

The Star Hole

There once were three princes of Serendip, who went out on a search for . . .

BOB BUCKLEY

Laris Howard faced a problem. He was still breathing heavily from the climb, though for a colony-dweller he was in better shape than most. His advanced degree in lunar studies should have helped him throw off the feeling of unreality the view gave him; but it didn't.

"So, there it is." Howard spoke softly into his helmet mike as though he were revealing a fragile bit of art-work, a wisp of blown glass, or a sculpted ice dream floating just out-side the celebrated zero-G studio port of Sky Station Six, not a black pit punched into the bleak lunar sur-face. There was a certain beauty in the scene it was true, but a hole, no matter how vast, is still a hole, and this one was dominated by the de-ceptively rounded hills rising about the jagged gap, tops glowing golden, runneled bases drenched in crepe shadows as sunrise swept over them.

"How many died?" Dr. Jackson asked finally.

"Six men and the cybernoid mounted in the crawler."

"Regulations?" Behind the blank gleam of the helmet glass Howard thought he could read anger in the old man's face, but he couldn't be sure in the dim light.

"Followed to the letter." Howard paused, staring down into the five-ki-lometer-wide pit and feeling the emptiness both inside and outside his suit. To his right Marian stirred, her voice putting words to his dis-organized thoughts.

"A surprise," she murmured, "a lunar surprise that proved to be the final laugh for six young, reasonably intelligent men. Men who forgot that life is eighty percent predictable, and twenty percent pie in the face. They had driven far enough away from their blast site to suit the desk jock-eyes who make up regulations, but their last transmission was a routine ignition report, and when the rescue squad made it out to them all they found was this rather overdone cav-ity."

"But a twenty-kilo charge of plas-tic wouldn't have made a mess like this, even if the crawler's pile had been triggered off in some impos-sible way." Jackson knelt at the rim of the pit, sifting the brownish rubble of dust and rock through his gauntleted fingers.

Howard finished his scan of the jagged pit rim. "I'll bring up the crawler. It's obvious that we'll have to go down into that if we're going to find a cause. Marian, you come along."

"I'll try to find us a sheer drop to play the cable down," Jackson vol-unteered. Although the old man was the senior scientist of the party, and the foremost selenologist on the moon, he treated command routine casually. Marian and Howard both knew what needed to be done, and who could do a particular task best, without the ritual enforcement of a dominance hierarchy.

Howard grunted his agreement and shambled down the loosely packed talus slope that had once led up to the flat sweep of the Kinner-man, Plateau. Marian stumbled after in his tracks, muttering.

"Space bogies," the young technician said suddenly.

Startled, Howard would have turned, but his momentum forced him on down the slope. "Would you explain that statement."

"A bogey is behind this. It was asleep in the rock, the charge woke it up when it blew, the thing broke free, and ate the crew."

"Along with five square kilometers of stone." Howard laughed, feeling the tenseness that had ridden with him out from the colony lift. With every report of strange death the fear—or perhaps it was a hope—would arise that now was the time man would come face to face with life that was alien. Yet every time the cause worked out to be something else. The bogey myth was a result of the predictability of the moon. The richly imaginative playground of dreamers had turned into a disgustingly commonplace ball of dead rock with as much mystery as a dried patty of cow dung.

"It's possible," Marian persisted. "What about the screaming cleft?"

Howard snorted. "A freak formation of stone with a pocket of ice beneath. Vacuum boils the ice, and the outgassing of vapor through the lips of the cleft resonates the surrounding stone like a giant trumpet. If Colony Two hadn't been built a kilometer away in the side of a mountain the effect would never have been noticed."

"But there was an extensive investigation, and two men had to be sent Earthside for psychiatric examination and treatment."

"Look, beautiful, you spend two months living by yourself in a twelve-by-twelve room where the walls moan like a dying ghost and see how healthy you stay. The cleft is interesting, but it's not evidence for something huge living within the moon."

"And the giant's footsteps?"

"You should ask Jackson about that one. He investigated, found that the booming vibrations heard around the Tycho Colony were centered in one area. There were several volcano cones nearby, all extinct, and also a large, hollow lava tube. He explored the tube and discovered a hot spot with another pocket of water, this time porous stone with a high water content. The water turned to steam every twenty seconds and jetted up a crack where it pushed against a slab of stone, causing one end to rise, and then thump back onto the floor of the tunnel. It was a short-term phenomenon, only about two years old when Jackson discovered it, and he doubts that it will last another year. If you had arrived at the colony a little sooner you would have been able to work with him as a myth-buster, instead of spending all your time creating myths."

"You're a grump," the girl complained sullenly, and finished the rest of the trip down to the crawler in silence.

Thinking that perhaps he had leaned on her too hard, Howard made the mistake of not keeping his mind on his footing and stumbled as he stepped down from the cluttered tumble of stone that made up the base of the slope. Marian reached out and caught him before he could hit the ground.

"You're safe," the girl said sweetly, giving him a pat on the bulky backpack.

"Thanks." Howard spun the hatch release, and stepped into the low stern air lock of the crawler. They had left the vehicle evacuated of air on their departure, and he walked quickly through the open inner door, down the narrow aisle to the driver's seat, and sat down before the broad bow ports. Marian shut

the hatch and squeezed into the seat next to him.

"Why don't you want to believe there's life here?" she asked as she buckled a restraining strap across the lap of her suit.

Howard sighed, snapping over the switch that started the pumps and sent a surge of water through the pile tubes. He waited for the "boil" light to flash.

"It's not a question of what I want to believe, just a simple understand-ing of the evidence gathered on the moon. This is a world of stone. If something moves it's the result of mass wasting, outgassing, volcanic extrusion, fault slippage, or meteorite bombardment. Stone acting on stone. Nowhere does anything as complex as a living interaction exist, except for occasional germ infesta-tions from Earth. I don't like it, but I accept it as the way things are, and if life were to be discovered I would be the first to turn handsprings, space suit or no."

"Well, you don't sound that way when you constantly put me down for using my imagination," Marian pouted.

"Imagination comes in all grades—realistic, and farfetched."

"Oh? You think my ideas are far-fetched, do you?"

Within the confining privacy of his helmet, Howard smiled. Then the green light telling him that he had steam pressure up in the crawler tur-bine flashed, so he engaged the drive lever, and swung the machine about on one slewing tread. As its nose bounced up onto the verge of the slope, he accelerated. The treads, hardened webs of steel and tough plastic, slipped on the boulders for a second, then dug in and found the purchase necessary to force the crawler's heavy mass forward. How-ard did not attempt to climb straight up the slope, but steered a winding course that looped back and forth in broad hairpins.

"There's Jackson waving at us over to the left," Marian com-mented.

"I see him. He must have found us a place to lower the cage."

Howard accelerated slightly, then slowed as the crawler's blunt nose dipped down and over the crest of the slope. Marian squeaked as the forward ports went black and the pit suddenly yawned open-mouthed be-neath them. Howard cursed, threw the drive lever into reverse. The crawler clawed wildly at the edge for a second, then slid back to a safe balance on the pit rim. Sweat beaded Howard's brow as he reached over and fired off anchor bolts, rods of carbide steel slammed down from beneath the crawler into the stone to serve as braces. Then he triggered the arms that brought the wire-en-cased cage platform down from its perch on the crawler's cab.

"I'll go down first to scout out con-ditions. You and Jackson stay up here to pull me out in case of trouble,"

"Playing the hero today?" Marian asked sarcastically.

Ignoring the gibe, Howard pulled a portable lamp from its clamp near the seat, and left the crawler. He found Jackson pulling the dangling cage over to the pit rim and starting to climb inside as he rounded the crawler's side.

"That's my job, I just called it," he said, and knelt to look down. He clicked on the lamp and let the invis-ible beam play below. The disk of reddish light flicked along the sheer face of the pit wall picking out tiny ledges, and gleams from embedded crystals. "Good visibility but I can't see the bottom."

"It's a deep hole," Jackson said simply. "Hyginus is a scratch in comparison. The crack that the Russians have been so puzzled over on the far side might be as deep, but whatever created this has to be a different mechanism."

"Odd. It has to be a cave-in, then?"

"If this pit had been formed by an explosion we would see debris scattered everywhere, but as you can tell at a glance, there just isn't any. Just this bloody great hole where a table-land used to exist."

"Space bogies." Marian skipped from around the rear of the crawler and tossed a small camera to Howard. "Take a picture of one before it eats you, O.K.?"

Howard bowed stiffly in his suit, then climbed into the swaying cage. "For you, love, I'll even get his auto-graph." He stowed the camera in a tray fastened to the cage railing, then reached up and examined the cable mounting on the overhead brace. Everything was secure.

"All right, lower me away, Jackson. And take the bogeylady with you."

"Right." The two figures, lumpy and grotesque in the protecting suits, disappeared behind the curve of the crawler, and suddenly Howard felt a surge of loneliness sweep over him. It was a common lunar malady. The barren wastes, the complete lack of anything soft and living, were a drain on natural well-being. Sudden quakes and meteorites were deadly, but they could be seen. Loneliness was an intangible thing that ate at a man until he fell to pieces, gnawed away from within.

"Here you go." Jackson's voice blaring across the radio circuit caused Howard to start with surprise. The cage jerked as the cable began to play out of the crawler's reel, then began a smooth descent. The rim of the pit rose above Howard's head as he turned to play the light on the rock face next to the cage. Before him was a ready textbook in lunar geology. Heavily stratified, the layering spoke of meteor strikes, and alternate lava flows. The gray, pebbled gravel denoting meteor rubble was thin, sometimes a mere thread weaving across the pit face, but the lava flows were thicker. They grew in size as the cage descended until at last there was only a blank, black sheen of basalt to return the glow of the lamp. A check below still found no bottom. The light seemed to vanish into a gigantic maw.

Howard swung the lamp up just in time to see the rock wall that the cage had been following down suddenly swoop inward and become a ceiling. He played the light across it and discovered it to be a broad dome of rock ending where the pit began. As the cage fell away from this feature the darkness grew, and soon there were only two points of illumination remaining: the lamp glow, and the crest of a single mountaintop bathed in the sun's glow across the expanse of the pit. The cage swung pendulum-like as more and more cable was fed to it, but still Howard could not pick out the bottom. Marian's voice boomed into his helmet, touched with worry.

"We're nearly out of cable, Laris. How much more will you need?"

Howard glanced down over the cage railing and strained his eyes into the dark that was broken not at all by the beam of the lamp. "Too much," he whispered, finding himself fascinated by the intangible nothingness beneath him, and the colors blossoming before his blinded eyes in geometric patterns. "Pull me back up. We'll have to try something else."

The cage slowed in its descent, stopped, and began to rise. Around Howard the dark pressed in like a living creature, snuffling and squeezing itself close about his suit.

"Talk to me, Marian," Howard croaked. "Say something."

"What's wrong?"

"The black shapes . . ." Howard felt panic tightening in his throat, blocking the scream that wanted to race past his lips. He babbled wildly, his thoughts racing back to every childhood fantasy he remembered about things that waited where you could not see them. Mercifully, in the next moment the lamp beam splashed onto rock. The pit face had suddenly swooped back into place next to the cage. It saved his failing sanity, this familiar thing to focus his eyes on. The lamp light was blinding after the darkness; it burned his eyes, but he stared hypnotized until the cage bumped once more against the edge of the pit, and he saw Mar-ian running toward him.

"So, you want me to let you go back down." Chairman Clifford was a tall man, very thin, and tending toward baldness. He was the founder of Colony Five, a tiny collection of dusty pressure domes scattered be-low a protecting fold of the Rim Hills of the Orientale Basin, and still served as its chief administrator. MacNeal O'Brien, Clifford's assis-tant whom he had brought with him from Earth, was the second person in the office. He was sitting quietly be-hind his desk reading Howard's re-port on the pit, while Clifford strolled about the tiny room in front of the closed port, hands clasped be-hind his back.

"Yes sir." Howard tried to swivel his neck about as he sat in the hard chair mounted exactly before Clif-ford's desk so as to keep his eyes on the administrator, but found the task impossible for anyone who was not a contortionist.

"Why?" The administrator's face was unsmiling, probing in its patient stare.

"Because of the tremendous op-portunity we have now to learn about the deep layering of the moon, and the Orientale Basin itself. Dr. Jackson and I feel compelled to con-tinue our studies in the area."

Clifford's eyes seemed to squint. "I think you're forgetting the state you were in when your teammates deliv-ered you back at the colony. Total collapse is what the medic labeled it."

Howard shrugged, outwardly calm, but struggling inside to find an argument that would thaw Clifford's known antagonism to any project that diverted funds away from the expansion of the colony.

"I was unprepared for the condi-tions I found and was unable to ad-just. Now that we know what it's like down there, we can compensate. Let me have the use of a jitterbug; it's noon, and I can install enough lights on the bottom of the bug to shame a small sun."

"A very small sun," O'Brien mut-tered, looking up from the report for the first time since Howard had en-tered the room. "I fail to understand just what an exploration of this pit will mean to us back here in the col-ony. I say avoid the pit completely. We know it to be a hazard, that's enough."

"But sir, the pit is unbelievable, it may even have a potential as a new colony site. Possibly we could roof it over. Can you imagine the size of the city we could put beneath it?"

Clifford laughed. "That would be quite a roof. More than five kilome-ters across, a considerable amount of surface area to expose to the possi-bility of a meteorite strike." The ad-ministrator stepped back to his desk and sat down, steepling his long fin-gers before his face, and peering at the tips for a moment in thought. Howard squirmed. He could see his dream teetering on the edge of the waste chute. Finally, just as Howard was expecting, Clifford shook his long head from side to side and made a low noise of regret.

"I'm sorry, Howard, but I just have to say no. Your plan to explore the pit is praiseworthy—I'm proud to have a man of your type on my staff—but you're just not up to the strain such an expedition would en-tail, and I'll just have to refuse your request. The colony cannot afford to lose three of its members for the length of time you say it would take to make an exploration. I'm sorry."

"And the men who died down there?"

"They have the grandest tomb that any man, Earth- or moon-dwelling, has ever possessed. I propose we put a memorial on the rim and make the pit a monument to their memory."

"I concur," O'Brien stretched expansively, tossing the report into the OUT tray of his desk. "For now I suggest you take Miss Crenner and yourself up to the central plateau of the Orientale Basin and continue with the present series of core drillings. This can wait a day or so while you take a short vacation, but Houston still pays handsomely for every pound of lunar material we send back to them, and we need every credit we can lay our hands on to keep this colony expanding."

"But Chairman . . ." Howard stopped, realizing that further pleas were futile. Clifford only wanted to see his colony bloated into a carbon copy of Copernicus City, and O'Brien was a hothouse. A dome-worm who never walked the dust plains except for an occasional crawler ride. "Very well," Howard agreed weakly.

"Good," Clifford was suddenly jovial. "I'll begin making arrangements for the marker. You and Dr. Jackson will undoubtedly want to attend the ceremony so I will keep you in mind."

"Undoubtedly," Howard echoed flatly, and left. Ten paces down the deserted passageway a dark shadow detached itself from a strut alcove and hugged his arm tightly. He jumped, then relaxed when he saw who it was.

"What did they say?" Marian breathed. She continued to hug his arm as they slowly walked along.

"What I should have expected they would say if I had been born with any sense. Clifford thinks we should put a marker on the rim and leave the pit alone. O'Brien agrees, but that's nothing new."

Howard paused by a large canopy-shielded port. Outside the dome a crawler with a forklift attachment affixed to its prow was unloading a supply rocket from the Tycho Research Center. "You know, I'm tempted to go ahead and send a preliminary report out to Tycho just to see what one of their scientists thinks about the pit."

"What about our team?" Marian asked quietly.

"We're supposed to return to the Orientale Basin and continue our core drillings."

"Together?"

"Together."

"Well, then the situation isn't a total loss." The girl gave Howard a squeeze and waited expectantly. Any other time he would have responded with the ardor appropriate to the situation. This time, however, the warmth of the girl's cheek, and the musky perfume of her hair served only as a brief distraction to his thoughts, and blocked curiosity. Howard pulled away from the embrace and pounded the port frame with both hands. "It's useless to take piddling little fifty-foot cores out of a basalt dome when we could be examining a cut that goes down as far as the pit does. I feel like a surgeon wanting to take out an appendix and being limited to acupuncture."

"Didn't I hear O'Brien give you the day off tomorrow?"

"Yes." Briefly Howard wondered just how Marian had found that out so quickly.

"Well, Dr. Jackson knows somebody that might be able to check us out a jitterbug with the equipment

we need. I remember his apartment's in "C" sector so let's go drop in on him, then go round up the good doc-tor. If we can find something odd in the pit we might be able to force Clifford to let us investigate, whether he likes it or not."

"And if we don't?" Howard asked dryly.

The girl shrugged, smirking. "So who will know where we went on your day off?"

Brilliant sunlight sparkled off the speeding bit of metal as it flew low over the jumbled confusion of the Rim Hills. Brief explosions of light glanced off the rounded canopy, the circular viewing ports, and the four spindly, spring-jointed legs, as the jitterbug swooped low over the con-torted wound in the lunar surface that was the pit. Rocket engines flared at the end of the bug's strut booms, forcing the bug into a new heading. It yawed over the crest of the pit lip and began to descend, sliding toward the center in a precise search pattern.

Now there was no blackness en-snared in the pit, the sun hung over-head at blazing noon, and this time Laris Howard was feeling no horror in the descent. He calmly studied the palely glowing fuel gauges, and the banked scanner screens that showed him a panoramic view of what lay about and below the bug. Marian Crenner and Jackson were close by, scanning the landscape below with high-powered binoculars. Jackson made the first sighting of the pit floor, far below the dizzy climb of the sheer walls. As might be ex-pected, the floor was a jumbled mess of broken stone. Flat slabs of rock were battered and up-ended, with sharp spears of stone protruding like knives between the blocks. Heaped everywhere in vast piles were tre-mendous mounds of rock dust look-ing like rancid mountains of whipped cream.

"There's the missing crawler," Marian suddenly shouted. "It's about- fifty meters to our left, nose buried, the stern pushed up into the air almost vertical."

"Is there room for me to put the bug down?" Howard asked quickly.

"No, and don't try," Jackson or-dered. "I'll tie a cable to the lock door and slide down while you keep the bug aloft."

The old man tugged his helmet on, looped a coil of thin cable over his suit shoulder and pushed into the bug's tiny air lock. Marian checked his seals, then clamped the inner door shut.

"Shouldn't someone go down with him?" she asked. "What if he should tear his suit?"

"He'll patch it. He knows what he's going to find down there."

Marian wiped at the condensation clouding the port nearest her and peered down. "I'm surprised the crawler isn't buried. It must have ridden the collapse down like an eleva-tor. How horrible."

Howard nodded, concentrating on keeping the bug low, and over the wrecked crawler. Dust rose in tat-tered streamers from the tumbled rock, almost obscuring the view on the bug's belly scanner.

"I'm down," Jackson reported on the radio. "The hatch is loose, sprung open. I'm going to crawl in-side."

Howard moved the bug, trying to see better, but there was a fog over the site. Aside from Jackson's heavy breathing they could hear nothing but occasional thuds as his suit bumped against obstructions. The dust churning below became thicker. Minutes passed, then the bug swayed as the trailing line was tugged.

"I'm coming up," Jackson said dully. After a long pause they heard him banging about inside the lock, then the hatch opened and he walked slowly out into the cabin, helmetless. He placed a shiny metal globe about the size of a basketball into an empty cabinet and shut the lid on it.

"The cybernoid from the crawler," he explained. "It seems intact so I salvaged it. The colony can't afford to throw functional colloid brains away." He flopped into a seat and sighed.

"What about the men?" Marian asked, then looked away as Jackson frowned uncomfortably.

Howard took the bug away from the wreck and headed for the cliff where he had made his first thwarted attempt at descent. In his looping circumnavigation of the pit he had discovered no other signs of caves like that which he had found then. Perhaps this area had all been a continuation of that one cave. The ceiling had grown weak and when the surveying crew had set off their blast the shock had precipitated the cave-in. He mentioned this to Jackson.

"Yes, you're probably right. Stein-holt, the old porcupine, made a rather rash prediction that the Orientale Basin would prove out to be a homogeneous mound of basalt; just a lake of congealed lava." Jackson paused to glance out the port. "But from the looks of this pit I would say no, although before this all the evidence seemed to point that way."

"Might we find a piece of the asteroid that smashed here?" Marian asked hopefully.

The old man shrugged. "Doubt it. The strike was a trailing one, meaning the asteroid, or comet, caught up to the moon in its orbit, and probably looped it once before making its dramatic landing. But even so the major portion of the object must have been vaporized, along with about three hundred miles of lunar surface."

"It doesn't have to be very much," Marian continued. "Just a few fragments would satisfy me; I'm not hard to please."

"You probably wouldn't see any difference in the fragments, or the lunar material, my dear. After that shock everything must have looked about the same . . . nice and molten."

"There's the overhang," Howard reported from up front. Before the slowly moving bug the sheer wall of the pit face had curved back into a huge, black pocket. The sun's angle was such that the cavity was dark with shadow. Howard snapped on the lights he had had installed beneath the bug and a reddish glow illuminated the gloom.

At the sight Marian gasped, and Jackson got up from his seat and pushed forward into the bow of the bug to better see out the ports.

The cavity was almost a perfect circle, and within its concave expanse were numerous tunnels, all strangely regular in spacing. The largest was at the center, and about this were four rows of smaller openings. Altogether there must have been about two hundred of the openings, ranging in size from just a meter, to fifty meters across.

The lower tunnels were hidden beneath a wave of rubble that had swept in from the floor of the pit and filled the cavity almost up to the level of the largest tunnel in the center. There was an uneasy brooding aura lingering about the cave. Marian shuddered, and almost protested as Howard chose a large, flat block of basalt near the back of the cave and set the bug down on it in a vast billow of disturbed dust.

"Bring the core drill." Jackson, spry for his eighty years, jumped off the block of stone into the deep dust heaped beyond. Marian seemed to have forgotten her unease and was wandering about a nearby tunnel mouth, cautiously shining her light into the cavernous opening. Howard crawled from the bug's air lock with the core drill and squatted for a moment watching her.

"Find any bogies?" he called finally over the radio.

At the sound of his voice the girl jumped. Howard laughed, then jumped down from the lock porch onto the block of basalt.

"Oh, be quiet and come over here, Laris. This is the strangest sort of stone I've ever seen. It must be a kind of basalt, but I can't identify it. Look how the surface sparkles under the lamp light."

"It's a form of glass," Jackson commented, dislodging a large fragment from the tunnel lip with his specimen hammer. "Not very like the kinds of volcanic glass I've seen before, though. It's hard, and quite strong, with a certain resilience that most glasses lack."

Howard climbed down from the block and loped over to the others with the unwieldy mass of the core drill slung across one shoulder. He glanced at the fragment of glass Jackson held in his gauntlet, then at the cave wall itself.

"Not much point in trying to make a core of this stuff. It would just wear out the bit."

"Yes," Jackson agreed. "But bring the gear along just in case we should find a use for it later."

Grumbling silently, and reminding himself whose idea it was to spend this rare day off from work in this manner, Howard rebalanced the drill on his shoulder and plodded after his two companions as they entered the tunnel and proceeded along it for several meters.

Its walls were smooth, with a curious dimpled effect patterning the rock. In some places the tunnel had been broken, and splinters and chunks of the glassy material littered the tunnel floor. Marian carefully picked up the best of these lumps and dutifully stowed them away in labeled sacks. It wasn't long before the canvas bag she wore over her shoulder next to her backpack was bulging with samples.

"Save a little room for what we might find in the other tunnels," Howard suggested, but quickly found that his advice was not appreciated.

"Don't be such a grump," the girl retorted sharply, and continued her halting stroll. Suddenly her lamp picked out a large lump of the glass that had fallen out of its position in the ceiling. She played the light up into the concave pocket left by the fall, and they could see a fine network of cracks in the material, some oozing a thin white mist.

"Ice buried up there," Jackson said. "And there must have been a considerable shock on the surface to have caused that lump to break off, too." He looked at the lump of glass in their path. "Think we can find a way around that without cutting our suits up?"

Howard pushed up beside Marian and maneuvered her light around. There was a narrow gap between one side of the lump and the tunnel wall that they might be able to traverse if they were careful.

"There," Howard pointed. "But my suggestion is to go back and look through another tunnel. The large one, for instance."

"Grump," was Marian's only comment as she shouldered past him, eased her suit through the narrow gap, and continued on into the tunnel. The beam of her light danced wandringly along the ceiling, then dipped and played along the tunnel floor. Smiling at her stubborn ways, Howard followed, helping Jackson along in back of him.

Suddenly Marian cried out. They hurried on and found her bending over an object lying on the floor, pinned in the glow of her lamp. Under the glow the object glistened.

"Ice," was Jackson's comment as he bent and prodded at the bit of translucent material with a gauntleted

fingertip.

Howard found himself disagreeing with the statement. "If that were ice it would have boiled away in the vacuum." He glanced up at the tunnel ceiling. In the reflected glow from Marian's lamp the glass was smooth, unbroken. "There should be an ice spear hanging up there, also."

"It might have evaporated," Jackson suggested, playing the devil's advocate.

"And this wouldn't have?"

"It's bigger."

"I don't think it's ice at all," Marian said sharply. "It looks like carved crystal."

"And that implies a carver, a hobby I doubt interests space bogies." Howard opened a specimen bag and pushed the bit of unknown material into the slit. He sealed the airtight clip and made a brief notation on the ident tag before thrusting the bag back into his holding sack.

"One space bogey, bagged and labeled," he quipped. "We'll give it to Nakamura when we get back and call it our jackpot."

"I think not," Jackson said slowly. He had been staring down the yet-unexplored length of the tunnel. "What's that?"

Marian swung up the lamp and its reddish beam bounced back at them, blinding and distorted.

"Aim it down," Howard yelled, grabbing at his eyes, still sore from the earlier trip into the pit. He crawled forward, trying to see what had made the reflection, and suddenly the imaginary beast was back. Howard could feel it gnawing at the edges of his courage, invening his head with nameless fears.

As he crept down the tunnel the lamp glow showed him the blockage. It appeared to be a whitish translucent material like the object they had just found. It looked like ice, yet reason told Howard that this was impossible. Any ice should have boiled off long ago, in fact it should be boiling now, spitting off vaporous fragments of itself as it expanded into the vacuum. Howard peered at the surface of the "ice." It was pebbled, and thin lines weaved themselves across the surface making it look like a jigsaw puzzle. As he sat quietly studying the material Marian and Jackson pushed up, one on each side of his body.

"I thought I told you to wait," Howard hissed.

"We did wait," Marian giggled. "For a while anyway. Still think there's no such thing as a bogey?"

"This ain't no bogey," Jackson muttered. The older scientist took the lamp away from Marian and held it close to the surface of the blockage. "Only about ten centimeters thick, and it does look like crystal."

"Watch it!"

As one, the three lunged back-wards as a portion of the translucent wall puffed into mist. Gradually, like a chemical reaction that having once started cannot stop, only slow, the wall separated into globs of mist that seemed to retain a coherent shape apart from the others. It was impossible, but it was happening.

"I don't like this. . ." Howard began.

"They're moving off!" Marian shrieked.

The wisps, having made some collective decision, shot past the suited humans and vanished down the

tunnel behind the fallen stone.

"Was it the heat, or light that made them move?" Jackson wondered out loud.

"Are they alive?" Marian asked, her voice tightening.

"They obviously react to stimuli, that's one definition of a living creature." Howard stood and gazed up the tunnel. "I'd like to find some more in their solid state."

"No, let's go back to the bug." Marian looked wistfully back the way they had come. "I think it's time we explored another tunnel."

"I have to support Howard on the decision to go forward." Jackson took the lamp away from Marian and strode ahead determinedly into the unexplored section of the tunnel. The others had no choice but to follow.

For thirty meters they saw nothing but the blank, rippled surface of the tunnel walls. Then the lamp glow illuminated something in the distance. The shape became brighter and larger, then divided as two tightly knit, gossamer clouds flashed past them without stopping, and disappeared into the darkness behind them.

"Reinforcements," Howard said dryly. "And here's some more of our little friends up on the ceiling. Shine the light up there, Jackson, while I try to collect one."

Carefully, Jackson eased the light beam upwards so it wouldn't startle whatever sense the creatures possessed, as Howard removed another specimen bag from his sack. Both creatures were solid, about the size of two hands pressed tightly together, and beneath their hard rinds was a colorful interplay of veins slowly twisting and coiling among themselves like dying snakes. Fascinated, Marian seemed to forget her fears and pressed her helmet close, then jerked it away as the nearest creature exploded into mist and flashed up the tunnel.

"Watch it," Howard grunted. "These things could be dangerous."

"I'm sure they are." Jackson reached up and prodded with his gauntlet at the tunnel wall where the creature had been resting. Bits of glass cascaded down as the material crumbled away like rusty metal. "Try to put the other in the bag, Howard."

Whatever the creature was, and whatever it used for senses, it was sensitized to touch, for as soon as the lip of the plastic bag touched its surface it exploded and flew away leaving only a discolored area where it had rested.

"Tentative characteristic number two: they can learn and pass information between themselves," Jackson enumerated. "We had best be cautious from now on."

Just as this was stated and agreed to five of the wisps appeared floating steadily toward them from the unexplored end of the tunnel.

"A reception committee?" Howard took a step backwards. "Just how do you express peaceful intentions to a blob of gas, Jackson?"

The old scientist thought furiously for a few seconds and found himself at a loss. "Stand perfectly still is my only suggestion. Perhaps they can only sense moving objects."

"These are larger than the others," Marian whispered. "They remind me of soldier ants. We disturbed the

doorkeepers, and a pair of workers, and now the soldiers are coming to repel invaders."

Jackson sighed. "I sincerely hope you are wrong, young lady."

They stood quietly in the dark-ened tunnel, the lamp beam probing out like a blind, immobile eye to splash against the left wall, and watched the five faintly luminous wisps of gas zip curiously about in front of them. Howard fought to re-main calm as one of the wisps hung stubbornly in front of his helmet plate and seemingly stared into his eyes. The churning, curdled mass hanging before him did not have any eyes that he could identify, but still the wisp hung and waited.

Suddenly Howard heard a noise. Jackson had jerked involuntarily as one of the wisps had dived on him, and then wheeled away. The others were quick to react as soon as they noticed the movement.

"They're all over the front of my suit," the old man cried. "They solidify and secrete an acid foam as soon as they touch the suit fabric."

Howard grabbed the lamp away from Jackson and dropped the drill as an encumbrance. Awkwardly he prodded at the clinging alien lumps with the hot lens but found the ploy useful only as a temporary measure. As soon as one creature had been dislodged, another would dart in to take its place.

"Fall back along the tunnel. We've got to try for the shelter of the bug," Howard shouted finally in frustration.

Now they ran with the wisps flit-ting viciously about their helmets. Time after time a darting cloud would swoop, attach itself to a suit and solidify, forcing the other two humans who were still free to stop and force the creature off. It was a slow, halting dash they made and as they pressed past the blocking stone that lay across the tunnel Howard discovered another impediment. The wisps that had flown past them had joined the first group that had con-structed the translucent door with their bodies. Now there was another door in their path. One slightly stronger than the last.

There was no time to be subtle. Howard ignored the large wisp that was single-mindedly trying to attach itself to his shoulder, and ran full at the gleaming disk of creatures. His helmet struck first, tearing a hole in the "ice" as he stumbled and fell for-ward on his faceplate. The rest of the disk vanished under the trauma of the shock and suddenly the tunnel was packed with whirling wisps of gas. Jackson and Marian stooped, picked up Howard's stunned form, and ran with him between them like a sack of dunnage. They had nearly covered the rest of the distance to the bug before realizing that the pursuit had stopped. They lowered Howard to the ground and leaned panting against the walls of the tunnel.

"I've got so many leaks in my suit I whistle when I walk," Jackson complained between gulps of air. "Let's start patching each other."

"Deal," Marian agreed, and began pulling sealing kits out of her belt pouches. Jackson had six large, broad depressions eaten into the suit's plastic coating, but only two had gone so far as to allow the es-cape of air. Howard's suit was worse off with three deep holes, while Mar-ian had only one. As she worked on Howard's suit she began to laugh.

"What's wrong with you, beau-tiful?"

"Oh, I was just thinking how silly you're going to look turning handsprings all the way back to the hug. Remember what you said earlier?"

The colony lab was not a large one even though it took up a whole dome, but it was efficient, and

thorough. The chief reason for this was its director, Itio Nakamura, and at this moment the stocky Japanese-American was staring with undisguised fascination at the delicately coiling blob of mist moving frantically from one end of a large sealed tank to the other, batting its flailing wisps of diaphanous arms against the glass like a trapped butterfly.

"It's beautiful, completely and utterly beautiful," the little scientist breathed. "When I first put it into the tank I thought you were making a joke with me. A lump of crystal flying, indeed."

Howard laughed. "Can you tell me what it is? You've been playing with it all morning."

Nakamura shook his head sadly. "Not yet, but the information my tests have extracted has been fed into the cable shunt for Tycho Research Center. Their large computer should be able to tell us something. Possibly explain why a mobile gas can exist in a vacuum, and why it has such a strong magnetic field."

Howard grimaced slightly. "Have you heard anything about Marian or Jackson through the whisper vine?"

"About what?" Nakamura stared blankly at Howard, who shrugged.

"I'm not sure. They were told to report to Clifford's office at the start of the work day, and I was curious as to why. Especially since I received this 'report or else' slip at lunch to-day. Seems the ol' man heard about our trip."

"He's probably going to pin a medal on you." Nakamura scratched his thick hair happily, then turned to study his cherished beastie again.

"There's something strange about this critter, Laris. I get this nagging thought in the back of my head that I should be remembering something about basic biology."

"Too simple," Howard muttered. "The wisps are too refined." "Exactly," Nakamura agreed. "Nature is not so perfect, or stream-lined. I would almost say this animal was designed from what I have seen of it so far. Did you know it has a third life state?"

"No, what?" Howard glanced at his watch and saw it was almost time for his meeting with Clifford.

"Liquid. I left the lab for a few minutes, and when I returned I found the bottom of the tank covered with a thin film of water and the wisp gone. I was just about to open the tank when all of a sudden the juice balls up into a lump, and there was the creature again, looking like a solid. It's puzzling because I can't think of any survival value such a mechanism would have for the creature."

"Marian said its behavior reminded her of colony insects, ants or termites."

"Yes, I remember her saying that yesterday. And Jackson said that they ate rock. That seems impossible."

"Maybe they eat each other."

"Not possible. You're talking about a perpetual motion machine and there's no such thing."

Howard shrugged and stood. "Well, whatever it is you're going to have to tell me later." He started to walk out of the room, but paused at the door for a second. "You might do me a favor, Itio. Pull a miracle out of your test tubes. I have a sinking feeling that I just might need one very badly in the next couple of minutes."

"Sit down, Howard."

Remembering that it hadn't been so long ago that he had heard those words before, Howard sat. Clifford's office was crowded this time. Jackson and Marian Crenner were standing at the rear of the room, silent and tensely erect. Marian was flushed, and she had given him a weak smile when he entered. O'Brien was there, too. He was sitting behind his desk with his feet up, methodically clean-ing his fingernails with a nail file with the air of a high priest offici-ating at a human sacrifice. Behind O'Brien stood Clifford. He had opened the port at the rear of the room and was staring out the thick glass at the alternate valleys and hills that marched across the basin like frozen waves.

Howard waited. A long interval passed without anyone saying anything. Clifford loved the dramatic-impact approach to employee dis-cipline and used it frequently.

"You disobeyed my orders, How-ard," came the first low-key dart. A testing shot deployed to lure out a too-early defense. Howard let it go and studied the back of his left hand where the pressure of suit gauntlets had formed a thick place on the skin. Clifford still had not turned around and O'Brien was concentrating on his manicure.

"Why," now Clifford turned, his eyes narrowed, "in the face of my direct order, did you still go out to the pit?"

Howard glanced up, but said noth-ing. It was not yet time. Clifford wanted to wind himself up into a frenzy, like a revival deacon thundering out a crusading diatribe in which Howard would be so firmly nailed to the bulkhead wall that there would be no possibility of his escaping.

"I told you quite plainly not to continue with the exploration of the pit, yet you went right ahead and did just what you pleased."

Howard shifted his weight in the chair. "What I did I accomplished on my own time." He did not bring Marian or Jackson into the reason-ing; Clifford just might decide to be-gin chewing on them again. "I did what I felt the circumstances war-ranted."

"What you felt was warranted," Clifford repeated coldly. "This is my colony, Howard. Do you really think you know more about what is bene-ficial for it than I?"

"I was only—"

Clifford cut off Howard's reply. "You are not more important than this colony, Howard. And the prac-tice of science is not an adventurer's game of dash and dig. Science is based on the slow, tedious accumulation of facts."

"It's hardly scientific to ignore sig-nificant data . . ." Howard tried to say, but was cut off again. Clifford was feeling his wind now, and he surged ahead oblivious to any inter-ruption.

"Someday we will understand this basin, but it will not be because of a misfit's desire to pursue adventure. It will be because of solid, commonplace, painstaking lab work." Clifford droned on and on, pounding home his obvious point until How-ard began to wonder how he still saw anything to pound on at all. O'Brien finished with his cuticles, and started over again, finished them, and started over on them for a third time when Clifford finally ran down. "And you are going to be dismissed from this colony and be sent back to Earth with a reprimand in your record, Dr. Howard."

"No!" This brought Marian out of her corner into the center of the room. She clung to the back of

Howard's chair and boldly stared Clifford in the eyes. "That just isn't fair after what we've discovered."

"Discovered? Bah! You people trot out on an unauthorized jaunt and come back with some inane excuse about discovering moon wisps." Clifford slammed the top of his desk with his hand. "Gas leaks, that's what you discovered. You brought back a bag of swamp gas, and if it were not for Dr. Jackson's fame as a selenologist, and your value to this colony, Miss Crenner, as a woman and a technologist, I'd have you both accompanying Howard on his trip back to the flatlands."

"No!" Now Jackson stepped forward with an angry gleam in his eyes. "Chairman Clifford, I cannot agree with your conception of our discovery. We have found something unprecedented, and it's insane to label it a hoax just because it doesn't fit in with the commonly accepted knowledge built up about the moon."

"There is no life on the moon," Clifford bellowed. "The first Apollo flights proved that conclusively. There is absolutely no reason to believe otherwise. No one even bothers to look anymore."

"The reason is down in Nakamura's lab," Jackson exploded.

"There is nothing living in that tank, Dr. Jackson," Clifford said with cold emphasis. "Only a wisp of gas that is behaving strangely because of low temperature, and the vacuum."

"The temperature in that tank is seventy-two degrees, Clifford. And the vacuum is only partial, the rest being inert gas," Howard growled from his chair.

"Please gentlemen." O'Brien finally raised his eyes from his finger-nails and blessed the others with his gaze. "Let's show the proper respect to the Chairman's position. I haven't seen this so-called 'moon life', but I'm sure we can dispense with it as being some kind of mistake. No charges are being filed against you, Dr. Jackson, or you, Miss Crenner, so you may both depart. Only Dr. Howard is being chastised, and justly so, I might add."

"You little wart." Before Howard could grab her, Marian stomped over to O'Brien and presented him with a ringing slap to the ears. The administrator went glassy-eyed for a moment, then jumped up to stand near Clifford.

Silence wrapped the room like a cloak. Marian stepped back to grasp Howard, shocked at what she had just done. Clifford sputtered a little, then the door bounced open and Nakamura entered, a cablegram in one hand. He passed it to Clifford, and as he turned away gave Howard a sly wink. Clifford scanned the message, his eyes widening. He glared at Nakamura, then Howard. Then back down at the message.

"Is this a joke?" His gaze was back on Nakamura.

"No sir. That's just the way it came over."

"This is crazy," Clifford said sharply. "Completely crazy. Just when did you discover a spaceship, Howard?"

"A spaceship, sir?" Howard was forced to stare blankly.

"That's what this gram states. The Tycho computer reported that your glass samples fit no known chemical pattern. It says they were part of a synthetic artifact, and hypothesizes an alien spacecraft." Clifford stared at the message in his hands as if it were something unclean.

"You are ordered, Howard, to join Dr. Jackson, and seven assistants to be chosen by need, and set up a

temporary dome at the pit site. You will serve as a technical crew for Tycho as the investigation has been ordered by Commander DiPaoli himself."

Howard shifted uneasily in his chair, wanting to smile, but unsure that it was safe to. Clifford passed the paper to O'Brien, who was still rubbing his face.

"You were lucky this time, Howard. In view of these orders I will drop all charges."

"Thank you, sir."

"Now get out of here, all of you." Clifford turned back to the port and pointedly ignored everyone until the room had emptied.

In the hall Howard gave Nakamura a resounding slap on his back. "You pulled off a miracle after all, didn't you?"

The technician laughed. "I'd say you did. How do I get on your staff, Jackson?"

Marian grabbed the old man's arm and snuggled it. "Don't forget me," she cooed.

Jackson smiled broadly. "I'm forgetting no one. If Clifford will release you to me you both can become pit-crawlers. But I warn you, I will work you until you begin to think of Clifford as an angel."

The first week of the new project saw the construction of the dome or the floor of the pit, and lights being installed about the work area. Darkness had returned to the pit with the lowering of the sun, although night had not yet fallen on the lunar surface, and the workers lurched through the valleys and tubes of the site, their shadows leaping hugely upon the walls. Several crews of men began taking corings of the inner rim of the cave-in, building up a map of what had once been below the rock ceiling.

Jackson, Howard, and Nakamura remained close to the ship, exploring the network of tunnels, and making behavior studies of the wisps. Time passed slowly, but soon all the area was draped in night, and the work-lights seemed a fragile island under the enormity of the stars and dark.

Nakamura was the one that made the heartbreaking discovery that the wisps were slowly eating the ship away. Comparing his data with that of the core crews, he found that the entire pit had once been filled with the ship's hull; but millions of years of wisp activity had reduced this huge structure to fine dust, and a very short segment of what might have been the ship's stern. That was all that was left intact.

Howard and Jackson concentrated their studies on the wisps themselves. They analyzed their structure, confined them in tanks, and made them display their whole bag of tricks. The results were interesting, but also disappointing.

The first discovery was that they were not entirely gaseous when in wisp form. As the body changed from a solid the reaction used energy in such a manner that the core of super-cooled material was formed. How this managed to maintain itself was still a mystery, but about this core the gas was held tightly in a magnetic bond and manipulated. The disappointment was the lack of intelligence showed by all forms of the wisps. Both solid and gaseous forms showed only reflex behaviors. The liquid form had a slight ability to learn, but this was limited. Jackson placed the wisps somewhere near social insects on the intelligence scale.

A strange item was that the wisps reproduced in the liquid form. If the liquid wisp was presented with an ample food supply for at least thirty hours, it would divide. Jackson decided to augment their number of the creatures and so started a "farm" for the wisps which consisted of many sealed tanks in the dome itself. Howard appointed himself keeper and made regular runs to provide food. It was on such a run that

he made the discovery of the entire project. He paused to wipe the water mist off one of the rear tanks before siphoning some food into the sealed tank and discovered a large shadowy shape inside where there should have been none.

"Marian, come here."

Howard called the girl over hurriedly, partially as a witness, and partially as support.

"Look in that tank and tell me what you see."

Marian peered for a second, and shrugged.

"Five liquid wisps, and a curved slab of glass."

"Did you put it in there?"

"Of course not. I'm working with the core sections."

"Well, I certainly didn't." Howard held up a bucket filled with glass dust that steamed slightly in the warm, moist air of the dome. "This is all I ever give the critters . . . makes for easier ingestion, and faster growth. Now, where did they get that slab?"

Marian looked inside the tank again. As they watched, the wisps moved like reluctant amoebas over the sharp edges of the glass slab, and as the creatures moved they left behind them a visible ridge.

"They're reconstructing the glass hull," Marian cried suddenly. "They're rearranging the material, not eating it."

"How? Where are they getting the energy to remain alive?"

Howard dropped the bucket and glanced about the cluttered work area. As he did, his eyes fell upon the coldly glowing U-V lamp the crew used as a health precaution. Some-one had left the lamp positioned next to the wisp tank, and the bulb was aimed directly into it. "That's it," Howard shouted. "I understand now. Remember that apparatus that had corroded away in the upper reaches of some of the tunnels? I recognize it now. These things aren't pets, or aliens, or anything else that we've been thinking of."

"Well, what are they?" Marian demanded impatiently.

"Get me another U-V lamp so I can test my theory and I'll tell you. Meanwhile, I'm going to find Jack-son. He's going to want to know."

Ten hours later Chairman Clifford received an odd request from the pit station as he sat before his wide desk. It was signed by Jackson, but the wording was all Howard; he recognized the eager intensity.

"That idiot," Clifford grumbled out loud after he had read the message. O'Brien from his seat across the room heard the mutter and raised his eyebrows questioningly.

"What's wrong?"

"It's that nut Howard, again. He wants us to send him thirty 40-watt U-V lamps, a portable power supply, fifty tons of obsidian glass, and a steel launch rack."

O'Brien laughed. "Why?"

"The idiot says he's going to build a spaceship."

