

ADAM LINK IN THE PAST by Eando Binder

VOLUME 15
NUMBER 2

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STOPPIES



BATTERING RAMS OF SPACE

by DON WILCOX

CHARLES R.
TANNER ★

JOHN YORK
CABOT ★

GORDON A.
GILES ★

ROBERT MOORE
WILLIAMS

AMAZING STORIES

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Front cover painting by Leo Morey illustrating a scene from "Battering Rams of Space"

Back cover painting by Frank R. Paul depicting "A City On Jupiter"

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The **WINKING LIGHTS OF MARS**



The linking of two worlds hinged on the result of the astronomers' observations. Would the Winking Lights be seen?

"It's war!" came a shout from the doorway

by GORDON A. GILES

"I'M sorry," said Dr. R. Westwood. "The board has decided it can't grant the million dollars necessary toward this project of sending a rocket to Mars."

He shoved the rolled blueprints across his desk at Thomas Ayre. Westwood hated to say it. Ayre had been so obviously hopeful and eager. His young face fell a mile now. The dream in his grey eyes faded, burst. It was as though he had tumbled and fallen from a great height—from the height of Mars in space.

"But I tell you it will work!" Ayre protested. He spread the blueprints and tapped the sketches for emphasis.

"The step-rocket principle. Each rocket-chamber, after discharging its fuel, drops away, lessening the weight. After ten stages, the final unit with its single passenger goes on and reaches Mars. This was all worked out years ago. And all the details of air, food and water supplies for the rider. The science of rocketry, which I represent, needs only money now to build and send a rocket ship to Mars."

His voice rose. "Good God, are you going to let a mere million dollars stand between you and the greatest thing in history?"

Dr. Westwood's voice was kindly, in answer.

"Very possibly it would work, Ayre. Our technical men found no glaring flaws in the scheme. But look. Our funds are limited. Wykoff Institute is supported by men who would tear their hair at money spent for what they'd consider a wild venture. We have to dole out our money for less fantastic research, such as cyclotron work, or electron-microscope pioneering. I'm sorry, Ayre."

He spread his hands eloquently.

"But you're my last hope!" the young rocket engineer said. He went on bitterly. "Financial interests weren't even polite, when I went to them."

Westwood leaned forward.

"I still don't understand one thing, Ayre. Why not build a stratosphere rocket first? Send it over the ocean? If it succeeded, you'd have business men paving a concrete road to your door. The first airplane flew just a few miles. To suddenly suggest jump-



ing right from Earth to Mars—I don't see it."

Tom Ayre's eyes went dreamy again.

"Because I believe there's life and civilization on Mars! The canals prove it."

Westwood laughed.

"But no one has proved the canals, first of all. Shiaparelli, Pickering, Lowell and all the others claimed to have seen them in their telescopes, yes. But only at the verge of human eyesight. It might be an optical illusion."

"It isn't!" Ayre snapped. "This year, early in 1940, Dr. Slipher of Lowell Observatory displayed 8,000 photographs of Mars, taken at its closest approach in '39. The photos definitely show the markings sketched by the earlier men from visual observation."

"Definitely?" Westwood shook his head. "Half the astronomers still consider the markings too hazy and uneven to be straight, artificial canals."

Ayre conceded the point.

"But there will be proof soon—unshakable proof. This is late 1940. Next month, the 200-inch telescope at Mt. Palomar will be ready for use. As soon as they swing it on Mars, the canals will stand out once and for all."

"Then wait that month or two," Westwood suggested a little impatiently. "If the canals are proved, you'll have a strong selling point. Wykoff Institute might back up the Mars rocket then—with possible Martian civilization the goal."

"ONE or two months," Ayre murmured, as if to himself. "It may be the margin—"

At the older man's curious stare, he went on. He leaned over the desk, eyes blazing.

"Do you know why I've been trying to push this thing through? Because the foundations of civilization, as we

know it, are cracking. The war has been going on now for over a year. Most of Earth is involved except North and South America. When they get in—and it seems inevitable—the holocaust will go on for years—years!"

Westwood's face was heavy.

"Yes, Ayre," he agreed somberly. "Frankly, your rocket to Mars will have to wait till after the war—if anything's left."

Ayre's voice became fiercely eager. "But if the rocket reached Mars *before* the worst came—don't you see? Every paper and radio in America screeching the news. Life and Civilization on Mars, Our Sister World! The war would stop, once that stupendous news filtered through. The discovery of America forestalled a brewing war of that time."

"Only," Westwood said cynically, "to precipitate a death-struggle later between the Spanish and British Empires."

Again Ayre's eyes reflected a dream.

"But suppose," he whispered, "the Martian civilization is old and wise. Mars cooled before Earth; supported life sooner. Intelligent life must have risen there while we were still sub-men on Earth. The canals alone show a great science. With it, they must have a wisdom of time that young Earth hasn't had. Martian culture, long past the adolescent stage of warfare, would set an example to mankind on Earth. Perhaps their wisest administrators could come to Earth and pattern our society after theirs—united, peaceful, mellow with time—"

He stopped, flushing.

"I know it all sounds like wishful thinking. But it should be tried, on the one chance of saving humanity from its worst war in history. The Martian super-culture theory is a logical one—"

"Except for one thing," Westwood

interrupted. "Why haven't these alleged Martians visited Earth?" His tone became impersonal. "Despite such interesting speculations, I can't do a thing for you, Ayre. If the 200-inch telescope proves the canals of Mars, come back. We'll see what can be done then. Good day."

Outside, Ayre stalked the streets of Los Angeles with his blueprints rolled under his arm. He was still walking at dark. Mars glittered redly in the sky. It shafted through the mists of his dream mockingly.

The question rose puzzlingly in his mind. Yes, if Martian super-culture existed, why hadn't the Martians visited Earth?

"I'm sorry," said Petos Koll, Director of Research. "We have no funds to spare, for this project. A rocket to Darth, the third planet! It is a wild, fantastic venture to think of!"

Young Dal Hedar angered.

"Not so fantastic! You well know that plans for a step-rocket have long been suggested. Short-sighted transportation chiefs have simply refused to back it. I've come to you, for research funds, as a last resort."

"We have none to spare," Petos Koll repeated. "Especially now, during war time." The six fingers of his hands spread in a gesture of helplessness.

"That's just it—the war!" stormed Dal Hedar. "If a rocket reaches Darth from our planet, Mariz—"

"Why must you instantly rocket from one planet to another?" Petos Koll demanded. "Why not a stratosphere flight from one side of Mariz to another, first? Or at least to one of our two moons."

"Let me explain." Dal Hedar's young eyes filled with a somber light. "This present war promises to lay waste our civilization, as no previous one has.

Dictator Sowll will not cease till he has gained control of every canal-center on Mariz. But suppose a rocket reaches Darth and finds life and civilization—"

"Life and civilization!" Petos Koll grunted scornfully. "You are one of those who believe the Winking Lights on Darth really exist? Most astronomical authority today states it is an optical illusion."

Dal Hedar's eyes suddenly grew dreamy.

He had once had the privilege of looking through the great telescope at the Singing Desert Observatory, famed for its excellent visual conditions. In its whirling mercury-bowl* reflector, the image of Darth had shimmered as a beautiful blue orb. A full night he had watched, and seen one hemisphere of Darth majestically rotate. The Darth day was almost exactly a Mariz day, though the Darth year was much shorter.

He had seen the famed Winking Lights.

Faint will-o-wisp star-dots that hovered at the verge of straining eyesight, so that one was never sure they were actually there. And there was no proof of them. A total of 28 had been reported, widely scattered over the dark portions of the planet, which composed one-fourth of its surface. The other three-fourths was known to be water. Oceans of it, as Mariz had once had in its far past.

*A mercury-bowl reflector would be a telescopic mirror formed of liquid mercury, contained in a huge metal bowl, and rotated swiftly until a perfect concave surface was afforded, at the proper degree of curve to concentrate the light received through the barrel of the telescope. Naturally, such a telescope would be a tremendous machine, since Mercury weighs a great deal, and the mechanics of a rotator steady enough to provide an undistorted reflecting surface would be sensational. However, astronomers have dreamed of such a telescope and perhaps it will be a reality in the not too distant future.—Ed.

THE Winking Lights stood out best at half-phase of Darth. Then, here and there, they blinked into being, like tiny lamps. Those in the two land areas of the Western Hemisphere were most consistent. Three particularly bright ones always seemed to appear, so that even the die-hards could not quite deny their existence. One at the eastern coast of the northern area, at the edge of the Second Great Ocean. One inland, at the tip of the Five Small Seas. One on the western coast, further south, bordering the First Great Ocean. Like tiny flaming jewels they had appeared to Dal Hedar's wondering eyes. The lights winked, probably because of the interference of Darth's extensive atmosphere.

"Optical illusion?" snapped Dal Hedar. "I saw them myself. No, Petos Koll, they exist. They are the flaming lights of great Darth cities, built by intelligent beings!"

"Why have all those lights not been seen nightly for almost a year, in the Eastern Hemisphere of Darth?" argued Petos Koll. "Have those mythical cities of yours vanished, there?"

Dal Hedar shrugged his tall, bony frame.

"Perhaps adverse visual conditions. But the city-stars of the Western Hemisphere still shine nightly."

"There is no proof," grunted Petos Koll. "Photographs that purport to show the three brightest Winking Lights are not accepted officially. The light specks may be film imperfections."

Dal Hedar slowly shook his head.

"I wonder if on Darth, perhaps, their officials say the same of our canals—that they are an illusion . . ." His eyes glowed suddenly. "But there will be proof soon! Shortly the great new telescope will be finished, in the Rainbow Desert Observatory. With a mercury-bowl reflector twice as large as any in

use, it will definitely reveal, once and for all, the Winking Lights!"

"You will have to wait till then for your funds," Petos Koll shrugged.

"But in the meantime the holocaust of war spreads over our world!" objected the younger Martian.

"Well, what good will the rocket to Darth do?"

Again Dal Hedar's eyes softened with a dreamy light.

"It will find there a great civilization. One that arose and reached its prime while we were still swamp-men. You have heard that theory, Petos Koll. That life arose on Darth *first*, because it is nearer the life-giving sun. Mariz had to wait till the lesser rays spawned single-celled life in our primordial ooze. Therefore, evolution produced intelligent life on Darth far before us. They must be a great and cultured race. Perhaps ages ago they passed through the stage of civilization where wars are fought. They live now as a peaceful, united, highly civilized society, with their great cities dotting all their lands as what we call Winking Lights."

His voice was eager.

"Don't you see, Petos Koll? Their wise men will come to Mariz and teach us the ways of peace and brotherhood. Wars will end forevermore on our bleeding world. We will no longer fight over the canals, which are the life-blood of our existence. Petos Koll, can you let a few radium coins stand between that and the downfall of our present civilization?"

Petos Koll sighed. He could not blame the young engineer for his visionary views. And there was just a chance that it would all happen that way.

"But," he mumbled, "there is war. My hands are tied. You will have to wait till the new telescope proves unquestionably the reality of the Winking Lights."

Dal Hedar left. So it had to be. In about sixty days, the new telescope would be turned on DARTH. The Winking Lights would be proved or blasted, in sixty MARIZ days, which were almost equal to sixty DARTH days.

IN the visitor's room of Mt. Palomar Observatory, Tom Ayre waited nervously.

The mighty glass eye had been officially put into operation a week before. Previous to beginning its timed program of stellar observations, it was being swung from planet to planet, for tests of its powers.

The rings of Saturn had come out with stark clarity as composed of tiny pin-point bodies whirling around their primary. Another moon of Jupiter had been instantly spotted, the twelfth. The huge telescope was proving its tremendous powers already.

And today, Mars was on the calendar, for a night's observation. What would they announce about the canals, an enigma that had stirred fierce controversy for half a century? Illusion or not? Civilization or not? A dream in Ayre's mind come true, or—just a dream?

Ayre's mind drummed.

The canals had to exist! They must! On them rested the fate of humanity. The one chance to pull Earth's eyes away from its sordid doings and center them on the blinding revelation of another civilization. And a better one. Earth's warlords would dim and fade in that limelight, and all the nebulous, shoddy "causes" they held up would pass like black clouds.

Each man on Earth—French, German, British, Russian, Japanese—would suddenly draw closer to his "enemy." They were all human beings, in the last analysis. Out in space there, on Mars, were alien beings.

And they might attack!

Yes, it would work two ways, Ayre gloated. The first headline announcing a rocket to Mars and back would run over Earth like wildfire. The first thought would be—will our world be attacked by these super-beings on Mars? Here we are, bleeding, fighting ourselves to exhaustion. Tomorrow the Martians might come, conquering.

So would mass conjecture run, in this time of warlike thoughts and demoralization. As Orson Welles had unwittingly proved! Ayre smiled. And then how sublimely wonderful it would be when the Martians descended like gods from some Olympia! Wise, gentle, truly civilized beings who would overnight organize the anarchy of human life into a peaceful era.

Ayre jerked to awareness.

A man came in from the telescope chamber above. It was two o'clock A. M. They had trained their tube on Mars for several hours. His face was red with excitement. His voice cracked.

"Japanese bombers have just attacked Los Angeles!" he yelled. "The news just came over the radio." He gulped and went on, half with a groan. "America is in the war!"

THERE was a stunned silence in the room. The visiting astronomers looked at one another as though he had announced the universe splitting in half. Their scholarly faces recoiled from the dread pronouncement, so different from what they had expected. Not the canals of Mars, but war!

"America in the war!" one man murmured, closing his eyes to shut out a terrible vision. "The whole world is now at war. Two billion human souls!"

Ayre's mind shook itself, staggering. Was it too late? He ran forward and grasped the announcer's arm, who stood woodenly as if not knowing what to do

or say next.

"The canals of Mars?" Ayre demanded, shaking him. "What about the canals of Mars?"

"Canals of Mars?" The man looked at him stupidly, then waved a hand. "Oh, they exist. A webwork of them, clear as cracks in a mirror. Let me go! America is at war! The whole world is at war! Who cares about the canals of Mars?"

DAL HEDAR whipped his nine-foot angular frame back and forth in the antechamber of the Rainbow Desert's Observatory. The giant new mercury-bowl reflector had been sweeping the firmament for ten days.

Already memorable announcements had come. Polor's rings had come out with stark clarity as composed of tiny pin-point bodies whirling around their primary. Another moon of huge Kanto had been instantly spotted, the twelfth. And tonight, Darth was on the list for observation.

What would they announce about the Winking Lights, an enigma that had stirred fierce controversy for thirty years? Illusion or not? Civilization or not, on Darth? A dream in Dal Hedar's mind come true, or—just a dream?

Dal Hedar's mind hummed.

The Winking Lights had to exist! They must! On them hung the fate of his world. The one chance to shift Mariz's eyes away from its terrible civil war and center them on the blinding revelation of another civilization.

And a better one! Mariz's warlords would shrink to insignificance in that glory, and all the nebulous, twisted "causes" they held up would pass like winds in the Desert of Sighs. Each soldier on Mariz—Hokian, Pthuvian, Dorkite, Lansic—would suddenly draw closer to his "enemy." They were all fellow Marizians, in the last analysis.

Out in space there, on Darth, were alien beings.

And they might attack!

Yes, it would work two ways, Dal Hedar gloated. The first sound-cast announcing a rocket to Darth and back would run over Mariz like a dust-cloud. The first thought would be—will our world be attacked by these super-beings on Darth? Here we are, drying away, fighting ourselves to exhaustion. Tomorrow the Darthians might come—conquering.

So would popular speculation run, in this time of warlike thoughts and hysteria. Dal Hedar smiled. And then how achingly glorious it would be when the Darthians descended like gods from the Spirit Dimension. Wise, learned, truly civilized beings who would overnight lead Mariz out of its chaos.

Dal Hedar jerked to awareness.

A staff-member came in from the telescope chamber above. It was late at night. They had been observing Darth for several hours, with the new giant mercury-bowl. His face was green with excitement. His voice was harsh.

"Hokian air-sleds have just attacked Canal Center Five! Kansa, our nation, is in the war! All Mariz is at war, now!"

Dal Hedar forged his way through stupefied astronomers to the man, grasping his arm.

"The Winking Lights of Darth!" he demanded, shaking him. "What about the Winking Lights?"

"Winking Lights of Darth?" The man looked at him woodenly, then waved an arm.

"Oh, they do not exist, after all. We observed for many hours, but not one was seen. Even the three brightest alleged to be in the Western Hemisphere aren't there. They have proved to be an utter illusion." He laughed wildly, and jerked away. "All Mariz is at

war! Who cares about the mythical Winking Lights of Darth?"

Dal Hedar stood stunned, broken.

Illusion, all illusion! There were no Winking Lights on Darth. No civilization, no cities, perhaps no life at all. The great new telescope could not be wrong. If it didn't show the Winking Lights, then they could not exist.

And there would be no rocket to Darth.

TOM AYRE stumbled, along with ten other drafted recruits, toward the barracks. The whole city was dark—blacked-out. Every city in Europe and Asia had been blacked-out for months, at night, in dread of the horrible air-raids that became the rule. Now every city in America too, would be kept

snuffed like a useless candle.

They reached the barracks.

"Name?" asked the non-com checking them in.

"Tom Ayre. But listen, there are canals on Mars! Won't anybody listen? People up there, who'll save Earth. The canals are there. If you don't believe me, ask them at Mt. Palomar, where they have the big telescope—"

The officer interrupted, shaking his head a little at the young recruit's staring, haunted eyes.

"What are you raving about, son? The Mt. Palomar Observatory was bombed down the second night the Japs attacked. Now grab up that outfit and get going. There's a war to fight, mister, and it's going to be a long one."

« « ULTIMATE REALITY » »

THE nineteenth century sceptic who proudly proclaimed that he believed only in what he could see, hear, or handle amuses the educated man of today.

Whatever else we are doubtful about, we know that behind the world to which our senses react there is one infinitely greater of which we can learn only indirectly.

We know there are sounds too high in pitch for the human ear to hear, though certain insects have more sensitive organs. We are probably living in a babel of noise to which we are totally deaf.

So far as our senses are concerned, we remain serenely unaware of a raging magnetic storm which disrupts all electrical systems.

We are aware of colors ranging from violet at one end of the spectrum to red at the other. But we have found out that beyond the violet are other colors which we cannot see, though it is possible that some animals can. And below the red end is the infra-red, the "black light" with which astronomer-photographers are now doing miracles.

Dr. Otto Struve, director of the Yerkes Observatory, says of a new camera: "Used with infra-red plates sensitive to radiations intermediate between the reddest visible rays and heat rays, the camera has shown

that the night sky is so constantly luminous in infra-red light that if human eyes were sensitive to these radiations they would see it as a luminous surface upon which the stars were relatively pale."

These infra-red photographs have revealed skies crowded with "ghost stars" the existence of which was not even suspected. Some of these dark, dead worlds are nearer to the earth than any stars were thought to be.

Mathematical physicists are no longer materialists in the old sense of the term when they try to explain the world of the atom in which apparently no such relationship as cause and effect exists.

Not long ago most psychologists regarded thought as the effect of a chemical reaction in the brain. Now many believe it is at least an arguable theory that the mind is a separate entity which uses the brain as a means of communication with the outer world. ESP—extra-sensory perception—is a recognized study in most colleges.

It is not heretical to regard time as an illusion.

No investigator of today claims any knowledge of ultimate reality. He knows that he cannot depend on his senses to tell him directly more than a small fraction of the truth.—*Morrison Colladay.*