

Voyages to Mars 7

Landing

Matt Shindell:

Hello and welcome to the final episode of Voyages to Mars from the Smithsonian's National Air and Space Museum. Over the past seven months, we've shared science fiction readings about human and robotic exploration of our solar system. All set to music by DJ Kid Koala. I'm Mat Shindell.

Our six previous tracks have taken us a long way, launching from earth, flying past the moon and exploring the technology and challenges Percy will face on its mission. Now for our finale, we finally arrived on Mars. Sort of.

This week the Perseverance Rover will touch down on the red planet. It begins its mission of roving around its landing site at Jezero Crater. It will send back thousands of images over the course of its life on Mars, as it becomes part of a long heritage of landers and rovers that have allowed us to see the surface of Mars as though we're standing right on it.

While we still haven't set foot on the planet, over the past 16 years we've been able to see something new on Mars everyday, we can pull up the most recent images of Mars whenever we want to. Robotics, computers and communications technologies we take for granted in our everyday lives have made that possible. But in 1897, none of these technologies existed. When the science fiction author H.G. Wells wrote his now famous novel about the Invasion of Earth by Mars, *The War of the Worlds*. He had no technological reference to draw upon when he imagined how humans on Earth might be able to see the surface of Mars and the Martians who lived there or vice versa.

In the story of *The Crystal Egg*, which he wrote around the same time Wells imagined a curious viewing device sent from Mars to Earth, from a technologically advanced civilization, eager to observe and learn more about their neighboring world. But the device, an egg shaped crystal that sometimes glows also gives to humans a view of Mars. When the crystal egg is discovered by Mr. Cave, a London shopkeeper. It reveals a strange desert world inhabited by winged and tentacled creatures who occasionally look back at him.

Observing with his scientifically minded associate, Mr. Wace, Mr. Cave, explores and questions the strange landscape that has shown to him. From the stars in the night sky and the occasional appearance of two moons, Mr. Cave, and Mr. Wace determined that they're looking at Mars. The visions of Mars are certainly fantastical but they're built from real scientific foundations, the canals, and even the creatures that Mr. Cave and Mr. Wace see are no doubt inspired by Percival Lowell and other contemporary astronomers who argued that Mars is criss-crossed by a canal system that might've been built by an intelligent alien civilization. The two moons are Phobos and Deimos, first observed only 20 years before our Wells wrote this story. Reading *The Crystal Egg* for us today is AirSpace producer, Jennifer Weingart.

Jennifer Weingart:

Selections from *The Crystal Egg* by H.G. Wells.

The things witnessed through the crystal were in all cases seen by Mr. Cave, the shopkeeper. And the method of working was invariably for him to watch the crystal and report what he saw. While Mr. Wace, who as a science student had learned the trick of writing in the dark, wrote a brief note of his report. When the crystal faded, it was put into its box in the proper position and the electric light turned on.

Mr. Wace asked questions and suggested observations to clear up difficult points. Nothing indeed could have been less visionary and more matter of fact. The attention of Mr. Cave had been speedily directed to the bird-like creatures he had seen so abundantly present in each of his earlier visions. His first impression was soon corrected and he considered for a time that they might represent a diurnal species of bat.

Then he thought, grotesquely enough that they might be cherubs, their heads were round and curiously human and it was the eyes of one of them that had so startled him on his second observation. They had broad silvery wings, not feathered, but glistening, almost as brilliantly as new killed fish and with the same subtle play of color. And these wings were not built on the plan of bird-wing or bat, Mr. Wace learned, but supported by curved ribs, radiating from the body. A sort of butterfly wing with curved ribs seems best to express their appearance. The body was small, but fitted with two bunches of prehensile organs, like long tentacles immediately under the mouth.

Incredible as it appeared to Mr. Wace, the persuasion at last became irresistible that it was these creatures, which owned the great quasi human buildings and the magnificent garden that made the broad valley so splendid. And Mr. Cave perceived that the buildings with other peculiarities had no doors but that the great circular windows, which opened freely gave the creatures egress and entrance. They would alight upon their tentacles, fold their wings to a smallness, almost rod like and hop into the interior.

But among them was a multitude of smaller winged creatures, like great dragonflies and moths and flying beetles and across the greensward brilliantly colored gigantic ground beetles crawled lazily to and fro. Moreover on the causeways and terraces, large headed creatures, similar to the greater winged flies, but wingless were visible, hopping busily on their hand-like tangle of tentacles.

Allusion has already been made to the glittering objects upon masts that stood upon the terrace of the near building. It dawned upon Mr. Cave after regarding one of these masts very fixedly on one particularly vivid day, that the glittering object there was a crystal exactly like that into which he peered. And as still more careful scrutiny convinced him that each one in a vista of nearly 20 carried a similar object.

Occasionally one of the large flying creatures would flutter up to one and folding its wings and coiling a number of its tentacles about the mast would regard the crystal fixedly for a space, sometimes for as long as 15 minutes. And a series of observations made at the suggestion of Mr. Wace convinced both watchers that so far as this visionary world was concerned, the crystal into which they peered actually stood at the summit of the end-most mast on the terrace. And that on one occasion, at least one of these inhabitants of this other world had looked into Mr. Cave's face while he was making these observations.

So much for the essential facts of this very singular story, unless we dismiss it all as the ingenious fabrication of Mr Wace, we have to believe one of two things, either that Mr. Cave's crystal was in two worlds at once. And that while it was carried about in one, it remained stationary in the other, which seems altogether absurd. Or else that it had some peculiar relation of sympathy with another, an exactly similar crystal in this other world. So that what was seen in the interior of the one in this world was under suitable conditions, visible to an observer in the corresponding crystal in the other world and vice-versa.

At present, indeed, we do not know of any way in which two crystals could so come and report but nowadays we know enough to understand that the thing is not altogether impossible. This view of the crystals as en rapport was the supposition that occurred to Mr. Wace. And to me, at least it seems extremely plausible.

And where was this other world on this? On this also the alert intelligence of Mr. Wace speedily through light. After sunset, the sky, dark and rapidly, there was a very brief twilight interval indeed and the stars shone out. They were recognizably the same as those we see, arranged in the same constellations. Mr. Cave recognized the Bear, the Pleiades, Aldeberan and Sirius; so that the other world must be somewhere in the solar system. And at the utmost only a few hundreds of millions of miles from our own.

Following up on this clue, Mr. Wace learned that the midnight sky was a darker blue even than our mid-winter sky. And that the sun seemed a little smaller and there were two small moons like our moon, but smaller and quite differently marked. One of which moved so rapidly that its motion was clearly visible as one regarded it. These moons were never high in the sky, but vanished as they rose. That is, every time they revolved, they were eclipsed because they were so near their primary planet. And all this answers quite completely, although Mr. Cave did not know it, to what must be the condition of things on Mars.

Indeed, it seemed an exceedingly plausible conclusion that peering into this crystal, Mr. Cave did actually see the planet Mars and its inhabitants. And if that be the case, then the evening star that shone so brightly in the sky of that distant vision was neither more nor less that of our own familiar Earth.

For a time, the Martians, if they were Martians, did not seem to have known of Mr. Cave's inspection. Once or twice one would come to peer, then go away very shortly to some other mast as though the vision was unsatisfactory. During this time, Mr. Cave was able to watch the proceedings of these winged people without being disturbed by their attentions. And although his report is necessarily vague and fragmentary, it is nevertheless very suggestive.

Imagine the impression of humanity, a Martian observer would get who after a difficult process of preparation and with considerable fatigue to the eyes was able to appear at London from the steeple of St. Martin's church for stretches of longest of four minutes at a time. Mr. Cave was unable to ascertain if the winged Martians were the same as the Martians who hopped about the causeways and terraces and if the latter could put on wings at will.

He several times saw certain clumsy bipeds dimly, suggestive of apes, white and partially translucent, feeding among certain of the lichenous trees. And once some of these fled before one of the hopping round headed Martians, the latter caught one in its tentacles, and then the picture faded suddenly and left Mr. Cave most tantalizingly in the dark.

On another occasion, a vast thing that Mr. Cave thought at first was some gigantic insect appeared advancing along the causeway beside the canal with extraordinary rapidity. As this drew near, Mr. Cave perceived that it was a mechanism of shining metals and of extraordinary complexity and then when he looked again and had passed out of sight. After a time Mr. Wace aspired to attract the attention of the Martians and the next time that the strange eyes of one of them appeared close to the crystal, Mr. Cave cried out and sprang away and they immediately turned on the light and began to gesticulate in a manner suggestive of signaling. But when at last Mr. Cave examined the crystal again, the Martian had departed.

My own ideas in the matter are practically identical with those of Mr. Wace, I believe the crystal on the mass in Mars and the crystal egg of Mr. Caves to be in some physical, but at present quite inexplicable way in report. And we both believe further that the terrestrial crystal must have been possibly at some remote date, sent Heather from that planet in order to give the Martians a near view of our affairs, possibly the fellows to the crystals in the other mast are also on our globe. No theory of hallucinations suffices for the facts.

Matt Shindell:

Voyages to Mars is presented by AirSpace from the Smithsonian's National Air and Space Museum. It is produced by Katie Moyer, Mat Shindell, Jennifer Weingart and Andrew Fletcher. Mixed by Tarek Fouda, music by DJ Kid Koala. This series is made possible by the Secretary of the Smithsonian and the Smithsonian Orlando Regional council.