



Nightfall

By Isaac Asimov

How would a people who saw the stars but once in two thousand years react—

Illustrated by Kolliker

"If the stars should appear one night in a thousand years, how would men believe and adore, and preserve for many generations the remembrance of the city of God!—Emerson

ATON 77, director of Saro University, thrust out a belligerent lower lip and glared at the young newspa-

perman in a hot fury.

Theremon 762 took that fury in his stride. In his earlier days, when his now widely syndicated column was only a mad idea in a cub reporter's mind, he had specialized in "impossible" interviews. It had cost him bruises, black eyes, and broken bones; but it had given him an ample supply of coolness and self-confidence.

So he lowered the outthrust hand that had been so pointedly ignored and calmly waited for the aged director to get over the worst. Astronomers were queer ducks, anyway, and if Aton's actions of the last two months meant anything, this same Aton was the queer-duckiest of the lot.

Aton 77 found his voice, and though it trembled with restrained emotion, the careful, somewhat pedantic, phraseology, for which the famous astronomer was noted, did not abandon him.

"Sir," he said, "you display an infernal gall in coming to me with that impudent proposition of yours."

The husky telephotographer of the Observatory, Beenay 25, thrust a tongue's tip across dry lips and interposed nervously, "Now, sir, after all—"

The director turned to him and lifted a white eyebrow. "Do not interfere, Beenay. I will credit you with good intentions in bringing this man here; but I will tolerate no insubordination now."

Theremon decided it was time to take a part. "Director Aton, if you'll let me finish what I started saying I think—"

"I don't believe, young man," retorted Aton, "that anything you could say now would count much as compared with your daily columns of these last two months. You have led a vast newspaper campaign

against the efforts of myself and my colleagues to organize the world against the menace which it is now too late to avert. You have done your best with your highly personal attacks to make the staff of this Observatory objects of ridicule."

The director lifted the copy of the *Saro City Chronicle* on the table and shook it at Theremon furiously. "Even a person of your well-known impudence should have hesitated before coming to me with a request that he be allowed to cover today's events for his paper. Of all newsmen, you!"

Aton dashed the newspaper to the floor, strode to the window and clasped his arms behind his back.

"You may leave," he snapped over his shoulder. He stared moodily out at the skyline where Gamma, the brightest of the planet's six suns, was setting. It had already faded and yellowed into the horizon mists, and Aton knew he would never see it again as a sane man.

He whirled. "No, wait, come here!" He gestured peremptorily. "I'll give you your story."

The newsman had made no motion to leave, and now he approached the old man slowly. Aton gestured outward, "Of the six suns, only Beta is left in the sky. Do you see it?"

The question was rather unnecessary. Beta was almost at zenith; its ruddy light flooding the landscape to an unusual orange as the brilliant rays of setting Gamma died. Beta was at aphelion. It was small; smaller than Theremon had ever seen it before, and for the moment it was undisputed ruler of Lagash's sky.

Lagash's own sun, Alpha, the one about which it revolved, was at the antipodes; as were the two distant companion pairs. The red dwarf Beta—Alpha's immediate compan-

ion—was alone, grimly alone.

Aton's upturned face flushed redly in the sunlight. "In just under four hours," he said, "civilization, as we know it, comes to an end. It will do so because, as you see, Beta is the only sun in the sky." He smiled grimly. "Print that! There'll be no one to read it."

"But if it turns out that four hours pass—and another four—and nothing happens?" asked Theremon softly.

"Don't let that worry you. Enough will happen."

"Granted! And still—if nothing happens?"

For a second time, Beenay 25 spoke, "Sir, I think you ought to listen to him."

Theremon said, "Put it to a vote, Director Aton."

There was a stir among the remaining five members of the Observatory staff, who till now had maintained an attitude of wary neutrality.

"That," stated Aton flatly, "is not necessary." He drew out his pocket watch. "Since your good friend, Beenay, insists so urgently, I will give you five minutes. Talk away."

"Good! Now, just what difference would it make if you allowed me to take down an eyewitness account of what's to come? If your prediction comes true, my presence won't hurt; for in that case my column would never be written. On the other hand, if nothing comes of it, you will just have to expect ridicule or worse. It would be wise to leave that ridicule to friendly hands."

Aton snorted. "Do you mean yours when you speak of friendly hands?"

"Certainly!" Theremon sat down and crossed his legs. "My columns may have been a little rough at

times, but I gave you people the benefit of the doubt every time. After all, this is not the century to preach 'the end of the world is at hand' to Lagash. You have to understand that people don't believe the 'Book of Revelations' any more, and it annoys them to have scientists turn about face and tell us the Cultists are right after all—"

"No such thing, young man," interrupted Aton. "While a great deal of our data has been supplied us by the Cult, our results contain none of the Cult's mysticism. Facts are facts, and the Cult's so-called 'mythology' has certain facts behind it. We've exposed them and ripped away their mystery. I assure you that the Cult hates us now worse than you do."

"I don't hate you. I'm just trying to tell you that the public is in an ugly humor. They're angry."

Aton twisted his mouth in derision. "Let them be angry."

"Yes, but what about tomorrow?"

"There'll be no tomorrow!"

"But if there is. Say that there is—just to see what happens. That anger might take shape into something serious. After all, you know, business has taken a nose dive these last two months. Investors don't really believe the world is coming to an end, but just the same they're being cagy with their money until it's all over. Johnny Public doesn't believe you, either, but the new spring furniture might as well wait a few months—just to make sure.

"You see the point. Just as soon as this is all over, the business interests will be after your hide. They'll say that if crackpots—begging your pardon—can upset the country's prosperity any time they want simply by making some cockeyed prediction—it's up to the planet to prevent them. The sparks will fly, sir."

The director regarded the columnist sternly. "And just what were you proposing to do to help the situation?"

"Well," grinned Theremon, "I was proposing to take charge of the publicity. I can handle things so that only the ridiculous side will show. It would be hard to stand, I admit, because I'd have to make you all out to be a bunch of gibbering idiots, but if I can get people laughing at you, they might forget to be angry. In return for that, all my publisher asks is an exclusive story."

Beenay nodded and burst out, "Sir, the rest of us think he's right. These last two months we've considered everything but the million-to-one chance that there is an error somewhere in our theory or in our calculations. We ought to take care of that, too."

There was a murmur of agreement from the men grouped about the table, and Aton's expression became that of one who found his mouth full of something bitter and couldn't get rid of it.

"You may stay if you wish, then. You will kindly refrain, however, from hampering us in our duties in any way. You will also remember that I am in charge of all activities here, and in spite of your opinions as expressed in your columns, I will expect full co-operation and full respect—"

His hands were behind his back, and his wrinkled face thrust forward determinedly as he spoke. He might have continued indefinitely but for the intrusion of a new voice.

"HELLO, hello, hello!" It came in a high tenor, and the plump cheeks of the newcomer expanded in a pleased smile. "What's this morgue-like atmosphere about here? No one's losing his nerve, I hope."

Aton started in consternation and said peevishly, "Now what the devil are you doing here, Sheerin? I thought you were going to stay behind in the Hideout."

Sheerin laughed and dropped his tubby figure into a chair. "Hideout be blowed! The place bored me. I wanted to be here, where things are getting hot. Don't you suppose I have my share of curiosity? I want to see these Stars the Cultists are forever speaking about." He rubbed his hands and added in a soberer tone, "It's freezing outside. The wind's enough to hang icicles on your nose. Beta doesn't seem to give any heat at all, at the distance it is."

The white-haired director ground his teeth in sudden exasperation, "Why do you go out of your way to do crazy things, Sheerin? What kind of good are you around here?"

"What kind of good am I around there?" Sheerin spread his palms in comical resignation. "A psychologist isn't worth his salt in the Hideout. They need men of action and strong, healthy women that can breed children. Me? I'm a hundred pounds too heavy for a man of action, and I wouldn't be a success at breeding children. So why bother then with an extra mouth to feed? I feel better over here."

Theremon spoke briskly, "Just what is the Hideout, sir?"

Sheerin seemed to see the columnist for the first time. He frowned and blew his ample cheeks out, "And just who in Lagash are you, red-head?"

Aton compressed his lips and then muttered sullenly, "That's Theremon 762, the newspaper fellow. I suppose you've heard of him."

The columnist offered his hand. "And, of course, you're Sheerin 501 of Saro University. I've heard of

you." Then he repeated, "What is this Hideout, sir?"

"Well," said Sheerin, "we have managed to convince a few people of the validity of our prophecy of—er—doom, to be spectacular about it, and those few have taken proper measures. They consist mainly of the immediate members of the families of the Observatory staff, certain of the faculty of Saro University and a few outsiders. Altogether, they number about three hundred, but three quarters are women and children."

"I see! They're supposed to hide where the Darkness and the—er—Stars can't get at them, and then hold out when the rest of the world goes poof."

"If they can. It won't be easy. With all of mankind insane; with the great cities going up in flames—environment will not be conducive to survival. But they have food, water, shelter, and weapons—"

"They've got more," said Aton. "They've got all our records, except for what we will collect today. Those records will mean everything to the next cycle, and *that's* what must survive. The rest can go hang."

Theremon whistled a long, low whistle and sat brooding for several minutes. The men about the table had brought out a multichess board and started a six-member game. Moves were made rapidly and in silence. All eyes bent in furious concentration on the board. Theremon watched them intently and then rose and approached Aton, who sat apart in whispered conversation with Sheerin.

"Listen," he said, "Let's go somewhere where we won't bother the rest of the fellows. I want to ask some questions."

The aged astronomer frowned sourly at him, but Sheerin chirped

up, "Certainly. It will do me good to talk. It always does. Aton was telling me about your ideas concerning world reaction to a failure of the prediction—and I agree with you. I read your column pretty regularly, by the way, and as a general thing I like your views."

"Please, Sheerin," growled Aton.

"Eh? Oh, all right. We'll go into the next room. It has softer chairs, anyway."

THERE *were* softer chairs in the next room. There were also thick red curtains on the windows and a maroon carpet on the floor. With the bricky light of Beta pouring in, the general effect was one of dried blood.

Theremon shuddered, "Say, I'd give ten credits for a decent dose of white light for just a second. I wish Gamma or Delta were in the sky."

"What are your questions?" asked Aton. "Please remember that our time is limited. In a little over an hour and a quarter we're going upstairs, and after that there will be no time for talk."

"Well, here it is." Theremon leaned back and folded his hands on his chest. "You people seem so all-fired serious about this that I'm beginning to believe you. Would you mind explaining what it's all about?"

Aton exploded, "Do you mean to sit there and tell me that you've been bombarding us with ridicule without even finding out what we've been trying to say?"

The columnist grinned sheepishly. "It's not that bad, sir. I've got the general idea. You say that there is going to be a world-wide Darkness in a few hours and that all mankind will go violently insane. What I want now is the science behind it."

"No, you don't. No, you don't," broke in Sheerin. "If you ask Aton

for that—supposing him to be in the mood to answer at all—he'll trot out pages of figures and volumes of graphs. You won't make head or tail of it. Now if you were to ask me, I could give you the layman's standpoint."

"All right; I ask you."

"Then first I'd like a drink." He rubbed his hands and looked at Aton.

"Water?" grunted Aton.

"Don't be silly!"

"Don't you be silly. No alcohol today. It would be too easy to get my men drunk. I can't afford to tempt them."

The psychologist grumbled wordlessly. He turned to Theremon, impaled him with his sharp eyes, and began.

"You realize, of course, that the history of civilization on Lagash displays a cyclic character—but I mean, *cyclic!*"

"I know," replied Theremon cautiously, "that that is the current archaeological theory. Has it been accepted as a fact?"

"Just about. In this last century it's been generally agreed upon. This cyclic character is—or, rather, was—one of *the* great mysteries. We've located series of civilizations, nine of them definitely, and indications of others as well, all of which have reached heights comparable to our own, and all of which, without exception, were destroyed by fire at the very height of their culture.

"And no one could tell why. All centers of culture were thoroughly gutted by fire, with nothing left behind to give a hint as to the cause."

Theremon was following closely. "Wasn't there a Stone Age, too?"

"Probably, but as yet, practically nothing is known of it, except that men of that age were little more than

rather intelligent apes. We can forget about that."

"I see. Go on!"

"There have been explanations of these recurrent catastrophes, all of a more or less fantastic nature. Some say that there are periodic rains of fire; some that Lagash passes through a sun every so often; some even wilder things. But there is one theory, quite different from all of these, that has been handed down over a period of centuries."

"I know. You mean this myth of the 'Stars' that the Cultists have in their 'Book of Revelations.'"

"Exactly," rejoined Sheerin with satisfaction. "The Cultists said that every two thousand and fifty years Lagash entered a huge cave, so that all the suns disappeared, and there came *total darkness all over the world!* And then, they say, things called Stars appeared, which robbed men of their souls and left them unreasoning brutes, so that they destroyed the civilization they themselves had built up. Of course, they mix all this up with a lot of religious-mystic notions, but that's the central idea."

There was a short pause in which Sheerin drew a long breath. "And now we come to the Theory of Universal Gravitation." He pronounced the phrase so that the capital letters sounded—and at that point Aton turned from the window, snorted loudly, and stalked out of the room.

THE two stared after him, and Theremon said, "What's wrong?"

"Nothing in particular," replied Sheerin. "Two of the men were due several hours ago and haven't shown up yet. He's terrifically short-handed, of course, because all but the really essential men have gone to the Hideout."

"You don't think the two deserted, do you?"

"Who? Faro and Yimot? Of course not. Still, if they're not back within the hour, things would be a little sticky." He got to his feet suddenly, and his eyes twinkled. "Anyway, as long as Aton is gone—"

Tiptoeing to the nearest window, he squatted, and from the low window box beneath withdrew a bottle of red liquid that gurgled suggestively when he shook it.

"I *thought* Aton didn't know about this," he remarked as he trotted back to the table. "Here! We've only got one glass so, as the guest, you can have it. I'll keep the bottle." And he filled the tiny cup with judicious care.

Theremon rose to protest, but Sheerin eyed him sternly. "Respect your elders, young man."

The newsman seated himself with a look of pain and anguish on his face. "Go ahead, then, you old villain."

The psychologist's Adam's apple wobbled as the bottle upended, and then, with a satisfied grunt, and a smack of the lips, he began again.

"But what do you know about gravitation?"

"Nothing, except that it is a very recent development, not too well established, and that the math is so hard that only twelve men in Lagash are supposed to understand it."

"*Tcha!* Nonsense! Boloney! I can give you all the essential math in a sentence. The Law of Universal Gravitation states that there exists a cohesive force among all bodies of the universe, such that the amount of this force between any two given bodies is proportional to the product of their masses divided by the square of the distance between them."

"Is that all?"

"That's enough! It took four hun-

dred years to develop it."

"Why that long? It sounded simple enough, the way you said it."

"Because great laws are not divined by flashes of inspiration, whatever you may think. It usually takes the combined work of a world full of scientists over a period of centuries. After Genovi 41 discovered that Lagash rotated about the sun Alpha, rather than vice versa—and that was four hundred years ago—astronomers have been working. The complex motions of the six suns were recorded and analyzed and unwoven. Theory after theory was advanced and checked and counter-checked and modified and abandoned and revived and converted to something else. It was a devil of a job."

Theremon nodded thoughtfully and held out his glass for more liquor. Sheerin grudgingly allowed a few ruby drops to leave the bottle.

"It was twenty years ago," he continued after remoistening his own throat, "that it was finally demonstrated that the Law of Universal Gravitation accounted exactly for the orbital motions of the six suns. It was a great triumph."

Sheerin stood up and walked to the window, still clutching his bottle, "And now we're getting to the point. In the last decade, the motions of Lagash about Alpha were computed according to gravity, and *it did not account for the orbit observed*; not even when all perturbations due to the other suns were included. Either the law was invalid, or there was another, as yet unknown, factor involved."

THEREMON joined Sheerin at the window and gazed out past the wooded slopes to where the spires of Saro City gleamed bloodily on the horizon. The newsman felt the ten-



sion of uncertainty grow within him as he cast a short glance at Beta. It glowered redly at zenith, dwarfed and evil.

"Go ahead, sir," he said softly.

Sheerin replied, "Astronomers stumbled about for years, each proposed theory more untenable than the one before—until Aton had the inspiration of calling in the Cult. The head of the Cult, Sor 5, had access to certain data that simplified

the problem considerably. Aton set to work on a new track.

"What if there were another non-luminous planetary body such as Lagash? If there were, you know, it would shine only by reflected light, and if it were composed of bluish rock, as Lagash itself largely is, then, in the redness of the sky, the eternal blaze of the suns would make it invisible—drown it out completely."

Theremon whistled, "What a screwy idea!"

"You think *that's* screwy? Listen to this: Suppose this body rotated about Lagash at such a distance and in such an orbit and had such a mass that its attraction would exactly account for the deviations of Lagash's orbit from theory—do you know what would happen?"

The columnist shook his head.

"Well, sometimes this body would get in the way of a sun." And Sheerin emptied what remained in the bottle at a draft.

"And it does, I suppose," said Theremon flatly.

"Yes! But only one sun lies in its plane of revolutions." He jerked a thumb at the shrunken sun above. "Beta! And it has been shown that the eclipse will occur only when the arrangement of the suns is such that Beta is alone in its hemisphere and at maximum distance, at which time the moon is invariably at minimum distance. The eclipse that results, with the moon seven times the apparent diameter of Beta, covers all of Lagash and lasts well over half a day, so that no spot on the planet escapes the effects. *That eclipse comes once every two thousand and forty-nine years.*"

Theremon's face was drawn into an expressionless mask. "And that's my story?"

The psychologist nodded. "That's all of it. First the eclipse—which

will start in three quarters of an hour—then universal Darkness, and, maybe, these mysterious Stars—then madness, and end of the cycle.”

He brooded. “We had two months’ leeway—we at the Observatory—and that wasn’t enough time to persuade Lagash of the danger. Two centuries might not have been enough. But our records are at the Hideout, and today we photograph the eclipse. The next cycle will start off with the truth, and when the next eclipse comes, mankind will at last be ready for it. Come to think of it, that’s part of your story, too.”

A thin wind ruffled the curtains at the window as Theremon opened it and leaned out. It played coldly with his hair as he stared at the crimson sunlight on his hand. Then he turned in sudden rebellion.

“What is there in Darkness to drive *me* mad?”

Sheerin smiled to himself as he spun the empty liquor bottle with abstracted motions of his hand. “Have you ever experienced Darkness, young man?”

The newsman leaned against the wall and considered. “No. Can’t say I have. But I know what it is. Just—uh—” He made vague motions with his fingers, and then brightened. “Just no light. Like in caves.”

“Have you ever been in a cave?”

“In a *cave!* Of course not!”

“I thought not. I tried last week—just to see—but I got out in a hurry. I went in until the mouth of the cave was just visible as a blur of light, with black everywhere else. I never thought a person my weight could run that fast.”

Theremon’s lip curled. “Well, if it comes to that, I guess I wouldn’t have run, if I had been there.”

The psychologist studied the young man with an annoyed frown.

“My, don’t you talk big! I dare you to draw the curtain.”

Theremon looked his surprise and said, “What for? If we had four or five suns out there we might want to cut the light down a bit for comfort, but now we haven’t enough light as it is.”

“That’s the point. Just draw the curtain; then come here and sit down.”

“All right.” Theremon reached for the tasseled string and jerked. The red curtain slid across the wide window, the brass rings hissing their way along the crossbar, and a dusk-red shadow clamped down on the room.

THEREMON’S footsteps sounded hollowly in the silence as he made his way to the table, and then they stopped halfway. “I can’t see you, sir,” he whispered.

“Feel your way,” ordered Sheerin in a strained voice.

“But I can’t see you, sir.” The newsman was breathing harshly. “I can’t see anything.”

“What did you expect?” came the grim reply. “Come here and sit down!”

The footsteps sounded again, waveringly, approaching slowly. There was the sound of someone fumbling with a chair. Theremon’s voice came thinly, “Here I am. I feel . . . *uhp* . . . all right.”

“You like it, do you?”

“N-no. It’s pretty awful. The walls seem to be—” He paused. “They seem to be closing in on me. I keep wanting to push them away. But I’m not going *mad!* In fact, the feeling isn’t as bad as it was.”

“All right. Draw the curtain back again.”

There were cautious footsteps

through the dark, the rustle of Theremon's body against the curtain as he felt for the tassel, and then the triumphant *ro-o-o-osh* of the curtain slithering back. Red light flooded the room, and with a cry of joy Theremon looked up at the sun.

Sheerin wiped the moistness off his forehead with the back of a hand and said shakily, "And that was just a dark room."

"It can be stood," said Theremon lightly.

"Yes, a dark room can. But were you at the Jonglor Centennial Exposition two years ago?"

"No, it so happens I never got around to it. Six thousand miles was just a bit too much to travel, even for the exposition."

"Well, I was there. You remember hearing about the 'Tunnel of Mystery' that broke all records in the amusement area—for the first month or so, anyway?"

"Yes. Wasn't there some fuss about it?"

"Very little. It was hushed up. You see, that Tunnel of Mystery was just a mile-long tunnel—with no lights. You got into a little open car and jolted along through Darkness for fifteen minutes. It was very popular—while it lasted."

"Popular?"

"Certainly. There's a fascination in being frightened *when it's part of a game*. A baby is born with three instinctive fears: of loud noises, of falling, and of the absence of light. That's why it's considered so funny to jump at someone and shout 'Boo!' That's why it's such fun to ride a roller coaster. And that's why that Tunnel of Mystery started cleaning up. People came out of that Darkness shaking, breathless, half dead with fear, but they kept on paying to get in."

"Wait a while, I remember now.

Some people came out dead, didn't they? There were rumors of that after it shut down."

The psychologist snorted. "Bah! Two or three died. That was nothing! They paid off the families of the dead ones and argued the Jonglor City Council into forgetting it. After all, they said, if people with weak hearts want to go through the tunnel, it was at their own risk—and besides, it wouldn't happen again. So they put a doctor in the front office and had every customer go through a physical examination before getting into the car. That actually *boosted* ticket sales."

"Well, then?"

"But, you see, there was something else. People sometimes came out in perfect order, except that they refused to go into buildings—any buildings; including palaces, mansions, apartment houses, tenements, cottages, huts, shacks, lean-tos, and tents."

Theremon looked shocked. "You mean they refused to come in out of the open. Where'd they sleep?"

"In the open."

"They should have *forced* them inside."

"Oh, they did, they did. Whereupon these people went into violent hysterics and did their best to bat their brains out against the nearest wall. Once you got them inside, you couldn't keep them there without a strait jacket and a shot of morphine."

"They must have been crazy."

"Which is exactly what they were. One person out of every ten who went into that tunnel came out that way. They called in the psychologists, and we did the only thing possible. We closed down the exhibit."

He spread his hands.

"What was the matter with these people?" asked Theremon finally.

"Essentially the same thing that was the matter with you when you thought the walls of the room were crushing in on you in the dark. There is a psychological term for mankind's instinctive fear of the absence of light. We call it 'claustrophobia,' because the lack of light is always tied up with inclosed places, so that fear of one is fear of the other. You see?"

"And those people of the tunnel?"

"Those people of the tunnel consisted of those unfortunates whose mentality did not quite possess the resiliency to overcome the claustrophobia that overtook them in the Darkness. Fifteen minutes without light is a long time; you only had two or three minutes, and I believe you were fairly upset.

"The people of the tunnel had what is called a 'claustrophobic fixation.' Their latent fear of Darkness and inclosed places had crystallized and become active, and, as far as we can tell, permanent. *That's* what fifteen minutes in the dark will do."

THERE WAS a long silence, and Theremon's forehead wrinkled slowly into a frown. "I don't believe it's that bad."

"You mean you don't want to believe," snapped Sheerin. "You're afraid to believe. Look out the window!"

Theremon did so, and the psychologist continued without pausing, "Imagine Darkness — everywhere. No light, as far as you can see. The houses, the trees, the fields, the earth, the sky—*black!* And Stars thrown in, for all I know—whatever *they* are. Can you conceive it?"

"Yes, I can," declared Theremon truculently.

And Sheerin slammed his fist down upon the table in sudden passion. "You lie! You can't conceive

that. Your brain wasn't built for the conception any more than it was built for the conception of infinity or of eternity. You can only talk about it. A fraction of the reality upsets you, and when the real thing comes, your brain is going to be presented with a phenomenon outside its limits of comprehension. You will go mad, completely and permanently! There is no question of it!"

He added sadly, "And another couple of milleniums of painful struggle comes to nothing. Tomorrow there won't be a city standing unharmed in all Lagash."

Theremon recovered part of his mental equilibrium. "That doesn't follow. I still don't see that I can go loony just because there isn't a Sun in the sky—but even if I did, and everyone else did, how does that harm the cities? Are we going to blow them down?"

But Sheerin was angry, too. "If you were in Darkness, what would you want more than anything else; what would it be that every instinct would call for? Light, damn you, *light!*"

"Well?"

"And how would you get light?"

"I don't know," said Theremon flatly.

"What's the *only* way to get light, short of the sun?"

"How should I know?"

They were standing face to face and nose to nose.

Sheerin said, "You burn something, mister. Ever see a forest fire? Ever go camping and cook a stew over a wood fire? Heat isn't the only thing burning wood gives off, you know. It gives off light, and people know that. And when it's dark they want light, and they're going to *get it.*"

"So they burn wood?"

"So they burn whatever they can

get. They've got to have light. They've got to burn something, and wood isn't handy—so they'll burn whatever is nearest. They'll have their light—and every center of habitation goes up in flames!"

Eyes held each other as though the whole matter were a personal affair of respective will powers, and then Theremon broke away wordlessly. His breathing was harsh and ragged, and he scarcely noted the sudden hubbub that came from the adjoining room behind the closed door.

Sheerin spoke, and it was with an effort that he made it sound matter-of-fact. "I think I heard Yimot's voice. He and Faro are probably back. Let's go in and see what kept them."

"Might as well!" muttered Theremon. He drew a long breath and seemed to shake himself. The tension was broken.

THE ROOM was in an uproar, with members of the staff clustering about two young men who were removing outer garments even as they parried the miscellany of questions being thrown at them.

Aton hustled through the crowd and faced the newcomers angrily. "Do you realize that it's less than half an hour before deadline. Where have you two been?"

Faro 24 seated himself and rubbed his hands. His cheeks were red with the outdoor chill. "Yimot and I have just finished carrying through a little crazy experiment of our own. We've been trying to see if we couldn't construct an arrangement by which we could simulate the appearance of Darkness and Stars so as to get an advance notion as to how it looked."

There was a confused murmur from the listeners, and a sudden look

of interest entered Aton's eyes. "There wasn't anything said of this before. How did you go about it?"

"Well," said Faro, "the idea came to Yimot and myself long ago, and we've been working it out in our spare time. Yimot knew of a low one-story house down in the city with a domed roof—it had once been used as a museum, I think. Anyway, we bought it—"

"Where did you get the money?" interrupted Aton peremptorily.

"Our bank accounts," grunted Yimot 70. "It cost two thousand credits." Then, defensively, "Well, what of it? Tomorrow, two thousand credits will be two thousand pieces of paper. That's all."

"Sure," agreed Faro. "We bought the place and rigged it up with black velvet from top to bottom so as to get as perfect a Darkness as possible. Then we punched tiny holes in the ceiling and through the roof and covered them with little metal caps, all of which could be shoved aside simultaneously at the close of a switch. At least, we didn't do that part ourselves; we got a carpenter and an electrician and some others—money didn't count. The point was that we could get the light to shine through those holes in the roof, so that we could get a starlike effect."

Not a breath was drawn during the pause that followed. Aton said stiffly:

"You had no right to make a private—"

Faro seemed abashed. "I know, sir—but, frankly, Yimot and I thought the experiment was a little dangerous. If the effect really worked, we half expected to go mad—from what Sheerin says about all this, we thought that would be rather likely. We wanted to take the risk ourselves. Of course, if we

found we could retain sanity, it occurred to us that we might develop immunity to the real thing, and then expose the rest of you to the same thing. But things didn't work out at all—"

"Why, what happened?"

It was Yimot who answered. "We shut ourselves in and allowed our eyes to get accustomed to the dark. It's an extremely creepy feeling because the total Darkness makes you feel as if the walls and ceiling are crushing in on you. But we got over that and pulled the switch. The caps fell away and the roof glittered all over with little dots of light—"

"Well?"

"Well—nothing. That was the whacky part of it. Nothing happened. It was just a roof with holes in it, and that's just what it looked like. We tried it over and over again—that's what kept us so late—but there just isn't any effect at all."

There followed a shocked silence, and all eyes turned to Sheerin, who sat motionless, mouth open.

Theremon was the first to speak. "You know what this does to this whole theory you've built up, Sheerin, don't you?" He was grinning with relief.

But Sheerin raised his hand. "Now wait a while. Just let me think this through." And then he snapped his fingers, and when he lifted his head there was neither surprise nor uncertainty in his eyes. "Of course—"

He never finished. From somewhere up above there sounded a sharp clang, and Beenay, starting to his feet, dashed up the stairs with a "What the devil!"

The rest followed after.

THINGS happened quickly. Once up in the dome, Beenay cast one horrified glance at the shattered photographic plates and at the man bend-

ing over them; and then hurled himself fiercely at the intruder, getting a death grip on his throat. There was a wild threshing, and as others of the staff joined in, the stranger was swallowed up and smothered under the weight of half a dozen angry men.

Aton came up last, breathing heavily. "Let him up!"

There was a reluctant unscrambling and the stranger, panting harshly, with his clothes torn and his forehead bruised, was hauled to his feet. He had a short yellow beard curled elaborately in the style affected by the Cultists.

Beenay shifted his hold to a collar grip and shook the man savagely. "All right, rat, what's the idea? These plates—"

"I wasn't after *them*," retorted the Cultist coldly. "That was an accident."

Beenay followed his glowering stare and snarled, "I see. You were after the cameras themselves. The accident with the plates was a stroke of luck for you, then. If you had touched Snapping Bertha or any of the others, you would have died by slow torture. As it is—" He drew his fist back.

Aton grabbed his sleeve. "Stop that! Let him go!"

The young technician wavered, and his arm dropped reluctantly. Aton pushed him aside and confronted the Cultist. "You're Latimer, aren't you?"

The Cultist bowed stiffly and indicated the symbol upon his hip. "I am Latimer 25, adjutant of the third class to his serenity, Sor 5."

"And"—Aton's white eyebrows lifted—"you were with his serenity when he visited me last week, weren't you?"

Latimer bowed a second time.

"Now, then, what do you want?"

"Nothing that you would give me of your own free will."

"Sor 5 sent you, I suppose—or is this your own idea?"

"I won't answer that question."

"Will there be any further visitors?"

"I won't answer that, either."

Aton glanced at his timepiece and scowled. "Now, man, what is it your master wants of me. I have fulfilled my end of the bargain."

Latimer smiled faintly, but said nothing.

"I asked him," continued Aton angrily, "for data only the Cult could supply, and it was given to me. For that, thank you. In return, I promised to prove the essential truth of the creed of the Cult."

"There was no need to prove that," came the proud retort. "It stands proven by the 'Book of Revelations.'"

"For the handful that constitute the Cult, yes. Don't pretend to mistake my meaning. I offered to present scientific backing for your beliefs. And I did!"

The Cultist's eyes narrowed bitterly. "Yes, you did—with a fox's subtlety, for your pretended explanation backed our beliefs, and at the same time removed all necessity for them. You made of the Darkness and of the Stars a natural phenomenon, and removed all its real significance. That was blasphemy."

"If so, the fault isn't mine. The facts exist. What can I do but state them?"

"Your 'facts' are a fraud and a delusion."

Aton stamped angrily. "How do you know?"

And the answer came with the certainty of absolute faith. "I know!"

The director purpled and Beenay whispered urgently. Aton waved him silent. "And what does Sor 5

want us to do. He still thinks, I suppose, that in trying to warn the world to take measures against the menace of madness, we are placing innumerable souls in jeopardy. We aren't succeeding, if that means anything to him."

"The attempt itself has done harm enough, and your vicious effort to gain information by means of your devilish instruments must be stopped. We obey the will of their Stars, and I only regret that my clumsiness prevented me from wrecking your infernal devices."

"It wouldn't have done you too much good," returned Aton. "All our data, except for the direct evidence, we intend collecting right now, is already safely cached and well beyond possibility of harm." He smiled grimly. "But that does not affect your present status as an attempted burglar and criminal."

He turned to the men behind him. "Someone call the police at Saro City."

THERE WAS a cry of distaste from Sheerin. "Damn it, Aton, what's wrong with you? There's no time for that. Here"—he hustled his way forward—"let me handle this."

Aton stared down his nose at the psychologist. "This is not the time for your monkeyshines, Sheerin. Will you please let me handle this my own way? Right now you are a complete outsider here, and don't forget it."

Sheerin's mouth twisted eloquently. "Now why should we go to the impossible trouble of calling the police—with Beta's eclipse a matter of minutes from now—when this young man here is perfectly willing to pledge his word of honor to remain and cause no trouble whatsoever."

The Cultist answered promptly,

"I will do no such thing. You're free to do what you want, but it's only fair to warn you that just as soon as I get my chance I'm going to finish what I came out here to do. If it's my word of honor you're relying on, you'd better call the police."

Sheerin smiled in a friendly fashion. "You're a determined cuss, aren't you? Well, I'll explain something. Do you see that young man at the window? He's a strong, husky fellow, quite handy with his fists, and he's an outsider besides. Once the eclipse starts there will be nothing for him to do except keep an eye on you. Besides him, there will be myself—a little too stout for active fisticuffs, but still able to help."

"Well, what of it?" demanded Latimer frozenly.

"Listen and I'll tell you," was the reply. "Just as soon as the eclipse starts, we're going to take you, Theremon and I, and deposit you in a little closet with one door, to which is attached one giant lock and no windows. You will remain there for duration."

"And afterward," breathed Latimer fiercely, "there'll be no one to let me out. I know as well as you do what the coming of the Stars means—I know it far better than you. With all your minds gone, you are not likely to free me. Suffocation or slow starvation, is it? About what I might have expected from a group of scientists. But I don't give my word. It's a matter of principle, and I won't discuss it further."

Aton seemed perturbed. His faded eyes were troubled. "Really, Sheerin, locking him—"

"Please!" Sheerin motioned him impatiently to silence. "I don't think for a moment things will go that far. Latimer has just tried a clever little bluff, but I'm not a psychologist just because I like the

sound of the word." He grinned at the Cultist. "Come now, you don't really think I'm trying anything as crude as slow starvation. My dear Latimer, if I lock you in the closet, you are not going to see the Darkness, and you are not going to see the Stars. It does not take much of a knowledge of the fundamental creed of the Cult to realize that for you to be hidden from the Stars when they appear means the loss of your immortal soul. Now, I believe you to be an honorable man. I'll accept your word of honor to make no further effort to disrupt proceedings if you'll offer it."

A vein throbbed in Latimer's temple, and he seemed to shrink within himself as he said thickly, "You have it!" And then he added with swift fury, "But it is my consolation that you will all be damned for your deeds of today." He turned on his heel and stalked to the high three-legged stool by the door.

Sheerin nodded to the columnist. "Take a seat next to him, Theremon—just as a formality. Hey, Theremon!"

But the newspaperman didn't move. He had gone pale to the lips. "Look at that!" The finger he pointed toward the sky shook, and his voice was dry and cracked.

THERE WAS one simultaneous gasp as every eye followed the pointing finger and, for one breathless moment, stared frozenly.

Beta was chipped on one side!

The tiny bit of encroaching blackness was perhaps the width of a fingernail, but to the staring watchers it magnified itself into the crack of doom.

Only for a moment they watched, and after that there was a shrieking confusion that was even shorter of duration and which gave way to

an orderly scurry of activity—each man at his prescribed job. At the crucial moment there was no time for emotion. The men were merely scientists with work to do. Even Aton had melted away.

Sheerin said prosaically, "First contact must have been made fifteen minutes ago. A little early, but pretty good considering the uncertainties involved in the calculation." He looked about him and then tiptoed to Theremon, who still remained staring out the window, and dragged him away gently.

"Aton is furious," he whispered, "so stay away. He missed first contact on account of this fuss with Latimer, and if you get in his way he'll have you thrown out the window."

Theremon nodded shortly and sat down. Sheerin stared in surprise at him.

"The devil, man," he exclaimed, "you're shaking."

"Eh?" Theremon licked dry lips and then tried to smile. "I don't feel very well, and that's a fact."

The psychologist's eyes hardened. "You're not losing your nerve?"

"No!" cried Theremon in a flash of indignation. "Give me a chance, will you? I haven't really believed this rigmorole—not way down beneath, anyway—till just this minute. Give me a chance to get used to the idea. *You've* been preparing yourself for two months or more."

"You're right, at that," replied Sheerin thoughtfully. "Listen! Have you got a family—parents, wife, children?"

Theremon shook his head. "You mean the Hideout, I suppose. No, you don't have to worry about that. I have a sister, but she's two thousand miles away. I don't even know her exact address."

"Well, then, what about yourself?"

You've got time to get there, and they're one short anyway, since I left. After all, you're not needed here, and you'd make a darned fine addition—"

Theremon looked at the other wearily. "You think I'm scared stiff, don't you? Well, get this, mister, I'm a newspaperman and I've been assigned to cover a story. I intend covering it."

There was a faint smile on the psychologist's face. "I see. Professional honor, is that it?"

"You might call it that. But, man, I'd give my right arm for another bottle of that sockeroo juice even half the size of the one *you* hogged. If ever a fellow needed a drink, I do."

He broke off. Sheerin was nudging him violently. "Do you hear that? Listen!"

Theremon followed the motion of the other's chin and stared at the Cultist, who, oblivious to all about him, faced the window, a look of wild elation on his face, droning to himself the while in singsong fashion.

"What's he saying?" whispered the columnist.

"He's quoting 'Book of Revelations,' fifth chapter," replied Sheerin. Then, urgently, "Keep quiet and listen, I tell you."

The Cultist's voice had risen in a sudden increase of fervor:

"And it came to pass that in those days the Sun, Beta, held lone vigil in the sky for ever longer periods as the revolutions passed; until such time as for full half a revolution, it alone, shrunken and cold, shone down upon Lagash.

"And men did assemble in the public squares and in the highways, there to debate and to marvel at the sight, for a strange depression had seized them. Their minds were trou-

bled and their speech confused, for the souls of men awaited the coming of the Stars:

"And in the city of Trigon, at high noon, Vendret 2 came forth and said unto the men of Trigon, "Lo, ye sinners! Though ye scorn the ways of righteousness, yet will the time of reckoning come. Even now the Cave approaches to swallow Lagash; yea, and all it contains."

"And even as he spoke the lip of the Cave of Darkness passed the edge of Beta so that to all Lagash it was hidden from sight. Loud were the cries of men as it vanished, and great the fear of soul that fell upon them.

"It came to pass that the Darkness of the Cave fell upon Lagash, and there was no light on all the surface of Lagash. Men were even as blinded, nor could one man see his neighbor, though he felt his breath upon his face.

"And in this blackness their appeared the Stars, in countless numbers, and to the strains of ineffable music of a beauty so wondrous that the very leaves of the trees turned to tongues that cried out in wonder.

"And in that moment the souls of men departed from them, and their abandoned bodies became even as beasts; yea, even as brutes of the wild; so that through the blackened streets of the cities of Lagash they prowled with wild cries.

"From the Stars there then reached down the Heavenly Flame, and where it touched, the cities of Lagash flamed to utter destruction, so that of man and of the works of man nought remained.

"Even then—"

THERE WAS a subtle change in Latimer's tone. His eyes had not shifted, but somehow he had become aware of the absorbed attention of

the other two. Easily, without pausing for breath, the timber of his voice shifted and the syllables became more liquid.

Theremon, caught by surprise, stared. The words seemed on the border of familiarity. There was an elusive shift in the accent, a tiny change in the vowel stress; nothing more—yet Latimer had become thoroughly unintelligible.

Sheerin smiled slyly. "He shifted to some old-cycle tongue, probably their traditional second cycle. That was the language in which the 'Book of Revelations' had originally been written, you know."



"It doesn't matter; I've heard enough." Theremon shoved his chair back and brushed his hair back with hands that no longer shook. "I feel much better now."

"You do?" Sheerin seemed mildly surprised.

"I'll say I do. I had a bad case of jitters just a while back. Listening to you and your gravitation and seeing that eclipse start almost finished me. But this"—he jerked a contemptuous thumb at the yellow-bearded Cultist—"this is the sort of thing my nurse used to tell me. I've been laughing at that sort of thing all my life. I'm not going to let it scare me now."

He drew a deep breath and said with a hectic gaiety, "But if I expect to keep on the good side of myself, I'm going to turn my chair away from the window."

Sheerin said, "Yes, but you'd better talk lower. Aton just lifted his head out of that box he's got it stuck into and gave you a look that should have killed you."

Theremon made a mouth. "I forgot about the old fellow." With elaborate care he turned the chair from the window, cast one distasteful look over his shoulder and said, "It has occurred to me that there must be considerable immunity against this Star madness."

The psychologist did not answer immediately. Beta was past its zenith now, and the square of bloody sunlight that outlined the window upon the floor had lifted into Sheerin's lap. He stared at its dusky color thoughtfully and then bent and squinted into the sun itself.

The chip in its side had grown to a black encroachment that covered a third of Beta. He shuddered, and when he straightened once more his florid cheeks did not contain quite

as much color as they had had previously.

With a smile that was almost apologetic, he reversed his chair also. "There are probably two million people in Saro City that are all trying to join the Cult at once in one gigantic revival." Then, ironically, "The Cult is in for an hour of unexampled prosperity. I trust they'll make the most of it. Now, what was it you said?"

"Just this. How do the Cultists manage to keep the 'Book of Revelations' going from cycle to cycle, and how on Lagash did it get written in the first place? There must have been some sort of immunity, for if everyone had gone mad, who would be left to write the book?"

Sheerin stared at his questioner ruefully. "Well, now, young man, there isn't any eyewitness answer to that, but we've got a few damned good notions as to what happened. You see, there are three kinds of people who might remain relatively unaffected. First, the very few who don't see the Stars at all; the blind, those who drink themselves into a stupor at the beginning of the eclipse and remain so to the end. We leave them out—because they aren't really witnesses.

"Then there are children below six, to whom the world as a whole is too new and strange for them to be too frightened at Stars and Darkness. They would be just another item in an already surprising world. You see that, don't you?"

The other nodded doubtfully. "I suppose so."

"Lastly, there are those whose minds are too coarsely grained to be entirely toppled. The very insensitive would be scarcely affected—oh, such people as some of our older, work-broken peasants. Well, the children would have fugitive memo-

ries, and that, combined with the confused, incoherent babblings of the half-mad morons, formed the basis for the 'Book of Revelations.'

"Naturally, the book was based, in the first place, on the testimony of those least qualified to serve as historians; that is, children and morons; and was probably extensively edited and re-edited through the cycles."

"Do you suppose," broke in Theremon, "that they carried the book through the cycles the way we're planning on handing on the secret of gravitation?"

Sheerin shrugged. "Perhaps, but their exact method is unimportant. They do it, somehow. The point I was getting at was that the book can't help but be a mass of distortion, even if it is based on fact. For instance, do you remember the experiment with the holes in the roof that Faro and Yimot tried—the one that didn't work?"

"Yes."

"You know why it didn't w—" He stopped and rose in alarm, for Aton was approaching, his face a twisted mask of consternation. "What's happened?"

ATON DREW HIM aside and Sheerin could feel the fingers on his elbow twitching.

"Not so loud!" Aton's voice was low and tortured. "I've just gotten word from the Hideout on the private line."

Sheerin broke in anxiously, "They are in trouble?"

"Not *they*." Aton stressed the pronoun significantly. "They sealed themselves off just a while ago, and they're going to stay buried till day after tomorrow. They're safe. But the *city*, Sheerin—it's a shambles. You have no idea—" He was having difficulty in speaking.

"Well?" snapped Sheerin impa-

tiently. "What of it? It will get worse. What are you shaking about?" Then, suspiciously, "How do you feel?"

Aton's eyes sparked angrily at the insinuation, and then faded to anxiety once more. "You don't understand. The Cultists are active. They're rousing the people to storm the Observatory—promising them immediate entrance into grace, promising them salvation, promising them anything. What are we to do, Sheerin?"

Sheerin's head bent, and he stared in long abstraction at his toes. He tapped his chin with one knuckle, then looked up and said crisply, "Do? What is there to do? Nothing at all! Do the men know of this?"

"No, of course not!"

"Good! Keep it that way. How long till totality?"

"Not quite an hour."

"There's nothing to do but gamble. It will take time to organize any really formidable mob, and it will take more time to get them out here. We're a good five miles from the city—"

He glared out the window, down the slopes to where the farmed patches gave way to clumps of white houses in the suburbs; down to where the metropolis itself was a blur on the horizon—a mist in the waning blaze of Beta.

He repeated without turning, "It will take time. Keep on working and pray that totality comes first."

Beta was cut in half, the line of division pushing a slight concavity into the still-bright portion of the Sun. It was like a gigantic eyelid shutting slantwise over the light of a world.

The faint clatter of the room in which he stood faded into oblivion, and he sensed only the thick silence

of the fields outside. The very insects seemed frightened mute. And things were dim.

He jumped at the voice in his ear. Theremon said, "Is something wrong?"

"Eh? Er—no. Get back to the chair. We're in the way." They slipped back to their corner, but the psychologist did not speak for a time. He lifted a finger and loosened his collar. He twisted his neck back and forth but found no relief. He looked up suddenly.

"Are you having any difficulty in breathing?"

The newspaperman opened his eyes wide and drew two or three long breaths. "No. Why?"

"I looked out the window too long, I suppose. The dimness got me. Difficulty in breathing is one of the first symptoms of a claustrophobic attack."

Theremon drew another long breath. "Well, it hasn't got me yet. Say, here's another of the fellows."

BEENAY had interposed his bulk between the light and the pair in the corner, and Sheerin squinted up at him anxiously. "Hello, Beenay."

The astronomer shifted his weight to the other foot and smiled feebly. "You won't mind if I sit down awhile and join in on the talk. My cameras are set, and there's nothing to do till totality." He paused and eyed the Cultist, who fifteen minutes earlier had drawn a small, skin-bound book from his sleeve and had been poring intently over it ever since. "That rat hasn't been making trouble, has he?"

Sheerin shook his head. His shoulders were thrown back and he frowned his concentration as he forced himself to breathe regularly. He said, "Have you had any trouble breathing, Beenay?"

Beenay sniffed the air in his turn. "It doesn't seem stuffy to me."

"A touch of claustrophobia," explained Sheerin apologetically.

"Oh-h-h! It worked itself differently with me. I get the impression that my eyes are going back on me. Things seem to blur and—well, nothing is clear. And it's cold, too."

"Oh, it's cold, all right. That's no illusion." Theremon grimaced. "My toes feel as if I've been shipping them cross country in a refrigerating car."

"What we need," put in Sheerin, "is to keep our minds busy with extraneous affairs. I was telling you a while ago, Theremon, why Faro's experiments with the holes in the roof came to nothing."

"You were just beginning," replied Theremon. He encircled a knee with both arms and nuzzled his chin against it.

"Well, as I started to say, they were misled by taking the 'Book of Revelations' literally. There probably wasn't any sense in attaching any physical significance to the Stars. It might be, you know, that in the presence of total Darkness, the mind finds it absolutely necessary to create light. This illusion of light might be all the Stars there really are."

"In other words," interposed Theremon, "you mean the Stars are the results of the madness and not one of the causes. Then, what good will Beenay's photographs be?"

"To prove that it is an illusion, maybe; or to prove the opposite, for all I know. Then again—"

But Beenay had drawn his chair closer, and there was an expression of sudden enthusiasm on his face. "Say, I'm glad you two got on to this subject." His eyes narrowed and he lifted one finger. "I've been thinking about these Stars and I've

got a really cute notion. Of course, it's strictly ocean foam, and I'm not trying to advance it seriously, but I think it's interesting. Do you want to hear it?"

He seemed half reluctant, but Sheerin leaned back and said, "Go ahead! I'm listening."

"Well, then, supposing there were other suns in the universe." He broke off a little bashfully. "I mean suns that are so far away that they're too dim to see. It sounds as if I've been reading some of that fantastic fiction, I suppose."

"Not necessarily. Still, isn't that possibility eliminated by the fact that, according to the Law of Gravitation, they would make themselves evident by their attractive forces?"

"Not if they were far enough off," rejoined Beenay, "really far off—maybe as much as four light years, or even more. We'd never be able to detect perturbations then, because they'd be too small. Say that there were a lot of suns that far off; a dozen or two, maybe."

Thereupon whistled melodiously. "What an idea for a good Sunday supplement article. Two dozen suns in a universe eight light years across. Wow! That would shrink *our* universe into insignificance. The readers would eat it up."

"Only an idea," said Beenay with a grin, "but you see the point. During eclipse, these dozen suns would become visible, because there'd be no *real* sunlight to drown them out. Since they're so far off, they'd appear small, like so many little marbles. Of course, the Cultists talk of millions of Stars, but that's probably exaggeration. There just isn't any place in the universe you could put a million suns—unless they touch each other."

Sheerin had listened with gradually increasing interest. "You've hit

something there, Beenay. And exaggeration is just exactly what would happen. Our minds, as you probably know, can't grasp directly any number higher than five; above that there is only the concept of 'many.' A dozen would become a million just like that. A damn good idea!"

"AND I've got another cute little notion," Beenay said. "Have you ever thought what a simple problem gravitation would be if only you had a sufficiently simple system? Supposing you had a universe in which there was a planet with only one sun. The planet would travel in a perfect ellipse and the exact nature of the gravitational force would be so evident it could be accepted as an axiom. Astronomers on such a world would start off with gravity probably before they even invent the telescope. Naked-eye observation would be enough."

"But would such a system be dynamically stable?" questioned Sheerin doubtfully.

"Sure! They call it the 'one-and-one' case. It's been worked out mathematically, but it's the philosophical implications that interest me."

"It's nice to think about," admitted Sheerin, "as a pretty abstraction—like a perfect gas or absolute zero."

"Of course," continued Beenay, "there's the catch that life would be impossible on such a planet. It wouldn't get enough heat and light, and if it rotated there would be total Darkness half of each day. You couldn't expect life—which is fundamentally dependent upon light—to develop under those conditions. Besides—"

Sheerin's chair went over backward as he sprang to his feet in a

rude interruption. "Aton's brought out the lights."

Beenay said, "Huh," turned to stare, and then grinned halfway around his head in open relief.

There were half a dozen foot-long, inch-thick rods cradled in Aton's arms. He glared over them at the assembled staff members.

"Get back to work, all of you. Sheerin, come here and help me!"

Sheerin trotted to the older man's side and, one by one, in utter silence, the two adjusted the rods in makeshift metal holders suspended from the walls.

With the air of one carrying through the most sacred item of a religious ritual, Sheerin scraped a large, clumsy match into spluttering life and passed it to Aton, who carried the flame to the upper end of one of the rods.

It hesitated there a while, playing futilely about the tip, until a sudden, crackling flare cast Aton's lined face into yellow highlights. He withdrew the match and a spontaneous cheer rattled the window.

The rod was topped by six inches of wavering flame! Methodically, the other rods were lighted, until six independent fires turned the rear of the room yellow.

The light was dim, dimmer even than the tenuous sunlight. The flames reeled crazily, giving birth to drunken, swaying shadows. The torches smoked devilishly and smelled like a bad day in the kitchen. But they emitted yellow light.

There is something to yellow light—after four hours of somber, dimming Beta. Even Latimer had lifted his eyes from his book and stared in wonder.

Sheerin warmed his hands at the nearest, regardless of the soot that gathered upon them in a fine, gray powder, and muttered ecstatically to

himself. "Beautiful! Beautiful! I never realized before what a wonderful color yellow is."

But Theremon regarded the torches suspiciously. He wrinkled his nose at the rancid odor, and said "What are those things?"

"Wood," said Sheerin shortly.

"Oh, no, they're not. They aren't burning. The top inch is charred and the flame just keeps shooting up out of nothing."

"That's the beauty of it. This is a really efficient artificial-light mechanism. We made a few hundred of them, but most went to the Hideout, of course. You see"—he turned and wiped his blackened hands upon his handkerchief—"you take the pithy core of coarse water reeds, dry them thoroughly and soak them in animal grease. Then you set fire to it and the grease burns, little by little. These torches will burn for almost half an hour without stopping. Ingenious, isn't it? It was developed by one of our own young men at Saro University."

AFTER THE momentary sensation, the dome had quieted. Latimer had carried his chair directly beneath a torch and continued reading, lips moving in the monotonous recital of invocations to the Stars. Beenay had drifted away to his cameras once more, and Theremon seized the opportunity to add to his notes on the article he was going to write for the *Saro City Chronicle* the next day—a procedure he had been following for the last two hours in a perfectly methodical, perfectly conscientious and, as he was well aware, perfectly meaningless fashion.

But, as the gleam of amusement in Sheerin's eyes indicated, careful note taking occupied his mind with something other than the fact that the sky was gradually turning a hor-

rible deep purple-red, as if it were one gigantic, freshly peeled beet; and so it fulfilled its purpose.

The air grew, somehow, denser. Dusk, like a palpable entity, entered the room, and the dancing circle of yellow light about the torches etched itself into ever-sharper distinction against the gathering grayness beyond. There was the odor of smoke and the presence of little chuckling sounds that the torches made as they burned; the soft pad of one of the men circling the table at which he worked, on hesitant tiptoes; the occasional indrawn breath of someone trying to retain composure in a world that was retreating into the shadow.

It was Theremon who first heard the extraneous noise. It was a vague, unorganized *impression* of sound that would have gone unnoticed but for the dead silence that prevailed within the dome.

The newsman sat upright and replaced his notebook. He held his breath and listened; then, with considerable reluctance, threaded his way between the solaroscope and one of Beenay's cameras and stood before the window.

The silence ripped to fragments at his startled shout:

"*Sheerin!*"

Work stopped! The psychologist was at his side in a moment. Aton joined him. Even Yimot 70, high in his little lean-back seat at the eyepiece of the gigantic solaroscope, paused and looked downward.

Outside, Beta was a mere smoldering splinter, taking one last desperate look at Lagash. The eastern horizon, in the direction of the city, was lost in Darkness, and the road from Saro to the Observatory was a dull-red line bordered on both sides by wooded tracts, the trees of which had somehow lost individuality and

merged into a continuous shadowy mass.

But it was the highway itself that held attention, for along it there surged another, and infinitely menacing, shadowy mass.

Aton cried in a cracked voice, "The madmen from the city! They've come!"

"How long to totality?" demanded Sheerin.

"Fifteen minutes, but . . . but they'll be here in five."

"Never mind, keep the men working. We'll hold them off. This place is built like a fortress. Aton, keep an eye on our young Cultist just for luck. Theremon, come with me."

SHEERIN was out the door, and Theremon was at his heels. The stairs stretched below them in tight, circular sweeps about the central shaft, fading into a dank and dreary grayness.

The first momentum of their rush had carried them fifty feet down, so that the dim, flickering yellow from the open door of the dome had disappeared and both up above and down below the same dusky shadow crushed in upon them.

Sheerin paused, and his pudgy hand clutched at his chest. His eyes bulged and his voice was a dry cough. "I can't . . . breath . . . go down . . . yourself. Close all doors—"

Theremon took a few downward steps, then turned. "Wait! Can you hold out a minute?" He was panting himself. The air passed in and out his lungs like so much molasses, and there was a little germ of screeching panic in his mind at the thought of making his way into the mysterious Darkness below by himself.

Theremon, after all, was afraid of the dark!

"Stay here," he said. "I'll be back in a second." He dashed upward two steps at a time, heart pounding—not altogether from the exertion—tumbled into the dome and snatched a torch from its holder. It was foul smelling, and the smoke smarted his eyes almost blind, but he clutched that torch as if he wanted to kiss it for joy, and its flame streamed backward as he hurtled down the stairs again.

Sheerin opened his eyes and moaned as Theremon bent over him. Theremon shook him roughly. "All right, get a hold on yourself. We've got light."

He held the torch at tiptoe height and, propping the tottering psychologist by an elbow, made his way downward in the middle of the protecting circle of illumination.

The offices on the ground floor still possessed what light there was, and Theremon felt the horror about him relax.

"Here," he said brusquely, and passed the torch to Sheerin. "You can hear *them* outside."

And they could. Little scraps of hoarse, wordless shouts.

But Sheerin was right; the Observatory *was* built like a fortress. Erected in the last century, when the neo-Gavottian style of architecture was at its ugly height, it had been designed for stability and durability, rather than for beauty.

The windows were protected by the grillework of inch-thick iron bars sunk deep into the concrete sills. The walls were solid masonry that an earthquake couldn't have touched, and the main door was a huge oaken slab reinforced with iron at the strategic points. Theremon shot the bolts and they slid shut with a dull clang.

At the other end of the corridor, Sheerin cursed weakly. He pointed

to the lock of the back door which had been neatly jimmied into uselessness.

"That must be how Latimer got in," he said.

"Well, don't stand there," cried Theremon impatiently. "Help drag up the furniture—and keep that torch out of my eyes. The smoke's killing me."

He slammed the heavy table up against the door as he spoke, and in two minutes had built a barricade which made up for what it lacked in beauty and symmetry by the sheer inertia of its massiveness.

Somewhere, dimly, far off, they could hear the battering of naked fists upon the door; and the screams and yells from outside had a sort of half reality.

That mob had set off from Saro City with only two things in mind: the attainment of Cultist salvation by the destruction of the Observatory, and a maddening fear that all but paralyzed them. There was no time to think of ground cars, or of weapons, or of leadership, or even of organization. They made for the Observatory on foot and assaulted it with bare hands.

And now that they were there, the last flash of Beta, the last ruby-red drop of flame, flickered feebly over a humanity that had left only stark, universal fear!

Theremon groaned, "Let's get back to the dome!"

IN THE DOME, only Yimot, at the solaroscope, had kept his place. The rest were clustered about the cameras, and Beenay was giving his instructions in a hoarse, strained voice.

"Get it straight, all of you. I'm snapping Beta just before totality and changing the plate. That will leave one of you to each camera.

You all know about . . . about times of exposure—"

There was a breathless murmur of agreement.

Beenay passed a hand over his eyes. "Are the torches still burning? Never mind, I see them!" He was leaning hard against the back of a chair. "Now remember, don't . . . don't try to look for good shots. Don't waste time trying to get t-two stars at a time in the scope field. One is enough. And . . . and if you feel yourself going, get away from the camera."

At the door, Sheerin whispered to Theremon, "Take me to Aton. I don't see him."

The newsman did not answer immediately. The vague forms of the astronomers wavered and blurred, and the torches overhead had become only yellow spots.

"It's dark," he whimpered.

Sheerin held out his hand, "Aton." He stumbled forward. "Aton!"

Theremon stepped after and seized his arm. "Wait, I'll take you." Somehow he made his way across the room. He closed his eyes against the Darkness and his mind against the chaos within it.

No one heard them or paid attention to them. Sheerin stumbled against the wall. "Aton!"

The psychologist felt shaking hands touching him, then withdrawing, and a voice muttering, "Is that you, Sheerin?"

"Aton!" He strove to breathe normally. "Don't worry about the mob. The place will hold them off."

LATIMER, the Cultist, rose to his feet, and his face twisted in desperation. His word was pledged, and to break it would mean placing his soul in mortal peril. Yet that word had been forced from him and had not been given freely. The Stars

would come soon; he could not stand by and allow— And yet his word was pledged.

Beenay's face was dimly flushed as it looked upward at Beta's last ray, and Latimer, seeing him bend over his camera, made his decision. His nails cut the flesh of his palms as he tensed himself.

He staggered crazily as he started his rush. There was nothing before him but shadows; the very floor beneath his feet lacked substance. And then someone was upon him and he went down with clutching fingers at his throat.

He doubled his knee and drove it hard into his assailant. "Let me up or I'll kill you."

Theremon cried out sharply and muttered through a blinding haze of pain, "You double-crossing rat!"

The newsman seemed conscious of everything at once. He heard Beenay croak, "I've got it. At your cameras, men!" and then there was the strange awareness that the last thread of sunlight had thinned out and snapped.

Simultaneously he heard one last choking gasp from Beenay, and a queer little cry from Sheerin, a hysterical giggle that cut off in a rasp—and a sudden silence, a strange, deadly silence from outside.

And Latimer had gone limp in his loosening grasp. Theremon peered into the Cultist's eyes and saw the blankness of them, staring upward, mirroring the feeble yellow of the torches. He saw the bubble of froth upon Latimer's lips and heard the low animal whimper in Latimer's throat.

With the slow fascination of fear, he lifted himself on one arm and turned his eyes toward the blood-curdling blackness of the window.

Through it shone the Stars!

Not Earth's feeble thirty-six hun-

dred Stars visible to the eye—Lagash was in the center of a giant cluster. Thirty thousand mighty suns shown down in a soul-searing splendor that was more frighteningly cold in its awful indifference than the bitter wind that shivered across the cold, horribly bleak world.

Theremon staggered to his feet, his throat constricting him to breathlessness, all the muscles of his body writhing in a tensivity of terror and sheer fear beyond bearing. He was going mad, and knew it, and somewhere deep inside a bit of sanity was screaming, struggling to fight off the hopeless flood of black terror. It was very horrible to go mad and know that you were going mad—to know that in a little minute you would be here physically and yet all the real essence would be dead and drowned in the black madness. For this was the Dark—the Dark and the Cold and the Doom. The bright walls of the universe were shattered and their awful black fragments were falling down to crush and squeeze and obliterate him.

He jostled someone crawling on hands and knees, but stumbled somehow over him. Hands groping at his tortured throat, he limped toward the flame of the torches that filled all his mad vision.

"Light!" he screamed.

Aton, somewhere, was crying, whimpering horribly like a terribly frightened child. "Stars—all the Stars—we didn't know at all. We didn't know anything. We thought six stars is a universe is something the Stars didn't notice is Darkness forever and ever and ever and the walls are breaking in and we didn't know we couldn't know and anything—"

Someone clawed at the torch, and it fell and snuffed out. In the instant, the awful splendor of the indifferent Stars leaped nearer to them.

On the horizon outside the window, in the direction of Saro City, a crimson glow began growing, strengthening in brightness, that was not the glow of a sun.

The long night had come again.

THE END.

