants appeared from the clump of bushes at the tunnel's end, and soon other vegetation screened them from sight.

Gaining the edges of the forest, they stopped and held council. Darkness came.

"We had best get as high as we can," Professor Jameson advised them. "There will be bigger and better organized attacks to take us. We want to get metal to the space ship as quickly as we can, too."

They kept on through a thickly wooded area. Progress was slow and devious. Their own radiance did not spread very far. They could not see as far ahead as by daylight. Dawn found them emerging from the forest and on the lower slopes of the mountain. The dawn attack which they feared came.

The bouncing cars of the third sex appeared in the distance like tiny bugs, growing slowly in perspective. Odd, balloon-like, aerial vehicles floated in the distance, too. The ground craft had evidently circled the far edge of the woods. The machine men wondered how their enemies had so quickly discovered

the direction they had taken. Then, they saw the swooping, circling objects high in the sky above.

"The Glyj-ogs!" Professor Jameson exclaimed. He all too quickly recognized the sinister birds which had diverted his plunge off the mountain and had tried to eat him. "Run for higher ground!"

Quickly and tirelessly, the machine men ascended the slope and were at the foot of the lower heights before the horde of aircraft and bouncing cars converged upon them. The cars were crowded with both Jyg-fyps and their intellectual mutants, the third sex. From the aerial balloons, there shot a fusillade of metal projectiles which staggered and knocked over several of the machine men but did not otherwise harm them. They arose and hurried on to join the others. Several of the bouncing cars disgorged their passengers who had awaited the initial onslaught of the aerial bombardment. The Jyg-fyps and their more intelligent minions ranged themselves between the eight Zoromes and escape up the rough slope. None of them had yet felt the blighting heat of Professor Jameson's heat ray. He charged the strong line opposing their escape, waving a path of death. Over the bodies of their fallen foes, the machine men clattered on. Like angry bees, the aerial ships containing the third sex showered them with missiles.

7H-88 reported his apex eye knocked out. He could no longer see directly upwards. The rest of their assailants scrambled after them in hopes that the assault from above would halt the machine men so that they might overtake them and get their cables fastened. The Jyg-fyps were the more furious and determined of the two species. The third sex were less enthused but more calculating.

"Don't forget that the Jyg-fyps can stay out of the ocean only just so long and must return," 6W-438

reminded his companions. "They will soon fight themselves out."

Their only weapon was the professor's heat ray. 19K-59 and 29G-75 had carried force guns inside the monster fish but had left them back in the city of the third sex when forced to leave so unexpectedly. Their only defense were the long, whipping tentacles and threshing feet.

Higher the machine men climbed. The aircraft swarmed above them, hampering the machine men so those on the ground might overtake them. Reinforcements were landed above, ready to creep down and meet the eight Zoromes and waylay them. The strategy of this revealed itself when a group of the Jyg-fyps snared 119M-5 with their strong cables. 777Y-46 and 19K-59 sprang to his aid and were entangled and bedeviled by the simple yet effectual contraptions carried by the sea dwellers. A horde of both organic species closed in. More cables were readied. Machine men fought them off, but made little progress against the cables which had trapped the three machine men.

It was the professor's heat ray which finally freed them while the other machine men fought off both Jyg-fyps and the third sex. Freed of the cables, the eight Zoromes hurried ever upward, alert to further ambush, never letting the remaining enemy cut them off again in force. They either fought off, or else discouraged by a show of force, the little pockets of further resistance on their way up the mountain. Their untiring gait and the steeper incline of the heights gradually put their pursuers farther behind.

"Look!" exclaimed 6W-438. "The Jyg-fyps are dropping out!"

It was true. Only the third sex struggled upward, rather hopelessly, apparently urged on by the Jyg-fyps who watched from below. Many were heading slowly back in the direction of the lowlands.

"They are too long out of their natural element," said 240Z-42.

"Or else it is the altitude which is commencing to affect them."

It might have been for either reason or both, but many of the airships were coming to rest in the lowlands, and the Jyg-fyps were disembarking from several and loading up on others. This maneuver explained itself when several aircraft set out in the direction of sea level. The others rose once more determinedly, ready to block or waylay the escaping metal things the Jyg-fyps coveted. Far off, near the woods they had left, the bouncing cars stood abandoned or else headed around the wood in the direction from which the machine men had seen them come.

On high circled the Glyj-ogs. There seemed to be more of them. The machine men climbed ever higher. The mutants and allies of the Jyg-fyps in their aircraft tried more of their hampering tactics, coming so close that the machine men could almost touch them with their up-thrust tentacles. There were only two more casualties; the same as before, mechanical eyes. More efforts were made to block their escape. This time, the circling Glyj-ogs joined in, shooting down on their membranous wings through which the sun shone. The machine men found them to be of prime nuisance value and so disconcerting as to draw their attention away from the third sex who menaced the Zoromes with cables furnished them by the Jyg-fyps.

Turning to fight off the mutants, the machine men found ignoring their winged assailants a dangerous affair. Several of them flapped low and seized Professor Jameson by his tentacles. As he became lifted aloft, his heat ray blazed wildly, burning the air, then the wing of one of the creatures. The burned Glyj-og fell with a gurgling cry of alarm, but jerked to a stop, adding his dead weight with that of Professor Jameson to whom he

clung. The remaining birds fought to remain aloft. Then a curious accident happened which sent both the professor and the Glyj-og groundward and free of the others. The professor's fore tentacle with its flaming heat ray snapped in a jerking arc as the weight of the falling Glyj-og suddenly yanked upon him. It blazed a deep corrugation across his metal body and cut off the two tentacles to which the other birds clung. The doleful screech of the falling bird ended abruptly as both Glyj-og and machine man hit the ground. Professor Jameson found one of his legs bent so badly that he limped back to where the rest of the machine men battled the third sex. He saw the mutants so badly beaten and tired from their own efforts as to pant for loss of breath.

"They won't care to go much higher," 6W-438 flashed. "This altitude is too high now for much exertion on their part."

Again the machine men scaled the heights. Only the Glyj-ogs bothered them any longer. Below them and far away spread a magnificent panorama. Even the airships had fallen behind. A few of them still floated in the air below but did not seem to be able to make further altitude in the rarefied atmosphere. If the third sex were found to have abandoned the chase, it seemed a signal for the flying Glyj-ogs to renew a more savage and concerted attack. Their numbers increased alarmingly as the machine men climbed higher and higher. From somewhere, the birds were coming in great flocks. In their minds, the machine men caught the incentive of fabulous rewards of a lifetime of gastronomic luxuries if they could only disable, capture or otherwise prevent the escape of the metal creatures. The climbing became steep and dangerous. When 119M-5 was toppled off an escarpment and his body and legs so badly damaged they had to be abandoned, the eight machine men retreated into

a small cave where they might protect the opening. After a number of the Glyj-ogs had suffered broken wings and heads, they held off and waited. Darkness found the besieged Zoromes in this situation. They waited for dawn. They could not climb in the darkness very well, and the Glyj-ogs seemed as adapted to seeing in the dark as in the light.

With dawn, the machine men abandoned their cave and set out once more for higher ground. Space beckoned. Sharp-etched shadows on the peaks high above marked the end of their quest and safety. But the horde of flying Glyj-ogs discouraged the anticipation. They attacked continuously, trying to carry off the machine men, or tear them from precarious holds to cause a fall. Already, the progress of the group was slowed by Professor Jameson's limp. They dared not take too direct a route upward if it meant scaling heights where a forced fall by the Glyj-ogs could mean a crippled body or even death.

"We must follow the safest means of travel," the professor told them.

"If we could only get above the limitations of their flight," the head of 119M-5 suggested hopefully.

"They are very light but strong creatures," 41C-98 pointed out. "It may well be a matter of respiration which will eventually prove the limitation."

By the own words of Byb-phry-tim, Professor Jameson knew these furry things to be amazingly adaptable to the different levels of varying atmospheric pressure and climate. It was bitingly cold at these heights.

Whenever a group of the flying creatures succeeded in lifting one of the heavy Zoromes off his feet, the others seized hold and added their weight. Flailing tentacles either killed or drove off those which had seized the machine man. Casualties among the Glyj-ogs were high, but it did not deter them. They might have been more cautious

afterwards, but nevertheless they remained just as persistent. All the going could not be safely chosen. It came to a point where the eight Zoromes had to choose between a stretch of perilous climbing or else retrace their steps to look for easier ascent. There was not always an easier way, and there was no turning back. 19K-59 next became a head to be carried with that of 119M-5. He was toppled by a concerted rush of the Glyj-ogs against the face of a precipice. Both 29G-75 and 777Y-46 had to return to the bottom of the cliff and remove his head. One dared not go alone.

With the loss of 119M-5 as an active Zorome, it meant one more to carry, and one less to fight off the swarm from the sky. 240Z-42 was next to fall. Now, there were only five left.

"We are getting closer to the topmost regions," 6W-438 enthused.

He was right. The stars became increasingly brilliant and sharper by night, and a few of the largest ones could be seen in the daytime without any great difficulty of finding them. The rarefied atmosphere began to tell on their pursuers. The machine men noticed that although they never abandoned the attack, there were not as many of the birds at any one time. It became apparent that the Glyj-ogs were spelling one another off. Unable to remain at this height continuously, one group flew to a lower level, and others which had recuperated flew up to take their places. Strong, horny beaks continued to harass the machine men, however, and delay their progress, as snatching fingers extending from beneath wings clutched at the tentacles and legs of the Zoromes.

6W-438 became the next victim, and in trying to save him, 777Y-46 fell, too. They pulled down one of the Glyj-ogs with them. This helped break the fall, for the bird flapped hard and desperately to the last, yet 6W-438 was so badly

crippled by the fall that he had to be assisted, and 777Y-46 was little better off, although able to proceed at a slow, awkward gait by himself.

"If we were not likely to need parts of your body later on, we might better abandon all but your head in the interests of travelling faster," the professor told 6W-438.

### Chapter V The Fight on the Heights

With only the professor, 29G-75 and 41C-98 left to aid or carry the others, the Glyj-ogs sensed victory. Their attacks lacked the vigor of earlier attempts, yet they realized instinctively that their quarry would soon escape them if they climbed higher, and they fought more desperately. 41C-98 was lifted high up where he fought five of the creatures carrying him. His flailing tentacles cut the nearest one to ribbons, while another holding grimly to a metal leg was kicked to death. The others quickly released their prisoner who became junk against the rocks upon which he plunged.

Professor Jameson and 29G-75 were no longer interested in progress of any kind. They searched madly for cover and protection of some kind against the flying menace, now redoubling its efforts. Yet they were so high that several of the Glyj-ogs fell exhausted and dying from their efforts, gasping out their lives in the weak, thin air of the towering height to which the Zoromes had climbed.

"There's a crevice in the cliff-side," the alert head of 240Z-42 announced.

Fighting off the swarm of wings and clutching fingers, the two Zoromes gained the refuge and climbed inside. They almost lost the crippled body of 6W-438, dragging it from the grasp of several Glyj-ogs. The crevice narrowed rapidly. The

professor and 29G-75 pushed the heads of 119M-5, 19K-59 and 240Z-42 as far as they would go and jammed the bodies of 6W-438 and 41C-98 against them. This left the professor, 29G-75 and 777Y-46 to guard the narrow entrance. 777Y-46 could only walk by being helped along. The professor still limped on a bent leg. Only 29G-75 had escaped the casualty list.

The Glyj-ogs now found themselves blocked. Only one or two could possibly get at the Zoromes at one time, they learned to their pain and sorrow. They withdrew, but not far. 29G-75 went out to reconnoiter and was only a short distance from the crevice when he was rushed so abruptly from all directions by concealed Glyj-ogs that only a rear sortie by the professor saved him from being carried away. Both fought back again to the safety of the crevice where 777Y-46 had protected the heads. The Glyj-ogs did not try to bother them in the crevice but waited patiently outside. Darkness came quickly. Overhead glowed the thickly carpeted scintillation of stardust against the velvety sky. Dawn came and a few stars still lingered, visible all day.

Night succeeded night. A few short excursions by the professor and 29G-75 assured them of the continued presence and watchfulness of the flying minions of the Jyg-fyps and third sex.

"What do we do now?" 19K-59 asked.

"Wait."

"What about those in the space ship at the bottom of the sea depths?" 6W-438 queried.

"They are not flesh and blood. They are patient. This generation of Jyg-fyps might die, and our companions at the bottom of the abyss would become a legend."

"And do we meanwhile become a legend, too, in here?"

"The Glyj-ogs are flesh and blood," 41C-98 reminded them. "They

may become discouraged and leave."

"If it were just themselves-- yes," the professor agreed. "But they are being goaded by the Jyg-fyps and the third sex."

"The birds are unlike the third sex in the respect that they are free and independent. They can do as they choose. They may soon tire of this and abandon us. It is not their climate and they suffer here."

"But they relieve each other," 119M-5 reminded them, "and they are tenacious and belligerent. They have been promised too much for them to give up. The third sex and the Jyg-fyps keep constantly reminding them of this."

"It is in the minds of the new arrivals," 29G-75 agreed. "They are even now being rewarded in a small way."

Day after day passed, and aside from the quick excursions of Professor Jameson and 29G-75 outside to assure themselves that the birds were still watchful, nothing else broke the monotony. There were always new arrivals to replace the old guard. This much, the machine men learned from the limited intelligence of the Glyj-ogs. The machine men always held the hope that their jailers would leave them unguarded long enough so they might dash to safety above the atmosphere line where even the Glyj-ogs could not follow them up among the peaks and perpetual starlight. But the birds never relaxed their vigilance. They knew, or had been told, that the metal things could exist and travel upwards where they themselves could not. Often, these brief reconnaissances of the two Zoromes ended in battle, with the injury or deaths of one or more Glyj-ogs, but not always. The machine men detected a subtle anticipation of the birds to lure them far enough from the crevice to overcome them, and then carry off the remaining heads and battered bodies of those left in the crevice.

The situation remained a stalemate. The professor and 29G-75 never allowed themselves to be tempted very far, and the Glyj-ogs were always close by. No further attacks were made upon the crevice. The Glyj-ogs rarely looked inside, other than to fly past once or twice each day to be sure of their quarry.

So when an object one day paused at the opening of the crevice and looked inside, Professor Jameson and his companions steelled themselves against a new effort by the Glyj-ogs. The machine men sensed a new trick of some kind. It was a new trick, they quickly discovered, but not by the Glyj-ogs. A large globe was projected just inside the perpendicular lips of rock. The machine men felt themselves stared at and considered. The globe was a dull green in color, and was mounted on a long body which ended in big, flapping feet.

"The third sex!" exclaimed 777Y-46.

A mental flash substantiated the discovery. Behind the first globe, other globes crowded.

"A kind of breathing helmet!" the professor guessed. "They probably came up here as far as airships would bring them, then walked the rest of the way."

"You are right," the leading globe countered. "We are here to bring you back to your masters, the Jyg-fyps."

"And your masters, too," the professor pointed out. "You are their intellectual masters, yet you fear them and do their ignorant bidding. These helmets of yours are your own invention, not theirs."

"It is always so," the green-helmeted leader replied. "Come out peacefully, or you will be dragged out."

"Many of you will die," the professor reminded the third sex, "and still you will not have taken us back."

"That we shall see," said the green-globed leader. He stepped

aside from the mouth of the crevice and gave an order. Up walked two more of the third sex on their flipper feet. They wielded the magnetic cables the machine men had come to dislike. Quickly, they lashed at the Zoromes as the professor and 29G-75 darted forward to grapple with them. The cables clung, curled around them, pinioned their tentacles, then their legs and dragged them out helplessly. The crippled Zoromes and the heads were then retrieved. Once securely fastened, the machine men became of secondary interest to the third sex. Their scientific curiosity about their own world asserted itself.

"This is the highest any of our race has ever been," said the leader.

"Let us look around and make experiments before we leave. After all, we have accomplished the mission of capturing these machines. Let us do something for our own interests."

The machine men counted almost a score of the green-helmeted creatures who also wore a close-fitting covering over their bodies against the extreme cold of the rarefied heights. The captive Zoromes were carried as the ambitious mutants climbed even higher, lured on by the wonders of this dizzying altitude. They marvelled at the stars in the daytime, the odd, purplish cast of the sky, the hot sunlight in extreme cold, the wonderful panorama, the lack of weathering by the elements and other scientific phenomena. Only a curious few of the Glyj-ogs followed. Most of the winged creatures were happy to fly back down to a more comfortable altitude, their part in the capture of the machine men accomplished.

"744U-21 and the others will never receive our help, now," mourned 6W-438 pessimistically.

"Unless another fish carries more of our number out of the abyss," 41C-98 suggested.

"What made the fish act as it did?" 6W-438 asked the professor. "It is a secret your own peculiar Earth mind has held off from us."

"We may be able to use it in bargaining for our release," Professor Jameson replied.

"But not from the Jyg-fyps, once they get us," 19K-59 promised.

"Look!" 119M-5 seized upon their attention.

The third sex had stopped climbing. On a ledge above them there approached a weird assemblage which gave them pause. Long, thin gray creatures with triangular faces out of which shone three luminous eyes. Four arms carried strange objects. Four long legs ended in shaggy hooves padding silently down towards the mutants, the odd objects held with purpose and menace. Curiosity in the minds of the third sex mingled with fear of the unknown. The weird party outnumbered the third sex almost two to one.

Professor Jameson gave vent to mental exclamation. "The space creatures!" he radiated.

He reached out mentally to grasp the intellects of those from above the atmosphere level. Already, they were regarding the captive machine men in wonder and recognition, and the third sex with curiosity and purpose. One of the space creatures exhibited great excitement both mentally and in his haste to be the first to reach the machine men and their captors.

"Gloph!" Professor Jameson was too overcome with exhilaration to do more than wonder how the doomed space creature had survived his perilous hold after the landslide. "Free us from these things who have bound us up!" Again and again, the professor radiated this thought.

The mutant minions of the Jyg-fyps betrayed an unnerved effect at sight of these legendary creatures once considered to exist only in the disordered imaginations of the Glyj-ogs, but they stood their ground. They lashed at the upper





world denizens with the cables, knocking down a few, but they were not metal, and the magnetic strands did not cling, tighten nor hold. There were a few injuries, and that was all. More injuries were inflicted by the projectiles shot at the space creatures, but still they came. Four arms of each space creature swung crude but effective weapons at the invaders from the sea level.

"Smash the globes!" 6W-438 encouraged their liberators. "They cannot live up here without them!"

The stars and a few lingering and excited Glyj-ogs witnessed the strange combat of two extreme species meeting for their first time in a nether world strata to which neither belonged and could not long survive, a no-man's land inhospitable to both. The third sex clung stubbornly to the eight helpless Zoromes, but soon found themselves involved in a losing combat. Their worst handicap was not the rarefied heights in which they fought but the superior speed and dexterity of the space creatures on their four long legs. It was over quickly. Broken helmets soon meant death as the cold, rare atmosphere rushed into the lungs of the mutants. The machine men were dropped, with the exceptions of 119M-5 and 7H-88, whose heads two of the awkward mutants with their flipper feet tried to take with them in their flight down the rocky slope. Professor Jameson alerted the space creatures who raced down upon them and recovered the metal heads. Only a few of the third sex were allowed to escape.

"Carry us above to safety," the professor urged Gloph. "Tell me, how did you escape falling?"

"More of my kind came and climbed down as far as they could; then dug footholds in the rock to reach me."

"How did you happen to be down this low? You once told me you could not survive here."

"Not for long," Gloph admitted as he and several others worked at loosening or wearing away the cables. "We saw from just above this strange sea we are now in much activity down here for quite a time. We saw and recognized you creatures from the stars, though only at infrequent intervals and briefly. Then when we saw you fighting with the things which swam in this sea, we decided to come down in force and find out if we could help you."

The space creatures were anxious to return to their own element before the upper air level weakened and overcame them. They deferred the freedom of the eight Zoromes from their bonds until safe in the upper reaches of the great peaks. The trip up into space was a quick one. Either because of the extra burden, or the exposure to the lower elements, Gloph and his companions admitted to being tired.

Using crude methods, the space creatures eventually freed the machine men from the tight metal bands. Their weapons and tools turned out to be odd-shaped rocks and pieces of meteorites.

"Tell me," said 41C-98, turning to the professor, "what is the secret of the third sex?"

"Do you remember how soon after our sea monster ate the dead space creature his intelligence increased to a point where we were able to direct his activities?"

"Yes. But why should this increase either the intelligence of the fish or make one of the Jyg-fyps suddenly sexless and a mental superior of his race?"

"Before I fell off the mountain, I learned by questioning Gloph that his people survive up here in space by living on a constant bombardment of pure and unfiltered cosmic rays."

"But do the Jyg-fyps eat the bodies of the space creatures hurled off the peak in funeral ceremony?"

"No. But they occasionally must eat a fish which has in turn eaten from a dead space creature," the

professor surmised. "That is how these mutants occur among the Jyg-fyps. Their mental capacity is stimulated, and they undergo a physical change, including the loss of their sex."

"What about the flying Glyj-ogs?" 777Y-46 queried. "They eat the dead space creatures. They thought you were one when you fell off the mountain."

"These Glyj-ogs do not live down in the water. They live at a high altitude and are more accustomed to strong cosmic rays. Their systems are not shocked and stimulated by them."

"You have hinted at control of this phenomenon," 6W-438 reminded the professor.

"There are several ways, depending on how the Jyg-fyps and the third sex take a view of matters. For one thing, we could induce the space creatures from throwing their dead off the mountain. Secondly, if the Jyg-fyps could be persuaded to restrict their diet, and select only those worthy of being more intellectual and becoming leaders to eat of the irradiated fish, they might found a progressive future in which there would be no exiles."

"What if all of them ate of such fish?" 119M-5 posed a question.

"Then matters would likely turn out pretty much as they did before the Jyg-fyps rebelled and exiled the third sex to the surface, with the added result of race suicide."

"What we must do first," 19K-59 reminded them, "is to mine metal and get it down to the space ship."

"How shall we get it there?" 41C-98 asked. "We cannot throw it off the mountain and have it fall into the abyss. True, it will fall in the ocean, but it will still be a long ways from the edge of that hole."

"We can figure that out while we are mining it," the professor suggested.

By repair and the division among them of legs and appendages, the

eight Zoromes partly equipped the five metal bodies they still had. The metal was not hard to reach, and the space creatures, who like themselves never slept, helped them. Yet the work went slowly because the machine men were only partly equipped, badly repaired, and without tools other than what they were able to fashion from the meteorites Gloph and his friends possessed. Up in the airless mountain heights, day after day passed, abrupt mornings with sudden, full daylight, followed by a day's work, then night again as abruptly as morning had come. The machine men did little mining at night due to poor lighting.

One day, Professor Jameson wandered far, heading down a ridge which led through the upper air level before rising again to another height. The space creatures had spoken about another community of their kind which they rarely visited. The machine man climbed the ridge up out of the rarefied atmosphere and into space. He climbed higher and found traces of the space creatures. Then he saw a group of them, and they saw him. They showed great excitement and gesticulated among themselves.

"Things out of space!" they radiated. "Here is another one! Come!"

To the professor's surprise, two machine men appeared around a jutting escarpment.

"21MM392!" they exclaimed.

"12W-62--and 6N-24! How did you get up here? Did another fish swim up out of the abyss with you?"

"No. We are all here. We came in the space ship."

"How did you repair it and float it? Where did you get the metal?"

"From great blocks dropped into the abyss not very long after the space ship sunk. We know that they were not there when we came. We explored the bottom of the pit well. 19K-59 and 41C-98 disappeared soon after being swallowed by a fish.

We thought they might have done it, or caused it to be done in some manner, for the blocks were very large and heavy. They must have escaped out of the pit, and they were on such a mission."

"The blocks were dropped over the edge of the abyss by order of the Jyg-fyps when they held six of us captives. This must have happened before 19K-59 and 41C-98 were swallowed by the fish," the professor explained. "We pushed them over the edge only by great labor and difficulty, but we never realized they contained metal."

"Nor would we," said 12W-62, "only that one of them broke when it fell broadside across the sharp edge of another."

"I remember, now, that they had a magnetic attraction for one another."

The professor hurried with them back to the space ship and the others. He and 744U-21 told their separate stories.

"It was only makeshift," 744U-21 told the professor, "but it served the purpose. We escaped out of there and can now really do a good job on the space ship."

"Come over to the next peak," Professor Jameson told them. "We have been mining metal and storing it up. Once we put the space ship in good shape again, I want to visit Byb-phry-tim in the city of the third sex."



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Robert M. Price, Editor  
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Stephen E. Fabian

Back cover art by  
Bruce W. Timm

Art on page 36 by  
Allen Koszowski

Art on page 2 by  
Jason C. Eckhardt

Art on page 33 by  
Bruce W. Timm

# PURSUIT TO PERIHELION

by Carl Jacobi

Lawson Gage sat in the central office of Venus Development, Inc., and stared down at a sheet of yellow paper. The two-day-old Spacegram had been waiting for him on his return from a survey trip to the new radium mines, and now, reading its terse message for the third time, he realized he had but thirty minutes to make his decision.

MR. LAWSON GAGE

CRATER CITY, VENUS

ABANDON PROJECT THERE AND RETURN HOME AT ONCE. HAVE COMPLETED INVENTION OF UNPARALLELED IMPORTANCE. ALSO TROUBLE FOR WHICH I NEED YOUR HELP. CALTHAY.

Down below these words a single sentence had been added, which definitely was against the Interplanetary Radio Commission's regulations. It read:

I'LL BE SEEING YOU. RITA.

In spite of himself Gage smiled. Rita Carlin, whom he some day hoped to marry, was chief supervisor of UNIVERSAL SPACEGRAM's Earth-Venus hookup. She probably had had a good chuckle when, spotting the message among the hundreds of night communications, she had brazenly added that postscript.

The message meant all it said and more. When Professor John Calthay, Gage's employer and directing genius behind Venus Development, used the word "trouble," he seldom exaggerated. The old scientist must have a definite need for his youthful assistant back on Earth.

But it was the postscript that decided Gage. He remembered Rita

Carlin's brown eyes and the good times they had had together on Earth. He reached for the televisor.

"Lawson Gage speaking," he said as a man's image flashed on the screen. "Reserve me an outside stateroom on the twelve o'clock Earth-Express. And send a plane to pick me up immediately."

Two days later Gage faced his aged employer across a desk in one of the many laboratory buildings Calthay had erected a mile outside the town of Victoria in Carver County, Minnesota. The professor's eyes were bright with excitement.

"Gage," he said, "I've done it. Made the most amazing discovery since the days of Einstein. It's taken a whole year but . . ."

"More seed bombs?" Gage cut in. "If that's what you're talking about, I'm not interested."

"Seed bombs be hanged. I tell you this is new. Come into the other laboratory, and I'll show you."

With his short bird-like stride, the white-haired professor led the way down a corridor through room after room filled with apparatus until he came to a large unfurnished chamber whose only object was a large box in the center of the floor.

Calthay unhooked the wooden sides and trundled them out of the way, revealing a strange-looking machine.

"I call it my Matter-Transport," he said.

Gage lit a cigarette and stepped closer. He saw a tall, pyramid-shaped device on rubber-tired wheels, the top half of which

resembled a moving picture machine of the early twentieth century. There was a lens tube, a motor-driven shutter, and a small mobile dynamo. On one side a circular screen of some white material projected upright. At the bottom was a control panel with a confusing array of switches and dials.

"The purpose of this machine," Calthay continued, "is to transport matter from one point to another by means of controlled atomic energy and amplified light waves. You perhaps are familiar with Jesper's successful experiment in Prague wherein he moved a small building through the fourth-dimensional continuum to an open field seventy miles distant. People for miles around said it was magic. Well, I've done Jesper one better. I can now transport any form of matter --any inanimate object, that is--through the infinities of interstellar space to any point within telescopic vision."

Greg smoked his cigarette quietly. He was used to Calthay's experiments and had seen enough of them not to be unduly shaken.

"Go ahead," he smiled. "Explain yourself."

The professor walked around the machine and touched it lovingly.

"Part of it is fashioned like one of those old moving picture machines," he said. "That is, when pointed at a certain object under favorable sunlight conditions it will capture a three-dimensional image of that object. The instrument is also tuned to the object's atomic wavelength."

"Now you are aware that Newton's idea of matter was that it was dead, that it could not of itself change its stage of motion, that something else was required for that. And Newton called that something mass. But Einstein showed Newton to be correct only under certain conditions."

"I know all that," Gage broke in quietly.

Calthay glared but continued,

unmindful of the interruption. "All of us of course today accept the postulation that the physical world is merely a form of energy. To get to the point: With this machine I receive what might be termed an internal and external image of an object by concentration of its light waves and its atomic energy. I amplify that energy a million or more times and shunt it into the fourth-dimensional continuum. I direct it through space and time to, say, some certain planet. There I release it in such a way that the atomic structure is reassembled in exactly the same form as the original. In other words I reproduce the energy and create a duplicate of the object at a distant point."

Gage stared. "But that's not possible," he objected. "Even with an atom-smasher you can't create something from nothing."

"I'm not creating something from nothing. I'm simply transporting certain wavelengths from point A to point B."

"But at point B you'd have nothing but a shadow, an image of the object itself."

Calthay shook his head, then stiffened abruptly. Outside an alarm bell suddenly burst into violent clamor. In spite of his age the scientist made a savage lunge for the door.

"Prowlers!" he yelled. "This is the trouble I radioed you about! Come on!"

Gage had difficulty in keeping in stride. Down the length of the corridor the two men ran and out into the grounds. Here Calthay turned and headed for the chemical laboratory, the largest building of the group. The bell was ringing steadily.

The professor reached the door, whipped it open and leaped inside. An exclamation burst from his lips.

Five feet over the threshold a man lay supine, blood welling from a cut over one eye. His face was ashen, his arms spread wide.

"Water!" Calthay cried. "It's Harmon Davis. Get some water!"

A moment later the man opened his eyes slowly, struggled to a sitting position. He was the foreman of the Calthay laboratories, tall, hawk-faced with thinning hair and close-set eyes.

"What was it?" Calthay demanded. "Who struck you?"

"I . . . I don't know." Davis' words came slowly. "This is Saturday, and the men had the afternoon off, so I was alone in the next room. I was checking the contacts of your electronic rain-maker when I . . . I thought I heard footsteps. The moment I came in to investigate something hit me on the head . . ."

A scowl on his face, Calthay swung around and began an inspection of the room. Gage strolled over to an open window, looked out into the grounds. He saw nothing. Then on the floor beneath that window his eye caught an oddly-shaped piece of metal with a hole punched at one end and what appeared to be a half circle stamped across its center. The assistant picked it up, turned it over in his hands, then with a shrug dropped it silently into his pocket.

"You'll be all right, Davis," Calthay was saying. "But I want you to see that every window and door is barred and electrically wired by morning."

"Why don't you inform the police?" Gage asked.

"The police?" The professor shook his head. "I'm afraid this goes deeper than ordinary burglary. This is the third time one of the laboratories has been broken into. Things have been stolen, yes: space suits, solar heat lamps, but always the prowler passed by articles of much greater value. I'm convinced the thievery is only a blind. Some one, some enemy is working against me, but they're waiting for the psychological moment to strike. But . . . well, enough of all that. Come, Gage, let's go back to the Matter-Transport."

## Chapter II Real Estate on the Moon

The town of Victoria, Minnesota, lies approximately six miles from the famed Lake Minnetonka. It consists of a main street faced by a lumber yard, a general store, two hardware shops, a cafe, and a number of private frame dwellings. Lawson Gage noted these details in response to Calthay's instructions to "look the place over carefully."

It was mid-afternoon of a summer day, and the two men had driven to the village in one of Calthay's trucks. Parking at the curb, the scientist looked up at the brilliant sun in a cloudless sky and nodded in satisfaction.

"Ideal conditions," he said. "Help me get out the transport."

The van door of the truck was opened and skids angled to the ground. Then with Gage and Professor Calthay exerting every muscle the machine was lowered to the street. Once on its own wheels, it rolled easily. Calthay pushed it forward slowly, while his grey eyes looked about him from side to side.

Directly before the lumber yard he came to a stop.

"This is as good as any," he said. "Stand aside, Gage, while I get the place in focus."

The assistant glanced at the strange machine, then across at the white building with its fence-enclosed yard. A bewildered look entered his eyes.

"But you can't turn that thing on those buildings without warning," he expostulated. "People are in there."

"Don't be a fool, Gage. The Matter-Transport is tuned only to inanimate objects. A human being, even if he walked directly into the path of the lens, would suffer no ill effect at all."

But if Gage was expecting some dramatic exhibition there in the village street he was doomed to

disappointment. A few townsfolk collected as Calthay switched on the dynamo. It began with a low hum, and an instant later the shutter began to click rapidly as it alternately exposed and closed the lens. The professor threw over a pair of switches and adjusted the dials on the control panel.

And that was all. With a nod Calthay turned off the machine and began to push it back toward the truck.

"Is that all?" Gage cried. "How do I know all the things you said are true? How do I know . . .?"

"The rest you shall see for yourself," Calthay replied. "As soon as we get back to the laboratory we'll take the Shadow, my private rocket ship, and take a little jaunt to the moon."

The way back seemed endless to Gage. But at length the truck rolled into the grounds of the Calthay property. After replacing the Transport machine in its box-crate in the laboratory, the scientist led the way to the dome-shaped building farthest removed from the house --the hangar.

Five minutes later a trim little rocket ship was wheeled out on the runway.

"She's the fastest thing in the solar system now," Calthay said proudly. "I've improved her a lot since you last saw her. Get in."

Gage followed the professor through the small doorway into the hermetically sealed hull. And then just as he was about to swing the massive door shut, a voice halted him:

"Lawson! Wait for me! Don't you dare go without me!"

A young girl was running toward them across the grounds. Lawson Gage felt a thrill of elation as he recognized Rita Carlin.

"Hold everything," she laughed, climbing through the doorway. "You've got another passenger."

Calthay viewed her presence with mock gravity. "Young woman," he

said. "I've warned you to stop interfering with my assistant while he's at work." Then his eyes twinkled. "We're heading for the moon. If you want to come along, Miss Carlin, you're quite welcome."

With a laugh Gage swung the door shut, locked it into position. Calthay took his place in the control seat, touched the acceleration lever. There was a perceptible lurch, a humming drone, and the Shadow left the earth and headed into space.

"I'm on a vacation," Rita said, relaxing on one of the cushion seats. "And believe me it's good to get away from that supervisor office. Even the moon will be a welcome change."

Gage nodded. Then abruptly his eye caught a glitter of something on the floor. Picking it up, he revolved it in his fingers slowly while a hard frown stole across his face. It was a piece of metal with a hole punched at one end and the design of a half-circle stamped across its center. The assistant shot a quick glance at Calthay, then thrust the thing into his pocket unobserved. There was no use, he thought, worrying the old man more than necessary.

Through the forward ports the moon raced rapidly nearer. Gage and Rita stood watching the desolate lunar landscape through magno-bino-culars. Presently they were directly above the cold satellite. Calthay opened the rocket motors to full power to offset the strong gravitational pull.

"There's Mare Crisium," Gage said, pointing to a huge expanse of flat plain, "and Mare Tranquillitatis. We'll sight the Apenines in a moment. The Apenines are one of the largest mountain ranges on the moon. One of the peaks, Mount Huyghens, is 19,000 feet high."

Rita nodded, her eyes gleaming with excitement. But suddenly the girl uttered a low cry. Grasping Lawson Gage's arm, she pointed

through the glass port.

"In heaven's name, what's that?"

Gage stared, blinked his eyes. What he saw below him was impossible, absolutely impossible. And yet . . .

They had skirted the Apenines, circled back and were now cruising over that waterless sea which scientists have named Mare Serenitatis. In the center of it, standing out with incongruous clarity, was a man-made building. A building on the moon where even earth frontiersmen had made no attempt to colonize.

Gage glanced at Calthay for an answer. There was a twinkle in the scientist's eyes as he said, "I'll go a little closer and give you a good view."

An instant later the assistant stood there stupefied. The building below him was not only a reality. It was familiar. Incredible as it seemed, he was staring down at the Victoria lumberyard, transported through hundreds of thousands of miles of space to another world. A lumberyard identical in every detail to the one he had stood before in Carver County, Minnesota, only a short time before.

"I . . . I don't understand it," Gage said slowly. "How . . ."

"The Matter-Transport," Calthay replied simply. "I've already explained to you how it works."

"But it's not real . . . It can't be real . . .!"

"It is real. It's an actual counterpart, molecule for molecule, atom for atom, of the lumberyard in Victoria. As I told you, matter is just another form of energy. By two simultaneous processes--capturing the reflected light waves three-dimensionally and bringing to focus the atomic vibration--I can form a composite image of that object within the Transport. I then propel this living image through the fourth-dimensional continuum to any point in space I see fit, where upon being released the structural wavelengths

reassemble themselves in a duplicate of the original.

"In the case of this lumberyard the process took only a few moments. But that was because I had spent days before you arrived tuning the machine to contact the moon at this precise point."

"It's marvelous," Rita said. "Why, it opens unlimited prospects for the future."

Once more they circled the lumberyard, so deserted and forlorn there in the lunar wilds. Then Calthay shoved over the accelerator and turned the Shadow back toward earth.

### Chapter III Arrest of Calthay

A short time later the rocket ship slid to an easy landing before the hangar in the Calthay grounds.

"I want to take another look at that machine," Lawson Gage said as he, the professor, and Rita made their way to the laboratory.

The scientist nodded. Reaching the door, he led the way down the corridor to the central room. But at the threshold he gave a cry of dismay.

The Matter-Transport stood in the middle of the room where Calthay had left it. But the wooden side protections had been removed. The floor was littered with cigarette stubs, and here and there lay scraps of paper covered with writing and calculations.

The professor ran to the control panel and studied the dials.

"It's been used!" he cried. "The tuning's changed! It's directed into outer space, far beyond the moon."

For a moment silence fell upon the three. Rita Carlin said slowly,

"Perhaps an employee . . .?"

"No." Calthay shook his head. "My workmen have been instructed to stay away from this part of the building. The machine has been



submitted for patent rights, of course, but I haven't chosen to announce it to the world yet until I could give it an actual test. Do you realize what this means, Gage? It means some object close at hand has been transported to another planet. But why?"

He answered his own questions by pushing a button on the wall. A moment later Harmon Davis entered the room. But the foreman could tell nothing. He had seen no one, heard no one. Whoever the intruder was, he must have entered the building while he--Davis--was in the house, a few rods away.

And then as they stood there, a televisior snapped on automatically. The image of an announcer flashed on the screen.

"Ladies and gentlemen, stand by for an important news flash. . . . Washington, D.C. An unverified report said to have come from patrol rocket ship Paranus stated that a mass prison break has taken place on the penal planetoid Tyra and that inmates, after murdering the warden and all guards, escaped into the spaceways. Further details of this outbreak are as yet unknown. Five hundred of earth's most dangerous criminals have been serving terms on Tyra."

Calthay sank into a chair slowly. "There you have it," he said. "And to think I'm responsible."

"You!" cried Gage. "You . . . ! What do you mean?"

The televisior clicked on again:

"News bulletin: Direct communication has now been established with the patrol ship Paranus, and the following facts in connection with the prison break have been learned. The criminals fled in five large-size rocket ships, unquestionably of earth manufacture. Escape was accomplished when twenty of the criminals cut their way to freedom with blast pistols. The Secretary of Criminal Affairs at Washington stated definitely today that neither rocket ships nor weapons of any

kind, even in the hands of the guards, were known to be on Tyra."

"At the same time the Bureau of Standards at Washington reports that a machine was submitted for patent rights by Professor John Calthay of Victoria, Minnesota, which may have some bearing on the case.

"This machine is said to be able to transport matter, material objects, from one point to another. Dr. Justin Zelmer of Federal University of Science has suggested that such a machine might be responsible for the present situation and has demanded that Professor Calthay be brought before a federal board of inquiry."

Lawson Gage's face turned crimson with rage. "Zelmer," he said, "Zelmer, your old rival, your enemy in science for ten years! So that's it! Come on, Calthay, you and I are going to Washington."

But at that moment heavy steps sounded outside, and the door burst open. Two uniformed troopers entered the room.

"Professor Calthay?" one of them said. "I have a federal warrant for your arrest."

## Chapter IV

### The Prowler Again

The trial of John Calthay in the United States Supreme Court was an event of international importance. For days newspapers had devoted columns to its significance, and televisior commentators almost went berserk in their anxiety to present the news to the public.

Vainly Lawson Gage attempted to have the case thrown out because of insufficient evidence. In the room adjacent to the court chambers at the close of the fifth day's proceedings the assistant faced his employer. With him was Rita Carlin.

"I'm afraid it's useless," Calthay said. "Zelmer is testifying

against me, and his word carries weight. He's hated me professionally ever since my graviscope was accepted by the government in place of his."

"But you're innocent!" Rita cried. "They can't convict you for something you didn't do."

Gage said little. He asked a few questions but for the most part he was content to sit with eyes half closed and listen.

"It seems impossible to believe Zelmer would stoop so far beneath his position," the professor said. "But he knows what the Matter-Transport can do, and by the photographs of the control panel which those troopers made, he has absolute evidence that the machine was directed to the planetoid Tyra."

On the following Saturday the first news of the escaped convicts reached Earth. They had taken refuge in the uninhabited desert country of the planet Pluto. Furthermore, the scout rocket ship, Paranus, in trailing them, reported the incredible fact that the convicts' hideout was already a fortress impregnable against attack. Walls of nebulite, which no blast gun could penetrate, encircled the encampment completely. Inside the criminals were working at top speed, building a projectile-like object of gargantuan proportions.

In the light of these developments Calthay's trial was temporarily held up. This although Dr. Justin Zelmer made a two-hour scathing denunciation of Calthay before the United States Senate, ending with a demand that the scientist be executed at once.

Worn and haggard, Lawson Gage returned to Victoria. In the Matter-Transport laboratory that night he slumped into a chair and looked despondently at Rita Carlin. The room was empty now. Troopers had seized the Transport and shipped it by sealed stratoplane to Washington.

"Rita," Gage said, "it all sums up to this: Someone stole into the laboratory here while we were at the moon and operated the machine long enough to free those convicts. The Transport was focused on objects on the Calthay property: blast pistols, space suits; even apparently on the Needle, the Shadow's sister rocket ship, which we left in the hangar. Those objects or the counterparts of them were thus transmitted to the planetoid Tyra. Later, other parts of the laboratories were directed to the planet Pluto. A certain percentage of those criminals must have had scientific training, and they are now making use of those objects."

"But why?" Rita said. Bewilderment shown in her eyes.

"Any number of reasons could answer that. The guilty person might have been concerned only with the freeing of those criminals. Or he might have foreseen the consequences and aimed only at besmirching the character of Professor Calthay. Either way, we're faced with the same problem."

The door opened, and Harmon Davis, the laboratory foreman, entered the room.

"It was Zelmer who did it," he said. "It must have been. Only last week Calthay showed me a letter he received from him, criticizing the laboratory here for not taking part in armament manufacture."

That night Gage slept fitfully. At two a.m. he got up and began to pace the room nervously. A strange inner fear was welling over him.

Hardly knowing why, he dressed and moved along the corridor to the stairs, careful to wake neither Rita, who had elected to stay here in the Calthay house for the duration of her vacation, nor Mrs. Hendricks, Calthay's housekeeper. Outside in the grounds he lit a cigarette, moved slowly toward the tower-like building which housed the professor's private observatory.

The automatic lift took him to the top level. He climbed the platform to the huge telescope and removed the eyepiece dust protector. Then, without making any adjustments, he gazed out into the heavens.

It was only a comparatively short time, he reflected, since Lemaitre had propounded his theory of the expanding universe and by the study of nebulae recession had declared that the universe had grown from 8000 million to 500,000 million light years. The Calthay telescope, though not as powerful as the new glass at Mount Wilson, had succeeded in penetrating space to nebulae of the thirty-second magnitude, thus expanding the known universe to nearly a billion light years.

But abruptly an idea struck Gage. Pluto! True, this planet which the convicts had chosen as a hide-away was the most remote of the solar system. Yet perhaps if there were some alien activity there he might be able to detect it by observation through the planet's atmosphere with an infra-red screen.

Swiftly he swung the direction wheel. The huge tube shifted its position. And then even as he realized his idea was far too fanciful he heard the sound!

It came to him through one of the windows he had opened, the pistol-like crack of a heavy body stepping on a stick. Instantly Gage extinguished the lights and leaped forward. In the starlight he had a momentary glimpse of a tall figure running swiftly across the grounds toward the chemical laboratory. Then it disappeared.

The time required to lower the lift to the main level seemed endless to the assistant. He crossed the grounds swiftly, hugging the shadows of the building walls.

The chemical laboratory door was ajar. Inside Gage could see an electric torch bobbing back and forth through the darkness. He slipped inside, seized a heavy microscope rod which he remembered

lay on the table near the door and began to close in.

But a sixth sense must have warned the intruder. The torch snapped off, and with a low cry the man charged. A fist drove hard into Gage's face; another bludgeoned him over the heart. The rod was torn from his hand.

He retaliated with two wild blows, only one of which made contact. And then a terrific weight descended on his skull, dropping him to the floor. He felt himself sinking slowly into a pit of oblivion.

## Chapter V Pursuit

When he opened his eyes the room was still dark but a faint greyish light filtering through the windows announced the coming dawn. The assistant staggered to his feet. There was a lump on the top of his head, and his legs felt weak and trembly. He stumbled across to the wall switch, snapped on the lights. But the laboratory was empty, and he saw no sign of his assailant.

Swaying dizzily he moved to a water basin on the far side of the room, wet his forehead and wrists.

Abruptly a television snapped on above him:

"News flash! The convicts who recently escaped from the penal planetoid Tyra began communication with X65L4, private radio station of Universal Spacegram, Washington, D.C., at 12:25 a.m. this morning, transmitting the following message. I quote:

"Having successfully broken the bonds of incarceration placed upon us by a prejudiced society, we--the five hundred inmates of Tyra--present the following demands to the government of the United States: That each and every one of us is to be fully pardoned and restored to complete citizenship. That Tyra as a penal institution

be abolished. And that no one of our party be accused or tried for the death of the guards or warden of Tyra which resulted from our flight to freedom.

"Refusal of these demands or failure to reply within the next forty-eight hours will result in dire consequences."

"This message was received at 12:25 a.m. At the same time it was learned that the trial of Professor John Calthay was completed in Washington tonight, and the verdict as handed down by the supreme court is guilty. Execution of Professor Calthay was set for a week hence."

Gage stood there rigid. It all seemed incredible. Calthay . . . good old Calthay . . . Couldn't they see he was innocent?

On legs that were dead things the assistant left the laboratory and made his way back to the house. The attack upon him faded into insignificance now. He must tell Rita, and the two of them must leave at once for Washington to try and obtain a stay of sentence.

The house was dark and silent. He climbed the stairs to the second floor corridor, rapped quietly on the girl's door. There was no response.

"Rita!" he called dully. "Rita, I've got to see you a moment."

He knocked a second time, and the unlatched door swung open. For an instant he stood staring inward. Then he uttered a low cry.

The room was empty. Bed clothes and a broken chair lay on the floor in wild disarray. But Rita Carlin was gone.

Madly Gage turned and ran to the housekeeper's room, whipped the door open. Mrs. Hendricks lay on the floor unconscious. Deep welts stood out on her exposed throat.

Dead? He bent over and saw instantly that physically she had not been harmed. But it would be hours before she would return to consciousness.

Madness engulfed him then. Blindly he turned and ran down the stairs and outside to the grounds.

"Rita!" he cried. "Rita!"

A low rumble and a blaze of illumination was his answer. Before him he saw the floodlights switch on as simultaneously the huge doors of the hangar banged open, and a low cigar-shaped object rolled out onto the runway.

The Shadow! Realization hit Gage full force as he broke into a frantic run. Across the grounds he raced, but even as he reached Calthay's rocket ship, the door clanged shut, and a glow of light shown through the quartzite ports. A man's face appeared at one of those windows. Behind him Rita Carlin's motionless figure was visible, lying across one of the interior settees.

An instant later there was a thunderous roar. The rocket motors belched fire. With an eye-searing blaze of light the space ship vanished.

Fighting for breath in the sudden vacuum, Gage slowly picked himself up, staring helplessly up into the sky. Gone! Rita gone from this earth in a ship whose speed was faster than light.

And the man who was at the controls, impossible as it seemed, was Harmon Davis, foreman of the Calthay property. The sight of Davis' face sneering back at him would remain forever engraved in Gage's memory.

With a low cry the assistant turned and ran into the hangar. The Needle, the Shadow's less-powerful sister ship, stood there silently as if waiting to be put in motion.

He leaped inside, slammed the door shut, released the brakes and coasted out onto the runway. Lips tight, he pressed the acceleration lever. The Needle roared up from earth and headed in pursuit.

Once past the stratosphere, Gage set the automatic controls and lowered the movable eyepiece of the

cosmoscope. Directly ahead Mars loomed, a growing disc. Out and beyond stretched the infinity of the universe: star clusters, asteroids, gaseous nebulae.

What did it all mean? Where was Davis' destination and why had he kidnapped Rita? Was he alone responsible for all the events of the past few days?

Gradually the truth dawned on Gage. For years Davis had been jealous of Calthay's achievements. Ever since his own experiments with a color-organ had resulted in failure, the foreman had done his work with an air of sullen resentment. He had protested vehemently when Calthay had appointed Gage as manager of Venus Development.

On raced the two space ships. Mars was a gigantic plate before them now. But as if mocking its pursuer, the Shadow turned and with a new burst of speed headed on toward Jupiter. Gage set his teeth and moved the accelerator another notch forward.

It was Davis then who had operated the Matter-Transport and made possible the criminals' escape. It was Davis who had transported the counterparts of the Calthay laboratories to Pluto. Davis . . .

The Needle tore into the solar system's greatest danger zone, the asteroid shoals. Ceres, the largest, drifted by, and Gage sat tense at the controls. At the speed he was traveling he knew he must sight any dangerous object a long distance ahead, for in the fraction of a second a warning was telegraphed in his brain, he would have catapulted through thousands of miles of space.

Clear of the swarm, the assistant sighted the Shadow just ahead. Sweat broke out on his brow as he thought of Rita. "I must catch them," he said. "I must."

The flattened sphere of Jupiter loomed up with incredible speed. Ammonia and methane clouds, a colossal halo, were formed about it.

But ahead the Shadow, like a flying comet, swept on deeper into space.

And then Gage remembered he had an ace in the hole. Only recently Professor Calthay had installed in the Needle a device as yet untested. Drawing radiations from space, this machine converted them into propulsion power, thus increasing the speed of the rocket motors almost two times.

There was one danger but a great one. As Calthay had said, there was no calculating the power of this booster. It might blow the Needle to fragments.

## Chapter VI The Needle and the Shadow

Saturn, the glory of the solar system, began to grow in size. Here Davis, evidently fearing the planet's "danger-zone," swung on a tangent and raced ever farther from the sun.

Frantically Gage turned on the televisior, swung the dials to the Shadow's wave length.

"Davis!" he yelled. "Turn back, you fool! You can't get away with this!"

The return image was slow in forming. But presently the foreman's sneering countenance filled the screen.

"Gage, if you think you can catch me, you're crazy. I can outrun you with ease. Go back to Earth, Gage. You're wasting your time."

Fists clenched, the assistant addressed the microphone:

"Why have you kidnapped Miss Carlin?" he said dully. "Why . . .?"

"Ah, so you're wondering that, are you? Rita Carlin is going to be my wife. A man needs a mate, they say, and where I'm going there will be no terrestrial women. My plans are now completed. I have revenged myself against that fool Calthay. Goodbye, Gage. Give my regards to the Martians on your way back."

Ahead the Shadow seemed to leap forward with new life. Like a speeding meteorite it surged away from the Needle.

Gage's jaw set hard as he looked down at the single control of the cosmic ray booster. He had no alternative now. If the new invention failed, he was lost. He shoved the control hard over.

For an instant nothing happened. Then below in the mechanism chamber a low pulsing roar began to vibrate through the ship. An arc of violet fire hovered above the control panel.

Then, with the smell of hot metal in his nostrils, Gage uttered a cry of satisfaction. The Needle was boring into space like a demon.

Almost immediately he sighted the Shadow far ahead, annihilating space with almost inconceivable speed. They were racing with time now. Uranus was behind. Pluto, the last remaining outpost, lay beyond.

Slowly the intervening distance between the two ships lessened. The prow of the Needle nosed into the fire wake of the Shadow's exhaust. And then with a final lunge Gage saw himself abreast of his quarry.

He switched on the televisior:

"Stop your motors, Davis! I'm going to board you!"

There was no reply, no answering image on the screen.

"Lay to, Davis, or I'll disable you with my blast gun."

Still no reply. Deliberately Gage aimed through the telescopic sights at the Shadow's lower hull and pulled the trigger.

The fleeing ship gave a violent lurch. Its rocket exhaust ceased. Gage shut off his own forward speed, maneuvered alongside and discharged the magnetic grappling bar.

After that the assistant became a dynamo of activity. He threw on a space suit. Seizing a portable blast pistol he swung open the door of the Needle, poised there on the

brink of space. He aimed a single shot at the lock of the Shadow's hermetically sealed door and threw himself headlong into the cabin of the other rocket ship.

A heavy body catapulted against him. Davis, face twisted in fury, whipped a long-bladed knife straight toward Gage's chest.

It was brute struggle then. Back and forth in the narrow confines of the ship cabin the two men struggled. Encumbered by his space suit and helmet the assistant was at a disadvantage. His breath pounded in his lungs. Twice more the foreman drove the knife at him, missing by inches.

They went down on the floor, rolled over and over. Even as he fought Gage suddenly realized he was treading on counted time. The propulsion motion of the two rocket ships had been halted, but they were within the gravitational field of Pluto and were racing toward that planet. Pluto! The convicts of Tyra, Davis' allies, were there!

And then Gage found an opening. He twisted free, leaped erect. Knife outthrust, Davis charged clumsily. With all the strength he possessed the assistant drove his fist against Davis' jaw. The foreman gave a hollow cry, fell backward and lay still.

"All I remember," Rita said, "is waking up in bed back in the Calthay house with a knowledge that someone was in the room. I . . . I screamed, I believe. Then . . . everything went black."

Gage nodded. They were in the Needle now, racing through space again. Behind, held in two by the magnetic draw bar, was the Shadow. "You were doped," he said. "Davis had laid his plans well, and he probably shoved a hypo into you. He was heading for Pluto where he knew he would be safe. But the fight's all taken out of him now. He's back in the baggage chamber, nicely trussed up."

"But . . ." The girl looked out the vision-window before the control seat, and a puzzled look entered her eyes. "But we're not heading for Earth. Lawson Gage, where are you taking me?"

Gage's face was grim. Without reply he swung down the eyepiece of the cosmoscope, studied the way ahead. The wild and desert terrain of a huge planet was directly before them. Visible were majestic mountains, deep craters, broad plains.

"It's Pluto!" Rita cried. "Lawson, what are . . .?"

Her voice trailed into silence as an astounding spectacle came into sight through the vision-glass. Rising out of the planet's desert country came a squadron of battle rocket ships in formation. There were twelve of them, and as they rapidly raced nearer, the conical turrets covering the blast guns were plainly visible. But there was something else, something whose very existence there seemed an impossibility . . .

Beneath the squadron, held by some invisible power, was a titanic tube-shaped projectile with tapered ends. At a distance it all looked like a twentieth-century zeppelin flying beneath a squadron of up-to-the-minute strato-planes.

"What is it?" Rita gasped.

Her question wasn't answered. Suddenly Gage jammed over the accelerator to full speed. Twisting helm he sent the Needle down through

space toward the squadron. With his left hand the assistant swung down the trigger controls of all three forward guns.

Down, down he sped, racing faster than a gleam of light. Ignorant of the approaching doom the squadron raced steadily, heading toward Earth.

There was a thin smile on Gage's lips now. His eyes were narrowed to crescents. Carefully he watched the intervening space lessen. The huge bulk of the projectile covered the entire vision-glass.

A second . . . two seconds more. He pressed the trigger!

For a split second the projectile continued its course undisturbed. Then a volcano erupted there in space. A thousand bolts of fire blasted in all directions, blanketing all sight in a curtain of blinding brilliance.

When presently it died . . . of the squadron and the projectile there was no sign.

"It's over," Gage said to Rita. "That projectile was filled with sub-atomic explosive. The convicts planned to drop it on some part of the United States, probably Washington. But that threat is past. Now . . ."

"Now for Earth!" Rita cried. "And to free Calthay!"

They gazed at each other across the cabin of the space ship. And Gage gathered her in his arms.

### ASTRO = ERROR!

We have belatedly discovered, to our cosmic chagrin, that some copies of Astro Adventures #6 are missing page 57, which should appear on the inside back cover. While we cannot replace these copies, as we don't have enough left, we will be happy to mail you a copy of page 57 for you to paste where it belongs! Please write us!

# SORT OF LIKE ATLAS

by Raymond Z. Gallun

Tom Lisky wasn't the first to have a space armor made for his dog.

"Wherever we set our feet there'll be mutts around, sooner or later," he explained. "It's more friendly and safer. They've got sharper senses than us in some respects."

Lisky was brown, lean, five feet eight. He had an egotist's swagger. His face, once slashed by a meteor, looked about as sentimental as a broken rock. Which of course made it partly a liar. He'd spent a year among the Asteroids chiefly for what he could get out of them, and that is not a soft philosophy. But like other tough guys out in space, he had found that he thought of his folks, his kid brother, his fiancée, and his pooch, a lot more than on Earth.

Snowdrop was a small white mongrel with brown and black markings on his head and muzzle. After a vacation at home, Tom took him along on the liner, when he returned to the Asteroid Belt.

It was comic and sad to watch the dog tangle with the conditions of some of the lesser of these Minor Planets. Large and small--chips of a once populous world that was blown to fragments in a pushbutton war with Mars fifty million years ago--they were all atmosphereless, of course, except where Man had intruded with his airdomes. Such a circumstance imposes even on space-travelling pups the indignity of cumbersome attire.

Snowdrop had been stuffed into his armor several times while he was still on Earth. This ordeal happened again aboard the liner, once more in domed Ceres City, and

finally aboard the small spaceboat which Lisky and his two-man crew used to scrounge the unexplored regions of the Belt for the various means of making money.

"It's gotta be now, Snowdrop," Lisky half growled and half crooned. "Because we've arrived on a pay-dirt Asteroid."

Once more, with muzzle-licking fear, and with both reproach and trust of his stubborn and sometimes perverse master in his brown eyes, Snowdrop submitted. The miniature spacesuit engulfed him like a crocodile swallowing him up.

It made Big Thorne smile with sour amusement, and Helpert, who was thin and dark, guffaw uproariously, until Lisky's hardened jaw gave warning.

"To Snowdrop it ain't funny!" Lisky snapped.

But he had to laugh, too, later. The smaller Asteroids--mere chunks of meteoric iron and stone a few miles in extent--have very little gravity indeed. Outside the spaceboat, Snowdrop tried to run, but catapulted himself high off the ground, where, writhing, he described a long, graceful parabola, before he bounced on solidity again.

After that the terrified pooch, looking like an armadillo in his costume of rubberized wire fabric, would keep his belly to the ground and advance one paw ahead of the other with ludicrous care. Inside his oxygen helmet of transparent plastic, his ears were laid back. His space armor had no special member for his tail, but now it would have been between his legs, anyway.

But he began to learn to get around without using too much mus-



cular force, and with lessened fear. His ears stood up again. His interest in things came back. And he went into his yapping phase.

Yes, like the helmets of the men his helmet had a small radio transmitter and receiver unit inside it. Lisky's sentimental side wouldn't have had it otherwise.

"What are you boneheads smirking about?" he grumbled at Thorne and Helpen. "A man wants to hear his dog bark, doesn't he?"

Lisky guessed that Snowdrop yapped not at a noise but at the appalling stillness of space, where, in the absence of atmosphere, sound, apart from its transmission in solid objects, could not exist.

Mutts were silly. Lisky knew of one that, returned from space to an Earth that it had all but forgotten, barked its fool head off at every cricket-chirp.

But Lisky, beneath a general cynicism that extended beyond dogs to humans, himself, and his own purposes, had a deeper faith in canine talents. Back to his earliest memories extended a long succession of pup-dogs that had been his.

"That's right, Snowdrop," he said once, while they were wandering alone on that first small Asteroid that they had landed on. "Live and learn. Get the nonsense out of your system. Find out what's worth barking at, and what isn't. Keep your eyes peeled. Because there's more mystery in space than men will ever find out about in a long, long time. Especially in the Belt. We could get into strange trouble, fast."

This was a practical statement, with a nervous chill behind it. But in Lisky it also had deeper roots of awe and appreciation that stood before the universe and nature in perhaps poetic wonder, and yearned for nameless and special adventures, even though Lisky was a blunt, realistic man by his own lights. He was selfish, and capable

of cruelty. Still he had his occasional suspicions of other facets in himself. Sometimes they even embarrassed him, as if they marked him as partly a mollicoddle.

There wasn't too much that was new to him in the first several months of his return to the Belt. He and Thorne and Helpen, and of course the worthy Snowdrop, late a lover of the Wisconsin woods, skipped from Asteroid to Asteroid, the men hunting wealth.

Gold--from the deep core of the original and now shattered planet, where, as in all worlds, it had settled and lodged by its own massiveness--was not for them. It was cheaper than dirt, here.

But industrial metals were a different matter--the radioactive ones, harboring atomic power, and the specially hard or soft or flexible ones, whose properties gave them unique usefulness and value in Earth's expanding technology. You collected only the richest lumps of ore, in a great steel net to be towed by your spaceboat. Even near an Asteroid there was scant weight to such booty. It behaved like a huge sluggish balloon, trailing astern.

And there was another kind of plunder. Fifty million years ago, out here, a world had been blown up. In a terrible second, millions of degrees of heat had blazed and died; vast blasting forces had acted. Artifacts of metal, glass, stone, and fabric were fused, burned, and shattered; but the freakish whimsy often associated with violence still left much intact. The fury had passed very quickly, and the cold vacuum of the void had taken over, preserving what was left so well that it was as if space had stopped time itself.

Thinly scattered, floating free in the emptiness, or clinging to Asteroids which had once been part of the soil-clad cruet of the parent planet, was the wreckage of a dead culture: fragments of machines and

buildings, eerie art-works, furniture--whatnot.

Lisky had grown callous to such wonders. They were now too familiar. Let Snowdrop try to sniff in canine interest at a space-dried piece of mummy that had tentacles instead of arms, if he wanted to. His master's main reaction was humorous regret that the pooch's so-important nose was stymied both by the odorless void and by the plastic cover around his head.

In common with Thorne and Helpern, Lisky's eye was trained for things that would bring a price at the mart: the shining ornament, the bit of rich mineral fabric, the dented platinum vase--and so forth. Of course they were cautious when rummaging among ancient rubbish. Machines which had been atom-powered, whether meant for violence or not, might still be dangerous.

But when these men were sure of safety, they proceeded with blunt efficiency. What was not immediately valuable enough was so much waste, to be scattered like straw; and hang the scientists who were reconstructing a picture of pre-Asteroid civilization. Vandalism? Thus accused, Tom Lisky would have shrugged and grinned like a pirate. If it was true, what of it? Space hardened the hardest, further. You always wondered if supplies of food and oxygen would last. The silence dug into your soul, twisting it. If Lisky's thoughts were ever softer about the things he found, his family or his fiancée were always involved. Would Hilda like him to mail this or that? Or his kid brother, maybe?

Still, certain forces were strong in Tom Lisky. The gambling instinct. And, buried deeper than hope in his ego, the idea of vast luck and glory. And a touch of the mood of boy and dog exploring a field.

Something dangerous and frightening, and stranger than strange, was already at hand for Lisky. The first signs, unrecognized, were

a slight feeling of illness, and a burning sensation at the back of his neck.

"We're getting a nice haul this trip, Tom," Thorne said to him once, gleefully.

Thorne's jubilation meant that he'd already made his Great Find, and had his secret. He did not know it, but this had nothing to do with the dead people of the Asteroid Planet. But in space there was deeper and perhaps more enthralling history than theirs.

When Thorne's secret was a hundred hours old, Lisky and Helpern took the jet-motors of the ship apart for an overhaul, before starting the return trip to Ceres City. Their craft was grounded on a fair-sized chunk of the smashed planet's crust.

Thorne had just come in from outside. Like the others, he made many exploratory jaunts afield, alone, with a shoulder-jet clamped to his back, for short-range propulsion in neighboring space.

He shed his armor and put it in his locker. Then he fumbled with some perpetual nicknacks. He smiled to himself. His broad face showed scare, awed questioning, wolfish hope. It was too bad that Lisky was in the motor pit, and couldn't see him.

Only Snowdrop was around--not shelled in a space armor, now. Thorne ignored him. For what did a mutt know?

But all of a sudden the little dog let out a thin, protracted howl, when for months he had been vocal for only obvious reasons. He stopped just long enough to gather breath; then he did it again.

Lisky heard. His spine prickled and chilled in response. A picture, characteristic of his beliefs, naive perhaps, but none the less borne out by the facts of human and canine relationships, crossed his mind--that of a pooch making a rumpus to warn a sleeping family of fire. Lisky came up through the motor-pit-hatch, his hard face set, his cold

eyes questioning.

Snowdrop's forepaws were scratching on Thorne's knee. His howls had changed to excited whines and yelps. His eyes and nose were intent--whether eagerly or in terror, only he could know.

"What have you got on you that makes the dog all riled up, Thorne?" Lisky said at last, quietly.

"What have I got?" Thorne snapped. "Are you nuts--like the mutt?"

It was no good. Thorne's scared and guilty secretiveness was written all over his heavy face. In the Asteroid Belt, wealth-hunger fosters both hold-outs against companions, and suspicion of same on the part of the latter. Besides, in Lisky, and in Halpern too, who now stood at his shoulder, a driving spark of dread had been kindled by Snowdrop's noise and actions.

Lisky was a somewhat crude character. He could have thrashed the bigger man easily, alone.

"Come--on--Thorne!" he drawled and snarled.

His tone was as blunt and no louder than the thud of a sledge-hammer on flesh--and as persuasive. Beside him Halpern's narrowed eyes were hot gimlet-points, directed at Thorne in the same brutal demand. These two were like starved wolves.

Thorne paled. His wide eyes cast wild glances about the space-boat's interior, as if seeking aid. Then he shoved the yammering, dancing dog aside with his boot, and fumbled helplessly inside his large, loose jacket. His hand brought forth something about the size of a grapefruit, wrapped in rags. Nervously he peeled the rags away.

The object thus revealed was roughly spherical. It looked natural--unmarked by any tool. There were dark greens and blues in it--and some brown. And its substance transmitted light, for there were frosty glints from deep in its interior. This was all that Lisky's first intent glance photographed.

In his mind there was at once

a great question-mark, for experience gave him no exact name for this thing. Either it was an utter trifle--a glassy clinker, perhaps--or it was more. Those sombre sparks of light in it looked both ugly and rich. Or were both of these tingling impressions just imagination, excited in part by the yapping and antics of Snowdrop, who was now as hysterical as if he had treed a dinosaur? Lisky wondered. His brain did have its analytical side.

"Jeez!" Halpern gasped. "Maybe it's some kind of big jewel--in the rough!"

Thorne's perhaps naive hope was plainly similar. His gloat showed it. Lisky was no stranger himself to the hungry emotion behind such a look. Briefly, an odd, defensive thought, far removed from his usual self, hit him--from a book he'd read; one thing about spacemen--lack of other common diversions forced them to read a good deal: Was avarice a little like poetry? What was it except the desire to hold, to fondle, to possess--beauty? Here Lisky wanted no derisive comments from his other self about pretty girls! Way back in time some cave-man must have been the first to catch the gleam of a gold-nugget or the sparkle of a diamond--and had been entranced . . .

Lisky's mind came to grips again with the sinister side of the nameless. His hide puckered. But caution, and knowledge gained by examination, were the only antidote for this sense of menace. Relating to the glinting lump in Thorne's palm, Lisky's acquired indifference to the relics of the Asteroid Planet did not apply. It was too unordinary. It could be harmless and valueless--something he might wish to send home to his small brother. Yet, too, its baleful shine might mean the clink of money. Or, in a more soulful mood, it might be something to think of as a precious gift for Hilda, his girl. Just possibly, it could be deadly dan-

gerous. But Lisky didn't quite believe this--yet.

"I'll take care of the thing, Thorne--until we find out what it is," Lisky growled, cupidity tainting his belief that he was a more responsible person. "Hand it over."

Thorne's lips still could assume the pout of defiance and ownership that has marked the treasure-mad in strange, wild regions, long before space travel was even thought of.

"I found it! It's mine!" he complained.

While Snowdrop howled and yipped, Lisky wrenched the object from Thorne's hand.

"Shut the poor pooch in the motor-pit to cool off, Helpern," he ordered.

Lisky turned the lump over once in his heavy gloves. Then, seeing that little could be learned about it by casual scrutiny, and being wary of holding it for too long, he put it down on the chart table.

"Let's hear where you got this, Thorne," he said.

Thorne shrugged sullenly. "It was--like a meteor," he answered. "A few watches ago, when you and Helpern were scouting the other side of this Asteroid, I saw a very bright speck maybe half a mile off, in space. It didn't show much relative motion, since it was moving around the sun in about the same direction as the Asteroids do. Using my shoulder-jet, I flashed out and got the thing. That's all."

Lisky's gaze was directed at Thorne's open shirt, where his hairy chest showed. Splinters of worry jabbed deeper into Lisky. He remembered being cautioned about the very slight chance that ancient infections might still linger in the regular ruins and relics out here. The lump seemed of a different class. Still, the hint herein contained blended unpleasantly with the fact of his not feeling so good, lately. At last he commented with dry cruelty and sarcasm:

"Thorne, you got a rash right over where you've been carrying this thing, inside your jacket. I wonder why?"

Thorne's expression of scare deepened. "You're foolish!" he snapped, as if emphasis and fury could rub out a fact. "A few pimples! Give me back my property!"

Lisky smirked. "Now you're telling yourself stories," he said.

Momentarily, Thorne seemed to stare at nothing. And almost musing, he made a remark which appeared irrelevant, though it was part of his harassed thinking:

"The meteorite was more green and blue before. But now it's turning brown . . ."

Lisky saw Helpern rubbing an elbow. And had the back of his own neck started to burn more? Puzzlement, mystery, avarice, and dread formed a muddled murk in his brain. Under other circumstances he would have put the enigmatic lump out of the way of giving or receiving harm, until better minds could tell him what it was. But now there was an urgency, like smelling smoke in a house at night. You had to try to know at once what you were up against.

"Maybe we should get rid of the thing, Tom," Helpern said.

"No!" Thorne cried. "That's nonsense!"

"Get some chemotherapeutic shots in your blood, you two," Lisky snapped irritably. "For luck. Then go finish fixing the motors. Or go to sleep. Just don't bother me . . ."

Lisky gave himself a shot, though he felt no assurance that it would work against some alien infection--if truly such a catastrophe was his. Then he donned rubber gloves from the medical supplies, and took the glinting object to the lab-cubby used for testing ore-samples, and shut the door.

His first test--for radioactivity--showed nothing unusual. Then he risked his nose, thinking that

smell might have caused Snowdrop's wild reaction. Maybe there was a slight muskiness--as if some miasmic vapor were seeping from the spongy, glassy material.

Then, trying hard to tempt fate no further than necessary, Lisky donned a surgical mask that he had brought along.

Inspection with his unaided eyes still showed him little. But now he had another idea, as he heard another of poor Snowdrop's graveyard howls from the motor pit: the ears of dogs could detect sounds of higher, thinner pitch than those of humans. Well--there was a way to bring such sounds down a few octaves, so that he could hear them. Sonic radar was regulation equipment for those who were probing for the position and formation of buried ore deposits. He had such a device; and part of it was an apparatus to make high-frequency sound-echoes audible.

Now he rigged it quickly, and pressed its tiny microphone against the glittering meteorite.

He was on the right track! For he heard what Snowdrop's delicate ears must have picked up. It was like a distant tumult--like a flock of gulls, a mile away over water, yammering and screeching. And there was a backdrop as of far-off surf. The sounds had a protest in them--an ancientness and a sadness, maybe. Or so he thought in his first chilly impression. These were like death-cries.

The back of Lisky's neck burned ominously more than before. He fought down the impulse to rub the welt that was forming there. A sickness was in his stomach. But in another way, his mind spun. He was out of his depth. His thick brows scowled, and he cursed. He was no scientist! What did he know?

Under chemical test, a tiny splinter from the lump proved to be silicate. Like plain quartz--nothing more. That again could be disappointing to a character

like Tom Lisky. Yet it deepened an enigma.

The best instrument to use turned out to be the microscope. With strong light burning under the translucent spheroid, Lisky peered into the eyepiece, focussing for various depths.

His eyes adjusted, and his mind slaved to interpret what he saw. The internal structure of the lump was soon plain. It was like a clincker or a sponge. In the glassy stuff, thousands of bubble-cavities of various sizes were packed close together. This queer meteorite had no doubt been formed naturally in some cosmic furnace.

Like one crystal-walled chamber behind another, and so on in long sequence, those bubble-cavities blurred away into the depths, their lines lost partly in the faint tinting of blue and green, which must show a taint of iron coloring in the otherwise clear substance.

Much of the rest was a little like peering at small things in stagnant water through a microscope, or like motion-picture fantasies in bright, shifting hues that Lisky used to see as a kid. Through the medium of the magnifying lenses, there was even an illusion of descent into those regions--those tiny caverns grown huge, where physical laws remained the same, but where smallness imposed a difference of effect.

Those bubble-cavities were not empty. Sealed in them--from the original steam of violent creation--there was water, not lying flat as in a pond, but formed into clinging dewdrops. Magnified, they were great ovoids, bearing in their limpid clearness inverted images of things beyond them. Here, in these minute caves, there were almost landscapes--slopes were like hillsides, tufted with shaggy green, over an underlayer of almost transparent gelatin in slow, surging motion that made the green tufts tremble. That quivery stuff was

everywhere; the deeper cavities were full of it. Deeper still, the view was cut off.

Tom Lisky snorted like an angry animal. Some investigators had long ago claimed to have found traces of simple, anerobic life in the crevices of certain meteorites. But whether this was true or not, such cosmic wreckage was still mainly dead stone and iron.

Yet within this glassy lump from space there was green color, as in plants. There was movement. Protoplasm, the jelly of life, too was recognizable. Besides, only what lived could die. In these cavities a sere brown was intruding, shrivelling the shaggy cilia that writhed as if in pain. In some caverns there was more of this brown of death than in others; but it was everywhere, as if it were slowly engulfing a multitude.

Struggling to understand what he saw, Lisky noted that the bubble-cavities were joined; the silica between each and its neighbors was eaten through as if by an organic acid, making little connecting channels through which ran fine threads of gelatin, as if the whole of the latter formed a unified mass. Some channels even penetrated the surface of the spheroid. Their exits were sealed with mineral, which somehow reminded Lisky of what he had read about how the shells of mollusks were formed--deposited from solutions secreted by their skin.

Beyond the obvious, Lisky was aware that he did not really know what he looked on, except that it was utterly bizarre and new to human experience. How valuable did that make it? . . . Maybe it was true that Tom Lisky had a certain keenness for natural things. Still, he could only guess at a thousand questions, and the guesses and thoughts were like varicolored paints that at first only boiled in chaos. He still heard the eerie crying tumult brought within range

of his ears by the sound-probe, and that was part of the same . . .

He thought of the body of a man--one individual, and yet a countless multitude of joined cells. He felt the burning on his neck and the sickness in him, as if he were under attack by defensive and organized skills and planning.

Perhaps his thinking went beyond reasonable bounds; still he wondered if he looked on primitive, unknowing life, here, or if it was something much more. To the civilizations of humans and of the beings that had peopled the Asteroid Planet there was much equivalent detail--machines, buildings, instruments. But how could it be the same inside a tiny sphere such as this, in spite of the evidence of order--of countless tunnels drilled, even? How, for example, could machines be made on such a completely tiny scale? Metals became relatively far too hard, for one thing. So, of course, it hadn't been done.

A science would have to be different, utterly. Maybe there was a clue. Lisky had read that on Mars there were cactiform growths which seemed to have a science of their own, developed inside the limitations and advantages of plants. They could not use metal or fire. They worked with life. The defending venom in their sharp spines was not always of the same kind. They could change or improve it, as if their own tissues were intelligence-controlled laboratories. From their own substance they created new allergies, viruses, germs, even--to protect themselves from enemies. Was it the same, here? Maybe partly. Lisky did not mean, even to himself, that he had run into another culture on the same order as that obscure modern Martian one, which had succeeded the vaguely human one of the far planet. He was simply far beyond his depth, and groping.

In this meteorite only the fundamentals of life seemed the same

as on Earth--protoplasm, and the need for oxygen, water, warmth, and light.

Again Tom Lisky heard Snowdrop howl, and his own primitive nerves understood the dog's reaction. Against the unnamed, with which his experience had so little that was comparable, bristling wariness was coldly inevitable.

Now there was a pounding on the door of the lab-cubby, and Helpern's voice yelling: "Open up, Tom! Come out and look at the floor by the lockers . . ."

Lisky let them in.

"Well--what is the thing?" Thorne asked him shakily.

Lisky nodded toward the microscope and sound-probe. "Look and listen for yourselves," he growled. "It's almost a sphere. It had a planetary orbit around the sun. Its freak internal structure is still as common as a piece of clincker. It doesn't need gravity to hold down an atmosphere. Because air and water are sealed up inside it. Being glassy, light can get in. And since it's full of air-cells, it should be good at holding the heat of sunshine. And there's life in it, even. Okay--it's just five inches in diameter--but what would you call it?"

Lisky's hide tingled. He left his companions huddled over the microscope, and went out by the lockers. He found the little spot on the deck--fuzzy, faintly green, like mold. After a nervous minute of scrutiny, he poured concentrated disinfectant on it.

Doing this did not end the cold tension in his nerves; nor did the injection of more chemotherapeutic solutions into his bloodstream or the application of lotion to the raised, fuzz-covered welt which had now spread down his back.

He returned to the tiny lab. Helpern's eyes, meeting his, were not gimlet-points now! they were haggard and confused. From what he now said, it was clear that his judgments relating to the meteorite

were parallel to what Lisky's had been:

"Any animal can fight back, can't it, Tom? Without being smart. Even snakes and ordinary bushes have poison. Still, it's like germ-war against us--because Thorne took the thing out of space. Invisibly, something microscopic must have come out of a little hole in the meteorite, to float in the air."

"That's easy to figure," Lisky snapped, his eyes on the welt around Helpern's elbow.

"We've got to destroy the thing, of course," Helpern went on shakily. "But that's not enough, is it, Tom? Because we're sick already. We're gonna die out here. I wouldn't mind so much, if it was in a more regular way . . . Damn, you, Thorne!"

"Damn you yourself, Helpern!" Thorne snapped in return. "When we really find something at last, you turn ninny! That meteor is mine, anyway! I'm taking it to Ceres City. It's a freak never seen before! Scientists'll want to study it! Lord only knows what it's worth!"

Thorne's voice was hoarse with emotion. An ugly red patch had spread up from his chest to his chin. There was terror in his face, too. But it couldn't rout cupidity in him as it had in Helpern. It was still almost comically as if the enigma that he'd plucked out of the void was some great fascinating gem that had addled his head and put a curse on him.

Both of these men were in an hysterical state, though with opposite viewpoints.

Suddenly Helpern lunged for the banefully gleaming spheroid, bent on doing it harm. Thorne's instant response was to grab an ore-sample, and bring it down with a thud on Helpern's skull.

Tom Lisky became the third party of swift action. He dealt Thorne one swift blow to the jaw, his fist backed up by all the power of his own disturbed emotions. Thorne's

body hurtled backward, bounced off the wall, and then, in the tiny gravity, sank to the floor like a settling wisp of cigarette smoke.

The familiar, almost crackling, almost dry silence of the void closed in on Lisky. The mournful whines from the motor-pit--indications of Snowdrop's contact with the unknowns and half-seens of the universe--only made the lonely effect deeper.

Lisky glowered over his fallen companions. "Peace, you guys," he muttered, still with a flash of ego. "Don't make me more trouble."

The glinting meteorite seemed to eye him malevolently. Yet it really would have been something if the cold pucker in his flesh could have overcome completely the thought of treasure in Tom Lisky. The thing was only silicates. But value didn't refer only to chemical substance. Why, even diamonds were nothing but crystalline carbon... Nevertheless, the destructive impulse was now mighty in him. It promised to answer dread and fury... Maybe he was dying. And he could have revenge.

Lisky was jabbing needles into Helpern and Thorne. To the anti-allergics and the germ-destroying solutions, he added a sedative. Let the fools sleep. Then, with angry vigor, he applied lotions.

Meanwhile, his mind rambled home, to his folks, the woods, his kid brother, and Hilda. Hilda was beautiful. She meant to come to the Asteroid Belt when there was a place for her... But the void surrounded him. He wondered if such thinking could mean much to him, anymore.

He lifted the hatch of the motor-pit. Snowdrop bounded out, possessed of new devils of sound and excitement. Lisky shook his little dog to silence, and examined his short hair and the skin underneath. He couldn't be sure. But there was a dustiness over Snowdrop's smooth coat. He remained quiet as Lisky used the needle.

Tom Lisky stood up. Now he wore a leer of grim decision. "It'll only take a second, Snowdrop," he growled.

He went to the lab. Under his touch the inside of the small testing-furnace blazed with the incandescence of a dozen electric arcs. In his gloved hand the meteorite was poised. In another instant it would be hissing and crackling and melting.

But the finality of the now so easy act he contemplated sharpened in his mind the truths that Lisky knew. In all things except in its ridiculous deficiency of size, the lump that he held in his hand was a planet! And perhaps the question of size was not even a legitimate part of the definition.

Aside, Lisky wondered if this fantastically small world had been formed in the terrific flash of atomic fire, when the Asteroid Planet blew up fifty million years ago. Only fifty million? Or was it even more likely that the tiny sphere was a sister of the Earth itself, born with the other planets of the solar system four or five billion years back?

Tom Lisky was suddenly aware that in his hand he held ages of time and development--the birth of life in a world--and the slow, passing eras vaguely comparable to those of terrestrial geology and biology. The climb of history. A moment of sentiment and questioning was forced on Lisky's hard soul. Was there conscious thought, planning, civilization, here? Or just insensate life?

Could separate minds exist here, where the scale was so small, unless the combined cells harbored just one mind? Somewhere Lisky had heard that the structure of matter itself was too coarse to compose thinking brains much smaller than the normal brain. But did all this make any difference? Wasn't there more thought, plan, hidden intellect, order, civilization among the countless cooperating cells in the body



of an animal or a man than in anything men had conceived of, among themselves? Even yet, humans were awed and far from understanding of such complex depths.

Lisky's skin still burned with disease. Otherwise, the situation was fantastic beyond anything he had ever heard of! For he felt sheepishly, furiously, like a sick Atlas, holding a lesser Earth in his fingers, while in his mind was the power of choice between its survival or its destruction; between all the ages of its past being made meaningless, or being allowed to go on and on!

Tom Lisky's ugly brows crinkled almost ludicrously, as the weight of such staggering responsibility dug into him. There was a humbleness, too--a fear of doing the wrong thing. And more humbleness for being a transient human with the power of a demigod over something potentially almost eternal. His lower lip curled sadly. His tough soul was stymied. Dammit--didn't he even have the right to fight back against something that was trying to kill him, his companions, and his pooch?

He stood there for a full minute, his forehead and scarred cheek warped by painful and furious thought and indecision. Whether he lived or died he held in his hand not only the key to possible wealth but to fame as well--as a member of the group who had discovered the strangest planet on record. Dared he throw such a chance away? Scientists could be studying this tiny world for centuries to come! The idea appealed to the not-small vanity of Tom Lisky. As for financial proceeds, Thorne would share all right!

This was the moment for his perspective to shift--for Lisky to fight back against the almost superstitious dread that the sudden shock of eeriness could cause in a man.

He looked at his pooch whom he had shaken to silence, and who now

crouched, cowed and forlorn and reproachful, in a corner.

"Hell--perk up, Snowdrop!" Lisky stated. "We were dopes! It's like Thorne says--though he was scared too much, too. Lots of men have risked their necks to get something big. We should put our Great Discovery outside for a while; disinfect the interior of the ship; rig a sealable box to transport the thing in, so it can't infect us again when we're ready to start for Ceres City; take as good care of our sickness as we can . . ."

With fresh dreams of wealth and glory singing in his rapacious mind, and with a new decision made, Lisky was galvanized into instant action. He donned his space armor quickly. He could have left Snowdrop in the ship, but the poor pooch had been cooped up long enough. Long ago it had ceased to be difficult to stuff the pup into his small vacuum covering.

The strange meteorite--The Planet--was in Lisky's hand. Man and dog passed through the airlock. Ahead of them, on the Asteroid on which they were grounded, was a little plain--part of the surface of the old world that had been a rival of ancient Mars. The ground was lifeless dusty soil to which the stumps of eon-old vegetation still clung, preserved by space. A short distance away was a heap of stone and metal--a ruined building of odd charm. The rays of the small, naked sun were dazzling.

Lisky's eyes searched for a hiding place for the glittering chunk of mystery and wonder in his gantletted fingers. Concealing it was best, in case Helpern and Thorne became unreasonable again. Looking at the thing, he wondered if the brown color had encroached further on its blues and greens. It was easy to guess why there was creeping death inside this tiny world. Lack of sunshine. Sunshine was vital, especially to life with any of the qualities of Earthly planets.

Lisky had really known, of course. But now the knowledge came to the fore. He saw the poison or disease which must have come from this little freak of the solar system more in the same light as a trapped snake's use of its fangs, or a captive bird's pecking at a small boy's finger.

All this hit Lisky in a sentimental spot, and formed a further bridge between the feelings of his earliest years and the events of the hour that had just passed: the wild chirping heard through his instruments--a multitude crying. The bubble-cavities he had seen, full of living gelatin; the green cilia waving; the vistas that were like landscapes. The illusion of descent into that weirdly beautiful environment . . .

So maybe Tom Lisky's mood became a bit maudlin. Into it entered some of the essence of country urchin and pup-dog exploring a field. His chain of thought went much further--to a scientists' lab somewhere, and to a picture of The Planet now in his hand always under microscopes, always in the power of giants. Maybe it would be good for the life that was here. Yet it was repellent, too, to a principle of the wilds that Lisky had learned as a brat.

There was still more to what was brewing inside Lisky's head: ego, vanity, perversity, recklessness--all these things doubtless were at least minor ingredients.

He was Tom Lisky, the tough character with the instincts of an antique pirate, who was among the Asteroids for what he could get out of them. But he was more than that. Perhaps a less vigorous man wouldn't have done what he now contemplated. Maybe he was even dying. Yet that can be a humbling thought.

First he looked sheepish. Then he chuckled richly.

"We were wrong again, Snowdrop," he said. "Just wait here."

His shoulder-jet flamed blue, and he arced far up off the Aster-

oid. A few miles away from it, while he hurtled in the line of the Belt's orbital motion, Lisky made like a baseball pitcher.

Scientists would have shrieked had they known, bemoaning their loss and this utter stupidity. Thus Tom Lisky threw away both money and a reputation as a co-discoverer. Nonetheless, he whom it was perhaps not safe to trust one's valuables with had his Big Moment. When he turned around and braked his speed with his jet, the miniature five-inch planet was quickly lost to his backward glance. The toy world was back in a huge orbit around the sun.

Lisky laughed, as if in defiance of the scientists--as if they were fumbling, soulless dopes. And what did he care that Thorne would squawk like hell, and that he might even have to give him his own share of this trip's haul of ore and relics to restore a semblance of peace?

In the best of Tom Lisky's blood itself there was a swagger. His self-satisfied grin was so smug that it was comic. For a murky wish for some super-adventure, seldom thought of as more than a wild, substanceless dream, had been fulfilled for him. How many men had ever been that lucky?

Who, except Thorne and himself, had ever held a whole world, and a whole history, in his hand? And who was it who, granted such power, had done the right thing? Where had any one man been so deeply important? Lisky's pride was almost ludicrous.

Maybe the skin of his shoulders and neck were burning less, now. But here Lisky placed no trust in the thought that this meant the calling off of an attack--if an infection ever could be recalled. Life, in most of its forms, was too fierce for gratitude. Lisky had much more faith in the man-made drugs he had used. Still, he was not bitter.

He jettied back to the Asteroid, landing near his dog. "Yep, I was

sort of like Atlas, wasn't I, Snowdrop?" he bragged. "It was more than luck that let Thorne find The Planet at all. People who think that they will ever locate it again, just don't know how big space is. But we do, don't we?"

Snowdrop regarded Lisky with his head cocked to one side, asking for a romp and another exploration of the plundered ruin which stood near. A spacesuit and a bizarre environment didn't change basic canine traits. Doubtless Snowdrop was already forgetting recent unparalleled events.

But knowing this didn't dampen Lisky's feeling of companionship, or the memory of other moments long ago, when he'd had other pooches. Wandering in the woods and in the marsh; finding his first wild-duck's nest. Sometimes he'd been cruel. But he'd turned a mud-hen loose once, after he'd healed its injured wing. Freedom was part of Nature, wasn't it? Important.

Lisky was only dimly aware just then of his folks, the girl he loved, and the probable mighty future of mankind in regions beyond the Earth, which he was helping to build. Just now his mind and his deep pleasure were mostly elsewhere.

First he lectured a little--more for fun than seriously:

"Never be destructive, Snowdrop. You'll regret it. For instance, about these ruins and junk among

the Asteroids. We've been as thoughtless as rats. We should be ashamed . . ."

Lisky laughed. His gaze wandered toward where a jewel-like little sphere had vanished.

"You're quite a mutt, Snowdrop," Lisky rambled on. "You caught Thorne with the goods. You sniffed a world out of his jacket."

Snowdrop's ears had pricked up. He listened attentively, and seemed to understand everything.

The first tiny splinter of frosty regret for what he had done seemed to add to Lisky's whimsical and contemplative enjoyment, rather than the opposite.

"What should we have called it, Snowdrop?" Lisky joshed musingly. "Thorneia, Snowdropia, or what?"

Raw space was around them, silent and unbounded. But it was just the bigger side of Nature. For man and dog it was like vaster forests and hills to ramble over. The situation was as old as the first caveboy who had found a wolflike cub.

Snowdrop kept looking at Lisky eagerly, and it seemed to the man that they shared the deepest and most fragile secrets of the Universe.

"Your next space armor will have a hinged tailpiece, Snowdrop," Lisky stated.

Tom Lisky was a strange guy. Or maybe not so strange.

TALES OF SCIENTIFICTION ---

# ASTRO adventures

