

INTERPLANETARY CONSTITUTIONALISM: A MARTIAN CONSTITUTION

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“Mars has been our mirror, our foil, a telltale reflection of what has been deepest in our hearts. We have seen in Mars a utopia. A wilderness. A sanctuary. An oracle. With so few landmarks, guideposts, or constraints, all is possible; without data that could be used to cabin our inquiry or limit our imagination, Mars has been a blank canvas. And tenderly, our human seeking has rushed to fill it.”

– Sarah Stewart Johnson, Planetary Scientist

With humans currently in orbit around Earth on the International Space Station and targets to put them back on the Moon in this decade and on Mars in the next, exploring an extraterrestrial governance is timely. There are several proposed Martian constitutions based on earthly models, but as of yet, obviously, none formed by a Martian populace. Similar to early European explorers in search of new trade routes, could the commercialization of outer space lead to an unfolding of novel governance and “discovery” of new worlds? What ethical considerations must be made during such a pursuit?

Considering a Martian constitution is pertinent to current constitutionalism on Earth. This article argues that (1) codification is vital to accommodate and adapt to a shifting populace that could eventually include artificially intelligent or extraterrestrial life; (2) there will likely be a need for nonhuman rights, which should only reinforce and expand human rights on Earth; (3) a rethinking of traditional notions of jurisdiction/“zones of sovereignty” should guide governments through technological innovations of the 21st century; and (4) a

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declaration of Martian independence will likely precede any Martian constitution to gain adequate interplanetary recognition and enforce a Martian “zone of sovereignty.”

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I. Introduction

What is a constitution? What relationship does, must, or should a populace have with its constitution? Do constitutions bring people together or faction them off? How does this change, if at all, if the constitution is codified or uncoded? What is the purpose of a constitution? What does a constitution presuppose of its constituents? Do people write constitutions, or do constitutions right people?

Progression toward future extraterrestrial governance will require answers to these questions. With humans currently in orbit around Earth on the International Space Station (“ISS”) and targets to put them back on the Moon in this decade and on Mars in the next, exploring an extraterrestrial governance is timely.¹ There are several proposed Martian constitutions based on earthly models, but as of yet, obviously none formed by a Martian populace.² The current drive to inhabit celestial bodies is commercial: “the opportunity for private profit, in one form or another, is an essential incentive for the advancement of space exploration, especially as the expected gains are of high uncertainty.”³ Similar to early European explorers in search of new trade routes, could the commercialization of outer space

¹ Brian Dunbar, *Apollo’s Legacy Is NASA’s Future*, NAT’L AERONAUTICS AND SPACE ADMIN., <https://www.nasa.gov/specials/apollo50th/back.html> [<https://perma.cc/HM6J-DYLY>]; *How Investing in the Moon Prepares NASA for First Human Mission to Mars*, NAT’L AERONAUTICS AND SPACE ADMIN., <https://www.nasa.gov/sites/default/files/atoms/files/moon-investments-prepare-us-for-mars.pdf> [<https://perma.cc/3FLH-QRGJ>]; See also Darrell Etherington, *NASA Details Intent to Replace the International Space Station with a Commercial Space Station by 2030*, TECHCRUNCH (Nov. 30, 2021, 1:27 PM), <https://techcrunch.com.cdn.ampproject.org/c/s/techcrunch.com/2021/11/30/nasa-details-intent-to-replace-the-international-space-station-with-a-commercial-space-station-by-2030/amp/> [<https://perma.cc/RF9M-GRKL>]; Joey Roulette, *Jeff Bezos’ Rocket Company Wants to Build a Space Station*, N.Y. TIMES (Nov. 8, 2021), <https://www.nytimes.com/2021/10/25/science/space-station-blue-origin-sierra.html> [<https://perma.cc/7ZKC-4EG8>] (discussing commercial space stations).

² See, e.g., Louis de Gouyon Matignon, *Proposal for a Martian Constitution*, SPACE LEGAL ISSUES (Jan. 14, 2020), <https://www.spacelegalissues.com/proposal-for-a-martian-constitution/> [<https://perma.cc/9DUA-R53W>]; see also Ævar Arnþjörð Bjarmason, *The Constitution of Mars*, GITHUB GIST (Oct. 4, 2010), <https://gist.github.com/avar/610721#file-the-constitution-of-mars-md> [<https://perma.cc/ZZA9-XTSD>].

³ David Collins, *Efficient Allocation of Real Property Rights on the Planet Mars*, 14 B.U. J. SCI. & TECH. L. 201, 202 (2008); See also Matthew Weinzierl & Mehak Sarang, *The Commercial Space Age Is Here*, HARV. BUS. REV. (Feb. 12, 2021), <https://hbr.org/2021/02/the-commercial-space-age-is-here> [<https://perma.cc/WC7J-TMFY>]; Victor L. Shammas & Tomas B. Holen, *One Giant Leap for Capitalistkind: Private Enterprise in Outer Space*, PALGRAVE COMMUNICATIONS, Jan. 29, 2019, at 5 (“No longer terra nullius, space is now the new terra firma of capitalistkind: its naturalized terroir, its next necessary terrain. The logic of capitalism dictates that capital should

lead to an unfolding of novel governance and “discovery” of new worlds?⁴ What ethical considerations must be made during such a pursuit?⁵ Considering a Martian constitution is pertinent to current constitutionalism on Earth and this article argues that (1) codification is vital to accommodate and adapt to a shifting populace that could eventually include artificially intelligent or extraterrestrial life; (2) there will likely be a need for nonhuman rights, which should only reinforce and expand human rights on Earth; (3) a rethinking of traditional notions of jurisdiction/“zones of sovereignty” should guide governments through technological innovations of the 21st century; and (4) a declaration of Martian independence will likely precede any Martian constitution in order to gain adequate interplanetary recognition and enforce a Martian “zone of sovereignty.”

This article does not intend to cover all topics that the establishment of a Martian constitution would need to address. Specifically, this article does not discuss the economic model of a Martian society or the form of property ownership that could exist. These topics have already been thoroughly addressed.⁶ Instead, Part II of this article discusses why Mars is best suited for governance independent of Earth, as compared to the Moon.⁷ Part II(a) argues that a Martian constitution must be codified to accommodate and adapt to a shifting populace that could

seek to expand outwards into the vastness of space”); Frans G. von der Dunk, *Asteroid Mining: International and National Legal Aspects*, 26 MICH. STATE INT’L L. REV. 83 (2018); Timothy G. Nelson, *Can We Mine Mars? Space Law and the Red Planet*, BLOOMBERG L. (July 13, 2021, 4:00 AM), <https://news.bloomberglaw.com/us-law-week/can-we-mine-mars-space-law-and-the-red-planet> [<https://perma.cc/BN2Z-X5XL>].

⁴ *Exploration of North America* (Oct. 29, 2009), HISTORY.COM, <https://www.history.com/topics/exploration/exploration-of-north-america> [<https://perma.cc/8L8J-P6QD>]; See also Svetla Ben-Itzhak, *Companies Are Commercializing Outer Space. Do Government Programs Still Matter?*, THE WASH. POST (Jan. 11, 2022, 5:00 AM), <https://www.washingtonpost.com/politics/2022/01/11/companies-are-commercializing-outer-space-do-government-programs-still-matter/> [<https://perma.cc/4JLC-ZQSQ>] (answering in the negative).

⁵ See, e.g., Edward L. Hudgins, *Martian Law*, CATO INST. (Aug. 15, 1998), <https://www.cato.org/white-paper/martian-law#> [<https://perma.cc/47J4-E9LM>] (“Mars is a case of what political theorists would call a perfect state of nature. No one lives on Mars. No one currently has legal title to any part of Mars. On what basis then can Mars be exploited by individuals or consortia? Simply landing on the planet should not give an individual title to the planet any more than settling foot in the New World gave Columbus title to the whole of North and South America. Yes, Conquistadors took possession of it for the Spanish government and repressed millions of Aztecs, Incas and others, but those native peoples might have had a different view of rights of the Spanish.”).

⁶ See, e.g., Collins, *supra* note 3.

⁷ See *infra*, Part II.

eventually include artificially intelligent or extraterrestrial life.⁸ Part II(b) also argues that the type of government on Mars must align with the practice of Mars being governed independent of earthly states.⁹ Part II(c) argues that many human rights (seemingly) unique to Mars would ultimately just be building upon long-known and understood concepts of human rights on Earth.¹⁰ Part II(c) also argues that including rights for non-human beings in a Martian constitution, and normalizing and preparing for such rights, is crucial. Part II(d) argues, based on Hannah Earnshaw and James Gilley's conclusions, that a Martian "zone of sovereignty" should consist of not only the planet Mars, but also its moons, gravitational well, and the entire orbit of such parts of this larger Martian system (See Figure 1).¹¹ Part III discusses how a declaration of Martian independence will likely precede any Martian constitution.¹²

II. A Martian Constitution

Earthly states will by their nature try to maintain control of any extraterrestrial human settlements. However, like the American colonies that sprouted in the wake of the early European explorers, states could find it difficult to maintain control of a distant and disconnected populace.¹³ Yet, this article does not argue this will be the case for the Moon:

The significance of Earth's Moon to humanity throughout history is immeasurable. Since time immemorial it has been a comforting lantern in the darkness of night, a loved and revered subject of religious devotion and myth, and inspiration for song and story around the world in all ages. All people on Earth have benefited from its physical effects: the ebb and flow of the tides, the light it provides at night-time, and even the planetary stability that Earth enjoys due to the Moon's orbit potentially regulating the amount that Earth tilts on its axis.

More recently, scientific study of the Moon by orbiting satellites and by missions that have landed on its surface has provided humanity on Earth with a wealth of geological, seismological,

⁸ See *infra*, Section II(a)

⁹ See *infra*, Section II(b).

¹⁰ See *infra*, Section II(c).

¹¹ See *infra*, Section II(d).

¹² See *infra*, Part III.

¹³ See, e.g., *Exploration of North America*, *supra* note 4.

and chemical data that offers unparalleled insight into the formation and evolution of their own planetary system, as well as a narrative of the human exploration of space that has served as inspiration for new generations of scientists, the impact of which can scarcely be calculated. In the future, these benefits of the Moon will only expand as missions become more sophisticated, with the Moon potentially serving as a departure point for missions from Earth travelling deeper into the Solar system.¹⁴

As such, this article does not propose that the Moon will have a separate, independent constitution of the sovereign earthly states, or that the possibility is even likely.¹⁵ However, unlike the Earth-Moon connection explained above, there is no parallel Earth-Mars connection and the relative distance from Earth to Mars is always greater than that to the Moon.¹⁶ This also has a legal significance:

Travel to Mars is likely to take at least six months. Extradition and enforcement would be difficult for the United States; it might be logistically impossible for certain nations to achieve justice for their nationals who are injured aboard a Mars colony. While this does not legally change whether or not a state will have jurisdiction, it does suggest that an alternative which does not rely on distant entities to exercise control may be preferable.¹⁷

¹⁴ Hannah P. Earnshaw & James Gilley, *The Martian Papers: Defining Mars For The Purposes Of A Martian Constitution*, MARS PAPERS, http://www.marspapers.org/paper/Earnshaw_2021.pdf [<https://perma.cc/39D8-N6WM>].

¹⁵ To note, this conclusion is seemingly consistent with SpaceX's conclusion: "In section nine of the nascent service's terms and conditions, the America-based company states that any disputes regarding services provided around the Earth or Moon will follow the law as set out in California." Mike Brown, *SpaceX Mars City: Legal Experts Respond to 'Gibberish' Free Planet Claim*, INVERSE (Nov. 3, 2020, 2:00 PM), <https://www.inverse.com/innovation/spacex-mars-city-legal> [<https://perma.cc/RZ9C-P4Z8>].

¹⁶ Daisy Dobrijevic, *Distance to Mars: How far away is the Red Planet?*, SPACE.COM (Feb. 4, 2022), <https://www.space.com/16875-how-far-away-is-mars.html> [<https://perma.cc/Y4CH-9HBH>]; Doris Elin Urrutia & Tim Sharp, *How far is the moon from Earth?*, SPACE.COM (Feb. 25, 2022), <https://www.space.com/18145-how-far-is-the-moon.html> [<https://perma.cc/W84Q-BN4M>].

¹⁷ Thomas E. Hart, *Jurisdiction on Mars*, SCI. AND TECH. L. REV. (Jan. 20, 2021), <https://journals.library.columbia.edu/index.php/stlr/blog/view/298> [<https://perma.cc/YS2H-3SBW>].

Further, there is a specific interest in the human settlement of Mars rather than other planetary bodies:

[Mars] is far more capable of sustaining human life than any other planetary body in the Solar System. Roughly half the size of Earth, and with about the same amount of dry land, Mars' gravity and temperature are within the range of human tolerance. It is already known that Mars possesses vast resources of frozen carbon dioxide from which the important fuels of oxygen, deuterium and helium-3 can be derived. Liquid water, which could be used both for its oxygen and for irrigation in agriculture, is now thought to exist not far beneath the planet's surface Mars' atmosphere, temperature and air pressure could be made to sustain human life through a complex process called terraforming, rendering the planet a potential refuge for humans should Earth become uninhabitable Mars is the only such celestial body in the solar system to have a 24 hour day other than Earth, which could allow greenhouses to be used to create gases necessary for human life.¹⁸

Thus, this article argues that it is more likely, and possibly even necessary, that Mars have its own constitution and independent governance from earthly states. Part II(d) below discusses the legal implications of this argument under the Outer Space Treaty.

a. Codified vs. Uncodified

Black's Law Dictionary defines a constitution as:

the organic and fundamental law of a nation or state, which may be written or unwritten, establishing the character and conception of its government, laying the basic principles to which its internal life is to be conformed, organizing the government, and regulating, distributing, and limiting the functions of its different departments, and prescribing the extent and manner of the exercise of sovereign powers.¹⁹

¹⁸ Collins, *supra* note 3.

¹⁹ *What is Constitution*, THE L.

DICTIONARY, <https://thelawdictionary.org/constitution/> [<https://perma.cc/X7DK-TKH5>] (last visited Dec. 6, 2022).

The main difference between a constitution that is codified and one that is not is that it is written down.²⁰ This article takes the position that a Martian constitution must be codified. It is possible that in the future such a Martian populace would consist not only of people, but also of artificially intelligent beings and extraterrestrial intelligent life.²¹ In order to govern such a populace, laws must be codified in a way that all members of the polity can understand. An uncoded system based on following norms and principles among humans alone could not transfer to other intelligent life, unless it is later discovered that there is an inherent understanding between forms of life tangible enough for reasonable governance. Thus, this article argues that a Martian constitution must be codified.

In 1948, James Brierly described the process of codifying international law: “When we codify, we do not regard the task as one of improving the substance of the law, but as one of collecting the existing rules and stating them concisely and clearly.”²² A Martian constitution is uniquely positioned to take the best of what

²⁰ Compare *What is Codification*, THE L. DICTIONARY, <https://thelawdictionary.org/codification/> [<https://perma.cc/H4PB-LXK6>] (last visited Dec. 6, 2022), with *What is Unwritten Law*, THE L. DICTIONARY, <https://thelawdictionary.org/unwritten-law/> [<https://perma.cc/W3ZW-7TZ5>] (last visited Dec. 6, 2022).

²¹ See e.g., George Robinson, *What Does Philosophy Do for Space Jurisprudence and Implementing Space Law? Secular Humanism and Space Migration Essential for Survival of Humankind Species and Its “Essence”*, 19 OCCASIONAL PAPER SERIES 1, 20 (2016) (explaining “[T]he transhuman and, indeed, posthuman entities incorporating biotechnological integration to the point where human descendants ultimately may be considered totally separate and independent self-replicating and metabolising sentient entities with whom or which modern humans must interact in the context of ‘metalaw.’”).

²² James L. Brierly, *The Codification of International Law*, 47 MICH. L. REV. 1, 2 (1948) (stating further “It is true that, even so, the work must involve some element of law-creating, for when we examine the materials on which we have to work, the customary rules, the judicial precedents, the particular statutes or conventions, we inevitably come across points on which no authority exists, or on which the existing authorities are conflicting, and it would be pedantic to insist that, because codification is concerned only with the form of the law, these defects should be reproduced in the finished code. Where the authorities are in conflict therefore, the codifier must choose the rule which seems the most desirable; where there are gaps in the existing law, he must suggest a new rule to fill them. To that extent codifiers must legislate. But it is only a limited extent. In the main, the work is not one of legislation, but of careful drafting.”); see also Paul M. Gesl, *Preparing for The Next Space Race: Legislation and Policy Recommendations for Space Colonies*, USAF (Apr. 2018), <https://www.airuniversity.af.edu/Portals/10/Research/Space-Horizons/documents/1053024.pdf?ver=2018-07-24-155351-697> [<https://perma.cc/GNB8-ZW66>] (stating “A gap exists in international law. This gap in the framework should be viewed as an opportunity, rather than a hindrance.”).

earthly governance has thus far to offer, and further expand upon it to adapt to another planetary body and experiment in uniting humans together upon it.²³

b. Type of Government

This article argues that it is more likely, and possibly even necessary, that Mars have its own constitution and independent governance from earthly states. Some proposed Martian constitutions do not contradict this.²⁴ However, some proposed Martian constitutions disagree with an independent Martian model and, as such, will be addressed below.

Space Legal Issues published a “Proposal for a Martian Constitution” (“Space Legal Issues Constitution”) with a proposed Federal Government comprised of federated earthly states:

ARTICLE 1: The Republic of Mars is a Federation. Each State on Earth is to be assigned a Federated State of the Republic of Mars. The distribution of the Federated States will be made equally between each State on Earth.

ARTICLE 16: The Republic of Mars is made up of a Federal State, itself made up of several Federated States.²⁵

However, one downside of this model is the allocation of resource-rich territory. Further, since “each State on Earth” does not currently have the capacity to travel to Mars independently, nor does it seem likely that most will anytime soon, this model is likely to leave the last to arrive with the least resource-rich territory.

²³ See Robert Zubrin, *The Rights of Mars*, MARS PAPERS, at 888, <http://www.marspapers.org/paper/MAR98088.pdf> (last visited Apr. 12, 2022) (explaining “In the past, new lands have served as laboratories for “noble experiments” in which new sets of rights could be tested as means of organizing human society on a more progressive basis than deemed practical in well-settled and organized home countries. The author believes that there is a need for this process of experimentation to continue, and that Mars could serve as the laboratory for a further set of noble experiments, that could help humanity find its way to a still more human form of society.”).

²⁴ See, e.g., Ævar, *supra* note 2.

²⁵ De Gouyon Matignon, *supra* note 2.

Another model, proposed by the Founder, CEO, and Chief Engineer of SpaceX, Elon Musk, is a direct democracy.²⁶ Unlike the Federation previously discussed, this model adheres to the idea of a Martian society independent of earthly governance. Musk explains, “So it would be people voting directly on issues. And I think that’s probably better, because the potential for corruption is substantially diminished in a direct versus a representative democracy.”²⁷ There may be potential for a direct democracy on Mars, especially in the infancy of a Martian constitution with a small population. Space travelers, at least initially, may have a greater interest in their governance as an ultimate means for their survival. A direct democracy, at least initially, may allow for this.

But as the population grows, a direct democracy would become more difficult to regulate and the dangers of majoritarian rule would also expand. Some emphasize that the use of technology may allow for functional direct democracies in larger populations.²⁸ While this does not account for the endless possibilities of hacking, it also does not account for the future possibilities and robustness of cybersecurity technologies. As such, only time will tell for the viability of such a direct democracy model on Mars.

²⁶ Loren Grush, *Elon Musk thinks the best government for Mars is a direct democracy*, THE VERGE (June 2, 2016, 2:10 AM EDT), <https://www.theverge.com/2016/6/2/11837590/elon-musk-mars-government-direct-democracy-law-code-conference> [https://perma.cc/R6DC-BE84]. *But see* Peter Vanham, *Elon Musk’s Twitter Polls are a Perversion of Direct Democracy. Here are the Real Governance Models That Underpin His Rule*, FORTUNE (Dec. 22, 2022, 10:25 AM EST), <https://fortune.com/2022/12/22/elon-musks-twitter-polls-direct-democracy-governance-models-that-underpin-rule-leadership-peter-vanham/> [https://perma.cc/2JD5-UDBC].

²⁷ Grush, *supra* note 26; *see also* Zubrin, *supra* note 23, at 889 (arguing “today, with the availability of the internet and other forms of instantaneous electronic communications, there is no fundamental technological reason why the general public could not directly engage in voting on legislation, taxation, expenditures, and other issues, up to and including those of war and peace. It might be argued that the general public is not qualified to do so. Personally, as one who has interacted with some of those calling the shots within the present system, I see no evidence for the public’s inferiority. Such skepticism of the people’s capacity to engage in direct government is reminiscent of similar skepticism offer by sophisticated European observers of the practicality of the Founding Fathers’ notions of the viability of representative democracy, freedom of religion, the press, the right of the people to bear arms, trial by jury, etc. To the establishment 18th century mind, all of these concepts were prescriptions for chaos. It took a “noble experiment” in a new land to prove their viability. Until that was done, it was impossible to implement most of them in Europe.”).

²⁸ *See, e.g.*, Michael Papay & David Timby, *Technology’s Role In Direct Democracy*, TECHCRUNCH (Aug. 3, 2014, 2:00 AM EDT), <https://techcrunch.com/2014/08/02/political-yield/> [https://perma.cc/BQE6-7B2W].

Further, Musk added that laws should have sunset provisions.²⁹ While not a form of government, this is relevant as it pertains to the execution of governance. Musk explains “If [a law is] not good enough to be voted back in, maybe it shouldn’t be there.”³⁰ Also, in total opposition to the tradition of following and adhering to legal precedent, Musk explains “It should probably be easier to remove a law than create one.”³¹ Like direct democracy, a proposal such as this might be possible in the infancy of governance under a Martian constitution. But as the population expands, the need for reliance upon foundational principles would likely become incompatible with such a proposal.

It remains unknown what type of government would prevail for a Martian constitution. However, this article argues that Mars should be governed independent of Earthly states and would argue for approaches in line with this practice.

c. Human (and Nonhuman) Rights

Human rights on Mars would build upon those hard-fought ones on earth.³² Several human rights (seemingly) unique to Mars (or an off-Earth society) come up consistently: (1) the right to oxygen and (2) the right to leave.³³ However, (1) the right to oxygen is not very distinct from rights to health³⁴ and a healthy

²⁹ Grush, *supra* note 26.

³⁰ *Id.*

³¹ *Id.*

³² *See, e.g.,* de Gouyon Matignon, *supra* note 2 (including in its sample Martian Constitution: Chapter 1: Human Rights, ARTICLE 3: All humans are equal and have the same rights. Any discrimination on the grounds of their origin, sex or beliefs is prohibited. ARTICLE 4: Freedom of religion, worship, conscience, demonstration and freedom of opinion are guaranteed by the Martian Constitution. ARTICLE 5: Torture, barbarity, inhuman acts and crimes against humanity are prohibited. ARTICLE 6: Freedom of expression is guaranteed to all citizens of the Republic of Mars. Censorship cannot take place unless the court decides otherwise. ARTICLE 7: Everyone has the right to respect for his private and family life, his home and his correspondence. ARTICLE 8: Every citizen has the right to a fair and public trial as well as to have access to an impartial judge. Citizens cannot be deprived of any right without prior trial. ARTICLE 9: All citizens have civic and political rights allowing them to vote and to stand for election. ARTICLE 10: Slavery and forced labour are strictly prohibited. ARTICLE 11: The death penalty is applicable neither at the federal level nor at the level of the Federated States. There are no exceptions to this provision.); *see also* Zubrin, *supra* note 23.

³³ *See, e.g.,* Richard Hollingham, *How to create a bill of rights for Mars colonies*, BBC (July 8, 2014), [<https://perma.cc/9JSF-MMB9>].

³⁴ *OHCHR and the right to health*, UNITED NATIONS HUMAN RIGHTS OFFICE OF THE HIGH COMMISSIONER, [<https://perma.cc/NLU7-LKBE>] (last visited Apr. 12, 2022).

environment³⁵ on Earth and (2) the right to leave is not distinct from the right to travel.³⁶ Thus, many human rights (seemingly) unique to Mars would ultimately be building upon long-known and understood concepts of human rights on earth.

Furthermore, as discussed above, it is possible that a Martian populace would consist not only of humans, but also of artificially intelligent beings and extraterrestrial intelligent life.³⁷ Thus, including rights for non-human beings in a Martian Constitution, and normalizing and preparing for such rights, is crucial. The Space Legal Issues Constitution in its “Chapter 2: Rights of Non-Human Beings” provides for such rights:

ARTICLE 12: Non-Human Beings are all living beings from planets other than Earth or Mars.

ARTICLE 13: Non-Human Beings enjoy the same freedoms as those guaranteed to Human Beings.

ARTICLE 14: All Non-Human Beings have a right of residence on the planet Mars. Access to the territory cannot be denied unless there is a court order to protect the planet.

ARTICLE 15: Everyone has a duty of assistance towards Human Beings and Non-Human Beings on or near Mars. This duty of assistance must be ensured in proportion to everyone’s abilities.³⁸

While the Space Legal Issues Constitution is pioneering in that it provides rights for non-human beings, it is unclear whether artificially intelligent life created by humans on Earth would fall into the definition provided by Article 12. While it is still unknown whether a Martian constitution would have to govern such life, it should be contemplated.

³⁵ Michelle Bachelet, *Access to a healthy environment, declared a human right by UN rights council*, UN NEWS (Oct. 8, 2021), [<https://perma.cc/3XL3-95B9>].

³⁶ G.A. Res 217 (III), A Universal Declaration of Human Rights (Dec. 10, 1948) Art. 13.

³⁷ See e.g., Robinson, *supra* note 21.

³⁸ De Gouyon Matignon, *supra* note 2.

d. “Martian Zone of Sovereignty”

If Mars were to be independent of Earth and governed by its own Constitution, what should its “zone of sovereignty” (i.e. jurisdiction) be? Hannah Earnshaw and James Gilley propose that “the definition of Mars for the purposes of a Martian [C]onstitution to refer to the greater Martian system—not only the entire planet itself, but its moons, its gravitational well, and the path that gravitational well traverses over the course of a Martian orbit—which [Earnshaw and Gilley] call the Martian Zone of Sovereignty.” (See Figure 1).³⁹

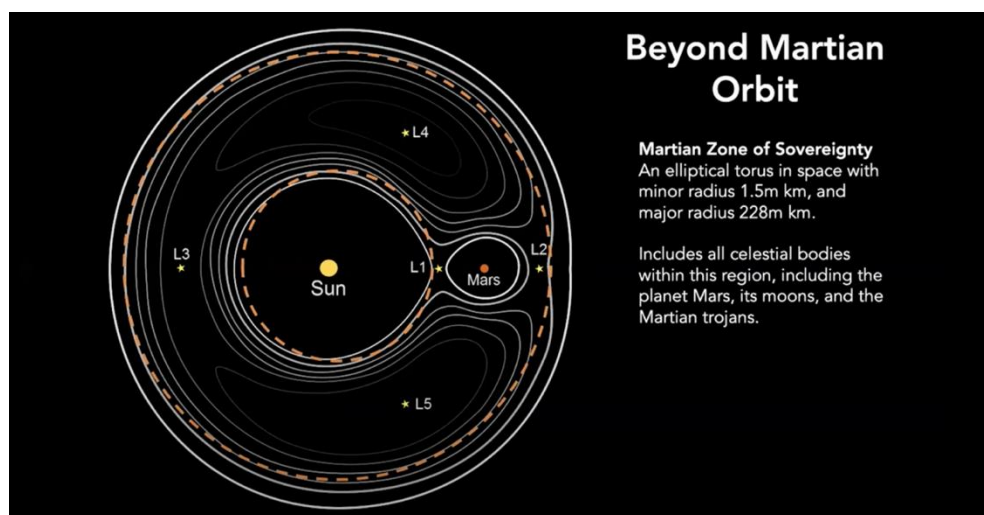


Figure 1: Defining a Martian Constitution - Gilley/Earnshaw

Earnshaw and Gilley argue that “only in this way can an independent Martian civilization receive the same benefits from the Martian system that the residents of Earth implicitly receive from the corresponding wider Earth system.”⁴⁰ As discussed above, Earth’s residents derive many benefits from its Moon. To consistently argue that the Moon should not be independent of Earth, it follows that the Martian Moons should not be independent of Mars. Further, the residents of Earth may at some point in the future find it important to control the entire orbit of Earth, like the way airspace, and recently satellite orbits, are regulated and

³⁹ Earnshaw & Gilley, *supra* note 14; The Mars Society, *Defining a Martian Constitution - Gilley/Earnshaw - 2021 Mars Society Virtual Convention*, YOUTUBE (Oct. 28, 2021), <https://www.youtube.com/watch?v=smCFN8D2EvQ>.

⁴⁰ Earnshaw & Gilley, *supra* note 14.

controlled.⁴¹ As such, this article subscribes to Earnshaw and Gilley’s view of the “Martian Zone of Sovereignty.”

However, the legal implication of a “zone of sovereignty” is that international space law prohibits the international terrestrial rules for nations acquiring new territory or national claims of sovereignty.⁴² In their casebook on international law, Janis, Noyes, and Sadat explain:

International law recognizes several ways in which states may acquire new territory: discovery and occupation of *terra nullius*, a label used to describe uninhabited territory such as newly discovered islands; cession from another state; accretion, *i.e.*, the increase of land, as through new geological formations; and acquiescence or prescription, *i.e.*, a continuous, uncontested display of control.⁴³

The Outer Space Treaty, referred to as the “Magna Carta of international space law”, outlines that outer space “shall be the province of all mankind” and “is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”⁴⁴ It argues that,

Rather than being *terra nullius* — territory belonging to no-one — outer space is *res communis*, the common property of all humanity, and states are thus not able to acquire or appropriate any part of outer space, including celestial bodies [And that t]he legality of any human habitat on Mars depends then on whether it can be established consistently with these legal principles.⁴⁵

However, this conclusion assumes that claims of sovereignty would be made by a single nation alone—as is prohibited by the Outer Space Treaty.⁴⁶ This conclusion

⁴¹ Zubrin, *supra* note 23.

⁴² See G.A. Res. 2222 (XXI), Art. II (Dec. 19, 1966) [hereinafter Outer Space Treaty]; See also Joshua Fitzmaurice & Stacey Henderson, *On The Legality of Mars Colonization*, 40 ADELAIDE L. REV. 841, 847 (2019).

⁴³ MARK WESTON JANIS ET AL., INTERNATIONAL LAW: CASES AND COMMENTARY 385–386 (6th ed. 2020).

⁴⁴ Outer Space Treaty, *supra* note 42, at arts. 1 & 2. He Qizhi, *The Outer Space Treaty in Perspective*, 25 J. SPACE L. 93 (1997). See Fitzmaurice & Henderson, *supra* note 42, at 847–848.

⁴⁵ Fitzmaurice & Henderson, *supra* note 42, at 847–848.

⁴⁶ Outer Space Treaty, *supra* note 42, at art. 2.

fails to consider that claims of sovereignty could be made by corporations or other groups intending on establishing a society distinct from any earthly state. If earthly states want to prevent otherwise, international law must stay abreast of these possibilities and intentions.

The further impact of the argument for a Martian “zone of sovereignty” is that there should be a similar “zone of sovereignty” for Earth. As discussed above, the residents of Earth derive many benefits and the Moon should not be independent of Earth. This argument forwards the notion of a global polity, which Yuval Noah Harari discusses in *21 Lessons For The 21st Century*: “[T]he only real solution is to globalize politics. This does not mean establishing a ‘global government’—a doubtful and unrealistic vision. Rather, to globalize politics means that political dynamics within countries and even cities should give far more weight to global problems and interests.”⁴⁷ As such, an effort to not only to conceptualize, but to enshrine Earth’s “zone of sovereignty” would pay dividends to guiding governments through technological innovations of the 21st century.

III. Declaring Independence

To establish a sovereign Martian society independent of earthly states, a declaration of Martian independence will likely precede any Martian Constitution. For example, the United States declared its sovereignty from Great Britain on July 4, 1776, via the Declaration of Independence.⁴⁸ But Great Britain did not recognize the sovereignty of the United States until January 14, 1784, when both States concluded the Treaty of Paris.⁴⁹ On this note, Janis, Noyes, and Sadat ask:

Did Article I of the 1783 Peace of Paris merely declare Britain’s formal recognition of the sovereignty of the United States as it had been already objectively established in 1776 by the United States itself in the Declaration of Independence? . . . Or did the Peace of Paris itself constitute the sovereignty of the United States as of January 14, 1784, when the Treaty came into force?⁵⁰

⁴⁷ YUVAL NOAH HARARI, *21 LESSONS FOR THE 21ST CENTURY* 126 (2018).

⁴⁸ *Declaration of Independence: A Transcription*, NATIONAL ARCHIVES, <https://www.archives.gov/founding-docs/declaration-transcript> (last visited Apr. 12, 2022).

⁴⁹ JANIS ET AL., *supra* note 43, at 46.

⁵⁰ JANIS ET AL., *supra* note 43, at 46.

As such, a Martian declaration of independence would be much weaker than actual interplanetary recognition, especially in the case of enforcing a “zone of sovereignty.”⁵¹

In November 2020, customers who signed up to test satellite internet services provided by SpaceX had to agree to the following terms:

For Services provided on Mars, or in transit to Mars via Starship or other colonization spacecraft, the parties recognize Mars as a free planet and that no Earth-based government has authority or sovereignty over Martian activities. Accordingly, Disputes will be settled through self-governing principles, established in good faith, at the time of Martian settlement.⁵²

Many legal scholars and commentators laughed at this term, calling it “gibberish.”⁵³ Yet, it shows the clear intent of SpaceX—to colonize Mars “as a free planet.”⁵⁴ When discussing this issue, Frans von der Dunk (a leading international space law scholar) stated that, “You can come up with lots of interesting examples of people trying to call themselves a state and not being recognized.”⁵⁵ Thus, a declaration of Martian independence will likely precede any Martian constitution in order to gain adequate interplanetary recognition and enforce a Martian “zone of sovereignty.”⁵⁶

IV. Conclusion

With humans currently in orbit around Earth on the ISS and targeting to put themselves back on the Moon in this decade and on Mars in the next, exploring extraterrestrial governance is timely. An independent Martian government is not only possible, but also likely. The current drive to inhabit celestial bodies is commercial. And this drive will persist—just as it did for the early European explorers. As such, considering ethical implications of human space exploration and a Martian society is critical. Contemplating a Martian Constitution is relevant to current constitutionalism on Earth and this article argued that (1) codification is vital to accommodate and adapt to a shifting populace that could eventually include artificially intelligent or extraterrestrial life; (2) there will likely be a need for

⁵¹ *See supra*, Section II(d).

⁵² Brown, *supra* note 15.

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ *See supra*, Section II(d).

nonhuman rights, which should reinforce and expand human rights on Earth; (3) a rethinking of traditional notions of jurisdiction/“zones of sovereignty” should guide governments through technological innovations of the 21st century; and (4) a declaration of Martian independence will likely precede any Martian constitution in order to gain adequate interplanetary recognition and enforce a Martian “zone of sovereignty.”

Part II of this article discussed why Mars is better suited for governance independent of Earth compared to the Moon.⁵⁷ Section II(a) argued that a Martian constitution must be codified to accommodate and adapt to a shifting populace that could eventually include artificially intelligent or extraterrestrial life.⁵⁸ Section(b) also argued that the type of government on Mars must align with the practice of Mars being governed independent of earthly states.⁵⁹ Section II(c) argued that many human rights (seemingly) unique to Mars would ultimately just build upon long-known and understood concepts of human rights on earth.⁶⁰ Section II(c) also argued that including rights for non-human beings in a Martian Constitution, and normalizing and preparing for such rights, is crucial. Section II(d) argued, based on Hannah Earnshaw and James Gilley’s conclusions, that a Martian “zone of sovereignty” should consist of not only the planet Mars, but also its moons, gravitational well, and the entire orbit of such parts of this larger Martian system (See Figure 1).⁶¹ Part III discussed how a declaration of Martian independence will likely precede any Martian constitution.⁶²

This article does not pretend to cover everything that could or would be relevant to a Martian Constitution, but instead gave a general overview of specific topics that must be covered. These discussions and arguments will continue evolving. What matters is that they occur with foresight of the inevitability of a human society off Earth.

⁵⁷ See *supra*, Part II.

⁵⁸ See *supra*, Section II(a).

⁵⁹ See *supra*, Section II(b).

⁶⁰ See *supra*, Section II(c).

⁶¹ *Id.*

⁶² See *supra*, Part III.