

# TIDAL MOON

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BOB AMHERST shivered a little despite the heated interior of the autobus, but grinned none the less as he made out the frosty towers of Hydropole. He was always glad to return to the polar city, if only for the pleasure of staring up at buildings piled story upon story like those of his native Syracuse on a gray planet some half a billion miles sunward.

Hydropole, south polar city of Jupiter's third major moon, Ganymede, was a chilly town at all seasons with its thirty degree Fahrenheit mean, and its variation of only ten degrees. But it was certainly the only settlement on the satellite that was worthy of the title of city.

Amherst had served four terrestrial years on the watery planet as collector for Cree, Inc., moving from town to town gathering the precious medicinal moss, to take it finally to Hydropole, the rocket port, for transshipment to Earth.

He was one of the hundreds of such collectors for the giant company, each with his own route, each picking his own way from town to town, riding his hipp (the sea-horse of Ganymede, *Hippocampus Catamiti*) through the wild torrents of the afterfloods, past mountains whose locked valleys were apt to spill countless millions of tons of water upon him with no warning save the crash of the bursting mountain walls.

Only in Hydropole was there safety. Situated on the south pole, it escaped the great wash of water which, due to the strong gravitational pull of Jupiter, every three months encircled the tiny moon.

As a result, only in, and for a few miles around Hydropole, was there vegetation. Save for the strange moss, cree, which clung so close to the rocky crevices of the mountain that even the raging tides could not pry it loose, not a living plant broke the great, gray expanse of rock.

So, on Ganymede, all life revolved about the blue moss, cree. Ages back, the Nympos, natives of Ganymede, had carried it deep underground where, piled layer after layer on the solid rock around the doomed villages, it served as earth. There, with seeds garnered from the small area about Hydropole, they grew the small variety of food on which they lived.

Above ground the moss had a deep, blue color. As litmus paper, colored by the Earth lichen, *rocella tinctoria* shows the presence of acid or alkali by its color change, so Ganymedian cree reacted to the ammoniated atmosphere of the planet. The air underground, however, artificially produced, had little ammonia content, and there the moss was red. Indeed, even the mountain cree, after being washed by the hydrogen containing waters of the flood, for a short time showed red.

Up to a short time ago, the gatherers had had only a limited time in which to pick the moss. Red cree lacked the medicinal quality of the blue in which, partly because of its chemical reaction to the ammoniated air and partly due to the latent eggs it harbored, lay the curative power so much in demand on Earth. Now, however, Carl Kent had evolved a formula by which cree picked red might be endowed

with the healing power of the blue. So, in the area around his small trading station in Aquia, red as well as blue cree was gathered.

The autobus turned silently down the wide street of Hydropole. Robot-guided, insulated from noise and cold, it was certainly preferable to traveling by hipp. But hipp travel was unavoidable from here on. The trip to Aquia verged on the wet side of the planet—the side from which burst the mighty floods. So, added to steep, rocky drops, impassable by autobus, were the dank, muddy flats which only the hipp could traverse.

Amherst zipped the parka-like garment closed about his long, muscular body, pulling the sillicellu visor before his rugged features before he stepped from the autobus. The cold was penetrating. Even vacuum suits—misnamed, for they did not work on the principle of the thermos bottle but had the inner layer held from the outer by thin, radium-warmed wires—were scant enough protection.

Turning, he watched the Nymphus unload the autobus. There was something revolting about them as they waddled about on their short legs, jointed only at hip and ankle; their heads, flaring into strange mushroom tops almost hiding their noseless faces; their arms, long and webbed to their bodies.

'Umhurr.' He turned to the queer, throaty croak. It was the Nymphus' version of his name.

'Yes?'

'Go see.' One long, webbed arm pointed in the direction of the rocket port office.

'Oh, thanks.' He walked toward the circular glass dome, under which MacGowan sat looking, for all the world, like some giant god's experiment under a bell jar.

'Hello, Bob. How goes it?' MacGowan's round, smooth-cheeked face was sharp contrast to Amherst's rather angular, wind-beaten features.

'As always. What's new here?'

'Nothing. Except there's a rumor that they've discovered red cree on Io.'

'Io? That's Jupiter's first major moon.'

'Right. And a skin exporting company called Ionian Products has it tied up as tightly as Cree, Inc., has Ganymede.'

'Well, red cree is no good, Mac. There's no curative power in it.'

MacGowan leaned back in his chair.

'You forget,' he answered, 'that since Carl Kent's discovery we pick red cree on Ganymede.'

'Yes. I did forget.' Amherst stretched his long legs before him. 'I haven't been to Aquia since the formula's been in use there.' For a moment his thoughts dwelt on the small domed settlement, on the young girl, Carol Kent, with her pixie face and laughing eyes. 'Say,' he sat up suddenly as the full implication of MacGowan's words penetrated his mind, 'that's bad. Those birds will glut the market!'

'Well, so far it's only a rumor. And Carl Kent is the only one who knows his formula anyway. Still, you'd better tell him when you get to Aquia. I got the dope two months ago.'

'Amherst shook his head.

'That's ironic. In 2083, two months' old news has to be carried by hipp. It's like going back to post medievalism.'

'It is. But you know radio is useless on the flood belt of Ganymede. The atmosphere's too disturbed. It's only at Hydropole that we can get reception.' MacGowan's eyes caught a notation on his desk. 'Oh, I almost forgot. I've got company for you to Aquia.'

'Who?'

'Kirt Scaler.' He spoke into his desk transmitter. 'Ask Mr. Scaler to come in.'

'I don't know what he's here for,' he continued, turning back to Amherst, 'but his papers are in order and I don't think he'll cause you much trouble.'

Yes, Amherst agreed, as Kirt Scaler entered, this man certainly looked as if he could take the hazardous journey to Aquia in his stride. His red-brown eyes, on a level with Amherst's own, had the serene out-flowing look of the hardened adventurer. One saw him gazing long distances, accepting danger, meeting and conquering it. His teeth flashed white against tawny skin, and the steely grip of his hand did not belie the reckless strength of his appearance.

'Business trip?' Amherst asked.

'No, just touring.'

Amherst smiled at the idea of anyone's taking a pleasure trip on Ganymede.

'You've traveled by hipp, I suppose.'

'No. This is the first time I've left earth.'

Strange how mistaken one can be, Amherst reflected. He could have sworn this man had been hardened by such adventure as existed, nowadays, only on the planets.

'In that case,' he smiled, 'you've got something interesting in store for you tomorrow.'

Flood time was coming near. Seasickness and Amity, the two hipps, were restless. Always, at flood time, the instinct to be free rose in them, filling them with a wild yearning to buck the mountainous tide of water, to swim fiercely to the top, there to sport with the large Gamma Rorqual, that ferocious whale-like mammal with the long spiked tooth from which only the hipps, because of their hard, outer shell, were safe.

Even when the flood was not imminent, hipps were not the easiest riding. They walked with a queer, undulating motion: the two feet forward first while the body rested on the tail, then the tail brought to meet the feet. On their twenty-foot long body, the rider had to pick his seat carefully. If he sat too near the head, the animal would not move: too near the tail meant that he would be jarred at every step. A little behind the legs was best. There he could ride with a minimum of jolting.

Night was coming on. Though the men had been out only a few hours, the sky was already darkening. Days were short in Ganymede. Thus far, they had spoken intermittently; the discomforts of travel occupied much of their attention. Scaler, it turned out, was a rather taciturn man, revealing little of his past and nothing of his reasons for touring Ganymede. He rode silently, looking neither right nor left, keeping his eyes fastened on the green-scaled back of Amity, his hipp.

There was, however, not much to look at. If one excepted the scattered stilt houses in the flats, nothing

broke the monotony of mountains, rocks and mudholes. Still, Amherst reflected, stilt houses ought to be interesting to a man from Earth. He remembered the first time he had seen the square boxlike hives made of compressed cree, standing on twenty-foot poles—how he had wondered if, indeed, they could survive the flood. No one had stayed above ground long enough to find out.

Carl Kent, however, with his inquiring mind, had found out how they worked. At the first ten feet of water, the Nympos drew the stilts up through the sides of the house, allowing it to float. But no one, save the Nympos who lived inside one, could say for sure whether it survived the flood, for the water carried it so far from the original starting point that there was no way of checking.

Suddenly a scream broke the air—a raucous, harsh scream, but, unmistakably, a scream of pain. They were rounding down a mountain and, as they covered the next turn, they came upon a hideous struggling mass of flesh. While from a slimy, flat body long tentacles gripped the rock, others clung to the writhing form of a Nympos. Creeping, in the manner of a snake, they encircled his flailing arms, drawing the heavy body with its long center spear greedily toward the native.

Scaler stared horrified, his face paling behind the visor. The animal looked like some grotesque nightmare. Amherst drew his gun and fired. There was a soft hiss, before the thing collapsed, spilling its yellowish blood on the rock.

The Nympos sprang to his feet, chattering wildly, then, rushing to a crevice in the mountain where the cree showed blue, placed a handful of the wet moss on his wounds.

For a moment the tentacles waved feebly; then, falling into the sticky mess which had once been a body, lay still. Only the long spear retained definite shape.

'There,' Amherst said, 'is evolution in a nutshell.'

'It hadn't evolved very far,' Scaler breathed deeply. 'It looked like a jelly fish with a horn.'

'Perhaps it was once jelly fish,' Amherst returned. 'It's hard to tell now. It has metamorphosed too often from its original form. Like the butterfly which goes through successive stages from egg to larva, larva to chrysalis, chrysalis to butterfly, this, starting out as an amoeba-like protoplasm and, like the amoeba, absorbing food at every part of its body, changes form each time it surrounds its prey.'

'You mean it doesn't absorb, it *becomes* what it eats?'

'Exactly. This amoeba attaches itself to a higher form of life and becomes that form, always, however, retaining its original power of *becoming* its next prey. But, here's the strange thing: certain characteristics of its previous meal may remain even after it has adopted another form. This one, for example, was part Gamma Rorqual, as you can see from the spike, part land leet—it had land leet tentacles—and if we hadn't come along, it would have been part Nympos as well.'

'Funny planet,' Scaler remarked.

Slowly, they continued down the mountain, reaching now and then a bleak plateau which wind and water had swept to glassy smoothness. The flying mammals which always heralded the flood swooped overhead.

As they crossed one of the plateaus, above the roar of the wind they heard a loud beating. A mammoth bird, jet black against the mountain, its two sets of wings flapping alternately at a spread of thirty feet, came toward them. Flying the gale, it neared them quickly. For a second, the men sat transfixed; then, wrenching themselves from the coma of fear, drew guns. Seasickness beat her tail frantically, jolting

Amherst's gun from his hand.

'Don't shoot, Scaler,' he yelled, diving after the spinning weapon. 'You'll never kill it.'

Before Amherst could reach his gun, Scaler fired. His shot, far to the right, missed the body. Yet the bird dropped, thrashing, to the ground. Again he fired and, with a scream so shrill it hurt their eardrums, it lay still.

'Whew! That was close,' Amherst said. 'Say, how did you know?'

'Know what?'

'Know enough to break the wing muscle.'

'It's a Blanket Bat,' Scaler answered. 'It doesn't kill, but it draws electrical energy from its prey and leaves it weak to the point of helplessness. That's the only way you can ground them too. There's a similar species on Io.'

'Right.' Amherst looked speculatively at his companion. 'But I was sure a man with no planetary experience would have aimed left, at the heart. That would have been unfortunate. For, as you undoubtedly know inasmuch as you hit it squarely on your second shot, the heart of the Blanket Bat is in the center.'

Scaler shrugged.

'Even on Earth,' he answered, 'those things get around.'

When they reached the bottom of the mountain, it was too dark to go further. Jupiter shone pale and ghostlike in the night sky and far off, a tiny pinprick in the black, was Earth. The wind had risen, so they tethered Seasickness and Amity to a rock and took shelter in the lee of the mountain. A few land leets, disturbed by their presence, dragged themselves slowly from the rock. Amherst, who always preferred fresh food to the concentrates of his kit, caught and cooked them in the ray stove for dinner. The octopus-like animals were good eating, so afterward the two men settled down contentedly for the night.

The next morning, as soon as the sun had risen, they started on their way. Today their travel was over the flats where, every now and then, a stilt house stood high on the bleak landscape. Once in awhile they found a Nymphus lying lazily before one, but they did not stop. In the outlying sections, Nymphus spoke a Ganymedian patois which few Earthmen understood.

As they splashed along, Scaler broke a long silence to ask, 'By the way, Amherst, just what is cree?'

'Cree is the source of the drug *crephine* used in the treatment of all the malignant diseases. It not only deadens pain, but heals.'

'But there's so much of it on Ganymede,' Scaler objected, 'it doesn't seem as if there'd be use for all of it.'

'It takes over a bale of cree to produce one ounce of *crephine*,' Amherst answered, 'And in the past ten years the demand for it has increased enormously. Besides, on most of Ganymede the time for picking is short.'

'You mean on account of the floods? But why *most* of Ganymede then? Why isn't gathering time short on the whole planet?'

'Because,' Amherst started—then, 'I was thinking of Hydropole,' he amended. 'The floods don't cover

that but, of course, there's little cree there. Yes, the time for gathering is short on account of the floods.'

'And on account of the color change after the floods?' Scaler asked slyly.

'Yes, that's true. How did you know?'

'I guess I read it somewhere. By the way,' he asked casually, 'what's the trader at Aquia like?'

'Carl Kent? He's a nice fellow. Lives there with his daughter, Carol.'

'Is that where we stay out the flood?'

'Yes. They're glad enough to see a new face.'

'There's no way of leaving the village during flood time, I suppose.'

'None whatever. You couldn't open a door against the pressure of the water even if you wanted to, which no one does. Once underground, you've got to stay there!'

Scaler hummed to himself a few minutes before he spoke again.

'When does this next flood pass?' he asked finally.

'Let's see.' Amherst shifted his position on Seasickness' back. 'It's due in two days now. You can probably leave Aquia about May twelfth, terrestrial date. By the way,' he faced Scaler squarely, 'how do you expect to get back to Hydropole? You'd never find your way alone.'

'Oh, I figured that out with MacGowan. I'll wait there until you make the trip to Dripwater and Weepy Hills. You always stop at Aquia on your way back, don't you?'

'Yes. But I can't see what you expect to do for two months in the settlement at Aquia.'

'More sightseeing, perhaps,' Scaler smiled.

When night came on, they did not stop. Flood time was too close to waste time in rest. Now, near the wet side of the planet, mudholes occurred frequently; though the hipps braved them valiantly, progress was slow. The wind had increased and, riding against it, they were forced to hold their seats tightly.

After a few hours, they came to a mountain. Knowing the dark, rocky climb would slow them still more, Amherst decided to cut around on the flats. Riding the uncharted ground, half asleep, suddenly he felt a bright light shining on him. In the mountain's shadow, the night was black and the unexpected glare shocked him awake. From the side a huge, black bulk, that blinding light in its center, moved toward him. A grinding sound, as of rocks rubbed one on the other, deadened his ears, above everything, he was conscious of the light.

Scaler, riding nearest the mountain, continued forward, but Seasickness suddenly switched her course, heading straight for the glare. Amherst jerked the guiding rein, but she did not turn. Then, as the beam fell full on him, he felt himself being drawn. Ahead was the light, bright, warm, hypnotizing—at either side was nothing.

He felt his mind sinking, felt his body go lax, lean forward. Then something flew before his eyes. For a second, the light was blocked off, and in that second his strength flowed back. At once, he realized the thing ahead had been drawing his will from him—that if he were ever to get away, he must shield Seasickness' eyes and pull the rein hard. Now the bulk was so close that he could make out a great, yawning hole, inside which a piston-like rod moved up and down.

As he stared, a rock rolled into the hole and, on the descent of the piston, was ground to bits. With a mighty effort, he shut his eyes. Then, raising his visor to the freezing air, he gripped Seasickness' reins in his teeth and, blindfolding her with his hands, pulled with all the strength he had in him. She swerved.

Now—if the thing didn't change direction, they were safe. Otherwise they were sunk. Without looking full into the light, Amherst watched breathing deeply to still the pounding of his heart. Safe! The thing moved steadily forward, unaware that its prey had escaped.

Scaler, outside the hypnotic power of the light, asked what the trouble was.

'We couldn't change direction while the light shone on us,' Amherst told him, 'But that wasn't the strangest thing. That beacon or animal or whatever it was, *ate rocks!* Outside of the Pyramid Builder of Mars, I've never heard of that before.'

'Evidently it wanted to add you to its mineral diet,' Scaler observed.

'And it almost did.' Amherst laughed in relief. 'So it must be the extreme of omnivorous, needing life as well as minerals to keep it going.'

'Just another verse in the saga of evolution.' Scaler shifted his position on Amity's back and closed his eyes for a few minute's rest.

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Two terrestrial days later they sighted the domes of Aquia which, huddled on the Ganymedian waste, resembled the half-buried eggs of some giant bird, left ages back to turn the same slate gray as the rest of the landscape. Faint on each dome were the outlines of a door, sole evidence of human habitation in the clustered mounds. Still, to the two men, stiff and tired after days and nights of riding, the sight of the small, domed village was cheering.

'So this is Aquia,' Scaler sighed. 'Aquia of Ganymede. It sounds almost Biblical.'

From far away came a dull roar. 'Just to make it more so,' Amherst answered, 'here's the flood.'

Bob Amherst looked admiringly at the slim girl in the trading station.

'Is it you, Carol, or is it what you're going to be ten years hence?' he said lightly, his eyes twinkling. Last time he had seen the girl, she had been a gangling child of sixteen or so; now she was a blonde goddess, rounded, appealing, vital. Her golden hair and blue eyes were in sharp contrast to the drabness of the trading station. She seemed to have grown up all at once.

'I hope it's both.' She shut the door against the freezing outside air.

'Why, you're beautiful.' To hide his astonishment, he spoke to her as a child. 'Your hair is combed, and your face is clean, and-'

'And you're too fresh.' Her eyes turned to Scaler.

'Oh, I forgot. This is Mr. Scaler, Carol.'

Scaler's brown eyes swept over her appreciatively.

'Where's your father?' Amherst asked.

Carol's face sobered.

'Father didn't come back last flood time. I'm carrying on.'

Didn't come back! There was no need to say more. Everyone knew what it meant to be caught away from the domed village when the torrents of water came thundering down. It was tough! Carl Kent could be spared least of the traders on Ganymede. And it was a pity that he had to go so soon after his precious formula had been completed. It was too bad for Carol, too. She was all alone now.

They followed her through the underground passage which led from the trading station to her living quarters. Under the domes, so exact in their engineering that they could withstand the terrific pressure of water during the flood, the air was warm. They removed their vacuum suits.

Outside Carol's door which, like all the rest opened onto a central square, Nympus and Earthmen scurried about to make ready for the deluge. Like a huge ant hill, the village teemed with activity. Tanks had to be made ready to store the water from which their oxygen came. The nitrogen mixers had to be checked so that they would be prepared to blend perfectly the two gases and insure the air supply for the duration of the flood.

While Amherst went about his business, looking over the cree, tethering the hipps in their floating cages anchored to the village, seeing that all was ready for the tidal rush, Scaler and Carol sat together in the warm, Earthlike room that Carl Kent had furnished.

'When you said you were carrying on here, the most important trading station on Ganymede, I could hardly believe it.' Scaler's warm, brown eyes rested admiringly on the girl's face.

'I have to. I'm the only one who could. Father was caught in the flood before he had a chance to set up laboratories in the other stations.'

'Was he planning to? I should think it would be dangerous to let too many people learn his secret.'

'Not at all,' Carol answered. 'There's no cree anywhere but Ganymede, and Cree, Inc., covers the entire planet.'

'Oh, I didn't know.' He moved over to sit next to her. 'It's too bad for you to bury yourself here,' he said abruptly. 'You don't belong. You should be living on Earth—seeing, doing and, most important, being seen.'

Carol smiled. She had never visited the small pinprick in the black called Earth, but she had read of it, read of its cities built into the air, its underground highways, its beautiful women. 'Tell me about the World,' she said softly. 'Is it so different from Ganymede?'

'So very different, I don't know where to begin.'

'I've always wanted to see New York.' She looked enviously at Scaler.

Amherst entered the room in time to hear her last words.

'It's nothing but froth, Carol,' he broke in. 'There are many things on Earth we wouldn't want on Ganymede.'

Scaler smiled.

'Gangsters and greed,' he said, 'went out long ago.'

'Gangsters did,' Amherst answered shortly. Suddenly the thought of Scaler's presence during the long



flood period annoyed him. Perhaps, without knowing, he had been looking forward to being alone with Carol. Now, he realized that Scaler, shut in the underground village with nothing to occupy his time, would make that impossible.

At that moment, deep underground as they were, they heard the crash of mountain walls as the flood came pouring down. As always, in the village of the cree-gatherers, it was quiet, almost menacingly quiet, as if everyone stood impassive, waiting to see whether or not this time the domes would hold. For a few hours, until the air tanks were working efficiently, they would have this strange, dead sensation in their heads.

As Amherst had foreseen, Carol and Kirt Scaler spent much time together. Often they walked the narrow tunnels leading to the farms and there stood on the flat-covered expanse, like some tremendous basement, the water valves overhead dripping flood water brought from the surface to the crop below. And sometimes they stood by the nitrogen mixers, deafened by the mighty roar as the artificial air came pouring out.

Indeed, Scaler seemed to have perpetual interest where life at Aquia was concerned. Often Amherst entered a room to hear him questioning Carol about various technicalities. But at other times, he fought clear of anything to do with Ganymede and, instead, talked at length about the world Carol had never seen. At such times, she listened fascinated, a faraway look in her blue eyes as if they saw, through Scaler's, the things he was describing.

As the days passed, Amherst became more and more aware of Scaler's attraction for the girl though, as yet, he was not sure whether it was the man himself who charmed her or the world he came from. Thinking to find out, he waited for one of the few times that he and Carol were alone together. Then, walking over and taking her chin in his hand, he asked, 'Just how much do you know about Kirt Scaler, Carol?'

'Not very much. What difference does it make?'

'It might make a lot. It might be a revival of the old, old stories of the city slicker and the farmer's daughter.'

She jerked away angrily.

'Mind your own business, Bob Amherst.'

He put his arm around her.

'You're my business.'

'Since when.'

Lacking an answer, he pulled her to him and kissed her roughly. She jerked away, flouncing angrily from the room.

He watched her go absentmindedly, not so much concerned with her anger as with trying to decide what it would mean to him if she were indeed serious where Kirt Scaler were concerned.

Since Carl's death, he had felt an increasing sense of responsibility for Carol—and something more too. For Carol, even as a young girl, had aroused in him a more than friendly interest. So the thought of her falling in love and, perhaps, marrying someone else was painful. Besides, the more he saw of Scaler, the more he realized how uncommunicative the man really was. He had not yet given reason for his trip to Aquia other than the obviously ridiculous one of 'touring.'

And surely, attractive as Carol was, tales of her charm had not drawn him almost four hundred million miles through space. Still, aside from Scaler's interest in the life at Aquia, so far Carol seemed his only excuse for coming.

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For the next few days, Carol treated Amherst coolly, never giving him a chance to speak to her alone and continuing to spend much time in Scaler's company. Amherst seldom entered a room but that he saw the golden head in close proximity to the brown, and heard, with a twinge at his heart, the soft note in Scaler's voice.

As the days passed, however, Scaler seemed to become restless. Often he wandered the village alone, not waiting for Carol. Once Amherst found him scanning a terrestrial calendar and figuring on a small pad he carried. Consequently, Amherst's heart lightened a bit, though, as yet, he could not break through Carol's reserve.

Just a day and a half before complete ebb, he was sitting alone in the trading station when the girl entered.

'It's funny,' she said abruptly, 'I can't find the formula. I know it by heart, of course, but the paper is gone.'

'Gone!' Amherst jumped to his feet, recalling, for the first time in weeks, the rumor that red cree had been found on Io.

'Don't get excited, Bob,' she said coldly, seating herself leisurely. 'What would anyone want it for?'

'They've discovered red cree on Io.' Amherst was halfway out the door. What a fool he had been not to tell Carol, especially after he had been told to bring the news to Carl. She hurried to follow him.

Inside the laboratory, he turned to face her.

'It's my fault,' he groaned. 'I should have told you. News of your father's death must have knocked it from my mind. Are you sure it's gone? Nothing seems to have been disturbed.'

'Yes. I kept it here.' She opened a drawer.

'Who has been in this room, Carol? Who, besides yourself, has ever been here?'

'Some Nympus gatherers, when Father was alive.'

'Who else?' Amherst paced the floor impatiently. 'They haven't the intelligence to steal it.' He paused for a moment. 'Did you ever bring Scaler in?' he asked.

'Yes, once. He wanted to see red cree under treatment.'

'Of course he did.' Amherst turned abruptly. 'Stupid of me not to have suspected it. He was undoubtedly sent here by Ionian Products just to get the formula. Touring, indeed! No wonder he recognized the Blanket Bat!'

'What shall we do?' Carol rummaged helplessly through the papers in the drawer.

'Search the village. He can't possibly leave until the water ebbs and that's at least a day and a half away. He must be here somewhere. There's no place else to go.'

They hunted the village for Scaler, but the search was fruitless. It seemed impossible for a man to disappear in the small underground village, and yet five precious hours had gone and they had found no trace of him. It was incredible.

'Bob, what will it mean to Cree, Inc., if Ionian Products exports blue cree to Earth?' Carol asked anxiously after a while.

'Severe competition, a glutted market, shrinkage in sales, eventual bankruptcy, perhaps. You know there's an enormous expenditure required to keep the company going on Ganymede.'

'Then we've got to find Kirt Scaler. Father would—would have hated that!'

'I know.' Amherst stood undecided for a moment. 'There's only one thing left for us to do though: we must start over. Somewhere, we have missed him.'

Three hours later, footsore and weary, they returned again to the farms, their second quest as unproductive as the first.

Far in the distance a lone Nymphus worked the field, at the entrance to the tunnel.

'You know strange Earthman?' Amherst spoke wearily to the toiling Nymphus.

'Yeh.' The crusty, mushroom head nodded rapidly.

'Have you seen him today?'

'Yeh.' The head nodded again.

'Where!' Amherst grasped the green, scaled shoulder. The Nymphus waved an arm vaguely toward the outskirts of the farm, to the bare rock wall where the farm ended.

'Where?' Amherst shook the native's shoulder excitedly.

'In Iticht phulph.'

'In locked valve,' Amherst shouted. 'Of course. It's the only place he could be.'

At that moment, far down the farm, almost where the rock wall began, a stream of water shot heavily to the earth. 'That's the one,' Amherst cried. 'That valve was just opened to the outside. Carol,' he cried as he started running toward the water, 'get me a vacuum suit and bring it here—quickly!'

When he reached the spot, the water had thinned to a narrow stream. Evidently ebb was over. A mound of creearth beneath the pipe opening showed how Scaler had managed to reach his hiding place. Through the slanting man-sized aqueduct, Amherst could see light from above. Undoubtedly Scaler had just escaped. Probably knowledge that the Nymphus farmer had seen him, had made him aware of the danger of hiding there longer.

However, it was impossible to follow until Carol returned with the vacuum suit. He waited impatiently, comforting himself with the thought that Scaler could not get very far in the torrents of the afterflood on foot, and that, as no one had been above ground since the flood started, there was no hipp tethered outside to carry him. As relief for his impatience, Amherst piled more cree on the mound Scaler had left. It would save time when Carol arrived with the suit if he could raise himself easily to the opening in the rock ceiling.

At last Carol, clad in a vacuum suit herself, came running across the field.

'You can't come,' Amherst told her. Hurriedly he stepped into the garment she handed him. Without replying she stood watching him draw his long body through the pipe opening.

Creeping up the slanting hundred yard aqueduct as quickly as possible, Amherst emerged dripping to the wet Ganymedian surface. A few seconds later, Carol appeared.

'Go back.' He was trying to free his sillicellu visor of the mud it had gathered on the ascent through the wet pipe. Scaler was not in sight.

A rocket ship, however, was visible in the sky. He started walking, Carol beside him. Scaler might easily be in the valley on the other side of the hill.

'What's that ship doing?' Carol asked. 'It can't land here.'

'It looks as if it's going to.'

True, the ship was coming lower. A mile or so in front of them, it lost altitude rapidly. Wonderingly, they watched it, knowing no rocket ship had ever landed in the muddy areas of Ganymede until, straining their eyes, they saw a ladder unfurling from its fuselage. So that was going to be the manner of Scaler's escape!

Amherst started to run, splashing through the water and mudholes which slowed his progress. Carol followed, gaping with the exertion of pulling her self in the heavy suit through the sticky mud.

Hopelessly, they saw the ship dip behind the brow of the hill, to rise a second later with a black dot clinging to its downflung ladder. As they watched disconsolately, the red speck soared high in the sky. Red! The color of the space ships of Io! For, since the signing of the Interplanetary Peace Treaty, each planet colored its space ships differently. There was no doubt now where their formula was going.

Carol sat down despondently. For a few moments neither spoke. At last they rose and, silently, started to walk toward the village of the cree gatherers.

'What was the formula, Carol?' Amherst asked finally. 'As long as Scaler is taking it to Ionian Products, I might as well know.'

'It was simple,' the girl said. 'It merely duplicated the chemical changes taking place in the moss after the passing of the flood. The color change in cree is due to ammonia in the air, as you know. Well, part of the medicinal value lies there and part in latent eggs deposited in the moss. Father's formula was exactly that: an equal mix of blue gallnuts and ammonia.'

Bob Amherst stopped abruptly. 'Gallnuts, did you say? Blue gallnuts?'

Yes. It's the name given the vegetable excrescence which forms around the egg of the gall-ant. We breed gall-ants, pulverize their eggs and-'

'Carol!' Amherst pounded his knee in delight. 'We're saved! Much good our formula will do them,' He waved toward Io, ghostlike in the pale sky.

'Why? They've got the cree on Io.'

'They've got the cree all right, and they've got the formula—but they haven't got the ants! And they'll never get them either. Gall-ants can't live in methane—I remember that from Biology—and the air on Io is mostly methane!'

'Why can't they?'

'Because their systems are geared to breathing ammoniated air— exactly the opposite of methanated air. Don't you see? Ammonia is a base: methane is a hydrocarbon, an acid.'

'Well, can't they make ammonia?'

'Of course. But where will they get the ants? Gall-ants breed only on Ganymede, in Ganymedian cree. To get the ants they'd have to buy our cree and, inasmuch as they'd have to use the ant eggs to get the gallnuts to make the formula to turn their cree blue,' Amherst drew a long breath, 'the ants couldn't reproduce. So they'd have to continue buying our cree to get the ants to get the nuts to get-'

'I see,' Carol interrupted. 'Never mind the rest.'

'Besides which,' Amherst continued, 'even after they succeeded in turning the cree blue—if they succeeded, which they wouldn't, inasmuch as we wouldn't sell them the cree to get the ants to get the nuts and so forth—they'd have to keep the methanated air of Io away from it. Otherwise it would turn red again. Think what that means: hundreds of bales of cree vacuum-packed to shield them from contact with the outside air. It would raise the cost of production so enormously, they couldn't compete with us anyway.'

'I guess you're trying to say they can't use the formula. Anyway, I'm relieved.' Carol sighed.

'So am I—for another reason, though.'

'What other reason is there?'

'That it was only the formula Scaler wanted after all.'

'What do you mean, only?' She turned to face him before the smooth, round dome of the trading station.

'For awhile I thought it was you.'

'Oh that.' Carol scuffed one foot on the ground. 'Yes, he wanted me too. I refused him.'

'But why? You seemed to like him well enough at first.'

'I did,' she said slowly, 'at first. It was that kiss changed my mind—that rough one.'