



The Ethics of Moon Colonization

A Debate

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An aerial, top-down view of a futuristic city. The city features a mix of modern architecture, green spaces with palm trees, and a large, circular structure that resembles a space station or a large-scale industrial facility. The overall aesthetic is clean and high-tech, with a color palette dominated by blues, greys, and greens.

Is colonizing the moon just a fantasy?

Potential ethical considerations:

- Safety of astronauts
- Consequences of colonization
- Value of truth and scientific advancement vs. natural existence
- Environmental impacts

It is Not Environmentally Ethical to Colonize Space

Here's Why



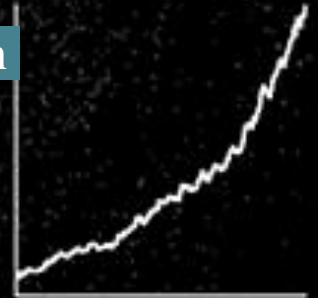


- **500 000** pieces of man-made debris which will only grow in numbers.

- This is an example of the **Tragedy of the Commons**.

Business As Usual

Therefore, humans should not colonize space because it is environmentally unethical. Mainly because we cannot even deal with our own environmental problems on Earth right now and it is unlikely that that would change this time, with the moon.



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It is Environmentally Ethical to Colonize Space

Here's why:

So many vital technological advances have been made because of space travel problem solving. Because the environment in space is so fundamentally different with extreme temperatures, pressures, lack of usable resources, it proposes unique challenges that demand unique solutions.

NASA spin-off Tech and the many other future discoveries



- Potential to practice sustainable living that can save the environment on Earth
- NASA tech that has been implemented into other fields
 - 3D printing
 - 3D endoscopic brain surgery
 - Cochlear implants
 - Firefighter equipment
 - And many more!



Isn't the pursuit of knowledge inherently valuable?

Colonization in itself is inherently bad

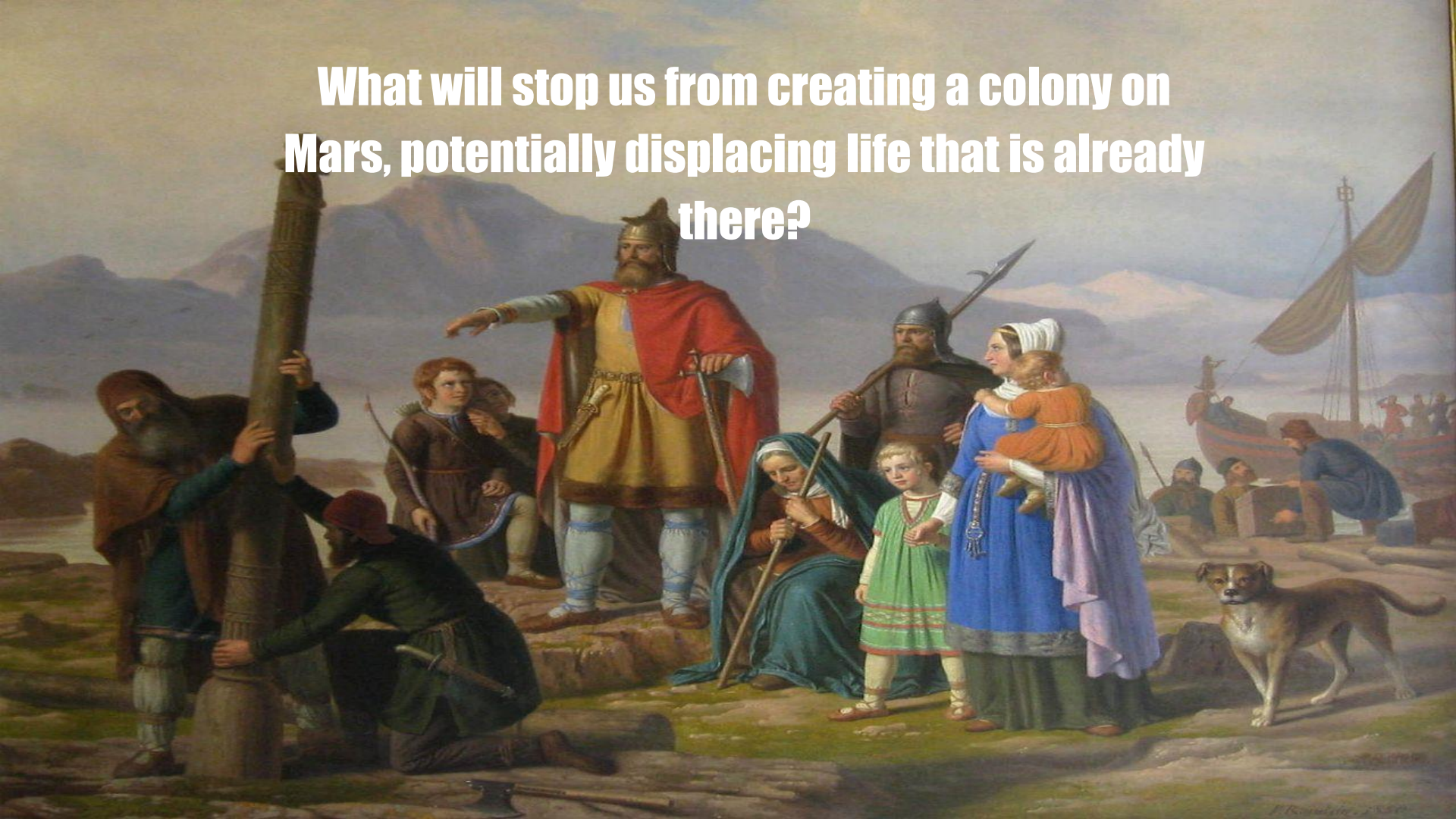
The strongest point against moon colonization is that colonization in itself is an unethical action.

What IS colonization?

- "the action of appropriating a place or domain for one's own use" or in more human terms, "the action or process of settling among and establishing control over the indigenous people of an area."



What will stop us from creating a colony on Mars, potentially displacing life that is already there?





"We need a backup planet"
-Elon Musk

But do we *deserve* one?



**Rebuttal: Is it ethical NOT to go to
Space ?**

By Alexa S.



**“IT’S OK TO HAVE
YOUR EGGS IN ONE BASKET
AS LONG AS YOU CONTROL
WHAT HAPPENS TO
THAT BASKET.”**

Elon Musk

CEO, Tesla Motors and CEO & CTO, SpaceX

Question! if humanity's the eggs, and the earth our basket, does that make us morally obligated to ensure our survival?

YES!


TWO ETHICAL ARGUMENTS FOR WHY WE NEED* TO GO TO SPACE:



- 1. we ensure our imminent extinction if we don't**
- 2. we become more empathetic once we realize we all have seats on this Spaceship called Earth!**

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- 1. Species extinction is a great moral wrong**
 - 2. The diversity of organisms is good and the untimely extinction of populations and species is bad**
 - 3. [ALL/other] species have INTRINSIC value in themselves.**

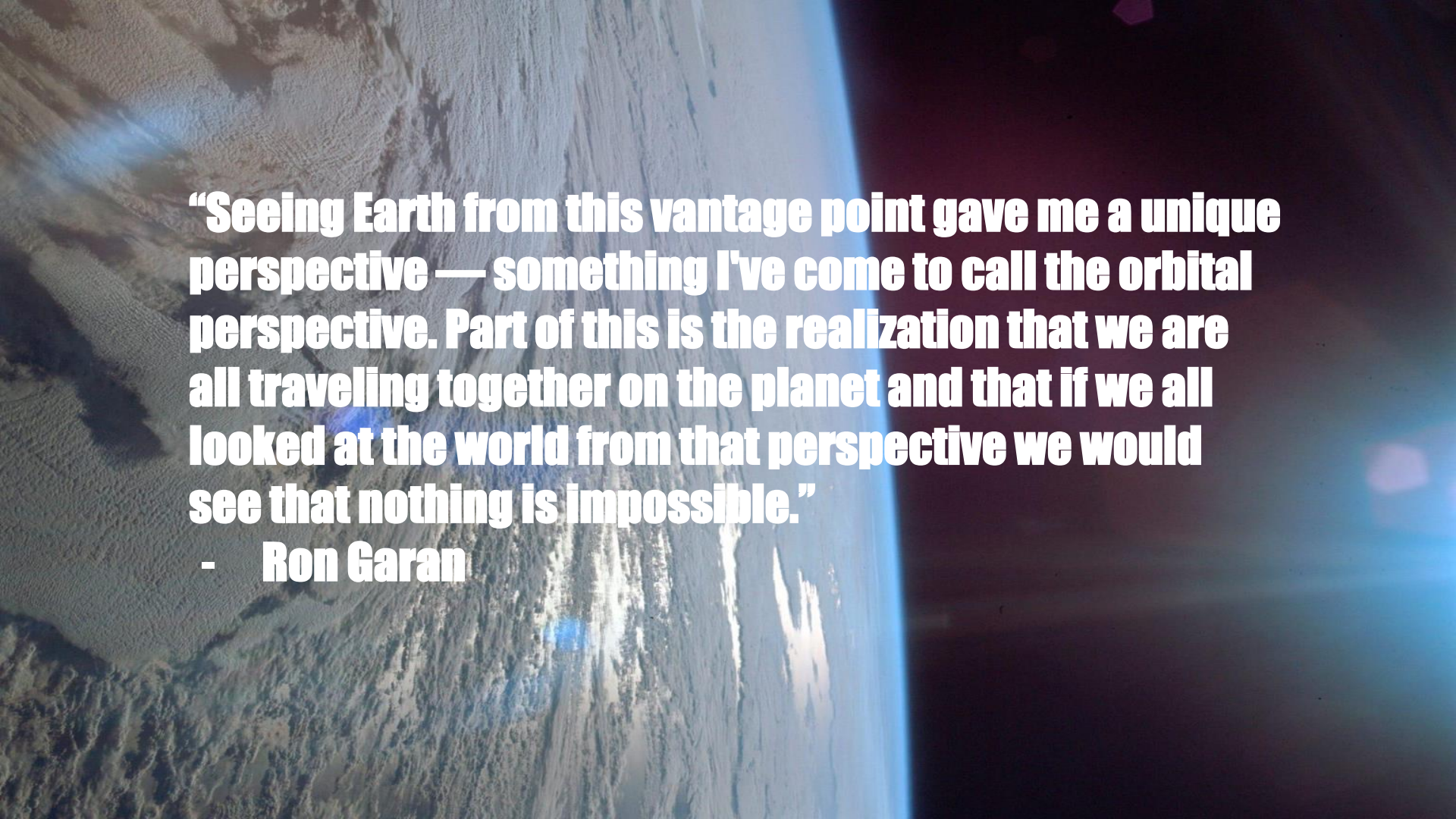
Therefore, Humanity needs to act in the interest of our species collective survival (+ the environmental, social, & political implications that holds) because it would be unethical to not try our best to prevent it from happening!



“You develop an instant global consciousness, a people orientation, an intense dissatisfaction with the state of the world, and a compulsion to do something about it. From out there on the moon, international politics look so petty. You want to grab a politician by the scruff of the neck and drag him a quarter of a million miles out and say, ‘Look at that, you son of a bitch.’”

— Edgar Mitchell

<https://www.youtube.com/watch?v=5L6eqgnmIPo>



“Seeing Earth from this vantage point gave me a unique perspective — something I’ve come to call the orbital perspective. Part of this is the realization that we are all traveling together on the planet and that if we all looked at the world from that perspective we would see that nothing is impossible.”

- Ron Garan



The “overview effect” has already affected great change on Earth proving we are bound by ethics and morality to continue to pursue humanity’s potential through space exploration!!

CONCLUDING REMARKS:

- **we've only covered the tip of the iceberg when it comes to environmental, ethical, and political discussions about space travel and the future of humanity.**

BUT

- **Going to the stars could potentially make us more united here on Earth**

WHY DO WE GO TO SPACE:

<https://www.youtube.com/watch?v=TES491F2e6c>

Works Cited

- Burns, K. (2019, December 21). Para 9. Trump finally has his Space Force - and it will make orbital security its priority. Retrieved from <https://www.vox.com/policy-and-politics/2019/12/21/21032757/trump-space-force-signs-ndaa-military-pay-family-leave>
- Cassella, C. (2019, December 10). The First Mission to Remove Space Junk From Orbit Has Just Been Commissioned. Retrieved from <https://www.sciencealert.com/first-tow-truck-trash-collector-will-pick-up-space-waste-like-pac-man-in-2025>
- Decadi, A. (2020, February 7). MOON EXPLORATION GLOBAL SURVEY RESULTS. [PDF file] Retrieved from <https://moonvillageassociation.org/wp-content/uploads/2020/02/MVA-Survey-STC-February-2020-Final.pdf>
- Elsevier. (2014, February 12). Species extinction is a great moral wrong. Retrieved from <https://www.elsevier.com/connect/species-extinction-is-a-great-moral-wrong>
- Garcia, M. (2015, April 14). Para. 1-3. *Space Debris and Human Spacecraft*. Retrieved from https://www.nasa.gov/mission_pages/station/news/orbital_debris.html
- Gleiser, M. (2013, January 15). Spaceship Earth: Who Is In Control? Retrieved from <https://www.npr.org/sections/13.7/2013/01/15/169334226/spaceship-earth-who-is-in-control#:~:text=>
- NASA, (Producer). (2019). *We Are Going* [Online video]. Youtube. Retrieved from <https://www.youtube.com/watch?v=v16jn-DdafM>
- Veen, J. V. D. (2020, March). *Astro 101H class 1*. slide 12-19. Santa Barbara.
- Veen, J. V. D. (2020, March). *Astro 101H class 8*. Slide 16-18. Santa Barbara.
- Waltemathe, M. (2020, March). *[Zoom conference lecture]*. *[zoom conference lecture]*. Santa Barbara.
- What is Spaceship Earth? (2017, April 6). Retrieved from <https://exhibits.stanford.edu/bucky/feature/what-is-spaceship-earth>
- Wikipedia contributors. (2020, March 5). NASA spinoff technologies. In *Wikipedia, The Free Encyclopedia*. Retrieved 11:14, March 7, 2020, from https://en.wikipedia.org/w/index.php?title=NASA_spinoff_technologies&oldid=944075298