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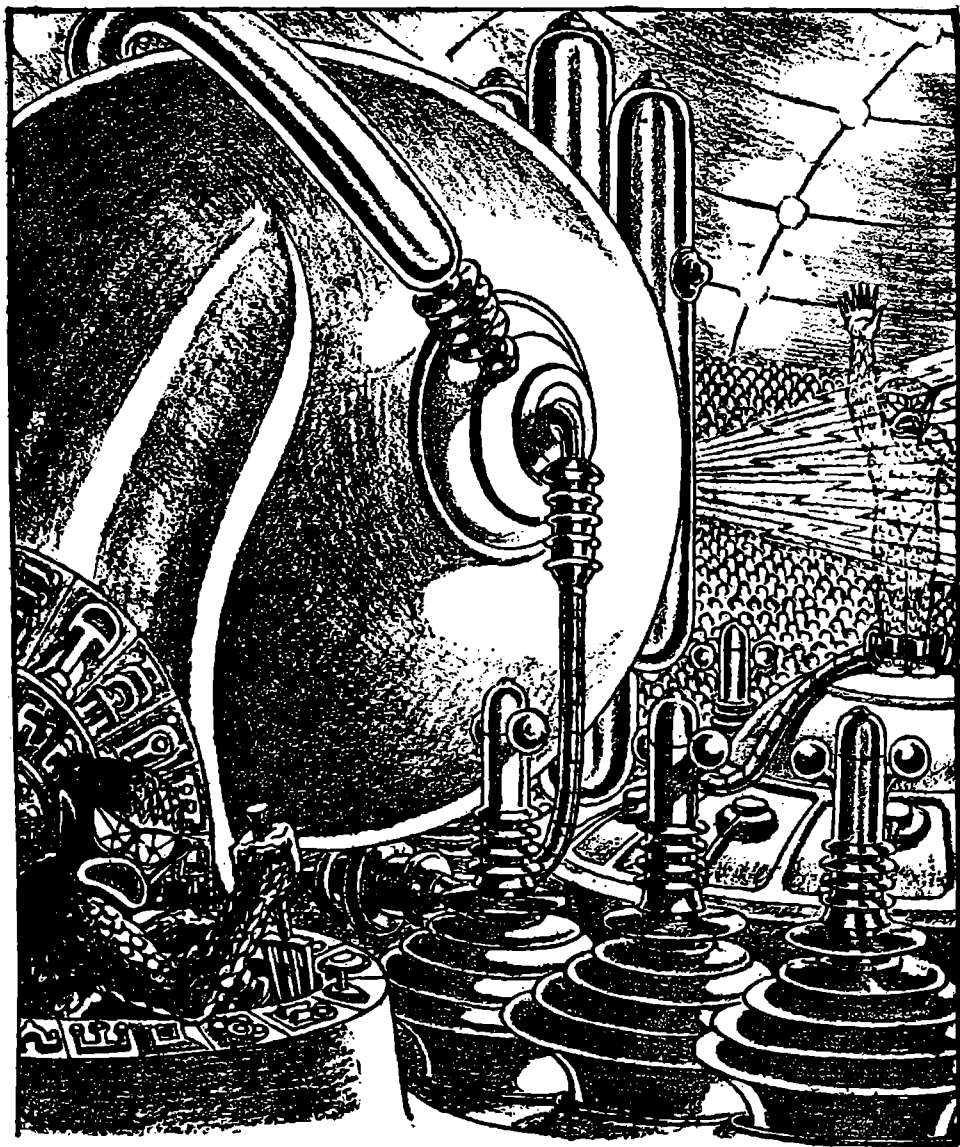
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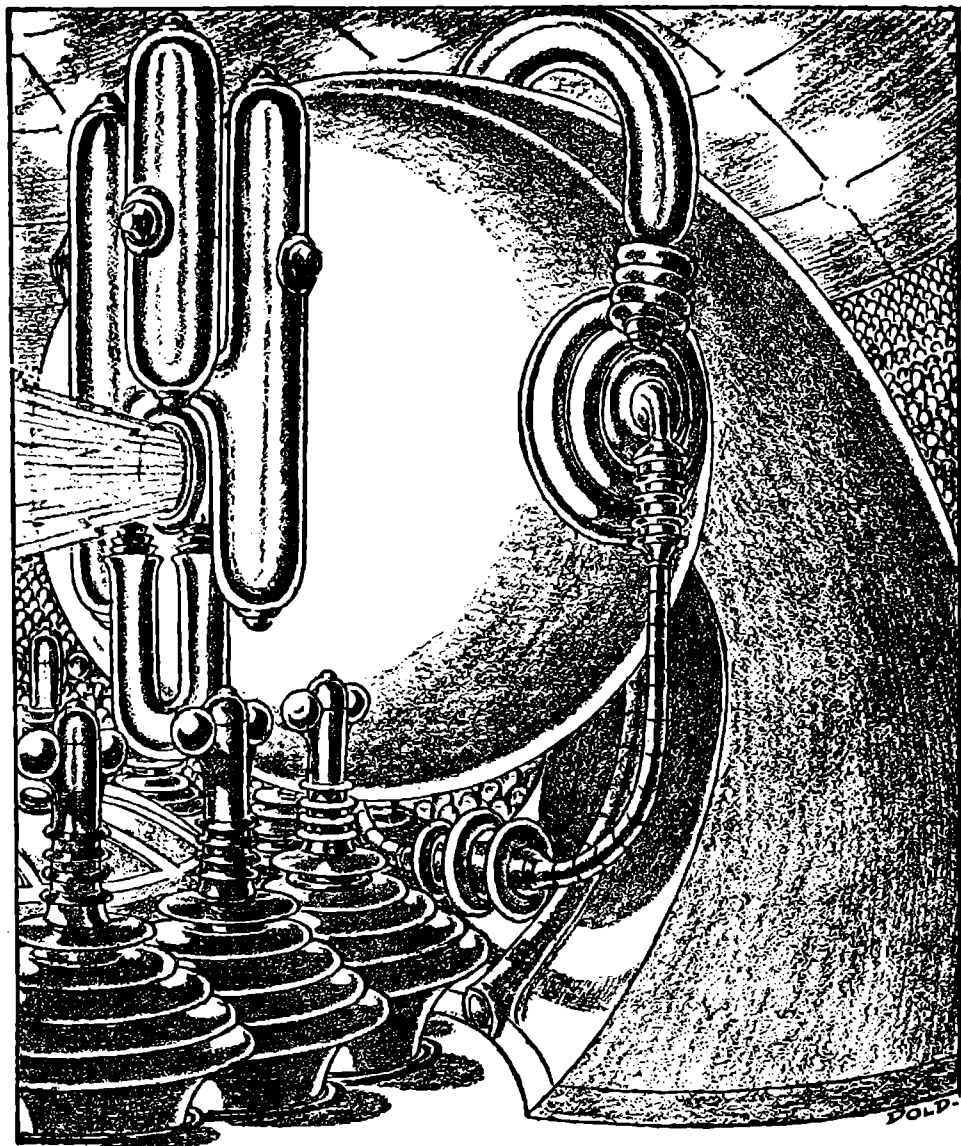
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WORLDS WITHIN

*A Menace created by a scientist's
ambition—wherein a sub-atomic
universe reveals its power to expand.*

by JOHN RUSSELL FEARN



With calm patience Vaspus waited, then, at last, raised his queerly fashioned hand for the experiment to begin.

THE VAST INTERIOR of the Martian hall of science was droning with the sound of eager voices, rising up to the mighty vaulted roof with its vitiex-filtered glass to seize in fullest measure the life-giving radiations of the red planet's distant Sun.

Tier upon tier, fifty in all, rose the

serried lines of Martians—immense, red-skinned creatures, unclothed, queer body scales rising and falling evenly as they absorbed the essential solar radiations. Creatures almost fantastic in appearance, and yet masters of science and all it had to offer, staring now with huge, faceted eyes toward the shining metal

floor of the colossal place, and at the complicated apparatus and dais that graced its extreme center. Mouths were open, talking rapidly, revealing triple rows of dangerous, backward-slanting teeth.

The hour of experiment had arrived. Every scientist of the red planet was present, anxiously waiting.

Then suddenly the talking died away; there came the solemn hush of respect and interest. With a slow and measured tread, Vaspus, master of the red planet, marched into view from the tremendous central doorway, accompanied, as ever, by Lothan, his chief adviser, and Ithos, attendant scientist.

The master's faceted eyes glanced over the tremendous assembly as he walked; he inclined his big, scaly head slightly at the murmur of salutations directed toward him. Then, with the same impartial dignity, he gained the dais amidst the machinery and raised a powerful seven-fingered hand for silence. Immediately dead calm descended. Lothan and Ithos stood to one side.

Vaspus adjusted the minute microphone before him and spoke quietly.

"Fellow scientists, I have assembled you all here to-day for a very definite purpose: to behold a recent achievement in science. For a considerable time—in fact, ever since we arrived on this planet from our own doomed world of Aries—I have been irritated by the fact that we should have to die, and also that we do not use in our lifetime one tenth of the intelligence of which we are capable."

Vaspus paused for a moment, studied his attentive listeners, then resumed.

"Let us first take the problem of age. We all suffer from katabolism; the cells of our bodies break down perpetually. These we build up with food, nutriments, solar rays—but in the end we find the breakdown is swifter than any process of anabolism we can devise. That, in its turn, is linked inevitably with fading mentality. In its last efforts, at the point

of extreme age, to repair the perpetual waste the blood stream flows less readily to the brain. Concentration becomes erratic. Often on the verge of a masterful discovery we find senility has us in its grip. We die. Our normal life span of three hundred years is pitifully short in which to wrest the ultimate secrets of the cosmos."

The multitude gave a murmur of assent.

"Therefore, to the end of defeating death and of giving us bodies that can live eternally, I have devised this machine," the master went on, motioning to the apparatus grouped about him. "We have long known that cosmical radiations are solely responsible for the creation of life; but, hard though we have labored, we have never been successful in releasing life in inert protoplasmic elements. Since that is so, we shall, for the time being, have to accept that defeat with good grace. But out of the struggle there emerges one great truth: if we cannot create life, we can at least forestall death!

"With this machine I generate cosmic rays, called such for want of a better name. You may be aware of the exact nature of creating these radiations. Normally they occur at the explosion of a supernova in galaxial space, the resulting explosion generating hundreds of millions of electron volts. Recently such an occurrence happened in the constellation known as Ramino. Actually, of course, that event took place seven million years ago, the light only just reaching us. Our instruments were able to pick up the radiations and revealed a generation of nearly seven million electron volts.

"KNOWING from our calculations that this would happen, we devised, in our laboratories, machinery capable of trapping these brief radiations, directed them upon seedlings, permitting different quantities of the radiation to seep

through. The lesser the quantity of cosmical rays—measuring, incidentally, one tenth of a million millionth of a centimeter—the more the seedlings were stimulated; the greater the quantity, the more they were sterilized—proving, beyond doubt, that between the great and small doses there lies one—and only one—fixed degree wherein actual life is possible. Presumably, when life first began to spawn in this universe, when life first came to our own world of Aries, it was created by this one particular wave length, which has since been too strong or too weak to create further life.

“I repeat: we have tried to utilize these radiations to produce life, but there is something missing. No matter what percentage of power we use, we cannot excite living energy into inert chemicals; the reason is probably because the conditions of this planet are not conducive to life. It is so different to our lost, beloved Aries.” For a moment the ruler’s voice quavered slightly, then he went on again. “I shall, therefore, use it to prevent senility and decay, for it has been definitely proven that it operates perfectly on flesh that is already living, arrests katabolism completely. Within these spheres”—he indicated two gigantic reinforced metal globes—“highly energized blocks of metal will be disintegrated into free energy, allowed to release radiation that is precisely identical to cosmic rays, automatically adjusted to the required power by those triple rectifiers you see in the background. It is only owing to the untiring diligence of Lothan that this machinery has become possible.”

The adviser bowed his scaly head; an odd light was in his huge eyes as he looked up again.

Steadily, Vaspus continued. “I shall place myself between the two spheres, absolutely in line with the invisible radiation that will stream from one to the other. Earthing and neutralizing devices clamped to my feet and thence di-

rected to insulating machinery will save me from being blasted into infinity and will instead allow my body to be charged with cosmical radiation, arresting for some hundred years or more all possible chance of senility. In another century it will become necessary to undergo the same treatment again. If it is a success, my friends, we know that we have defeated age and death—may continue our researches to eternity!”

“As always, you have courage, master,” murmured Lothan smoothly.

Vaspus turned to him. “Courage? It is not a question of courage, my friend, when the machinery has been tested and proved accurate. Let the experiment proceed! I, as ruler, shall be the first to test it.”

The assembled Martians became tense, every eye fixed upon their master as he calmly stepped into the complicated, machinery-cluttered area between the two immense generating globes. In solemn, absorbed silence the audience watched heavily insulated clamps fastened about his thick, scaly ankles, the massive, double-covered earthing wires leading back to the complex neutralizing plant. With calm patience Vaspus waited, then at last raised his queerly fashioned hand for the experiment to commence.

The safety lights in the glass roof, burning night and day, suddenly dimmed at the terrific drain on the city’s power resources; incalculable volts of electrical energy were created by the suddenly whining dynamos, rising up from a low and steady hum to a shrieking, ear-splitting din. Electrodes protruding from each of the massive spheres gathered the power unto themselves; strange, gas-filled tubes connected to them began to writhe internally with incredibly brilliant lavender light.

Lothan shouted a question and the ruler nodded. In response, the adviser threw in a tremendous four-pole switch on the complex control board. All the disordered rioting of electricity suddenly

took on an understandable meaning. The seething electronic power fast disintegrating the metals within the spheres rose to an absolute pitch, brought about the annihilation of matter. The squirmings of electricity in the glass tubes became mere floods of unbearably brilliant flame, hurled their power into the electrodes.

THE ASSEMBLY watched stupefied, suddenly sprang to their feet in concern for their ruler as there abruptly streamed from the electrodes coruscating streamers of mauve flame—electrical energy that blazed and twisted with the vivid savagery of untamed lightning. And between these streamers stood Vaspus, unmoved, his scaly body painted by flickering purple and blackest shadow. Only the raising of his arm revealed that he was still unhurt, the neutralizing machines working faultlessly to save his body from being shattered into powder by the immeasurable powers hurled upon him.

For nearly ten minutes the amazing pyrotechnic electrical display continued, raised the temperature of the hall by nearly twenty degrees. Then Lothan cut out the main switch, followed it up by moving the others, and the shrieking dynamos swept down the scale and became still. The tubes flickered and expired; the red-hot electrodes turned into the blackness of fast-cooling metal.

Silence fell—the dead and astounded silence of a baffled multitude, broken only, at last, by a long exhalation of relief as Vaspus raised his arms in salutation.

"Age is ended!" he cried exultantly. "This day we of Mars, formerly of Aries, have conquered death! We are the masters of life and all it has to offer. Lothan, unfetter these clamps."

Quietly, the adviser obeyed, stood back with a concerned expression on his ugly face.

"My lord feels none the worse?" he inquired softly.

"Not in the slightest," Vaspus answered complacently. "We have done well between us, Lothan—have given to our race a priceless heritage."

Lothan nodded silently, watched as his master stepped forward amidst the now approaching multitude from the tiers. In Lothan's eyes there reposed the light of strange knowledge, of a buried secret. Upon his thick lips was the faintest suggestion of a cynical smile.

"Eternal life," he murmured to himself. "I wonder——"

He prepared to move and follow his ruler, then paused at a light touch on his shoulder. Turning quickly he beheld Ithos.

"The experiment has been a success, Lothan," he muttered bitterly. "I thought you said it would destroy that old dotard. Do you realize what this means? Eternal life for him; the failure of possible dominance and leadership for us. You—you blunderer!"

Lothan smiled twistedly, directed a glance toward the multitude seething round their ruler.

"You would do well, Ithos, to choose your words more carefully when in ear-shot of our fellows," he answered coldly. "I knew Vaspus would live through the experiment. We cannot afford to take chances; you have got to remember that the people love him. Remember, too, that he trusts me implicitly—and you, too. Not for a moment does he suspect that our real aim——"

"That doesn't interest me," Ithos snapped with brutal directness. "You have given him eternal life—unless, of course, we deliberately murder him. It would have been so easy! One slip of the electrode switches and—— Our ascension to the kingship would have been simple!"

"And the people eternally doubting us? Against us because we destroyed the king? No, my friend." Lothan

shook his head. "To-day I have given him eternal life—but also eternal death! Never was a man so surely doomed; never was a king so utterly deposed without knowing it."

"I don't understand you," Ithos breathed. "How can he——"

"You'll learn in good time, my friend. Just watch, make no false moves, and leave everything to me. That's all."

With that Lothan turned, and with majestic tread joined his jubilant ruler, immediately becoming the same subservient scientist he had always been. Lothan, besides being a scientist, was a first-class actor.

II.

THROUGH THE DAYS that followed, the normal, ordered course of science proceeded on the red planet. The twin dominant cities in the equatorial and north polar regions of the globe continued to throb with intellectual activity.

Mars, still a young world, blessed with pure air, mainly cloudless skies and all-the-year-round sunshine—weak as compared to the Sun of departed Aries—but enough for the scaly monsters to extract from it a high percentage of essential life-giving radiations.

Though the Arians had made a thorough study of the celestial bodies about them they were quite convinced that no other worlds held life. The four giant monsters in the deeps beyond the inner circle were desolate, utterly immature; the most advanced stage seemed to lie on the cloud-ensheathed third inner planet, its atmospheric blanket only parting rarely to reveal beneath a rolling waste of ocean or landscapes in the throes of gigantic change and reformation.

Superminds in a young system. There was something paradoxical about it, and yet it was only the outcome of

having to leave a world in the last stages of collapse. Mars was a young and lovely world, and of all the inhabitants upon it, Lothan perhaps realized the fact with the most clearness. It stirred jealousy in his soul that Vaspus should be lord of it—a jealousy not even yet eradicated by countless years of scientific achievement. Within him burned ambition. To the end of becoming ruler he had labored unceasingly, not to give Vaspus eternal life, but infinite death. And, in the background of this strange intrigue there hovered Ithos, brutally efficient, but lacking the finesse and personality of his even more unscrupulous colleague.

The days following the cosmic-energy experiment found Lothan still inquiring after his master's welfare, found his face becoming darker as he learned that Vaspus was in perfect health, pursuing with more avidity than ever his experiments into the realms of atomic science, the last state of nature to baffle his brilliant mind. Indeed, far from being ill, he was so satisfied with his condition that he gave orders for all the members of his race to be treated by the cosmic-energy machine at the earliest moment—orders which Lothan received with studied calm.

"I think, master, that it would be better to postpone such a benefit—at least for a while," he remarked suavely within the immense experimental laboratory.

"Why?" There was surprise in Vaspus' tone, but he did not look up from his machinery.

"Because, master, you are our ruler, and as such are actually the only one entitled to immortality. A thing of value is only such because of its rarity. Make us all immortal and we lose the greatness of our achievement."

"A strange viewpoint, Lothan," Vaspus commented, looking up at last. "We created immortality for the good of us all. Proceed with the arrangements for us all to receive the benefits."

Lothan bowed. "I will do so, master. Before I go, however, might I inquire how your atomic investigations are proceeding?"

"Favorably. We are undoubtedly up against enormous difficulties. In constructing this apparatus for viewing the atomic universe one has to work with more than normal care. Manifestly, the only way to accomplish the feat of rendering the microcosm viewable is by vibration. Every atom in the microcosm emits vibrations of force, which in turn have to be amplified much the same as we now amplify a tiny sound to world-wide range. There are difficulties, but I think we shall overcome them."

Lothan looked reflectively over the accumulation of machinery, reflected transiently on the years that had been spent on this particular branch of science.

"The last details still elude me," Vaspus went on thoughtfully. "The very act of trapping the microcosmic vibrations creates strange and unpredictable electronic changes. It is, I think, caused by the vibrations emanating from the amplifying machinery itself. The slightest pressure, the slightest movement, even the pressure of a weak beam of light, produces the most unexpected results. I am working now on the principle of absolute dark and absolute steadiness. I have little reason to believe but what another two weeks will see success. Then, my friend, we shall solve the ultimate riddle of nature. The secrets of the infinitely small. We know the universe about us is almost empty, but are the worlds that teem about us in invisibility likewise empty? That I cannot believe."

"Only the machinery can show," Lothan answered quietly, and with that left the laboratory, bumped almost immediately into Ithos in the main corridor.

"Well?" he demanded roughly. "Is his death any nearer?"

Lothan frowned. "No—not yet; but

it will come. Have patience. In the meantime, see to it that the cosmic-energy machine breaks down. You know its construction almost as well as I do. Burn out a series of wires; do anything you like, so long as you produce a natural accident. Under no circumstances is that machine to be used on anybody else—at least, not until we know the exact reactions on Vaspus."

Ithos shrugged his mighty shoulders. "I'll attend to it now." He nodded, and swiftly departed, leaving Lothan in deep thought.

"It's *got* to succeed," he muttered. "If not, then all the laws of science must be in vain."

TO LOTHAN'S intense satisfaction, he found Vaspus less convinced of his good health as the sunny Martian days sped by. Though the ruler spent his time perfecting the final details of his amazing atomic-penetrator apparatus, he was clearly a sufferer from some strange and inexplicable ailment.

For the first three days of the disease's onset he refused rigidly to pay attention to it, mastered rising pain with a set face and firm mouth, wrestled steadily with his scientific problems. Lothan was ever by his side, outwardly concerned and inwardly jubilant.

"Master," he said at length, "I feel that you should take a rest. You are obviously unwell, unable to proceed."

Vaspus smiled twistedly. "It is nothing—cannot be. For hundreds of cycles ill health has been unknown amongst us. How can I possibly be unwell?"

"Perhaps—the experiment——" Lothan murmured, eyes on his work.

Vaspus looked up sharply. "That was two weeks ago, Lothan; it cannot have effect now. No—no, the thing is absurd! Maybe I have not been receiving my full quota of solar radiations, been working too long in this stuffy laboratory. I will be all right. I cannot afford to slacken my efforts now.

Within the next twelve hours this apparatus will be complete. We will be ready to view the atomic microcosm that teems invisibly about us."

Lothan did not respond, continued steadily with his work.

So, steadily, through the required twelve hours, Vaspus struggled, with iron determination, against his unknown ailment, refused all the assistance Lothan smoothly offered, ordered away all his assistant scientists who insisted that he should submit himself to a thorough examination. None the less, his assertion that he was really quite well began to carry less conviction. His external scales were drooping—a sure sign of bad condition. His breathing came with the sharp gasps of a man trying desperately to control pain.

Lothan made no comments, merely watched with a grim smile twisting his heavy lips, taking care, none the less, that his superior did not notice. When at length the instruments were assembled to Vaspus' satisfaction, Lothan stood back for further orders.

Vaspus waved a weak hand. "Summon the leaders," he ordered huskily. "There is not time for all to assemble. Something—something *is* wrong with me, Lothan. You were right."

"Master, if there is any way I can help you—"

"No—no, not now. Summon everybody, quickly! I—"

The master stopped, staggered a pace, clutched tenaciously to the mighty control board of his machinery. Then, without another sound, he pitched to the metal floor and lay still.

Only for an instant did Lothan stand gazing down at him, faceted eyes gleaming; then he lifted the ruler in his powerful arms and laid him on the long metal table against the wall. Turning, he snatched up the vibration communicator and summoned the leading medical and biological minds.

Within three minutes the experts

were present—immense and ugly creatures possessed of the keenest physiological minds on the planet. Lothan stood to one side as they examined the ruler with their complicated instruments, watched keenly every little reaction of their gauges and testing meters.

At length Umyas, the chief biologist, looked up. His face was set in an expression of profound amazement.

"Whatever it is that has overcome our beloved master, it is something beyond our ken," he muttered. "He is not dead—neither is he alive. The only course is for him to retire to his chamber, there to be watched and guarded until there is some development that will give us a clue."

Lothan nodded and quietly summoned two robot machines standing behind him. With gentle metal arms they lifted the unconscious ruler and bore him out of the laboratory, laid him down, at last, on his own cushioned air bed within his immense private chamber. As they performed the action, Vaspus stirred for a moment; his great eyes settled on Lothan's impassive face.

"Lothan—the machinery!" he breathed weakly. "If—if anything should happen to me you must demonstrate. You—you take command! But show the machine—"

"Later, master," Lothan replied quietly. "You will soon be with us again. It is your achievement, even though I understand it. I am not worthy to set in motion the creation of your mind."

Vaspus did not answer. His eyes closed again, and he relaxed gently. The assembled experts made motions amongst themselves, arranged about the bed the necessary automatic machinery that would attend to the stricken ruler's every need during their absence. Then, satisfied they had done all in their power, they darkened the room and departed. Lothan followed silently in their wake.

In the corridor, Umyas turned to him questioningly.

"This machinery the master speaks of? What is it?"

"A revolution in atomic science, Umyas," Lothan replied coolly. "With its aid the atomic universes can be seen; the worlds within them become clearly visible. For years, as you know, our revered ruler has labored to such an end. He was fortunate in that he defeated the illness long enough to finish his task. The machine waits—either for him or me."

"You mean?"

The adviser shrugged superciliously. "If the master should pass away—and it is ill that such words should have to pass my lips—I shall rule in his stead. He made that fact perfectly clear, I think."

Umyas did not answer. He had no regard for the quiet, sinister Lothan—never had had. Without another word, he turned and left, with his puzzled fellow specialists around him.

VASPUS, lying on his bed, was in a physical condition that utterly baffled his trained and resourceful brain, matured as it was, through decades, to face any problem and solve it almost immediately.

His condition was paradoxical in that his brain was unaffected. He was crystal-clear in perception; had never been clearer. The trouble lay in his body. It refused utterly to respond to his will, was seized in some ironically immovable paralysis that all his strength of mentality failed to break. So far as he could determine, his body energy was undergoing some strange and subtle change, was in the grip of something outside his own normal energy that had plunged him into a blur of pain.

Even to open his eyes was an enormous effort. He beheld only the darkened bedchamber. The slightly parted curtains revealed the Martian night

through the window, little Phobos coming into view ever and anon on its tireless wandering across the sky, casting its pale light on the attendant machines as they mechanically tended their master's every conceivable need, injected into his blood stream strong stimulants and pain-deadening sedatives. Normally they would have given him relief; this time, for some obscure reason, their powers were nonefficacious.

With a tremendous effort, Vaspus forced his eyes downward to look at himself. Had he not been so paralyzed he would have started with amazement; his body was bathed in lambent blue fire, lay in an aura of phosphorescence! Energy? Electricity? Chemical activity? Vaspus' mind postulated all three possibilities and came up against a blank wall. He did not know. Besides, this effort of keeping his eyelids open—He closed them wearily and relaxed.

Not ten minutes later the door of the room opened very softly, so softly the pain-deadened ruler failed to hear it. The harshly cut face of Ithos obtruded into the opening, painted with the glowing fire from the master's body. Almost instantly he retreated, fled through long, airy passages to the private domain of Lothan. He found the adviser seated at his desk, head sunken into his scaly paws in musing thought.

"Lothan! Lothan, come quickly! The master——" Ithos stopped, gulping for breath, waved a gesticulatory hand as Lothan gazed at him.

"Well, what of the master? Has he recovered, or is he dead?"

"Neither; I think he's—he's on fire! He is bathed in blue light. Lothan, what have you done to him? Don't you realize that if this act of yours is ever found out you'll be——"

"Quiet!" Lothan snarled, leaping up and flinging his powerful hand across his colleague's mouth. "You dotard! Do you want everybody to hear you?"

He stopped and withdrew his hand, smiled bitterly. "So the master's body glows, does it?"

"As blue as an energy tube!"

"Seeing that it *is* energy, that is not surprising," the adviser commented calmly. "Everything is working out exactly to plan, Ithos."

"But, Lothan, what have you *done*? Can't you tell me?"

Lothan sat down again, did not answer the question. Instead he asked one.

"Ithos, if the universe were suddenly flooded with energy from an external source, from some suprauniverse, exactly what do you imagine would happen?"

"Presumably it would be destroyed."

"Ordinarily, yes. But suppose there came into it an energy of the exact type needed to create life instead of destroy matter? Would not every piece of matter in the universe, every planet, every satellite, even every star, momentarily increase its energy as it absorbed the sudden influx? Naturally, it would—and in the process it is also quite conceivable that the universe would turn blue with electrical energy. That, my worried friend, is a simile of what is happening to our dear, beloved ruler!"

ITHOS gawped stupidly, stumbled over the strange theory the adviser had outlined.

"How *can* it?" he blurted out.

"Because inside of Vaspus, inside you, inside me—inside every being on this world or any other world, even inside the worlds themselves, are universes. Molecules, if you prefer—universes of the infinite small, but just the same—universes!"

"That is simple science, Lothan. Do you take me for a learner?"

"Candidly, yes." Lothan nodded cynically. "Every scientist in this planet, even Vaspus himself, missed the

main issue when this life-eternal system was promoted. Vaspus certainly couldn't create life out of inert chemicals; he admitted that much. But he could stop death. That also was quite true. What he forgot was that, by allowing himself to be bathed in that cosmical energy he gave life to living worlds inside his own body! They were not inert chemicals, such as those we tried to stir into life. They were electrons, worlds in miniature, all packed within the atoms and molecules comprising Vaspus' body. Very well, then. When he supplied cosmical energy and allowed it to surge through his body he gave to those electrons the energy of life, spawned upon them maybe living beings, beings of the microcosm.

"Maybe it only happened to one electron, one world—maybe it happened to thousands—that we don't know. It all depends upon the different states of the worlds concerned. What we do know is that Vaspus has probably brought life to worlds within himself, and in so doing has replaced his own bodily energy with cosmical energy, the full balance of which has taken some little time to show. Now it has come, it will inevitably mean his death."

"Why?"

"The people will demand it in their own interests."

Ithos looked puzzled. "I don't see that, Lothan. The people will never seek the death of our ruler."

"No?" Lothan smiled amusedly. "You will see for yourself before very long. Another thing: keep as far away from Vaspus as you can. Better still, I'll have the automatons erect an insulated screen around him. Then we had better summon the biologists and leading scientists. It is essential they see Vaspus in his present condition."

He rose to his feet and strode purposefully to the vibration communicator on the wall.

III.

BY MARTIAN DAWN every important member of the scientific council had been summoned, stood in an interested but puzzled group around the softly glowing ruler. But between him and them there now reposed a heavily insulated transparent screen, erected by the automatons.

Quietly, in tones of most abject despair, Lothan made clear the nature of the master's ailment, giving it purely as a theory, nor was he surprised at the storm of protest that greeted him.

"Life within life!" cried Umyas. "I refuse to credit it, Lothan."

"Even though you admit that we are made up of microcosmic universes?" the adviser asked calmly.

"Certainly! We failed to produce life in inert chemical by the cosmic energy; how, then, do you allow that it happened to our ruler? Is he not inert chemical just the same? Composed of electrons which are precisely identical to those in the inert material we tried to enliven?"

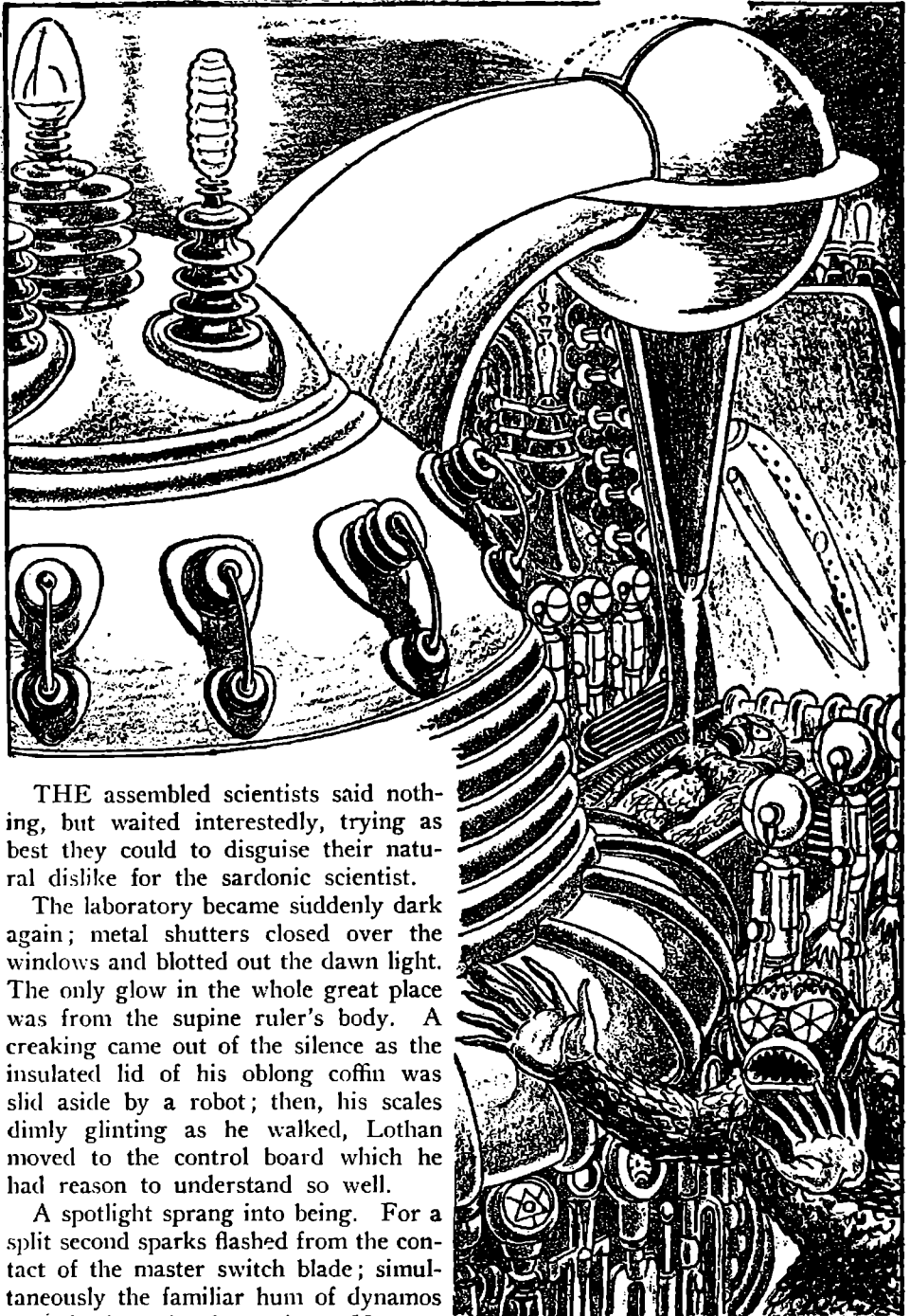
"No, Umyas, he is not. It surprises me that a biologist of your undoubted eminence should even think so. Between molecules in a state of life such as those within a living being and those in an inert chemical aggregate there is an infinite difference. Pressures are different; temperatures are different, and most of all they are within a *living* being which of himself imparts something of life to the electrons within him. When he let that cosmic energy surge through him he produced the same identical effect that happened to this universe when a similar surge must have spread through it from a supra-universal source, begetting such life as ours. Inside of himself he has repeated creation, and in the doing has lost his own life energy by replacing it with infinitely stronger cosmical energy."

"Then——" began Umyas dazedly, and stopped uncertainly.

"I will endeavor to prove it to you," Lothan remarked quickly, and turned to the ever-attentive automatons. "The robots will transport our master's body into the laboratory within his insulated case. It is purely a precaution against possible dangerous energy emanations proceeding from him that may affect us. In the laboratory we can learn, by the use of the atomic machine he himself constructed, whether my theory is correct. You agree?"

There was a slow nodding of scaly heads. Lothan smiled in satisfaction and stood aside as the automatons gently lifted the ruler and bore his screened case from the chamber, ultimately laying him down, under the adviser's direction, directly beneath the focus of the enormous atomic projector. Once that was done, Lothan switched on the ceiling lights and indicated the masses of inexplicable machinery.

"Only our beloved master and myself know the exact process adopted with this instrument," he announced superciliously. "That being, forgive me if I merely explain that it is based on the principle of every atom-emitting vibration which can be transformed, through devious methods, into a pictorial version of the object originally emitting the vibration. Just as our superreflectors reach out to the ends of the stellar universe and pick up the weak light vibrations of the farthest stars, pass them through transformers and reproduce by amplification a clear-cut picture of the original star, so here we do the same with atoms and the electrons within them. The result is projected onto the screen which you see immediately before you." He nodded to the twelve-foot square receptor near at hand, its surface at the moment composed of a metal as black as space itself.



THE assembled scientists said nothing, but waited interestedly, trying as best they could to disguise their natural dislike for the sardonic scientist.

The laboratory became suddenly dark again; metal shutters closed over the windows and blotted out the dawn light. The only glow in the whole great place was from the supine ruler's body. A creaking came out of the silence as the insulated lid of his oblong coffin was slid aside by a robot; then, his scales dimly glinting as he walked, Lothan moved to the control board which he had reason to understand so well.

A spotlight sprang into being. For a split second sparks flashed from the contact of the master switch blade; simultaneously the familiar hum of dynamos spread through the quiet. Vacuum tubes silently glowed into life; violet light sprayed from enormous condensers

"Look!" breathed Umyas unsteadily, pointing. "Look!"

and transformers. Little by little the noise increased; the surgings of power were stepped up until, at last, the entire laboratory was bathed in glowing, mauve flame, leaving the still unmoving ruler as a solitary figure in the direct path of the projection machine. At last there stabbed from its lens a carved, ivory-white pencil of blinding, heatless brilliance, striking his supine body and passing clean through it into the floor, then down again into seemingly dimensionless depths.

The Martians watched in deathly silence. Lothan himself stared fixedly, a strange lavender-painted figure before the switchboard, massive seven-fingered hand flashing up and down the complicated controls. There came a sudden deeper throbbing, an even greater mad crackling of incalculable power; then the broad screen changed from its jetty neutrality to a soft and delicate salmon pink. It deepened to scarlet; then, by imperceptible degrees, merged gradually toward violet, radiating a most bewildering but indescribably lovely array of colors in the process.

"Look!" breathed Umyas unsteadily, pointing. "Look!"

His colleagues did not need the injunction; they were already gazing in amazement at the portion of their master's body revealed on the screen. Only for an instant was there visible the strange skeleton formation of his chest and ribs—a perfectly produced X-ray impression—then that changed and merged into a composite haze, as the bones themselves were penetrated, the great central breastbone becoming gradually wider until at last it filled all the screen. From that point onward the amazing penetration went through all the composition of the bone, revealed with a clearness never known before its actual constitution, laid bare the phosphate, carbonate, fluoride of lime and other materials, which, in turn, passed on into a common blur in which

there was nothing understandable.

Once this point was passed the violet glow vanished and was replaced by black. For what seemed an interminable length of time there was nothing visible; then, slowly, there merged into view tiny points of light, incredibly small galaxies of stars and suns, identical on a small scale to those in the vast, external universe.

"Watch!" commanded Lothan, and stepped up the amplifiers to an even greater pace.

THE LABORATORY became sickly in its heat; the air reeked of electric discharges and hung heavy with smoky exhausts. The metal floor quaked to the vibration of the thundering engines. Only the atomic mechanism itself remained steady, all traces of vibration overcome by Vaspus' final accomplishments; the light-tight reproducing chamber was functioning flawlessly.

The smallness of the microcosmic galaxies increased at a tremendous pace, leaped from mere dusty hazes to enormous agglomerations of countless suns and nebulae, rotating slowly in empty space.

"This is but one molecule within the body of our beloved ruler," Lothan commented quickly, but his voice was hardly audible above the din. "Think of it, my friends—one molecule! Therefore, inside him, there are untold millions of universes, each one of which has probably been imbued with life force. One universe is enough for our purpose, however. If he has indeed created life, it will be as evident in this one as in any of the others. Let us observe."

More switches clicked under Lothan's hands. In the screen there appeared a vision of a perfect solar system. Even as it swept into view the brilliant bluish-white sun changed to yellow and sank down to red. By the time the view

was clear the sun had altogether expired. Irritably, Lothan changed his switches again, and presently located another solar system. Here again the sun was slowly fading from white to golden yellow, but its deterioration was less swift than the preceding one.

"Why the change?" called Umyas.

"Time," the adviser answered curtly. "Time in the microcosmic universe moves with infinitely greater speed than our own. Remember that a thousand million years on an electron is but one millionth of a second on Mars. The sun in this particular system is of vast size and therefore takes longer to expire. Even now, though, it is dying. Even as we gaze, life on one of those electronic worlds has pursued its course from prehistoric days to the end of civilization. Surely on one of them there might be life——"

He stopped, jolted with sudden amazement. The Martians moved nearer as the view steadied, and stared down on the largest of the group of seven planets. Six of them were deserted, but on this major one there was something distinctly bright and gleaming spread upon the surface; the outlines of a city couched deep within the towering mountains of a rugged, friendless landscape. Even as they stared the city began to crumble with age.

"Intelligent life!" breathed Umyas. "The work of thinking beings! Lothan, you were right! It proves to us——"

He broke off, gazed blankly with his faceted eyes as there suddenly leaped upward from that strange, inexpressibly beautiful city a gleaming, silver machine, plunging outward from the slowly dying world into the depths of electronic space.

"Space travel!" breathed Lothan. "They are escaping from their world, doomed by eternal cold. See, already time is moving so swiftly that their planet is caked in ice—and yet the space machine is becoming larger, must be

covering intra-atomic space at a speed beyond compute. Larger—— Larger it——"

He stopped, dumfounded, as the machine began to swallow up the entire cosmos, filled the screen with a common grayness.

Abruptly, the truth flooded in upon him; he shouted huskily.

"They are traveling to the end of their universe—intend to burst through it into the suprauniverse. *Our universe!*" he cried hoarsely. "Quickly! Stand back! There may be an explosion——"

He instantly deserted the switchboard, blundered away amongst his colleagues, went backward with them to the far wall. With startled eyes, they all watched the screen; it was an impalpable, swirling blur of gray. The engines went on thundering their song of power——

Then, abruptly, from the body of the silent ruler there was a flash of unbearably brilliant light; a sharp report followed, and that was all. The assembled scientists advanced again, cautiously, toward the insulated case. The master was unharmed save for a slight wound in his side from which there dripped a steady flow of brown blood.

"Quickly! Lights!" Lothan shouted to the automatons. "Lights!"

He went over to the control board and pulled out the switches, listened while the dynamos sang down the scale and became quiet. Even as they did so, light came into the laboratory—not from the bulbs, but from the windows, as the automatons threw back the shutters to the Martian day.

"LOOK," muttered Umyas, standing with the others around the case.

Lothan came to his side and peered within the oblong. In the strong daylight the bluish glow from Vaspus had almost disappeared. But it was not that that concerned the adviser; his eyes

were fixed on something he could scarcely believe—the sight of a microscopically small object of bright metal, reflecting the Sunlight: a machine of infinitesimal proportions, tapered at both ends, lying still now on the soft air bed whereon lay the obviously unconscious master.

“What—what is it?” demanded Ithos blankly, staring over Lothan’s shoulder.

“A machine of the microcosm,” the adviser muttered back. “Those beings we saw left their world, but instead of seeking another one in their own universe they took a far greater chance—decided to burst the bounds of their universe and gain the supra one—ours—beyond. They succeeded. It has done little to the master, save create a wound which can rapidly be healed, but it has brought to us life from a world within him, a life originally created by his cosmic-energy experiment. Now, my friends”—he looked up with a triumphant sneer—“perhaps you believe my theory?”

The assembly nodded quickly.

“Will not others come?” questioned Umyas. “Of all the teeming universes within the master there is surely the possibility——”

“Certainly there is, but for the time being we will be satisfied with what we have.”

“If there are beings inside that machine, why don’t they appear?”

“We’ll soon find out,” Lothan answered, and, turning to the robots, he issued instructions.

Gently, they lifted the machine out of the case and placed it on a near-by bench. With further quick movements they applied healing ointments to the ruler’s wound, cured it instantly, then slid the case lid back into position.

“The growth enlarger will settle our difficulty, I think,” Lothan commented. Accordingly, the minute vessel was moved into an adjoining section of the laboratory, placed in the center of the

floor and there flooded with radiations which rapidly widened the electronic orbits of the ship and its contents, until it stood nearly one hundred feet high and three hundred feet long. Only then did Lothan switch off the machinery and wait expectantly.

Almost immediately the massive air lock of the vessel was mechanically unscrewed from within, swung aside in the grip of some form of magnetism. Through the opening there appeared men and women, so strange and bizarre that the Martians stared incredulously.

White-skinned people without scales! Possessing two legs each and two arms, these latter ending in five-fingered hands! For some reason that the Martians could not fathom the heads of these beings were not bald, but covered with peculiar fluffy substance, dark in some cases and fair in others—some long, some short. The eyes were the most remarkable, of various colors from black to blue or gray, and entirely without facets.

IN ABSOLUTE SILENCE, Lothan and his contemporaries watched the people file out into the great laboratory. Mentally, Lothan counted a full three hundred of them of all shapes and sizes, some clearly female, if their lesser size and more rounded development was any guide. Nor were any of them naked; instead they had on strange substances—one-piece white garments with a brightly gleaming belt about the middle. In size they were diminutive. Not one of them was more than six feet high. Lothan drew himself up, proud of his eight feet of height. He towered over the high-foreheaded little being who was obviously the leader of the party.

“Who are you?” he demanded curtly in his own language.

The little man shook his head, replied in an unknown tongue.

The Martian frowned and glanced at his colleagues.

"Obviously language difficulty," he grunted, and motioned the strangers back into the main laboratory. Once there he prepared to place them all in the range of a brain-tutoring machine, when, to his surprise, the leader spoke fluently in the Martian tongue. In dazed amazement Lothan turned to gaze at him, met the leader's inscrutable, calm black eyes.

"I am sorry, my friend, that I did not answer you immediately," he apologized quietly. "It took us some little time to assemble your particular language into understandable form. I am Razak, former master of the planet Disep. But I see you know already of the fate that threatened our home world. We knew that ultimately our planet would die and, knowing also that no other worlds in our universe were exactly suitable for our purpose, we decided to come from the microcosm to here.

"By some chance, it appears, our world was within your ruler Vaspus. I trust, my friend, that we have your hospitality? Here are my people and children, a chosen few—indeed the only ones who were willing to take the chance of breaking into the suprauniverse."

He indicated the men and women about him, and the wide-eyed children peeping nervously round their parents. Lothan stared at them blankly, turned back again to take in the details of the speaker—his high-domed forehead and, most particularly, those strange, unfocused eyes, deep and unfathomable black pools that held within their depths a clear evidence of tremendous intellectual attainments.

With something of an effort the adviser found his voice.

"Why of course you are welcome to stay here until you put your affairs in order. Tell me, though, how did you defeat time in crossing from your world to this one?"

Razak smiled faintly. "Suspended animation, my friend, which set time at zero. Some day you may understand that condition. Our awakening was perfectly timed because we knew you would find us."

"Knew?"

"Certainly. There are no secrets in time or space when you understand them."

LOTHAN FROWNED darkly. "You understand, of course, that you may only remain on this planet until you discover another planet whereon to continue your activities? We of this world have no room for permanent strangers such as yourselves."

"At least you display the lack of courtesy common to the true scientist," Razak commented dryly. "It may perhaps interest you to know that we of Disep are intellectuals. We gained your clumsy machinery stage æons ago. When our world was dying we became masters of everything scientific. Our last achievement was the construction of the machine that brought us through interatomic space."

"I understand." Lothan nodded, but his great eyes were narrowed.

"I further understand from your mind that your ruler was really responsible for our being alive, by his use of cosmic energy. You realize, of course, that he is a deadly being to have on this world?"

"I imagined so," Lothan said. "Is it your concern?"

"In a way," Razak answered calmly. "You see, I happen to know that your main object in allowing your ruler to use cosmic rays was so that he would ultimately be deposed and allow you to rule in his stead."

At that Lothan moved slowly forward, suddenly shot out his immense hand and grasped the imperturbable Razak by his slender throat.

"So you read thoughts?" he asked with minacious softness. "You burst

into our world and the first thing you do is to poison the minds of my colleagues against me! We do not like such people as you, Razak. I was prepared to be tolerant until you straightened yourselves out; as it is I have no alternative but to imprison you until it is decided what we shall do with you. Maybe we'll set you to work. In any event, you will learn that, intellectual or otherwise, it does not pay to insult the future ruler of Mars. I am powerful. remember that!"

Razak shrugged his slim shoulders. "I only speak the truth, Lothan. Imprison us all if you wish; it will not matter."

"Not matter?" Lothan repeated suspiciously, releasing his hold on the man.

The little ruler did not explain himself further. Inwardly fuming, Lothan turned to his servants and gave swift orders. Then he watched grimly as the entire party of men, women and children were herded unceremoniously from the laboratory to the regions of the prisons below the city itself.

As he gained the doorway, Razak looked back. "Remember, my friend, that your king is a menace to all living beings so long as he remains on this planet. The life energy he has within him will communicate itself to other living beings once that screen is removed. He is neither dead nor alive, and will remain in that state until the cosmical life energy within him expends itself after innumerable centuries. Fire him into space away from this planet. Never allow him to touch anything that lives; never allow him to make contact with any planet again. Though he himself will die the instant he touches space, the energy within him will live on, being itself part of the cosmos."

"Are you daring to give me orders?" demanded Lothan savagely.

"No, I am merely warning you. Do not forget that recently you were near to him when the lid of his insulating

case was removed. So was your companion Ithos—as well as some of you others."

"Well?" Lothan demanded, but his tone had obviously changed.

"That is all. You'll learn more later. It is a pity your hospitality is so bad; you have much to learn yet of the ways of Razak of Disep."

With that the strange individual turned and followed his people, leaving Lothan and his colleagues staring dubiously after him.

IV.

THOUGH LOTHAN tried very hard to reassure himself that Razak's bald statements were merely empty vapors, he could not altogether shake off a grim conviction of dread, a feeling that the strange little being from the microcosm had known exactly what he was talking about. Once he felt inclined to visit the man and learn more, then refrained. He was a prisoner, awaiting judgment with his comrades for treasonable assertions. That, at least, was how Lothan looked at it.

Ithos was frankly afraid and admitted it. Umyas was quietly suspicious. Razak's remarks had not fallen on stony ground. Coupled with a natural dislike for the overhearing Lothan and the strange malady of the master, the biologist was inclined to believe that the intellectual from Disep knew exactly what was in the traitorous Martian's mind.

What Razak had meant by imprisonment meaning nothing to him had not so far become evident. He and his comrades languished deep in the bowels of the equatorial city, within a steel-lined cell, permitted only the tiniest orifice for air. Machines brought food once and it was promptly refused. The intellectuals of Disep never ate. By some curious process of synthesis and mind control they were able to live on air

alone, extracting its essences in a manner totally incomprehensible to the less intelligent men of Mars.

The night following the strange events in the laboratory Lothan found himself confronted with the frightened Ithos, his scales trembling with the obvious terror that possessed him.

"Lothan, I had to speak with you!" he panted. "I could not repose during the rest hour; I want to talk. Do you think the people suspect us?"

"Certainly not!" Lothan retorted coldly. "All along you have been a worry to me, Ithos—too jumpy, liable to betray everything in an unguarded moment. Calm yourself and leave everything to me. Our path is now entirely clear. We know that Vaspus will never recover, that the energy of life possessing him has destroyed his physical powers forever. Only his mind lives, and that will soon pass."

"You mean you are going to take Razak's advice and fire him into space?"

"I am taking nobody's advice but my own. Certainly Vaspus must be fired into space, an isolated wanderer; otherwise he will pollute us all. I admit that Razak has borne out my theory to a certain extent—that the energy radiating from Vaspus is dangerous. Therefore, he shall be sent into the void before dawn. I have decided on that."

"And the people? Will they permit it, do you think?"

Lothan's expression was one of infinite scorn. "Permit it!" he echoed. "It is not a question of permission when I am the virtual ruler of this planet. Nobody understands so much of the control of this world as I. I was Vaspus' chief adviser and acclaimed by him as successor—that is enough. Once I am actually in power I shall put into force the plans he always refused to execute. We will expand—conquer—master the far corners of the universe and

become controllers of the microcosm, too." He leaned forward tensely. "Do you not see, Ithos, what we can do? Razak brought a microship from the infinitely small. We will build other machines identical with it and so visit the atomic universes that surge about us. He has provided us with the one science we do not fully understand—intra-atomic travel. We have already conquered interstellar space. Yes, it is easy! There will come a time when this world will grow old; we shall need fresh fields in which to expand our activities. Maybe the third world in this system——"

Ithos nodded slowly, calmer now. "All that I am in agreement with, Lothan, but there is one thing that still worries me. Did being near the opened case of Vaspus have any effect on us? The words of Razak are still haunting me."

"Then dismiss them!" Lothan returned with supreme contempt. "Just a talkative, white-skinned fool from another world attempting to frighten us with so-called mind reading. There is nothing to fear!" He rose to his feet with sudden purpose. "It is a good time now to dispose of Vaspus' body. The others are at the rest period; by the time they awake Vaspus will be in space. Once that is done I am in control and can do exactly as I wish. Come!"

HE LED THE WAY swiftly from the chamber and down the darkened corridors of the great edifice. The quietness of the rest period was upon everything—three short hours in which the scientists of Mars recovered from their scientific labors—three short hours, too, before the Sun would again appear in the cloudless Martian sky.

Without a pause, Lothan led the way into the main laboratory and, Ithos beside him, softly closed the door. Vaspus' body was exactly where it had been dur-

ing the earlier events, still emitting its blue life-energy glow.

Lothan nodded contentedly and went on through the laboratory to the next great hall, switched on the lights and surveyed the colossal cannon device by which space machines were catapulted into space, afterward achieving continuous flight by means of the enormous initial momentum provided.

"Have the machines fetch Vaspus' body here," the adviser snapped. "I will prepare a projectile to receive him."

Ithos nodded and went swiftly off. With calm and unhurried movements Lothan operated the vast machinery, watched in silence as mechanical arms raised one of a series of two hundred small freight projectiles from the cradles by the far wall. His faceted eyes were glinting with the light of grim pleasure as he watched the tiny ovum swing in the enormous wilderness of machinery, lower gently to the floor and become still.

Swiftly he unscrewed its air lock, unbolted the trailer apparatus by which it was normally fastened to a passenger space machine; then he set the guiding controls. He was still checking the proposed route carefully on mathematical calculators as the automatons appeared and laid the glowing ruler's body within its insulated case on the floor of the machine.

Ithos waited in expectant silence, watched as his colleague made the final adjustments to the guiding mechanism.

"Elliptical orbit?" he asked quickly, and Lothan nodded grimly.

"Yes, with the Sun as the approximate center. This projectile will stay within the confines of the solar system, but will never touch any actual body, therefore there is no chance of this life energy every affecting any world, be it living or dead. The orbit I have charted will bring this projectile back within

this region, between this world and the third one, at intervals of seventy-six years or thereabouts."

Ithos nodded slowly and continued to watch as his determined colleague screwed up the air lock and then returned to his machinery. Slowly, the projectile was raised into the air again, dropped at last within the huge tunnel of the space gun. With a quick movement, Lothan set the automatic controls and moved rapidly toward the door.

"The observatory," he said quickly. "We can view what happens for ourselves. Hurry! The gun is timed to release in seventy-seven seconds."

At top speed, he and Lothan raced through the building, down the corridor that connected the laboratories with the astronomical rooms, and finally into the great observatory. Lothan slammed the door quickly behind him. Even as he did so the entire chamber, the whole vast edifice, quaked with the sudden force of a tremendous explosion. The gun had released its inconceivably powerful explosive, hurled the living-dead king of Mars into the eternal depths of space.

Only for a moment did Lothan hesitate, then he moved to the semicircular area wherein lay the floor reflector of the powerful space reflector. Impatiently, he operated the various controls required to its management, stood gripping the rail that surrounded the screen, waiting anxiously as the huge device moved and slid gently into position upon immense gimbals, finally automatically fixing itself into position and reflecting a clear area of space.

Lothan's breathing became labored with the strain of events. Ithos, beside him, gazed at the screen with eager eyes.

THEN, suddenly, there streaked into view a brilliant ball of bluish-white

light, bearing behind in an almost detached fashion a long, fan-shaped streamer of misty light, as elusive as a solar corona. Immediately the reflector responded to the light waves received from the object, held it steady on its outward journey into space.

"Is that it?" asked Ithos at length, in a puzzled voice.

"Of course it is! The movement through space has broken up the original ship and Vaspus into vaporized, extremely tenuous gas, given visibility only by the life energy which Vaspus carried with him. That of itself is indestructible. The farther that thing goes into space, the longer the tail part will become, may spread out by common attraction to a distance of millions of miles." Lothan stopped and pondered, staring hard at the nucleus of the odd-looking object. "Already the central portion is expanding rapidly," he went on. "As it travels it will become larger—maybe as large as this world, even more. And every seventy-six years it will return, a silent witness to our master's endless journey. Never again will that life energy touch any world; my calculations have seen to that. But we have seen enough! Come."

He turned away and prepared to leave the observatory, then stopped in amazement as the door quietly opened. Within it Razak of Disep stood framed, and behind him his own people, together with a tremendous number of Martians—Umyas, the biologist, at the front. Only for an instant was Lothan at a loss. Then he strode forward grimly—only to stop again as Razak commanded him to halt.

"You—you dare to order me!" Lothan burst out furiously. "What are you doing here? How did you escape from the prison?"

Once more he advanced purposefully, slowly came to a halt as his eyes met

those of the little Disepian leader. Once again he read in those dark, unfathomable depths a strength of will far in excess of his own. He gazed stupidly, presently looked round to find Ithos, scales quivering, immediately behind him.

Umyas pushed his way through the Martians in front of him and faced Lothan from a respectful distance.

"Fortunately, Lothan, I placed a good deal of faith in the observations Razak made when he first arrived here," he said grimly. "It was I who released him and his people. We arrived at the precise moment of the firing of the space gun. You have, of course, hurled our beloved ruler into the void?"

"What else?" the adviser sneered. "Would you prefer that we all be killed by the energy he was emanating? Razak himself advised such a move."

"We all know that," Umyas retorted. "For that we bear no malice; our beloved master has been released from a living death. What we cannot forgive is the fact that you permitted him to make the experiment knowing full well what would come of it. You did it purposely, in order to gain the mastery of this planet. I suspected it, but I had no proof. Thanks to Razak my suspicions were confirmed. A man created on a world within our ruler, who otherwise would have been unborn, has arrived to upset your entire scheme. It would have been better had you not dabbled, Lothan."

The insolent Martian did not answer for the moment, but his face set in an expression of ugly fury.

"It is time you understood, Umyas, that I am the ruler of this planet and nothing can alter it!" he said.

Umyas smiled twistedly. "It is not left to me to alter it," he responded coldly. "Suppose you and Ithos look at yourselves!"

SIMULTANEOUSLY with the words, his hand depressed the light switch, swamped the great observatory in absolute dark. With fear crawling through their vitals, Lothan and Ithos stared down at themselves, then shouted hoarsely. They were glowing, dimly, with the first unmistakable traces of life energy!

"You see?" Umyas asked, flicking the lights on again. "Again Razak was correct when he foretold that the open lid of the insulated case would permit fatal radiations to reach you. Gradually the incipient energy within you will grow, become a gripping paralysis, your bodies mere hulks for the living, spawning universes within you.

"Now you realize why we are keeping our distance—why Razak ordered you to halt. Had you seen yourselves in the dark before this you would have realized the fate in store for you. There is only one course to adopt." Umyas' voice became grim. "In the interests of the planet you must follow Vaspus into space!"

A stunned, dead silence fell momentarily on the two Martians. Then Ithos screamed hoarsely.

"No—no, not that! Umyas, I never really meant to do this! It was Lothan who—"

"Stand exactly where you are!" Razak commanded, as the two of them moved forward. "Stand perfectly still! Umyas, summon your servants to seize these two. Immediately!"

The biologist obeyed, and only when the automatons were holding the two traitors in a grip of iron did Razak relax his overpowering will. He smiled faintly and enigmatically.

"I am sorry, my friends, that my first task on this planet should be to bring to justice so traitorous a scheme, but since chance willed it I have no alternative but to obey." He turned and faced

the assembled Martians. "I would suggest immediate dispatch of these men," he remarked, in his quiet and unassuming voice. "Delay will endanger all of us. Proceed at once, Umyas."

The biologist hesitated for the briefest fraction of a second, rather taken aback by the intellectual's calm order. Then he gave the necessary orders and a clear path was made for the fighting, struggling pair as they were driven by the relentless automatons to the projectile room. In silence, the Martians and Disepians followed at a distance in the rear. Umyas and his immediate followers got to work on the projectiles, calculating just as Lothan had done not an hour before.

Lothan became calmer as he watched. Such was his nature, absolute defeat revealed in him no trace of fear—only a proud and insolent arrogance against those who had proved cleverer than he. Ithos was different; his nerve had gone utterly. He stood muttering and panting to himself in the grip of the machines, half insane with fright.

Lothan moved his contemptuous eyes away from him and surveyed the ticking calculators; then he looked at the small figure of Razak in the immediate foreground. The intellectual's brows were down in concentrative effort, queer hypnotic eyes fixed on Umyas with a steady, unwavering stare. Suddenly and vividly the truth smote Lothan's agile brain.

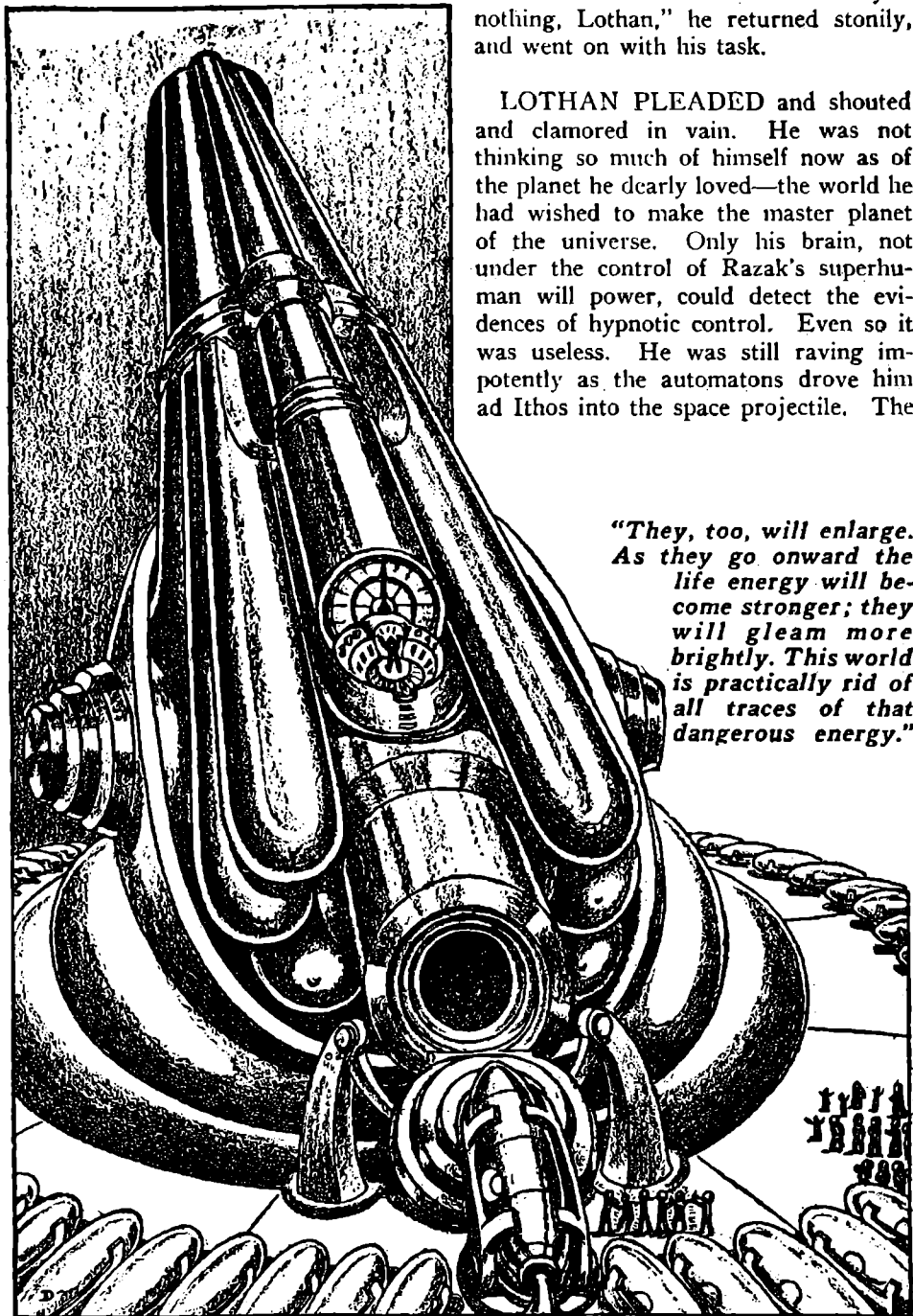
"Umyas!" he cried hoarsely. "Umyas! Don't you realize that Razak is hypnotizing you? You are not master of your own will!"

The biologist and his comrades looked up sharply from the calculators. Razak's face hardened from its normal expression of assurance—became fiendishly intense. For a brief moment Umyas seemed to recover a vestige of normalcy, then he shrugged.

"Such accusations will avail you nothing, Lothan," he returned stonily, and went on with his task.

LOTHAN PLEADED and shouted and clamored in vain. He was not thinking so much of himself now as of the planet he dearly loved—the world he had wished to make the master planet of the universe. Only his brain, not under the control of Razak's superhuman will power, could detect the evidences of hypnotic control. Even so it was useless. He was still raving impotently as the automatons drove him ad Ithos into the space projectile. The

"They, too, will enlarge. As they go onward the life energy will become stronger; they will gleam more brightly. This world is practically rid of all traces of that dangerous energy."



air lock closed and their shoutings were cut off.

Steadily, Umyas fixed the controls of the cannon, then departed with Razak and his colleagues to the observatory.

In silence, Martians and Disepians alike heard the titanic report of the space gun, saw in the reflector a bisected mass go hurtling into space, breaking into two separate balls of incandescence with sprawling tails expanding behind.

"They, too, will enlarge," murmured Razak. "As they go onward, the life energy will become stronger; they will gleam more brightly. This world is practically rid of all traces of that dangerous energy—but even yet there may be others. We of Disep have gained our end—have removed all traces of opposition and become masters of this planet!"

He turned slowly in the bright lights and faced the surprised Martians. His implacable face was one of frozen hardness, eyes bright and keen. Umyas took a sudden step back amongst his fellows, swept his startled, faceted eyes over the steady array of white faces, male and female, grinning with sardonic amusement. Little people, yes—weak and ineffectual, and yet their minds—

The words of Lothan swept back into Umyas' mind. Finding his breath with an effort, he gulped out, "Masters of this planet! What do you mean?"

"I mean that Lothan spoke the truth," answered Razak smoothly. "I did hypnotize you, but only to a good end. They deserved to die, those two—they *had* to die. Not only because of energy, but because of the opposition they might have caused me. Understand this, Umyas, I am the ruler of this planet and nothing you or your people can do will alter it."

"Then—then Lothan spoke the truth?"

"I mean that the law of the cosmos is survival of the fittest. We are more in-

telligent than you; we even forced you, mentally, to come and release us from the prison. We have no world on which to live save this one; therefore, we will take it from this moment onward."

Umyas' startled eyes swept the slowly nodding heads of the Disepian men and women. Three hundred of them, themselves almost approaching the inhuman mentality of Razak. The Martian suddenly felt utterly helpless, wished he still had the determined, even though traitorous, Lothan beside him. At least he was his own kin, not a white-skinned being of pitiless intellect. He turned weakly to his fellows and read in their faceted eyes a hopeless despair.

V.

RAZAK OF DISEP clung immovably to the purpose he had outlined. With effortless ease he wrested all semblances of control from the Martians, even fired several more into space as they revealed unexpected traces of life energy, until, at length, he was satisfied the blight was completely eliminated. Umyas he promptly dispatched to the twin city at the north pole, there to work in comparative exile.

The Disepians rapidly turned the Martian machines and devices to their own uses, mastered the planet from end to end. But to a mind like Razak's that did not represent completeness. His insatiable desire for further achievement, that same restless curiosity that had led him to drive himself and fellows into this suprauniverse, allowed him no rest. He realized the universe about him opened up immense possibilities for expansion.

He examined each of the surrounding planets in turn and found them impracticable. The nearest to the Sun was a blistered wilderness on one side and a frozen sepulcher on the other. The next nearest was still too young for con-

sideration. The giant outer planets, too, were in the same state. But in the third world there lay opportunity. Night after night he sat beside the vast reflector with his two scientific assistants, studying every detail of the third world, watching the writhing of its clouds and the phantasmal visions of a tumbling landscape beneath—cruel and rugged terrain being molded out of the formless into a world of dawning shape.

"An empty world, young and fresh," he murmured broodingly, and his assistants nodded. "A world without life, without greenery, without even the faintest spark of a living amœba. There, my friends, lies room for expansion. There are three hundred of us. One hundred and fifty will depart forthwith for that world and commence the generation of a race. I will go personally and direct operations. You, Vildon, will stay here and take over control. You will find it simple enough now that these Martians are under subjection."

Vildon inclined his head. "As you wish, Razak. Clearly, within several cycles that third world will be well populated. Our race can expand and live as never before, once the seed of life is taken to it."

Razak nodded slowly, his eyes thoughtful. "We will take seeds from this world—plant seeds—cover that young and barren world with beauty such as our own world of Disep once possessed. Our readings have shown that that third planet is suitable for us in everything except gravitation. That is rather in excess of normal, but no matter. You will give orders for space machines to be prepared for departure at Sundown to-morrow. Within an hour you will receive tabulated lists of those whom I shall choose to accompany me. Now you may both go."

The two departed, left their superior gazing musingly into the reflector.

"To that world shall come life," he

muttered. "Life from a world within a world. The power of long-dead Disep shall be felt throughout the length and breadth of this suprauniverse."

THERE WAS one thing, however, that the implacable Razak overlooked in his anxiety during the hours preceding the departure of the ten space machines to the third world. During those hours, while he arranged for the ships to be fully provided, together with new high-power disintegrators for the leveling of mountainous terrain, the intellectual sway he held over the Martians was removed; his whole concentration and that of his fellows was trained on the difficulties and trials of the last hours.

In consequence, Umyas arose, with his fellows at Polar City, from the depths of a sentimental stupor, realized clearly for the first time the tremendous dominance Razak and his fellows had been holding over them.

Reference to the television machines soon placed them in possession of the facts as to what Razak was planning to do. Immediately Umyas went into conference with his fellows and from the conference emerged a plan, a possible scheme whereby to overcome the deputizing Vildon once Razak had departed into space.

Umyas acted immediately. In the five short hours he had left to him whilst the Disepians were in the projectile laboratories, he got an army of automatons to work, formerly doing only the tasks planned for them by the white skins. Following the biologist's directions they drove fast machines to the four corners of the planet, disintegrating beams in the base of their fliers gouging vast chasms in the landscape as they went, soundlessly cleaving mountains and plateaus alike, forming about the uninhabited parts of the planet a veritable network of 1,000-foot-deep valleys, all leading back to within two

miles of the shores of the principal oceans grouped about the opposite poles of the planet.

In all, the automatons took three hours to accomplish their noiseless purpose, scored the Martian disk with regular parallel lines in all directions from the sea defenses, ending the channels at five miles distance from the mighty equatorial city wherein the interlopers were now watching Razak's departure for the third world.

The Sun had been set some little time; darkness enveloped the planet. Before long Phobos would be above the horizon. This very fact of darkness, as Umyas had hoped, served to prevent Razak from observing the changed appearance of the planet's disk, nor was his mind trained on Umyas, for he had all his mentality still directed on the successful maneuvers of the fleet into space.

Umyas, from his Polar City laboratory, surrounded by as many of his fellows as the place would hold, was smiling grimly. His massive hand twitched over a series of buttons and switches.

"Interlopers!" he breathed vengefully. "Razak has departed into space; that leaves only Vildon and his immediate contemporaries. They seek to master our planet, do they? Here under my hands lies a series of remote-control explosive switches. Whilst one sector of automatons carved chasms from the oceans to the chief city, another sector laid depth charges of space-gun explosive at the shore end of each channel. I am told the work is finished and the wiring is connected.

"Once I depress these buttons every channel at the sea end will explode, permit the twin oceans of opposite poles to deluge inward to the center—will utterly overwhelm and destroy the Disepians before they can do a thing to help themselves. Some of our own people will go, too—that is unavoidable. The point is that we shall be left with Polar

City, fully equipped—ready to start again. If Razak ever dares to return with his fleet we will destroy them all before they ever reach this planet. Later we will destroy him on his third world and be rid of him forever. Is that clear?"

The assembled Martians nodded, eyes gleaming brightly with triumph. Umyas smiled grimly, depressed the multiple switches, then stood back. Almost instantly the entire bulk of Mars quaked and trembled to the force of titanic concussions. The explosive tore out the remaining barriers between channels and oceans. Inconceivable volumes of water belched inward along the given tracks—an inevitable, smashing deluge that reached the equatorial city and crashed in upon it from all four sides.

Vildon, about to take over the control Razak had assigned to him, received warning too late. Before he or his fellows could make a move the flood was upon them. It crushed them to pieces in the tumbled ruins of the city, drove their remains deep down into swirling vortices of brine, stone and metal.

In an hour the entire face of Mars had changed. Slowly, gradually, the spent oceans started to reform themselves, thundering in raging torrents through the specially made channels that left only the poles high and dry, the northern one containing the exulting Martians.

"We win!" breathed Umyas, staring into the televisor that gave him a view of the ocean where the equatorial city had lain. "The Disepians have been destroyed! Our task now is to rebuild and chart the land. Once the oceans have established a new level and position we can start again."

IN HIS triumphant decision, however, Umyas had reckoned without Razak himself. The Disepian ruler, once

Sunlight came to the red planet, saw immediately what had happened, realized suddenly why his efforts to get into touch with Vildon over the spatial radio had met with no response.

His expression scarcely changed as he stared down; only his lips set into a thin, bitter line of hate. About him his colleagues burst into cries of dismay, stared unbelieving into the reflecting screens.

"Razak, what's happened?" demanded Cralo, his immediate attendant.

"Is it not obvious?" the ruler asked coldly. "Those Martian scientists at Polar City played a swift move that has utterly defeated Vildon. Umyas is responsible for this. He has destroyed the city by diverting the polar oceans. Our control over that planet is at an end."

"We can return at once and reassert ourselves!"

"No." Razak shook his head slowly. "You may take it for granted that if we tried to return, Umyas would be on the lookout for us—would destroy us completely. In Polar City he has all the devices necessary. I was a fool to send him there—an even bigger fool to forget to hold him under my will during the last hours. Umyas remains to build a new world—or so he imagines," he concluded softly. "It occurs to me that we placed in these space ships disintegrators similar to his own, for the purpose of mountain leveling."

"You mean——" asked Cralo eagerly.

"I mean that at our present slight distance from Mars we can use them very effectually. Umyas shall not succeed; I will destroy him first. Give orders to the remainder of the fleet to train their disintegrators on the planet and to stand by for my firing order. We will see whether these fool Martians are so clever after all. Hurry!"

The attendant immediately obeyed.

Razak waited through a short interval, during which the distance from Mars slightly increased. His face was set and hard as he received the information that every weapon was ready. The thought of allowing the victorious Martians to remodel the world they had recaptured never occurred to him; only the idea of extinction gained access to his ruthless brain.

"Fire!" he commanded into the inter-spatial transmitter, and the order was inconspicuously relayed to all other nine ships.

Simultaneously, the entire battery of ten disintegrators released their powers, trained exactly on the red globe some 100,000 miles distant. Calculated to be dead correct by mathematical machines, the terrific force struck the planet's surface, instantly blasted Polar City into dust, scooped out great craters in the ground beneath it. The seas boiled furiously, evaporated in enormous clouds of steam and spume, left under their banked clouds of vapor great barren areas of new and sodden continent. Time and time again the disintegrators struck the planet, each time the recoil sending the ships farther away into space, until, at last, Razak gave the order to stop and stood looking down on the receding planet with a grim smile.

"A lifeless world," he murmured. "A pity in some ways and yet very necessary in others. A lifeless and now waterless world, carrying the eternal mark of Umyas' short-lived victory in the shape of those still visible chasms stretched across the disk like a network." He turned abruptly. "Set the course back on a direct line with the third world; recoil has turned us aside. Proceed afterward as already instructed."

WITHIN 200 hours the Disepian fleet finally landed on the surface of the

third world, settled gently down on the soft, lushy soil of that very young planet, upon an immense plateau washed by the foaming breakers of a tempestuous sea. Overhead there lay the densely heavy clouds begotten of eternal warmth and moisture.

"A world of great possibilities," commented Razak, staring out through the window over the wilderness. "Everything except gravitation is suitable for us." He drew a deep breath with an effort. "That is one problem that our science cannot altogether overcome. Here on this plateau we will erect our principal city."

The others nodded slowly and stared at the distant end of the plateau, where the waters of the incessant atmospheric downpour had come together in foaming torrents, already cleaving vast gorges in the upflung mountain range.

"It will be a long time before this world becomes really climatically suitable," commented Cralo doubtfully. "Do you think that it is wise to stay, Razak, or had we perhaps better journey——"

"To another world?" Razak interrupted him. "How do you propose we do that? We know all the other worlds of this system are useless. Mars, too, is no longer of use now we have blasted all the water from its face. No, we might wander through all eternity and never again find a world such as this. As ages go by it will settle down and become a lovely world. We will conquer it as we have conquered everything else. And we will name it—Earth!"

ACCORDINGLY, by the untiring efforts of the scientists of Disep, there began the first colonization and control of the new world—a wild and terrible world in those early days, all but defeating their untiring diligence and labor. By degrees, with the aid of their scientific instruments, they were able to

direct the immense rain clouds to areas where they could precipitate their moisture harmlessly. They gained for themselves a slowly drying landscape already flourishing with the germinated seeds that had been laid in the soft, warm soil. Trees and shrubs began to flourish in the enervating air, mothered by the vital chemicals of a planet still in its cradle.

The erection of a city was a tougher problem, but the determination of Razak to establish himself on the planet would accept no defeat. Little by little, braced against the tempests that almost constantly swept the planet, the city began to appear—composed of synthetic stone and gradually supplied with all the necessities of life. Slowly, inevitably, Razak was gaining his ends.

During the ten years occupied in building the city, his colleagues discovered many things, notably the formation of the planet they were on. So far as could be judged their city was erected on a vast plateau of land existing between two enormous continents, ice-bound to the north with the manifest approach of a glacial age. Nor was the plateau in a very secure position. The ocean, still in the throes of tempestuous upheavals, revealed distinct signs that it might ultimately sweep inward between the two continents and engulf the city in its depths.

TO THIS possibility Razak paid surprisingly little attention. He had other problems on his mind. One was the exuberance of growth occurring on the plateau; the enormously fast germination and spread of plants and trees was worrying him. In every direction, save in the ice regions, there were vast jungles of interlacing green, sodden and crawling with a new form of small life, protoplasmic slime that he knew inevitably spelt the dawn of a beast age,

destined to evolve through the ages into wild animals.

But that was not all. His principal worry was his increasing inability to concentrate or understand his own scientific machinery! It was a trouble that had spread to all his men and women and to the children of those whom he had ordered to mate. For some reason they were losing their grip.

Of the fifty couples who had mated and borne children, each child revealed distinctly atavistic tendencies, was far less intelligent than the parents themselves. Razak began to feel the grim portents of an impending Nemesis catching him up on this young, horrible planet spawning now with life.

It was typical of him that the trouble lasted for months before he finally condescended to notice it. Then he went into a close study of the problem and finally summoned all his people, children included, in the main room of the powerful, weather-insulated city.

"My friends," he said steadily, looking round on their obviously degenerate faces, "we are faced with the profound problem of fading intelligence. I see it in your faces; you see it in mine. Our achievements are crumbling about our ears. We hardly understand our science any longer. I have at least managed to solve the mystery, but there is no cure for it. You have all known how for these ten years we have labored unceasingly against gravitation, that one terrific power we cannot overcome.

"Pathologically, as you know, the blood stream is entirely responsible for the condition of the brain. A poor blood stream begets a poor brain, and a good one produces brilliance. On our own microcosmic world of Disep the gravitation was normal for our bodies—even as it was on Mars. The atmosphere, too, was correct. Here the atmosphere is filled with unexpected toxics, in many

cases from the rampant growths we ourselves started. The gravitation pulls perpetually on our blood stream and prevents an easy flow to the brain. We struggle in the midst of incongruous conditions for which there must be a price. One is inevitably molded to environment. Atavism, mental and physical, has set in. It means the doom of our science; that much we must realize. Maybe it is retribution for the destruction of Mars' rightful inhabitants."

"But can we not leave this planet and find another?" demanded one of the men.

"We could, but as we said before it is doubtful if it would be of any advantage. It would mean constant traveling through space, deprivation of essentials of atmosphere, living in a tiny world for unnumbered years. Besides, our numbers are greater now. There are children; there will be children's children—the very nucleus of a mighty race to come. Little by little they will atavise to a final point and become almost like the brutal, apelike beings that were the ancestors of our own race; then evolution will take its course and they will gradually ascend the ladder again, molded by the new environment, able to be happy in this world by the process of adaption. Finally, they will become intelligent thinkers; but throughout their life on this world they will never equal our own past brilliance. This world will not give that."

"THEN—then our race is ended?" demanded another.

Razak nodded sadly. "Ended in one phase, but just commencing in another. We know that this city cannot stand much longer against the mad storms that rage and fume over this world; ultimately it will be sent to the very bottom of the ocean that is seeking to sunder the two continents. We must scatter to

all parts of this planet, live as best we can on the rank fruits these trees of ours bear. The art of consuming nourishment from the air is now unhappily a lost one. We must forget all this. Some of us may last long enough with our devices to build cities in other lands to keep science alive for a while. But finally fate will catch up. Our children's children will be cavemen and women, seeking escape from the cold that is to come. Our city will be at the bottom of the ocean——"

Razak paused and mused. "Strange indeed," he muttered. "Future man will find our remains and not know that he himself had us for ancestors—will invent reasons for life on his planet, invent reasons for the three giant comet-like objects that will appear at recurrent intervals in the heavens, all unaware that it is the life energy of the projected men of Mars still circling their eternal orbits. He will ponder on lost civilizations, on the markings of Mars and its waterless surface, upon, perhaps, strange ruins in far-off lands. It would, perhaps, have been better had we never dabbled."

He looked through the broad window at the raging ocean so near the plateau's eroding coast line.

"Will even wonder if a city lies be-

neath the sea," he concluded musingly. Then, with a shrug, he drew himself up, became the commander again.

"We scatter—and part, with our children," he announced. "Come!"

Silently, the men, women and children followed him to the exterior. Under his directions they formed into a star with eight radiating points, then set off in eight different directions, bearing with them small mechanical devices for the possible construction of future habitats.

Some went toward the northern continent, some to the southern, others toward the mountains and still others toward the jungles. And as they went the ocean thundered and raged on the solitary plateau, strove with life-crawling brine to reach the deserted stone city, indescribably lovely amidst the tumult that had so long eluded it.

Only once did Razak look back, a silent and lonely figure in the lashing wind. His eyes took in the whole panorama—the far-distant vision of his men, women and children vanishing in the coming dark.

"To the future!" he muttered. "Some day man may understand——"

Then he turned and strode steadily into the night that yawned before him.