

MARTIAN EQUALITY

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I remember being transfixed by the first lander image to show the horizon of Mars. This was not an alien world, I thought. I knew places like it in Colorado and Arizona and Nevada. There were rocks and sand drifts and a distant eminence, as natural and unselfconscious as any landscape on Earth. Mars was a *place*.

—Carl Sagan¹

INTRODUCTION

Mars is a place where ordinary human beings, meaning private citizens, have practical human interests. One of the most important rock albums of my youth was Jefferson Starship's *Blows Against The Empire*.² This recording, the only rock album to win science fiction's prestigious Nebula Award, is the story of the hijacking of a starship. Where "People with the clever hands assume the role of the mighty." It is a song of "the people" hijacking the starship from the military-industrial-governmental complex, and "getting back to the things that matter—getting back to the future of human hopes and dreams." This album tells the story of the people's fight against scientific hegemony, and of the harmonious celebratory colonization of space. Ultimately, if the U.S. government continues to drag its feet on peopled exploration, the people will, in increasingly private endeavors, get back to their future. The people's hopes for progress, discovery, and ever-widening frontiers will not be held within politicized gravitational wells. In this paper I explore these philosophical issues. I also provide arguments why philosophical thinking is important to the scientific and technical issues surrounding a Peopled Mars Mission (PMM).

WHERE WE ARE

First let me briefly outline the current and near future of Mars exploration. With early successes of the Mars Global Surveyor (MGS), and its anticipated March 1999 low altitude orbital circularization,³ detailed mappings will become increasingly resolved. "The next spacecraft in the NASA Mars queue is the Mars Surveyor 98 mission, which consists of the Mars Climate Orbiter (MCO) and the Mars Polar Lander (MPL). The two sections launch separately: MCO has a 10-23 December 1998 launch window while the MPL will be launched sometime between 3 and 16 January 1999."⁴ The MPL section will also carry a high-gain microphone to ascertain how well sound waves propagate in the Martian atmosphere. In addition, a Mars Surveyor 2001 (MSP01) and a Mars Surveyor Orbiter (MSO) are scheduled to launch in

March 2001. Further, perhaps the most exciting near term NASA missions are the Athena robotic missions, “Now scheduled for launch in 2001 and 2003, that will be the first to gather and cache material from Mars”⁵ and return it to the Earth. Yet, given funding delays of the International Space Station, the return of Martian soil samples may not be so near at hand, but this mission is certainly achievable. The Japanese “Planet-B” mission will approach Mars in October 1999 to study the Martian upper atmosphere.⁶ The European Space Agency (ESA) is planning “The Mars Express” to be launched in 2003 to study the geological and hydrological history of the planet, atmosphere, and plasma (charged ions and electrons).⁷

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Driven by exploratory missions from many nations, NASA has returned to the drawing board with Arizona State University, the Naval Research Laboratory, and Lockheed-Martin to design an ultralight aircraft to further explore Mars at very low altitudes. Continued international exploratory efforts attest to arguments that Mars is a priority not only for the scientific and technical communities, but also for the people.

PRIVATIZING PEOPLED MISSIONS TO MARS (PMM)

A central proposition in this paper is that eventually the colonization, settlement, and independent political existence of Mars is inevitable. Privatizing space has already begun with serious proposals for orbital hotels and amusement parks to make Low Earth Orbit (LEO) space a profit-centered industry.⁸ The NASA Space Tourism Study summary details the safety, insurance, and economic issues inscribing near term commercialization of space. The “Civilian Astronaut Corp’s” *Mayflower II* is currently planning to launch six civilian passengers to an altitude of 70 miles in an attempt to win the “X Prize.”⁹ “The X Prize is a \$10 million prize being developed to spur the creation of the first spaceships able to address markets for suborbital space tourism. To win the prize vehicles must be privately funded, financed and constructed, and they must demonstrate their ability to fly to an altitude of 100 km (62 miles) with a payload of a mass and volume equivalent to three people. Furthermore, they must prove that their vehicle is reusable by flying twice within a two-week period” (Gregg E. Maryniak, “X Prize Update,” *Ad Astra* May-Jun. 1998, p. 30). According to Peter H. Diamandis and George Maryniak, “There is a strong latent demand for space tourism with an annual market in the vicinity of tens of billions of dollars per year.”¹⁰

Driven by increasing private economic interests,¹¹ there is no doubt that PMMs followed by colonization will occur within two generations. Nadine Barlow writes, “By 2002, scientists believe we will know enough about the Martian environment to begin educated discussions of sending humans to Mars. We probably will not see humans walking on Mars prior to 2020, but human exploration and eventual settlement of Mars is still a goal for many enthusiasts of the planet.”¹² However, since 1952 when Wernher von Braun first outlined the physics for rocket trajectories, launch weights, and impulse velocities for a trip to Mars, many people have believed that we already possess the scientific and technical capabilities for this journey. Repeated allusions to economic constraints have been countered by statistics showing the cost

is far less than the yearly national expenditures on tobacco products. Humankind is ready for Mars today. It must not take two generations. The intangibles for motivating education, building national (if not international) community, and reawakening the excitement of exploration are motivations for the people hijacking the starship.

To my mind, the exploration and colonization of Mars is not only a scientific and technological problem. Spurred on by economic development of space, a gold rush like that to California in 1849 will occur. Mars will be overrun by competing interests: political, scientific, military, nationalistic, and economic. I have no doubt whatsoever that medical factors (i.e., orthostatic hypotension, bone demineralization, muscle atrophy, and “starfished” red blood cells), artificial gravity factors (tethered spun and despun vehicles), Closed Environment Life Support Systems (CELSS) factors, and even Nuclear Engine for Rocket Vehicle Application (NERVA) prospects will all yield to scientific and technological solutions. I have no doubts concerning humankind’s abilities to develop and deploy technology in its own interests. Flying to Mars is a technological problem. However, given the tragic history of Terran warfare, competition, and inequality, flying, colonizing, and settling Mars is also a philosophical problem. As Kim Stanley Robinson eloquently writes in his novel *Red Mars*:

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In human affairs, individual world lines form a thick tangle, curling out of the darkness of prehistory and stretching through time: a cable the size of the earth itself, spiraling round the sun in a long curved course. That cable of tangled world lines is history. Seeing where it has been, it is clear where it is going—it is a matter of simple extrapolation. For what kind of Dv would it take to escape history, to escape an inertia that powerful, and carve a new course? . . . The hardest part is leaving earth behind.¹³

Achieving sustainable human presence on Mars requires the cooperation of nations, corporations, and individuals at a level that transcends historical precedent. This cooperation is also the harbinger of the further development of human equality. The need for human equality in all phases of Mars exploration, colonization, and eventual settlement will have bi-planetary effects for fostering greater human equality not only on Mars but also on earth. What I really enjoyed about reading *The Case For Mars III* in preparation for this paper was its totally egalitarian scope. From papers concerned with “Brick Making on Mars,” to “Martian Fire Safety,” the papers address all elements of human social endeavor with a sense of their holistic equality of importance. Crew and colonist psychology, paint making on Mars, to nuclear “light bulb engines” are treated with a level of equity rarely seen in a scientific publication. The Mars initiative demonstrates “science for the people” where everything from plumbing to astrophysics is enjoined in an imbrication of higher human purpose. In many ways, space travel is a test of humankind’s ability to cooperate. Yes, we will need pilots and poets, but we will also need teachers and plumbers.

ONE WORLD ‘DISCOVERS’ ANOTHER

Given the example of an ‘Old World’ discovering a ‘New World’ provided five centuries ago, it can be postulated that a similar cycle of state-sponsored *exploration*, *colonization* driven by scientific and economic interests, *settlement* leveraged by privatization and economic

opportunities, and finally *independence* motivated by yearnings for autonomy and liberty will inevitably occur as Terrans become Martians. This cycle of exploration, colonization, settlement, and independence has been a constant theme in human struggles on Earth. For example, this theme was recently reenacted in Antarctic exploration. Lawrence Palinkas writes:

... human exploration of Mars will be a prolonged endeavor occurring in discrete phases. These phases could conceivably have parallels in the stages of initial contact, the 'heroic era,' the 'air age,' colonialism, and settlement that characterize the exploration of Antarctica.¹⁴

Using the Antarctica analogy, "The Outer Space Treaty states that no country can claim land on Mars, no military activities are allowed, and all bases are open to inspection by any country. Also no Martian resources can become the property of a single nation. The U.N. is supposed to establish an international regime to govern any mining or other exploitation."¹⁵ Benton C. Clark writes that Mars mission nomenclature should be "Visitor, Explorer, and Pioneer Missions, with 'Martian' being reserved for the first baby born on Mars."¹⁶ I argue that scientific and technological problems will be more easily solved than problems of human nature. Rather than worrying now about "terraforming" Mars, we should be pondering how to "terraform" the minds and hearts of those whose progeny will inevitably settle there. As Kim Stanley Robinson's novel *Red Mars* so vividly portrays, if we take our human problems to another world, we will transform it into this world. Ultimately, Martian equality begins with Terran equality in planning, funding, and travelling to Mars. Vesco von Puttkamer writes, "Rather than playing along with the current approach at planning where its over-emphasis on hardware (the 'aluminum in the sky' syndrome) tends to place a now-type human anachronistically in a then-type world, educators must pave the way, unlock the minds for the future human to develop, that human who will be the true child of his time."¹⁷

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MARTIAN PHILOSOPHY

Humans exploring, colonizing, and settling Mars will create new philosophical systems. From new "Martian" metaphysics, epistemologies, ethics, and socio-political philosophies universal human issues will be profoundly affected. I argue that these human issues circumscribing all conceptualizations of Martian colonization are immense and imminent. Whereas NASA and the spacefaring community primarily worry about scientific, technological, and economic factors, I believe we should all begin to develop discourses concerning the ethical, epistemological, and metaphysical aspects of future Martian settlement. Beginning now, resolving anticipated socio-political philosophical issues is as important as beginning to place anticipated needed supplies in Martian parking orbits (or on Phobos and Deimos). I will provide a few precursory examples of issues that I believe will become reticulated in new "Martian" philosophical systems.

First, metaphysics is a quest to explain everything. From the time of Aristotle metaphysics has been the science of being *qua* being. How will Martian lived-realities significantly alter humankind's ideas of cosmology? Having successfully navigated the interplanetary darkness,

will Martian settlers begin at once to redirect their *wanderlust* to planning trips to the planets circling nearby stars? Will living on another world, after life's four-billion years on fair Terra create a "cosmic consciousness" which leads humanity closer to transcendental spiritual realities? Who can say what epiphanies and spiritual insights will await Martian metaphysicians and, perhaps, a Martian Socrates will alter the canons of Terran philosophy.

Second, epistemological systems are theories of knowledge and the wisdom that are derivable from them. Epistemologists are interested in 'Truth' with a capital "T." What Martian scientific discoveries will alter our foundational nomological (i.e., scientific truth) beliefs? What Martian empirical realities will modify our rational logical systems? Who will propound the first Martian counterfactual? Is it possible, as David K. Lewis insists in his book *On The Plurality of Worlds*, that every world has its own logic? (Of course Lewis's use of 'world' does not correspond to the use of Mars as a 'world'.) Martian science and technology await new empirical methods.

Third, ethics, as individual imperative to moral behavior, may find all canonical formulations exhausted by Martian settlement. Michael Collins writes:

And when it comes to actually colonizing the Red Planet, our Martian settlers may become fiercely proud of their locale, . . . For the first time, the psychologists who predicted a 'breakaway' phenomenon among space travelers may find themselves right. Our new Martians may not look back. They may establish ways that are different from Earth ways, they may do things better.¹⁸

Certainly Martian ways will come to diverge from the Earth's. A Martian Gaia Hypothesis becoming as much human transformation as terraforming an environmental niche. Also, Martian medical ethical considerations become an even more interesting philosophical issue. Would it be ethical to genetically engineer Martians—alter genes to produce humans with attributes that could enhance their adaptability to an alien environment? Or, given the prospects for higher radiations doses for Martians and the resulting teratological implications, will we be forced into a complicity of genetically engineering "otherness" while simultaneously altering our normative ideas of humanness? Will Martian settlers evolving quickly (and differently) in adapting to a new environment, be perceived by Earthlings as "other" and increasingly marginalized as humanity becomes bi-planetary? It has been said by many philosophers that wisdom is discovering the otherness of the self, but in Martian colonization we may create the otherness of the self.

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Fourth, socio-political philosophy addresses issues of polity, community, and law. I have no doubt that nations and international consortia will continually draft and codify statutes aimed at protecting and ordering Martian and Terran interests. Yet, how will Martian settlement alter *homo economicus*'s views of wealth, value, and market-driven economies? Will the "invisible hand" operate naturally in a Martian context made possible by the debt-financing of "gravity wells?" How will Martian settlement alter humanity's vision of the Socratic question, "What does it mean to live a good life?" Ultimately, will Mars be a "free" planet, or divided into colonies affiliated with their supporting nations? Or will the, hopefully, international

cooperation needed for Martian settlement lead to the further demise of Terran nationalisms? Will Martian settlement make us Carl Sagan's "Citizens of Earth/Mars?" Will the wealth of Mars be removed by Terran investors to augment immense capital empires on Earth?

Anyone who has studied philosophy knows that it, too, is a house divided (which I do not see as being without value). This is one of the original philosophical questions: "Is the world One or Many?" The major division in philosophy, although most philosophers see it as being an unfortunate division, if not an outright false-dichotomy, or forced binary opposition, is the so-called "continental" and "analytical" traditions. The continental school, primarily existentialists, deconstructionists and postmodernists, is placed in opposition to the British-American analytical school. This is a left-brain, right-brain schematization, where continental philosophers are purportedly more concerned with the "knower" and Anglo-American analytical philosophers more concerned with the "known." Yet, epistemology, metaphysics, ethics, and political philosophy are regnant on both sides of the divide. All philosophers are concerned with synoptic and analytical elements of human knowledge and of being in itself. In the context of this paper, I argue for a more synoptic view of Martian exploration and settlement. Just as bridges between continental and analytical philosophy are necessary for true philosophical progress, philosophical bridges are required to scientific and technological issues if sustainable human Martian flourishing is to obtain. These and other philosophical issues must be thought out, dialogued, debated, nuanced, taught and resolved in a dialectic of reason and agreement along with the development of nuclear electric engines and artificial gravity tethers.

CONCLUSIONS

Mars provides humanity with a potential *tabula rasa*—a blank slate—for creating a world where the central philosophical ideals of truth, beauty, goodness, and meaning are harmonized at the highest levels. Michael Collins, quoting Carl Sagan, writes:

The U.S. and the U.S.S.R. have now booby-trapped the planet with nearly 60,000 nuclear weapons.¹⁹

Collins continues:

There would be no need to carry weapons to lifeless Mars, and it would be easy to prevent their transport from Earth. Therefore, for a while anyway, a modern society would be totally without them.²⁰

Thus the irony of Mars, "the god of war," being transformed into a living testimonial to a newly found human peacefulness. A world without weapons where cooperation between nations and individuals is the highest ethical virtue. A world where every human being sacrifices equally for the mission (whether a crew member or not) and is rewarded equally (especially if not a crew member) by its successes. This is the "hijack" the Jefferson Starship valorized—the usurpation of the human greed, competition, and violence of thousands of years of skull bashing, for the peace, harmony, and togetherness of a "humanity gone from the cage."

Frank White writes, “Going into space is not about a technological achievement, but about the human spirit and our contribution to universal purpose—space . . . is a metaphor of expansiveness, opportunity, and freedom . . .”²¹ Long before settlers have given birth to the first true Martians, these and other philosophical issues need to be dialogued lest Martians be discriminated against, exploited, made “other” and demand their legitimate rights to be free from us. As we go to Mars we should keep Kim Stanley Robinson’s words in mind:

To be twenty-first-century scientists on Mars, in fact, but at the same time living within nineteenth-century social systems, based on seventeenth-century ideologies. It’s absurd . . .²²

When I look at the Mars Society’s logo I see a confident, purposeful, happy Martian who has built a sustainable colony on another world, and I am hopeful. I am hopeful that his/her success represents the shared successes of all people, of all races, and of all nations. I am hopeful that Martian equality expands the possibilities for human equality in all worlds. So, On to Mars! Not in ten years, not in two generations, but now! The revolution is neither scientific, nor technological, but of the human spirit.

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22.

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AliExpress carries many dark g related products, including zhui star sunset , alien martian , equality the lgbt , angel and dragon , model star nude , male tan , evangelion japanese , male corp , fit lapel , zhui star sunset , hot 3d print superhero , the trend of male , black dragon male , inspiron 7447 , male corp , abstract male , fit lapel , norse mytholog , shimmer in lipsticks , figure high horse. Martian soil is about 5% water by weight at low latitude, and up to 60% water near the poles. Martians are not going to get their water by importing hydrazine from Earth and burning it with precious cabin oxygen, they are going to bake it out of the soil. The toilets.Â If Barack Obamaâ€™s successor were to commit the nation, in the spring of 2017, with the same kind of courage and determination that JFK did in 1961, we could be on Mars before the end of his or her second term. Itâ€™s a question of political will to me. Gender Equality. Activism. Non-profits.Â The Matt Damon Mars survival movie, The Martian, has been nominated for multiple Academy Awards, including Best Adapted Screenplay. And while adapting a book to film can be as complex as communication between Earth and Mars, The Martian is an unusually close adaptation. Our CineFix series, What's the Difference, reads between the lines to find the differences between the book and the film. Subscribe to CineFix for more videos: <https://www.youtube.com/c/cinefix>. The Purpose of the Mars Society is to further the goal of the exploration and settlement of the Red Planet. This will be done by: Broad public outreach to instill the vision of pioneering Mars. Support of ever more aggressive government funded Mars exploration programs around the world. Conducting Mars exploration on a private basis. Starting small, with hitchhiker payloads on government funded missions, we intend to use the credibility that such activity will engender to mobilize larger resources that will enable stand-alone The Martian Addresses page enables entering IP addresses that indicate an attack if they are seen on the network. Packets from these addresses are discarded. The device supports a set of reserved Martian addresses that are illegal from the point of view of the IP protocol. The supported reserved Martian addresses are: â€¢ Addresses defined to be illegal in the Martian Addresses page. â€¢ Addresses that are illegal from the point of view of the protocol, such as loopback addresses, including addresses within the following ranges