

## **Mars in the 1990's: Martian Myths: Debunked or Still Breathing?**

The dismantling of the Berlin Wall in 1989 was the symbolic culmination of a chain of events that dramatically altered the political and social landscapes of the world. It also represented a crushing blow to established and aspiring writers of espionage fiction, a setback from which the genre has yet to fully recover. When a field of fiction heavily relies on a suspension of disbelief from its audience, how can it adapt when an inconvenient reality intrudes into the conscious awareness of potential readers? The question is of great relevance to science fiction writers, whose attempts to render imaginative – but conceivable – worlds and characters are often undermined by well-publicized discoveries that run counter to their creations. To ignore changes in scientific knowledge is to risk enduring neglect or even ridicule, but to embrace and acknowledge them is no easy feat. The success of NASA's Mars exploration missions in the 1960's and 1970's treated the world to photographic evidence that largely debunked centuries of myths and speculation about intelligent Martian civilizations. Decades later, in the 1990's, depictions of Mars in popular art displayed the effects of these discoveries on the genre of science fiction. Kim Stanley Robinson's Red Mars, Brian De Palma's film *Mission to Mars*, and Larry Niven's novel Rainbow Mars, all feature distinct reactions to the modern scientific understanding of Mars and the debunked, but not forgotten, Red Planet myths.

The role of Mars in human myth and fiction is substantial. In fact, according to Jay Barbree and Martin Caidin, in *Destination Mars: In Art, Myth, and Science*, "Mars has teased the imagination ever since the first astronomers, unnamed and lost in the dust of history, began serious stargazing of the night sky" (16). For the Greeks and Romans,

“Ares,” or Mars, was the god of war; for Johannes Kepler, in the 17<sup>th</sup> century, the enigmatic movements of the Red Planet inspired the discovery of elliptical planetary orbits (Barbree & Caidin, 54); for Edgar Rice Burroughs and H.G. Wells, in the 19<sup>th</sup> century, Mars was the fictional home of intelligent alien beings.

The literary works of Burroughs and Wells, though fictional, were supported by Percival Lowell’s misguided attempts to advance belief in alien civilizations on the Red Planet, culminating in his 1895 book, *Mars*, “in which one could find a step-by-step development of the concept of an intelligent race on Mars, politically unified and distributing the rare and therefore valuable water supply over planet-wide distances” (Ley and Von Braun, 6). Lowell’s theories were based in part on Italian astronomer Schiaparelli’s claim to have spotted *canali* (“channels”) on the Martian surface, a finding frequently misinterpreted as the discovery of “canals.” Lowell’s speculation, with its alleged scientific backing, captured enough imaginations to inspire widespread interest in the question of life on Mars. Ray Bradbury’s 1951 novel, *The Martian Chronicles*, was immensely popular, and “the appeal continued to swell for realistic science fiction stories about Mars. If the public wanted realism, they found it in series of juvenile books, sci-fi pulps, novels, and movies” (California Space Institute, 7). As NASA’s first probes to Mars approached the Red Planet, some in the media hyped the event as a chance to verify the existence of the Martian canals (Burrows, 463).

On July 14, 1965, Mariner 4 sped past Mars, relaying twenty-one and a half fuzzy images of the Martian landscape to Earth (Burrows, 463). It was simultaneously a stunning success of scientific discovery and a disillusionment to numerous hopeful Martian enthusiasts. As William E. Burrows writes:

What slowly emerged was good stuff. And it was terrible. Mars was no longer an elusive orange blur with whitish poles and alluring dark blotches. It had been transformed into a place that had recognizable features with which earthlings could identify. And what a place. Gone were the canals or anything else that could have been purposely dug or built. Gone were the oases holding precious supplies of water. Gone were creatures in any form. (Burrows, 464)

With no sign that intelligent life existed on Mars, or that it ever *had*, the popularity of imaginative Martian creatures suffered. When subsequent Mariner missions confirmed that an advanced, canal-building civilization had never existed on Mars, science fiction writers who continued to produce tales of dynamic aliens and ancient Martian cities were often unsuccessful (California Space Institute, 2). Peter Edwards's 1975 novel *Terminus*, for example, featured the discovery of an ancient city on Mars, which "distracted from [the author's] development of the political situation in his post-holocaust world" (California Space Institute, 2). The next year, NASA's Viking spacecrafts provided the first images and data taken from the surface of Mars. Although the results were of great geological interest, they further emphasized the discovery that Mars was a barren, frozen desert planet (Pasachoff, 465-470).

Kim Stanley Robinson's Red Mars, the 1993 Nebula Award winner for best science fiction novel, directly confronts and incorporates the scientific knowledge of Mars accumulated from the Mariner and Viking missions. The novel relates the story of an international expedition to establish permanent human colonies on the Red Planet, and the author very explicitly dismisses the idea of native Martian life. In concluding a passage that describes the geological formation and history of Mars, beginning with "Rocks banging together in space" (Robinson, 94), Robinson describes the landscape:

Beautiful, or harsher than that: spare, austere, stripped down, silent, stoic, rocky, changeless. ... There was never any spontaneous generation of the clays or the sulphuric hot springs; no spore falling out of space, no touch of a god; whatever starts life (for we do not know), it did not happen on Mars. Mars rolled, proof of the otherness of the world, of its stony vitality. (Robinson, 96)

The first moment life exists on Mars in Red Mars is when the human settlers set foot on the planet's surface at the conclusion of their nine-month space voyage.

Robinson's novel is set in the future, the year 2026, and its content is by no means confined to verified scientific facts. The author imagines enormous underground seas which the human colonists will eventually use as a source for creating surface bodies of water. Also, the level of technology present throughout the novel far surpasses any existing developments. One of many examples is the creation of transparent protective shields for Martian cities:

A Swedish man was explaining things to a group of visitors, pointing happily. 'An outer membrane of piezoelectric plastic generates electricity from the wind. Then two sheets hold a layer of airtel insulation. Then the inner layer is a radiation-capturing membrane, which turns purple and must be replaced.' (Robinson, 8)

Although Robinson's geological speculation and technological extrapolation can be somewhat exaggerated, he is careful to place his characters and story within the realm of science as it is currently understood. He invents information but, whenever possible, does not contradict established scientific principles or facts. Even more significantly for the average reader, Robinson's imagery of the Martian surface is consistent with photographs from NASA's probes:

"The sky was a pink shaded with sandy tans... The ground was a dark rusty orange, covered with an even litter of rocks the same color, although some of the rocks showed tints of red or black or yellow. ... They stood on a gently bumpy plain, covered with small sharp-edged rocks, all half-buried in dust." (Robinson, 97-98)

The description reads like an account based on the widely circulated footage from the Mars Pathfinder Rover from 1997, a mission that actually occurred several years after the publication of Red Mars.

The modern manifestations of the traditional myths of Mars are openly acknowledged and debunked by Robinson in the very first chapter: “And so stories have naturally blossomed to fill the gap, just as in Lowell’s time, or in Homer’s... of ruins found in dust storms and then lost forever... of the elusive little red people, always glimpsed out of the corner of the eye” (Robinson, 3). It is, therefore, the recent exploration of Mars, and not the longstanding myths, that characterize the planet’s appearance and function in Red Mars.

Brian De Palma’s film, *Mission to Mars*, on the other hand, uses only enough science to provide context for a modern adaptation of the classic Mars myths. In their effort to depict the Martian landscape, De Palma and his special effects technicians consulted with Matt Golombeck, a JPL mission scientist for the Mars Pathfinder project, to properly render the color of the planet’s surface and sky (De Palma, DVD). The result is a stunning re-creation of the Red Planet (De Palma), and despite a few too many clouds in the sky, the realism is sufficiently consistent with the Pathfinder footage to allow for proper suspension of disbelief.

Just as in Red Mars, the human explorers in De Palma’s film begin by seeking water under the Martian surface, what they call “the key to permanent human colonization” (De Palma). This element of the plot, however, is quickly abandoned to pursue the story’s real agenda, a renewal of the classic Martian myths. Early in the film, an astronaut contemplating a potential voyage to Mars states the film’s central theme:

In all our myths, in every human culture, Mars has always held a special attraction... What if that means something. The universe is not chaos, it's connection. Life reaches out for life. That's what we're born for, isn't it? To stand on a new world and look beyond it to the next one. It's who we are.  
(De Palma)

The human first human explorers encounter a hostile force that assumes the form of an organic dust storm. De Palma explains, in commentary on the film, that his goal was to recall the serpentine tentacle image of H.G. Wells's Martians in *War of the Worlds*, as they first emerged from their space craft.

*Mission to Mars* also involves a relatively modern source of controversy and speculation: the so-called "Face of Cydonia." This myth began when a photograph of the Martian surface by Viking 1 appeared to reveal a landform in the shape of a human face, approximately one mile in diameter (California Space Institute). The release of the photograph incited a wave of conspiracy theories, as hundreds of writers accused NASA of withholding information from the public, claiming that the face was created by beings of superior intelligence. Richard C. Hoagland published articles asserting that it was created by Martians as a prediction of the evolution of humans (California Space Institute). As Michael C. Malin, Principal Investigator of the Mars Global Surveyor Orbiter Camera, puts it: "The conventional view is that this is all nonsense" (Malin Space Science Systems). Malin explains that though the Cydonia area is of great geological interest to NASA scientists, the face-like appearance of the rock formation has been deemed a coincidence and nothing more.

The storyline of *Mission to Mars*, however, plays out as if Richard C. Hoagland were a co-writer on the script. When a second crew of astronauts arrive to investigate the fate of the ill-fated first mission, they discover that the dust storm has cleared enough surface rocks to reveal the face structure more clearly. Explains one character, "Over

hundreds of millions of years, the surface of the planet developed and changed. We saw it, but not like they meant us to” (De Palma). As it turns out, the “they” to whom he is referring are an advanced alien species forced long ago to evacuate the dying planet of Mars. Before leaving, the aliens sent a vessel with DNA to the uninhabited Earth, initiating the process of evolution, and they constructed the giant Cydonia Face as a beacon for their future descendents to discover their heritage. No explanation is offered as to how the aliens could have so precisely predicted the course of evolution on earth, but unlike *Red Planet*, this is a story far more concerned with myth than with science. Brian De Palma acknowledges this when he explains that the art design for the Cydonia Face was intended to represent a “sleeping goddess.”

Larry Niven’s comic novel Rainbow Mars takes an entirely different approach to balancing a scientific awareness of Mars and a knowledge of the traditional Martian myths. Niven’s tale makes no pretenses about being true to life, as its central character, Hanville Svetz, is a time-traveling employee of the futuristic Institute for Temporal Research. In the course of the story, Svetz travels back in time to explore an inhabited Mars, discovers a giant beanstalk growing into the Martian atmosphere, and induces a time-altering paradox that nearly destroys life on Earth. Despite the outlandish events of the plot, however, Niven displays a firm grasp of scientific knowledge, providing much more detailed and accurate information than *Mission to Mars*. The opening page of the novel includes an explanation of topographical data gathered on the Mariner 9 mission, later used as a basis for comparison when the time-travelers encounter the significantly livelier Mars of the past:

‘That region has to be Syrtis Major, but there’s nothing left of the shape! Valles Marineris is all gray-green . . . . Wait, that’s Mons Olympus, with greenery crawling up the sides. That’s Aeolis coming over the horizon, and the tree growing out of it.’ (Niven, 61)

Niven makes it clear that he is not unaware of the actual physical characteristics of Mars, but is making an intentional creative choice to depict them in an altered state.

Niven uses the plot device of time travel to construct an elaborate, light-hearted tribute to the historical and literary history of the Martian myths. When Miya, Svetz’s partner in his time-traveling exploits, discusses the potential gains from the Mars mission, she outlines a unique misinterpretation of scientific inquiry regarding the planet:

‘There was life on Mars. There was civilization! We have sketches made from telescope observations and descriptions from old astronomers, Schiaparelli and Lowell and Burroughs. *Hundreds* saw channels running across Mars, too straight to be anything but artificial.

‘And it all disappeared over the next sixty years, before the first probes reached Mars. The probes found valleys, but they were dry. Craters everywhere. Almost no atmosphere, nothing left of the water system. (Niven, 22)

The other scientists mock her, but Niven’s joke is that Miya is actually correct, and, therefore, so too are Schiaparelli and Lowell. Burroughs, of course, was not an astronomer at all, but a writer of Mars fiction. In Niven’s world, however, because time travel is a fantasy, time travelers only ever visit fictional pasts. The ancient, canal-laced Mars is thus populated by an assortment of beings that resemble Martians from a variety of 19<sup>th</sup> and 20<sup>th</sup> century literary sources.

Once Niven’s two time-travelers arrive on Mars, they discover that the planet is in a complex state of civil war, and their appearance has caught the attention of every warring faction. Niven writes: “Svetz and Miya must have been shot at by every kind of Martian who ever stalked the nightmares of primitive Man” (Niven, 138). These include, from the worlds of Burroughs’s *Mars* series: egg-laying humanoids who wear armour and

bear swords; green-skinned giants that appear like overgrown insects; and crab creatures carried by drone-like headless humanoids. When Svetz and Miya explore the ruins of a city, they discover: “a clump of crystals. Two were of smoky transparency, two were the color of brick, and the nearest was black. ... But now he could see the shadows of rooms...” (Niven, 111). Inside, the pair find a pool of silver lava heated to exactly 190°C, just as those used by the Martian civilization depicted in Ray Bradbury’s *The Martian Chronicles*.

Most integral to the plot of Niven’s tale, however, is a race he calls the Softfingers – large octopoidal creatures with giant heads, bulging eyes, tentacles, and a penchant for astronomy. When Svetz’s spaceship pilot warns him that the Softfingers have surrounded the ship with “big heat beam projectors” (Niven, 122), it is evident that Niven’s characters have encountered H.G. Wells’s Martians in their native habitat, where they can move and communicate freely in the comfort of low gravity. Near the end of the story, Svetz and Miya return to Earth to witness the short-lived 19<sup>th</sup> century Softfinger invasion, thwarted by bacteria. They later steal a heat cannon for themselves, which they use to destroy the giant beanstalk and rectify the time paradox they accidentally caused.

Confronted with ever-changing knowledge and perceptions of Mars, sci-fi writers have a variety of options for depicting the Red Planet in their works of fiction. In the immediate aftermath of the NASA Mariner missions to Mars, stories that portrayed a version of Mars substantially inconsistent with the photographs sent by the Mariner probes to the earth were largely unsuccessful. Kim Stanley Robinson’s Red Mars represents the legacy of this attitude, as it disassociates itself completely with the traditional myths regarding Martian life and focuses instead on presenting conceivable

plans for human colonization of the Red Planet. The appeal of this form of “hard science fiction” is its inclusion of intelligent and educated extrapolation from current knowledge and technology into the future. Two other fictional representations of Mars from the last decade, however, show plainly that the myths of Mars, though long since debunked from the field of legitimate scientific inquiry, will remain a feature of science fiction in other forms. For his film, *Mission to Mars*, Brian De Palma renders a visually accurate depiction of the Martian surface, but only uses it to help the viewers suspend disbelief when he eventually presents them with a relatively modern version of the Mars myths, the secret of the Cydonia Face. In Rainbow Mars, on the other hand, Larry Niven preserves the old myths in the form of a clever, cross-referential tribute. Though neither work presents the myth of intelligent Martian life as a serious possibility, both show that, despite such realistic works as Red Mars, the myths retain enough value for entertainment, literary history, and humor to remain a feature of the science fiction landscape for the foreseeable future.

**Appendix A**



**Figure 1**

