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# DOMAIN OF ZERO

By

John Russell Fearn

writing under the pseudonym

Thornton Ayre

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*Spacemen gave tiny, far-flung Callisto a wide berth. For it was the domain of the shrunken, ice-skinned brain who called himself "Zero."*

Clark Mitchell stirred uneasily in his bunk. His space-trained mind and body could detect a change in the direction of the private space flyer; there was a distinct leftward pull, the drag of an unaccountable gravity field.

Sitting up abruptly he switched on the safety light. Reaching across he shook the white shoulder of the girl fast asleep in the neighboring bunk. She uncoiled drowsily amid the sheets, blinked at him from her dark eyes.

“Wassamarra?” she slurred, yawning.

“That’s what I’m wondering,” he said anxiously. “Plenty’s the matter by the feel of things.”

He hopped into slippers and threw on a dressing gown, stumbled over to the port window and shook the tousled hair from his eyes. In an instant all sleep was dashed from his mind.

“Suffering cats!” he yelled. “We’re headed toward Callisto! What in the name of—” He twirled round swiftly, jerked a thumb to his wife as she stretched languidly.

“Come on, Nan, you’d better come with me. You’ve more influence over your old man than I have. He must have gotten tight again, or something. This is what comes of leaving a souse at the controls!”

Clark stalked savagely from the bed-cabin and into the adjoining control room. In the doorway he stopped, staring blankly. Jathan Henshaw, millionaire *magnite* manufacturer, father of Nan, was slumped in the control chair, half asleep, his protruding midriff rising and falling steadily, double chin on his chest. On the bench close beside him a half emptied bottle of *teticol* stimulant stood in significant isolation.

Clark’s jaw set. Muttering under his breath he leaned over the sleeping man and slammed the controls into position. It was useless now to try and drag away from Callisto; the vessel was too close. Only thing was to land there and then make a fresh start. Another hour would finish it. . . .

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“Why, father!” Nan cried, coming in, silk gown moulding her shapely young form. “What’s the matter?” She shook him gently with a slender hand.

“Canned—naturally!” Clark said impatiently, and the girl glanced at him indignantly.

“Oh, Clark, how can you say that! You know he has to take this stimulant to keep his heart in order. Otherwise—”

“Bunk!” Clark snorted. “I don’t forget the way he filled up with alcohol when we were on Titan. You remember, when he tried to match his voice up with those bass singing flowers? Boy, was he plastered!” he whistled reminiscently.

“Who’s plastered?” demanded Henshaw suddenly, jerking up and flattening hair he didn’t possess. “Whatja mean, Clark? Or is it a fight you want?” he finished, bunching flabby fists.

Clark turned deliberately. “That’s a sure sign you’ve been tipping; you’d never want to fight otherwise.” He drew a deep breath, then asked sharply, “How’d the ship come to get off the course for Saturn? We were heading back to Titan to make a study of Piano Key Range, and now this has to happen. What did you do?”

“You’ve got me there,” Henshaw muttered. He closed one eye and meditated; then he said, “I guess it must have been Jupiter’s gravity field that did it. It sort of swung the ship round

and—hup! pardon me—I found Callisto coming toward me. Then—then I do believe I fainted,” he finished with dignity, licking his lips.

Clark sniffed. “Fainted! O.K., I get it. You mean you got so tight you didn’t know what you were doing, forgot to put the robot controls in action and then passed out. Well, we’ll be delayed in getting to Titan, that’s all. Darned good job I woke up or we might have crashed into Callisto. . . .” He frowned through the main window. “Pity it has to be Callisto,” he murmured. “I don’t know as much about it as I’d like. The other trading moons are all right, but Callisto’s a bit of an outpost well over a million miles from Jupiter. Frozen world, by night anyhow. Least albedo of all the moons.”

Henshaw got unsteadily to his feet. “S-sorry, Clark,” he apologized, laying a hand on his shoulder. “I guess I do sort of mix things up, don’t I? But I never”—he strangled an incipient belch—“never did know how to control one of these things.” He looked across at the stimulant, picked it up reverently. “My heart,” he explained anxiously. “I—I think I’ll just lie down.”

Clark nodded bitterly and said nothing, watched Henshaw unsteadily depart. Then he turned as the girl took his arm. Her face was serious in its soft mantle of dark hair.

“Honest, Clark, I don’t think he meant any harm,” she said anxiously. “He’s—he’s weak, you know.”

Clark grinned slowly. “Weak! Weak enough to build up a fortune from *magnite* explosive. And that heart business is a lot of applesauce, too. . . . Still, I guess you wouldn’t be anything of a daughter if you didn’t back him up,” he sighed. “After all, but for his generosity a year ago I would never have been rescued from Titan, or found those *vilictus* deposits that provided the fortune to make this trip possible.”

Pausing, he glanced through the window again.

“You’d better get dressed, Nan, then you can take the controls while I scramble into some duds. We’ll land in about an hour.”

“Right!” She moved lithely to the inter-door, paused. “Shall I wake dad?”

“No need. We’ll only stop long enough to level out, then we’ll push away against the gravity field and head for Titan. We can’t straighten out from this position. Too much momentum. . . .”

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The passing of the hour brought the 3200 mile globe of Callisto to a point where it filled all heaven—a curious outpost of a world, a million miles further out from frozen Jupiter than the other satellites of Io, Europa and Ganymede. Possessing the lowest albedo of all, a density that bespoke the possible presence of hydrogen, and maybe oxygen in scarcer quantities, the moon was rarely visited save in an emergency. Nobody knew much about it: those who did pronounced it pretty much like Earth’s Arctic Circle, save that the Arctic Circle is warm and cozy by comparison.

“I don’t like this a bit,” Clark muttered, staring fixedly ahead. “We’re moving toward the dark side of the moon as misfortune has it. Makes it difficult to see; the other moons and Jupiter don’t give such a vast amount of light at this distance.”

Nan strained her neck over his shoulder. “Looks like mountains to me,” she commented. Then suddenly, “But I thought Callisto revolved in relation to the Sun? What do you mean by dark side?”

“Sorry—I meant night side. Callisto does revolve in the solar sense, of course—about once a fortnight. Always turns the same face to Jove, though.”

Clark took hold of the controls firmly and watched earnestly as the vessel began to drop, shooting downward toward a dark mass of mountain range and valley. Ridges of bluey-white rose up at frightening speed. The light of Jove and the moons vanished as the ship hurtled under the overhanging shadow of the vast range.

“Look out!” Nan yelled suddenly, pointing. “Look! That cliff—!”

Clark saw it a second later—a titanic wall, a diagonal extension of the mountain range spread straight across the flier’s path, towering to an incredible height. Savagely he blasted the rocket tubes, ripped the vessel round in a circle, dipped—helplessly plunged and tore through a huge mass of apparent powdered ice and snow.

In seconds it was all over. The ship came to rest at a weird angle, surrounded by piled bluey whitenesses that had crept half way up the observation windows. Through what clear space there was was a vision of that enormous cliff—a long icy slope—and far overhead, the ebony star strewn sky. Down here, Jupiter and the moons were completely hidden.

“Correct me if I’m wrong,” Nan murmured, straightening up, “but I think we’ve arrived.”

“But only for a moment,” Clark answered. “This is where we leave. The gravity pull will be squared against us now. The underjets will see to the rest.”

Confidently he released the blast switches, then instantly sprang them back into non-contact as a vicious aura of flame zipped around the ship from end to end. White sheets of fire stabbed savagely outside the windows, momentarily illuminating the drear, wild landscape.

“What in—?” Clark stopped in bewilderment, staring at the girl. “Say, I nearly incinerated the ship!” He swung round and depressed the switch on the external registers. “What sort of an atmosphere have we got in this dump, anyway?”

He stared with the girl at the registers. “Hydrogen—and another gas that looks like argon,” he said, wincing. “Ouch! Then— Let me think. Hydrogen freezes at  $-264^{\circ}$  C, and it would float to upper levels like this. Oxygen, if any, would drop below, freezing at  $-212^{\circ}$  C. This stuff outside must be it. . . .”

He snapped the lever on the sampler and it released a portion of the exterior substance down a chute into a vacuum trap. The two stared through the thick glass partition.

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“Frozen oxygen crystals right enough,” Nan murmured, gazing at the bluish shining powder. “That makes the external temperature somewhere around  $-200^{\circ}$  C. Nitrogen, if any, must also be frozen; it seizes up around the same degree as oxygen, but it’s pretty heavy. Probably at lower levels than this. Can’t be much of it around or it would have doused that fire you nearly started. . . . Argon wouldn’t do much,” she went on, musing. “It’s unsociable stuff—if argon it really is. Looks to me like some other unknown element. Assuming it *is* argon it doesn’t like mingling with other gases. . . .”

“Let’s see now. Frozen oxygen, hydrogen gas, traces of water vapor in the oxygen and also in the blast tubes due to condensation in change from blast-heating in space to sudden cold here. . . . Gosh! This is no spot to try out a flame, Clark. And it isn’t a place for a deck-chair, either. . . .”

Clark sat down and rubbed his tousled black head.

“Right enough. . . . But how the devil do we get out of here, anyway? The jets are the only way.”

The girl shrugged. “I have the idea that we’re just going to park around until the dawn comes, then this stuff may congeal into normal, though thin, atmosphere. If there’s any nitrogen around and it mingles up, we’ll be all right. If not—”

She broke off suddenly. The ship had noticeably jerked a little, slid a slight distance. The curious squeegeeing noise of grinding crystals echoed ominously through the walls.

“Hell, we’re slipping!” Clark gasped hoarsely, leaping up. “Moving down the slope— Look down there!” he finished with a yell, pointing through the window.

Nan caught her breath. She could see now in the starshine that the ship was perilously poised on a long sloping shelf of frozen oxygen, extending downward for perhaps a mile and a half. After that there was a sheer drop into— They knew not what. Probably a chasm.

Clark swung around. “Come on, we’ve got to get out! Get the space suits. Wake up dad—” “No need to wake me,” growled Henshaw, coming in. “Where the heck are we? I thought you were a good pilot, Clark— Whew, have I got a hangover?” he finished, shutting his eyes tight.

Holding his forehead he lurched toward the window, and his very action set the ship sliding again. Frantically Clark pulled him back.

“Look here, Clark, what is this—”

“It’s the balance,” Clark panted. “When we move we set the thing sliding. Your weight, dad, is—”

“And what’s the matter with my weight?” Henshaw demanded fiercely. “Two hundred and forty pounds of muscle—that’s me! Strong as a horse, except for my heart, of course. Now, ever since I was a boy—”

“Cut the history, father, and get into this,” interrupted Nan practically, hurrying forward with an outsize space suit. “We’ve got to get out of this ship—at least until dawn comes.”

Grumbling, Henshaw stepped into the suit, lurched and heaved wildly as Nan fastened it up. He was still protesting as the helmet clamped over his bald head.

“What about a drink first?” he yelled, but instead of a drink he found three ray guns thrust in his arms by Clark.

“Hang onto these, dad,” he ordered quickly. “But don’t use ’em until we come to some nitrogen or something, otherwise we’ll go up like *magnite* powder. And put these rubbers over your boots. The slightest friction sparks may have disastrous results. . . . Nan and I will bring along the food and stuff.”

Henshaw grunted and struggled into the massive goloshes, then he stood waiting as Clark and the girl scrambled into their own suits. Finally, equipment strapped on their backs, Clark led the way with gingery steps to the airlock and began to unscrew it. He snapped a length of cord to his belt, linked it to the girl and her father, then stepped outside.

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The ship slithered a little. The girl came out, ankle deep in the blue crystals. Henshaw was at no pains to be careful. Being naturally big and still slightly intoxicated he visibly staggered, reeled clumsily through the opening outside. . . . That did it!

The rocking action started the sliding ship into a real slither. With a sudden grinding of crystals it commenced moving off down the slope with its port lights brightly gleaming.

“To one side!” Clark screamed—noiselessly, for the helmet transmitters were not linked up. Frantically he dragged the girl and Henshaw aside, just in time to avoid the bulging center of the vessel as it slipped invincibly past them.

Dazed, wide-eyed, they watched it travel to the end of the slope and there, visibly half over the edge of the chasm, it came to a standstill, supported by the congealed oxygen it had plowed before it.

Clark got up and flicked on his communicator. “Gosh, that’s done it!” came his voice. “Even if we wanted, we wouldn’t dare get inside it. It’d be over like a shot.”

“And when the dawn comes the thaw will drop it down instead,” Nan muttered hopelessly. “Suppose we go down and see how far it will have to drop? Come on, dad. . . .

“Damned silly business altogether,” Henshaw grumbled, getting up and stumbling after the two down the slope. “What with a third normal gravity, these ice crystals or whatever they are, and my heart—I’d give my fortune for a drink.”

“You’ve got water tablets in your helmet trap,” Clark grunted, “Why not use ’em?”

“Water!” Henshaw echoed in horror; then he unaccountably said no more. A sudden thought seemed to have struck him. He released his helmet switch and allowed a tabloid to automatically drop into his mouth.

“G-great stuff!” he mumbled, staggering along like a baby elephant. “Solidified *teticol* tablets! I remember now—I put them in my helmet in place of the water tablets; and there’s a spare tin of them on my belt here. Easy enough, since my suit’s the biggest neither of you would get it by mistake. Dammit, no man can live on water!”

Clark sighed. “O.K., dad, you win. I’ll bet you’d find your beloved *teticol* in the middle of outer space. Only please don’t get tight! We need our wits about us. And don’t forget those things have a pretty strong potassium basis. Too many of them will send you to sleep.”

“Yeah; but before I get that far I find—hup!—bliss,” Henshaw observed wisely, and he licked his lips in satisfaction in the cold starlight. . . .

## II

In ten minutes the three had gained the edge of the long slope. Carefully Clark lay down on his face and peered into the abyss below. It was wreathed in either dense mist or frozen air; he couldn't determine which in the faint light. Either way it was a terrific drop, would be certain to smash the space ship when the thaw allowed it to fall.

He stood up again, his serious face faintly visible inside his helmet.

"Only one thing for it," he said worriedly. "At the first signs of sunrise we'll come back here, take a chance on getting inside the ship. Then when the congealed oxygen in front of it breaks up we'll let the ship take a natural chute into the air of this valley. By snapping on the underjets we'll perhaps save ourselves from dropping down. Gravity's pretty weak here so we might manage it. It's the only chance. . . . Down there there will perhaps be nitrogen too. If there isn't— Well, I guess we'll go up like shooting stars. That's all in the cards."

"And in the meantime?" Nan quietly asked.

Clark glanced toward the frowning mass of the cliff along the slope edge. Dimly visible dark holes were distinguishable on its main ledge.

"Might as well try that," he shrugged. "Be able to shelter in one of those caves and watch for sunrise at the same time. It won't be so very long according to my calculations. . . . Come on."

They began to return up the slope. Henshaw was chanting to himself, entirely oblivious to his surroundings, to the possible danger, to the possibility indeed that split seconds lay between life and death when the dawn-thaw came at the rise of the far distant Sun. Far distant, yet sufficient to raise the temperature during the 14-hour day to create an admixture of oxygen, hydrogen and argon—and it was to be hoped, nitrogen. . . .

Overhead, the stars loomed with steely glitter against a backdrop of misty nebulae and cosmic dust. Against this the upper mountain heights, the base of which formed the immense cliff, were etched out like the teeth of a monstrous saw. . . . Cold—merciless cold—is the lot of the Callistian night.

As they gained the long, frozen ledge leading to the caves, Clark turned.

"Better hand out the guns, dad. We never know. If anything attacks us we'll have to chance starting a fire. Not so much water vapor around here as on the ship jets, so it might be O.K. The guns will make their own firing mixture, of course."

"Huh?" Henshaw's huge, bloated figure came to a stop. "Guns? What guns?"

"*What* guns!" Clark yelled. "The ones I gave you on the ship, of course—" He broke off, staring fixedly as Henshaw drearily raised his arms. He was not carrying anything in them.

"I—I dropped them," he hesitated. "When you threw me aside from the ship. I remember they fell in the crystals. You see I—"

"And you were so darned interested in those *teticol* tablets you forgot to pick them up!" Clark groaned. "Lordy, what a sweet mess you've made of things! We can never find them now; they'll be buried in the oxygen. . . . Even if we knew where to look," he wound up unhappily.

"I'm sorry. . . ." Henshaw mumbled. "Darned careless of me, I guess. Don't see why we need them, anyhow," he finished irritably. "No life can be on this hell-fired planet, anyway."

Clark smiled bitterly. “Think not? My conclusions after trips around space are that life can exist anywhere. It exists on Jupiter, with nearly absolute space temperature—same on Io. And it lives in the steamy heat of Titan. So why not here. . . .? But what’s the use?” he growled. “We’ll have to take a chance. Come on.”

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The journey along the ledge resumed. Henshaw, realizing he was in disgrace, clumped at a little distance behind, hanging onto the connecting cord. Another *teticol* tablet relieved his contrition somewhat; he felt his head swim pleasantly. With a supreme effort he fought down a desire to yodel.

Then suddenly Nan stopped, pointing. Clark bumped into her and stared blankly as he followed her finger. A cluster of objects like children’s toy balloons were gathered on the aclivity—perhaps twenty of them in all. One or two of them went floating away into the starry dark, suddenly distending their bodies to accomplish the feat.

“What do you know about that!” Clark whistled, staring at their bulging, bladder-like bodies and scrawny, silly necks. He turned and cried. “Here you are, dad! Life already! Birds!”

“Some place to have an aviary,” Henshaw grunted, stopping. “More of them there. Look.”

Further along the ledge a veritable flock of the things were collected, remarkably like long necked Sun-fish when inflated; little better than a cast-out inner tube when deflated.

“So they fill themselves with hydrogen and float around with it inside them,” Clark mused, watching closely. “No wings at all; they just rise and fall by inflating or deflating. Nice going!”

“But how?” Nan questioned, frowning. “How do they manage to separate the hydrogen from the argon—presuming it is argon?”

He shrugged. “How does a plant break down inorganic compounds? Nobody really knows; nobody can predict the exact nature of chlorophyll in plants. We have the same thing here: some internal chemistry on the part of these birds make them able to separate hydrogen from argon. That shouldn’t be difficult since argon doesn’t mix freely with hydrogen. . . . Since hydrogen is the lighter gas these things float— Well, not entirely on that account,” he amended, thinking. “A balloon only rises because of the heavier air pushing from beneath it. Same thing here, I suppose, and inflation or deflation raises or lowers them.”

“Wonder what they do when the air becomes normal at dawn?” Nan mused.

“Ever hear of a butterfly that lives only for a day?” Clark asked dryly. “Well, it may be something like that. Birds of the night, to be born, spawn and die in the space of the Callistian dark, leaving behind them eggs which will hatch with the dawn. Maybe somewhere right at the top of this range, way up where the warmth will never have much effect, where hydrogen and argon are eternal.”

Nan shook her head. “Poetic, but not very convincing. In that case they would probably retreat up to the heights at dawn and wouldn’t die at all. . . . Or even, dawn may not have any thaw effect at all up here.”

That was too startling a speculation. Clark took the girl’s arm and the climb resumed. In the main the hydrogen birds seemed quite docile; only a few scattered away as the trio clumped through their midst. Then in another ten minutes they had reached the nearest cave and crawled gratefully into it, sat down heavily where they could look out over the cold, relentless frozen slope toward the sunward horizon—when the luminary rose.

Clark snapped off the cord and rolled it up, lowered his pack of provisions and small instruments. Nan did likewise. Henshaw swallowed another tablet and hiccuped solemnly.

“Still sorry about those guns,” he muttered. “Darned stupid of me. You forgive me?”

“Of course, dad—” Nan began cheerfully, then she broke off in bewilderment as a hard, cracked voice cut across hers, distinctly audible in each helmet receiver.

“Implements of destruction! Foolish things! Disseminators of incredible violence, the outcome of bellicose yearnings. . . . So atavistic! So incomprehensible!”

### III

The three jerked erect and stared at each other in the dim starlight.

“Say,” Clark whispered, “who slung those jaw crackers around?” He looked suspiciously at Henshaw. “Was it you, dad?”

Henshaw gulped. “Heaven—hup!—forbid! Elocution and grammar soured on me years ago.”

“You, then?” Clark twisted to Nan, but her head shook. She was too startled to speak.

Clark got anxiously to his feet and switched on his torch. The beam penetrated clean to the back of the cave, framing an object that nearly dropped him to his knees in astonishment.

“Sweet Heaven, what is it?” he gasped helplessly. “Or am I nuts?”

“Or am I drunk?” whispered Henshaw, staring through his one soundly focused eye.

“Cla-Clark, let’s go,” Nan breathed nervously, scrambling up and clutching his arm. “It’s—it’s alive!”

“We are all alive. Life is variform—flux and confluence, yet it continues. In the void, in the air, in the planets—even in the stars.”

“Gosh!” Clark whistled, and still stared in confusion.

The object might have been a man, only it was mummified beyond all comparison with a normal being. Perhaps it had once been Earthly, but now it was all skin and bone—a curious skin, with a dry, leathery aspect. The arms were of matchstick consistency; the legs were crossed and as thin as tapers. The skinny chest heaved up and down spasmodically with the effort of breathing—breathing hydrogen and argon at that!

There was a tiny chin, cracked, scarlike mouth, hooked nose, and beady almost hidden eyes, the entire face swelling out into a preponderant, mighty bald dome on which the skin was stretched as tight as a carnival bladder. An utterly fantastic presence—a brain with a decrepit, featherweight body.

“Animal, vegetable, or mineral?” hazarded Henshaw. “Or have I got ’em at long last?”

Cautiously, Nan clinging to his arm, Clark inched his way forward. Henshaw came up unsteadily behind them.

The object closed its eyes in the glare. Clark lowered the beam to the floor so the reflection alone served to illuminate the Thing.

“Who—who are you?” he ventured.

“I have no name,” the Thing answered. “What is a name? Only an appellation or patronymic by which certain bipeds, and at times quadrupeds, to say nothing of other ramifications of life, are known or distinguished.”

“If only he’d compile a dictionary!” Henshaw said regretfully.

“But how did you get here?” asked Nan, gaining courage. “What are you doing?”

“I have always been here—I shall always be here. Maybe it is centuries since I was born. Maybe only yesterday. Who can say?”

“From the look of you it sure wasn’t yesterday,” Clark observed dryly. “Just what *are* you doing?”

“I brood. Sometimes I think actively—such as now, when I read your minds to ascertain your language, which you all speak so atrociously. . . . But most of the time I brood. And brood.”

"He broods," Clark told the girl wisely, and she nodded and said,

"You're telling me! But what do you brood about?" she asked.

"My body. My existence. Why things are."

"Who doesn't?" Clark sighed; then seriously, "But how do you come to be here breathing pure hydrogen—or is it hydrogen and argon?"

---

"It is not argon; it is unknown to you. It has practically no freezing point. I do not breathe it. I breathe hydrogen. Why should I not breathe hydrogen?"

"Oh, no reason—only it seems kind of funny. You've got an Earthly body, and we breathe oxygen, hydrogen, nitrogen, and an admixture of various other things."

"But you are of Earth—I am of . . . of Callisto, as you call it. Therein lies the difference. I am the last . . . last *man* of Callisto. The end of my race. When I go, intellectual Callistian mankind will have gone too. My body only happens to resemble yours. I have never been to Earth."

"But listen," Nan put in quickly; "doesn't it get rather cold in here?—just brooding? I mean, it's cold enough to freeze oxygen and nitrogen yet you sit here with nothing—er—Well, unclothed!" She coughed demurely.

"Here it is always cold. It never alters. But it is only cold to *you*. The atmosphere does not mingle any higher than the edge of the slope where you left your spatial projectile."

"What!" Clark gasped in alarm. "There's never a thaw around here? Good Lord, then the ship—"

"I am not cold," the decrepit voice interrupted him. "I have not flesh and blood, but a mixture of hydrogen, oxygen and water at a low temperature, kept from absolute solidity by a skin which is proof against external conditions, just as your skins are proof against some cosmic radiations. If you were to touch me with a bare hand the cold would turn your fingers to powder. Only liquid air can compare with my exterior skin."

"I don't get this at all," Clark muttered. "How did you get this way, anyhow?"

"Evolution," said the creature impassively.

"For how long?"

"Maybe untold ages. Once Callisto was hot, when it left the primary. That was the time when our life flourished. We were an active race; then as our world and the primary cooled we used our bodies less and less. Nature, ever adaptable, gave us bodies that were able to deal with the changing conditions, until there came the final species of hydrogen breathers, like me. I am the last. Intelligence of surpassing power—but physical ability nearly gone. Held in place only until I master it."

"You want to die?" Clark demanded.

"One day. I shall stay here and brood until the time when I detach mind from body, limb by limb, organ by organ. That may mean ages; it may be tomorrow."

"Limb by limb!" cried Nan, aghast. "How—how horrible! And painful!"

"Pain is unknown; pain is begotten of ignorance. The arm or the leg does not think for itself. Detach the mind from the limb or organ in question and it ceases to be of interest. In time I shall detach my mind from my body; limb by limb I shall fade away. The hardest task of all will be to leave behind my brain."

"There may be something in it," the girl acknowledged, thinking; then glancing at Clark, "You know! Like the devotees who hold a hand up until it loses all feeling, or the guys who lie on a bed of nails and face the east. . . . Or is it west? Anyway, mind over matter."

There was silence for a moment. The intellectual monstrosity was so coldly logical about everything there could be no room for doubt.

“You evolved rather rapidly to an intelligent state like this?” Clark asked presently.

“Why not? Pressure here is slight. Pressure hinders the circulation of blood, or my own particular fluid, to the brain. Where there is slight gravity and low air pressure the brain is well fed, develops accordingly. Therefore I am intelligent.”

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There was another silence and the three stood looking at each other. They were each thinking the same thing—the possibility of earthly life perhaps ending in such a creature as this—hideous, incredibly intelligent, impartial, brooding alone in a forgotten cave amid sub-zero cold. There was something terrifying about the thought. The pooling of endless ages of knowledge and culture into the brain pan of a gargoyle.

Henshaw broke the silence with a comment. “What d’you say we call him ‘Zero’?” he suggested, grinning. “A step removed from Nero, who fiddled instead of brooding. Huh?”

“Good name, but this is no time for levity,” Clark answered seriously. “Zero here brings home pretty forcibly the pointlessness of earthly struggle—of anybody’s struggle, for that matter. And besides—”

He broke off and twisted round at a sudden noise. He stared unbelievably at the cave entrance, seeing for the first time that it was blocked with stunted, hideous creatures, all mouth and ears, on blocky legs with short bodies. Wicked little eyes glinted in the torchlight. Every head was totally bald.

“Magnified germs, so help me!” Henshaw gasped—and his simile was oddly accurate. The things certainly looked like the real thing from a preventative advertisement.

“The others of my race—de-evolved,” stated Zero placidly. “There must ever be two sectors—worker and intellectual. You have but to study your Earthly ant life to determine that. If the brain deteriorates the body gains control and becomes a weapon of evil; in the opposite direction intelligence gains, and you have such as me.”

“Are they dangerous?” Clark demanded.

“To me, no. To you, very.”

Nan gasped in terror. “Oh, dad, if only you’d brought along those guns—! We might have stood a chance!”

She fell silent, clinging to her father and Clark, backing into the cave between them as the chattering, mouthing monstrosities came slowly forward, obviously intent on only one thing—destruction. Possibly their cave was being invaded; that might explain their presence. Clearly they were beyond reason. . . . Clark was more concerned for the fact that their sharp claw-fingers would rip the space suits. That meant instant, painful death.

Zero took no part in the proceedings. He sat on in impartial silence, still cross-legged, still brooding.

The three backed further into the cave until at last they were brought up sharp against the rear wall.

“Zero, do something!” Clark implored frantically. “Turn these things away! You’ve got the intelligence; we haven’t.”

“Only the fittest may survive in the course of evolution,” Zero droned back. “Extinguishment—victory—survival—procreation— What are they? The evanescent, transitory movements of a race—”

“Oh, nuts!” Clark interrupted, and looked round him desperately. The creatures had stopped for the moment, as though deciding on a scheme of attack. Their vast mouths were still wide open, grinning caverns; their terrible clawed hands were extended.

“I’ll bet they feed on either hydrogen birds or oxygen crystals,” muttered Nan, trying to be brave.

“One rip from those things and we’ll be playing harps,” her father observed. “Guess I need a stimulant. . . .” His helmet clicked faintly as he dropped a *teticol* tablet in his mouth.

“Clark, can’t you—” Nan began shakily; then he cut her short and twirled round, clutched the surprised Henshaw by the shoulder.

“Quick, dad—you said something about an extra supply of those tablets of yours. Where are they?”

“Huh?” The old man stared in the torchlight, then slapped his equipment belt. “Right here. But say, about my heart—”

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“You won’t have a heart to worry about if this doesn’t work,” Clark panted, ripping the container from the belt. “This is a chance—and a mighty slim one. . . .”

He fumbled clumsily with his gloves, snapped the container open. The creatures had begun to advance again now. Nan gave a little cry and squeezed herself behind Clark’s bulky form. Henshaw stood his ground, swaying a little. In his present mood of semi-intoxication he didn’t care much what happened.

“Here goes!” Clark breathed, and scooping up a gloveful of tablets he tossed them unerringly into the mouth of the foremost grinning monstrosity. Then he crouched back, waiting agonizedly.

He hadn’t long to wait. Suddenly the torchlight gloom of the cave was illumined by a blinding, sputtering glare of livid flame. The foremost creature gave one mighty yell, and that was all: the next instant flame spouted from his wide mouth; his whole body transformed in a flash into a blinding mass that sputtered and spun wildly, consuming quantities of oxygen crystal from the floor.

Blinded with the light the three jerked their faces away, flung up protecting hands. Zero still sat on with closed eyes. The remaining creatures twisted wildly and fell over themselves in their frantic efforts to get outside. . . . Smoke, slowly evaporating, took the place of the flame. The former shadowy, torchlit gloom returned.

Carefully, Clark looked round, spots of color swimming before his gaze.

“It worked!” he breathed thankfully. “It actually worked!”

“Yeah; but what happened?” Henshaw demanded. “Those pills cost—hup!—money, and I haven’t so many left. I—”

“It was the quantity of potassium in their basis that I relied upon,” Clark explained, as they started to edge to the cave opening. “I took the chance that those creatures were composed of the same stuff as Zero—oxygen, hydrogen and water vapor. You know what happens when potassium gets mixed up with water?”

“I’m no chemist,” Henshaw growled. “What?”

“It drives the hydrogen out of the water at express speed, so violently and with such a release of heat that the hydrogen, mingling with the oxygen, catches fire. That’s what happened, luckily for us. The germ turned into a glorified Roman candle.”

“How many did you give him?” Nan asked breathlessly.

“Thirty! No wonder he blew up. . . . The whole tin full.”

“We’d better get out of here before they come back,” Henshaw said uneasily; then he glanced back at Zero from the cave opening and waved his arm. “So long, Zero. Hope you make it!”

“Though generations shall pass I will master the final problems of life and death,” came the droning answer—then the three were outside on the ledge again.

## IV

Nan glanced around her at the starlit sky, at the sloping ledge at the end of which, far distant, lay the space ship.

“No sign of dawn yet,” she remarked seriously; “and from what Zero told us it won’t have much effect even when it does come. Not up here, anyhow—”

“Take a look!” Clark interrupted her, and nodded his head along the ledge.

Not five hundred yards away the monstrosities, their first fright overcome, were returning, intent this time on vengeance, beyond doubt.

“Uh-uh!” ejaculated Henshaw hastily, and started off at a blundering run. His own dizziness, the slippery ledge, and the lesser gravity made him a ludicrous figure; almost laughable had the danger not been so great. Finally he fell over and collapsed in the midst of the startled hydrogen birds further down the slope.

“Hey! Come back!” Clark yelled. “I’ve got to fix the rope to your belt. . . .” Clutching Nan, he set off after him.

“We’ll never make it,” Nan panted huskily. “They’re gaining on us. We’d be safe enough on that slope below, but it’s too far to jump. Following this ledge it will take us half an hour at least, and by that time—”

“Look!” Clark yelled, stopping momentarily. “What the devil’s dad doing?”

That was a problem. Instead of scrambling to his feet, Henshaw was rising as though dragged, tightly clutching a quartet of hydrogen birds in his huge gloved hands. In an instant he was off the ledge, floating away over the frozen slope below.

“Dad!” Nan screamed wildly. “Dad, what’s happened?” And her voice thundered in echoes over the dreary reaches.

“Dunno,” Henshaw’s receding voice echoed back. “Clutched their necks. . . . See you later. . . . I hope!” He drifted out of earshot, floating toward the distant space ship.

“I get it!” Clark whistled. “He must have grabbed a neckful of the things as he got up. They were inflating and lifted him right into the air. Actually they’re strangled, but can’t release their hydrogen gas—so they’re a sort of balloon. Weight here doesn’t amount to much. Four of those things could lift dad with ease— It’s an idea,” he went on hurriedly, resuming the scrambling run. “One way of getting off this ledge.”

He cast another look around at the approaching Callistians, then at Henshaw’s far off drifting figure.

“Why the blazes doesn’t he release hold of them one by one?” he said anxiously. “He’d drop, then— Gosh! He’s gone right over the edge of the slope toward the chasm. Disappeared! Come on!”

They redoubled their efforts, only slowed down as they approached the swelling and deflating hydrogen birds. One or two flew off; the others jerked their ridiculous heads round on their scrawny necks.

“Grab!” Clark ordered. “Four!”

He dived simultaneously with the girl as eight of the birds started to inflate. They caught them at the peak of their inhalation. The things struggled wildly as they found it impossible to exhale. . . . Clark found himself lifted from the ledge, carried upwards swiftly with the smooth ease of a balloon, buoyed up by the heavier argon-x, as he mentally named the unknown gas.

Behind him, clutching her own four birds tenaciously, Nan came. Back on the ledge the monstrosities arrived too late, were screaming and cursing threats in an unknown language.

“Hang on!” Clark shouted. “We’ve got to find your dad. Keep hold until I tell you otherwise.”

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The girl’s helmet nodded. The drifting took them over the solitary, blocked space ship to the yawning misty chasm beyond it. Nan closed her eyes at the frightful drop below, then opened them again at a cry from Clark.

“The Sun! Look!”

She stared across the misty wrappings, beheld the absurd far distant disk that was the Sun. Already at the touch of its slight but noticeable warmth the valley mists below began to stir curiously like cotton wool with a draft under it.

“Drop!” Clark ordered. “Let go of your birds one at a time.”

He set the example and she followed suit. Each time they released a bird they fell lower, until by the time they possessed only one bird each they were falling almost sheer into the midst of the stirrings and shiftings of re-forming, congealed atmosphere.

Suddenly the clear, thin clarity of everything changed. They were in semi-gloom, blanketed under clouds. A sloping mass, presumably the foothills of the titanic cliff at the top of which rested the space ship, rose up to meet them.

“Drop!” Clark yelled, and released the last bird. Instantly he and Nan ceased their drifting and fell vertically, slowly owing to the lesser gravity, dropped to the ground and rolled over and over, sat up amidst billowing gusts of wind as the irregularly warmed atmosphere took on balance.

They joined each other, stood up, surveying the towering height of cliff, clouds whirling savagely in the wind drifts at half way up its height.

“Well, we made it,” Clark muttered, “but I don’t know what good it’s done us. Take a look at that cliff—it’s unclimbable without proper tackle, and we haven’t got any. Ice and snow ridges near the top, too—normal congealment.” He stopped and stared round the desolation. Here and there the Sun was starting to peep through the twisting, warming air.

“There’s nitrogen present down here, anyhow,” he said thankfully, regarding the gauge on his belt. “Not that it does us much good with the ship way up there. . . .” He put the instrument back and yelled, “Dad! *Dad!* Can you hear me?”

His amplifier at full strength his shout penetrated deafeningly, echoed from the cliff sides.

“Dad!” he bawled again, and for a long time there was only the echoes of his voice. He prepared to shout again, then stopped abruptly at a distinct sound not very far away.

“Yo-ho liety! Iddio—ladiay! Ooooo-yoohooo . . .”

Nan laughed in sudden relief. “Clark, it’s dad all right. He’s—he’s yodeling!”

“Huh?” Clark gulped. “What the hell for?”

“He’s always wanted to,” she said fondly. “Good old dad!”

They stood waiting, calling at intervals. The yodeling went on, echoing weirdly. The tuggings and puffings of the wind began to diminish, but far up the heights were curious rumblings and bumpings as warmth surged upwards toward that forgotten waste, charging it with the lightnings and thunderings of heat and cold.

Then suddenly old Henshaw appeared, reeling gracefully, a deflated hydrogen bird in his hand like a Christmas turkey.

"Illi-idio!" he warbled, coming up on clumsy feet. "I—hup!—guess I always wanted to—hic—yodel. It's the Swish—the Swiss in me. . . . Gosh, that was hard to say!"

"Thank Heaven you didn't break your neck," Clark panted, seizing him tightly.

"Mebbe you wanted me to, huh?" Henshaw demanded arrogantly. "Jus' so's you could inherit my money through Nan, huh? Nothin'—hup!—doin'! An, why shouldn't I fall easily, and near here? I came down on the same wind drift, didn't I?"

Clark agreed, then said ominously, "Dad, you've been parking away too doggone many of those tablets. You're tight again!"

"Sure—an' I like it!" Henshaw thrust out his chin behind his helmet. "S'what?" he demanded. "Without those *teticol* tablets you'd have been in a pretty—pardon me—fine mess back with those germ men, wouldn't you?"

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He reeled round and stared up at the heights. The air had cleared a lot now. The weak sunshine revealed the basic rock soaring for a thousand feet and more, ending then in sheer snow and ice, pinnacles and buttresses of it joining the oxygen crystal plain. Somewhere up there, on the edge, reposed the space ship.

"Say!" he yelped, wheeling. "How the heck do we get back?"

"I'm not good at riddles!" Clark sat down glumly on the black rock, stared moodily at the idiotic Sun, across the barrenness of the valley floor to the very near horizon.

"Y'mean, we can't—" Henshaw gasped, stumbling back. "But, Clark, we've got to! We can't jush stop here. . . . It—it isn't done."

"Lots of things aren't done, but this one is," Clark retorted. "If you hadn't have floated so far we wouldn't be in this mess. If it comes to that, you're responsible for the whole darn business!"

"Yes. . . ." Henshaw closed a rueful eye and sat down. His face was so utterly woebegone behind the glass that Nan could not help but smile a little. She patted his gloved hand.

"Never mind, dad, we'll find a way to the top somehow," she said brightly. "There's always a way up mountains and cliffs."

"With tackle, yes—not otherwise," Clark told her gloomily. "You needn't fool yourself, Nan. We couldn't possibly scale those ice peaks at the summit. Our only chance is to rig up some kind of signal in the hopes of being seen by the regular Jove line space traffic. Mighty slim hope down here with the mountain range hiding things, but we might make it."

Henshaw twisted his head back and stared up at the snowy height.

"Funny," he muttered. "Funny to think we waited for the thaw and didn't know it never thaws up there. In that case we might have risked getting into the ship. . . . And down here there's the nitrogen we need. . . . Some things are mighty queer. . . ."

Clark's sour look silenced him. He beat his gloves together unconcernedly and started to yodel again. His ringing cries went beating against the cliff side.

"Li-tiddly-oh-te-oh—! Gosh, is that a hot one! Listen, Nan. *Yiddley!*"

"Oh, shut up!" Clark yelled exasperatedly. "Things are bad enough without you bursting our receivers. Lay off!"

Henshaw shrugged, then suddenly his aggrieved expression changed slightly. He looked less stupefied. Swiftly he altered his sound transmitter to maximum output.

"What's the idea?" Clark demanded, watching.

"Ha!" Henshaw wagged a huge finger. "Idea, m'lad. . . . Lishen!" And he burst forth again with a streaming cacophony of most unlovely noises, yodeling that would have struck a

Swiss mountaineer stone dead.

“For Pete’s sake—!” Clark howled imploringly, clapping a hand over his receiver. “What the hell are you trying to do? Deafen us?”

“Nope—jush get ush out o’ this mess. . . .”

Henshaw stood up, yodeled again and again with the most shattering din, sent the thundering cries rolling down the valley . . . then suddenly he twisted round sharply and stared upwards. The constant muttering of the storm-ridden heights had changed to a deeper note—the growling, crumbling thunder of sliding matter.

“Avalanche!” Clark gulped abruptly, jumping up and clutching the startled Nan. “Yes—look!” He pointed upward. Already mighty boulders of frozen snow, oxygen, nitrogen, and other nameless elements were detaching themselves, moving downwards in a vast, overpowering flood.

“It worked!” Henshaw yelled in delight, dancing clumsily. “I knew it—! My yodeling—Come on!”

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Sobered with the intensity of the moment he led the way. As fast as they could go they went blundering away across the stones, toward the steeply overhung level of the cliff itself. Directly underneath it they would probably escape the full force of the downfall.

Not a second too soon they floundered into the welcome shelter. Behind them titanic masses of white banged and powdered and exploded with terrifying power—some were frozen air, bursting apart under the sudden warmth. Others were actual rocks.

“You—you started this, dad,” Clark panted. “Your damned yodeling voice vibrations shifted the upper ice and snow peaks.”

“That’s what I wanted,” Henshaw answered complacently. “I saw it happen somewhere once—Alps, I think. A guy hollered an’ a mountain fell down. Sound waves and that. I figured the ship would fall down too. Won’t be hurt much with snow and lesser gravity to cushion it.”

“He’s right, Clark!” Nan cried breathlessly. “It might work at that. The ship *was* on the edge—”

She broke off and stared anxiously at the curtain of white hailing down outside. Clouds of white foggy dust came drifting into the retreat. . . . When at last the concussions were over they were facing a hill of white with barely room enough to scramble over the top.

Clark began to claw his way through, held down a hand to the girl and her father. Standing knee deep in snow they stared around them, amazed at the quantity of snow and ice that had dislodged.

“There!” screamed Nan suddenly. “Isn’t that it? That black thing poking up?”

She didn’t wait to be answered; she went floundering forward, waist deep in snow, until she gained the black protuberance nearly two hundred yards away. In a moment Henshaw and Clark were at her side.

“It’s it all right,” Clark acknowledged thankfully. “Came down with the snow. Saved it from damage. . . . We’ll soon have this snow away.” He turned quickly to Henshaw. “Nice going, dad! The moment we get this snow clear and into space you can yodel to your heart’s content. . . .”

“I don’t want to yodel,” Henshaw mused, scooping the snow away in his gloves.

“No? What then?”

“All I want is a darned good drink. I’m fed up with these makeshift tablets. . . .”

[The end of *Domain of Zero* by John Russell Fearn (as Thornton Ayre)]