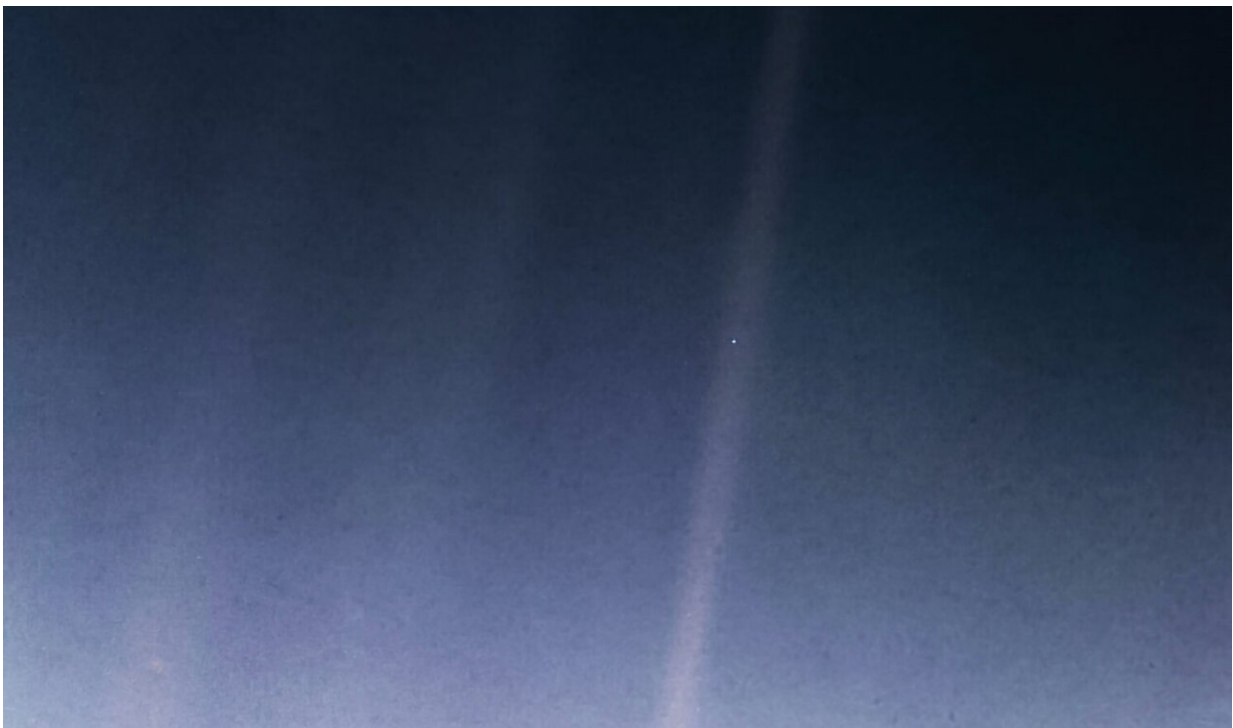


Q&A: Rather than colonizing space, humankind needs to commit itself to saving the planet

September 6 2023, by Bradley Worrell



"Pale blue dot" view of Earth taken by the Voyager 1 spacecraft as it passed Pluto Feb. 14, 1990. Credit: NASA/JPL-Caltech

Every day seems to bring news of multiplying ecological disasters—fires, floods, drought, deforestation, overfishing and coral reef die-offs.

Meanwhile, [space flight](#) is becoming increasingly common, and plans are being seriously discussed to colonize space, including the establishment of bases on the moon and on Mars. Could humanity's future lie beyond the pale blue dot that is Earth, as some tech billionaires, astronomers and scientists have theorized?

To Matt Harvey, who earned his Ph.D. in [political science](#) with a focus on environmental political theory from the University of Colorado Boulder in May, the idea of colonizing space isn't simply ambitious or fanciful—it's an escapist fantasy, or as he calls it, "a dangerous Promethean endeavor."

Harvey dedicated a lengthy chapter in his dissertation, which challenges "anthropocentrism"—the idea that humanity is exceptional or central in the universe—on why looking to [outer space](#) for humankind's future is an incredibly bad idea. That chapter was later adapted and published as a paper, titled "The Sublime and the Pale Blue Dot: Reclaiming the Cosmos for Earthly Nature" in the publication *Environmental Values*.

In his paper, Harvey details the potential pitfalls of believing that technology and human ingenuity can find humans a new home in the cosmos. For example, he highlights research showing that establishing a self-sustaining colony of 1 million people on Mars would take 100 years at best, "without considering the necessary technological advancements to craft capable vessels and the duration or number of outbound and return journeys."

Larger-scale attempts to relocate humankind to a home in space would be even more daunting, according to Harvey, who recently began a one-year visiting professorship at Wabash College in Indiana, where he will teach political science.

"If we sought to evacuate 9 billion people from a dying Earth, the energy

costs would exceed 80 times the global energy use in 2010," he says, citing research data.

Rather than attempting to find a new home among the stars, Harvey advocates for a focus on the cosmos and the "sublime," or the concept that something is so vast that it's difficult to comprehend and inspires awe.

"From such a sublime encounter, the cosmos can be reclaimed to communicate a spiritually elevating and Earth-bounded ecological consciousness," he says in his paper.

Recently, Harvey explained his views on this topic in an interview with the College of Arts & Sciences magazine. His responses have been lightly edited for style and space constraints.

Question: Why did you decide to tackle this particular topic?

Harvey: When I first went to CU, I was planning on studying democratic theory. But during my second semester of my first year, the professor teaching the political theory seminar handed us a syllabus, and it was on environmental political theory, which I didn't know was a thing, which examined these types of questions in our relationship to nature.

That's when I was immediately like, "This is what I want to spend my career doing. These are the questions that really fascinate me."

For my paper for that class, I went to the professor and I said, "Carl Sagan was one of my profound influences growing up. He writes a lot about not only our relationship to nature, but offering a vision of what the human future can and should look like." ...

So I wrote one of my first grad student papers on Carl Sagan as a political theorist and that trajectory carried me all the way through to my dissertation. Sagan features quite heavily in my Pale Blue Dot article because his comments on the pale blue dot picture taken by NASA's Voyager spacecraft, showing how small the Earth looks from space, are profound.

Question: Can you expound upon this idea of a Promethean vision for humankind to find a home in the cosmos?

Harvey: There is this idea that's deeply ingrained—especially in Western society—that there is no obstacle in nature that cannot be overcome. So, that's why it's very easy to speculate on the science fiction vision of colonizing Mars, for example. There's this sort of inevitability that we will be able to go to Mars and beyond, whether it's through the development of new technologies that allow us to traverse space faster, or even sending ships with [human embryos](#), that are crewed by artificial intelligences, to wake up however many thousands of years later at the nearest star system.

These speculations are given a lot of due consideration. And these visions simply don't reflect the reality of what we can accomplish with Earth's resources.

Question: Why not contemplate a life for humans in the cosmos? Can you expand on your reasons for believing that's not viable?

Harvey: I think that space itself does a pretty good job of resisting our attempts at mastery. As soon as you get beyond ... the boundaries of

Earth's [magnetic field](#), any ship that goes beyond that is going to be bombarded with solar winds and radiation, so people who get as far as Mars will probably not be in the best of health.

Mars itself has a climate that is extremely inhospitable, with no atmosphere. And we're seeing the increased intensity of natural disasters here on Earth, but even those can't compare to the level of storm systems that we see on Mars. So, any habitual dwelling would have to be underground and would require years of infrastructure to set up.

To even go beyond that, as I talk about in the paper, our nearest (stellar) neighbor is Alpha Centauri, which is 6,000 light years away. So, a ship will take a very, very long time to get there, about 10,000 years, give or take.

And even if we have a vision of going off and colonizing that star system, we have to very generously assume that there is a planet in the habitable zone for humanity that can sustain us long term. Taking all that into account, it's really fascinating that the techno optimists—the Prometheans—think they can steal fire from the gods, to draw on the Greek legend. They see space exploration as a means of escaping the inevitable deterioration of our ability to survive on Earth.

They take the climate crisis for what it is—this severe existential threat—but their solutions are couched in this nonsensical vision of human survivability that, at very best, would work for just them. And for me, those visions aren't even worth considering, but they dominate so much of public consciousness about our orientation to outer space today.

Question: Can you provide an overview of your philosophy that counters the Promethean vision?

Harvey: The Pale Blue Dot is, to me, the ultimate example of what I call the sublime. What the sublime means is that there is something that presents itself to us in such a way that it challenges our faculties of reason to really comprehend it. And that makes you feel kind of small and insignificant in that moment.

The pale blue dot image (of Earth pictured from space) is one of those to me. That photo, taken by the Voyager spacecraft as it was passing by Pluto's orbit, shows the (Earth) as just this insignificant little speck that carries the entire whole of human history and human existence—all of our thoughts and ideas and accomplishments are contained in that seemingly little bit of nothingness.

And there are a number of responses we could take to that. We could just be nihilistic and say nothing matters. ... But we can also take that like one of my heroes, Carl Sagan, does, and take it as this sort of spiritually uplifting element that reminds us of exactly how attached to the Earth we can and should be. And how marvelous it is that we have this exceptional planet on which we live. And how much vitality and wonder and excitement is located on this little blue speck.

Question: You conclude your paper by saying: "One truth remains inalienable, the Earth will continue to follow in its orbit around the sun, whether or not we continue to scurry across its surface." So, when considering humankind's future, do you consider yourself a pessimist, an optimist or something else?

Harvey: That's a really good question. I would love to be an optimist. I truly would love to. And where I find my joy and my drive to educate is in exploring the elements of nature that really challenge and surprise

me—things that we often don't call attention to.

Even though I would probably call myself a pessimist—because I think things are going to get a lot worse before they get better—I want to believe in a more environmentally conscious, Earth-centered future.

Question: Anything else you want to mention?

Harvey: At the end of the day, I would just encourage those who read this article to take the time for that sort of contemplation of the mysteries of the universe.

When I introduced this paper at conferences ... I started with this slide from a Calvin and Hobbes comic. It's just Calvin and his pet tiger Hobbes looking up at the night sky, and Calvin says, "If people looked at the stars each night, I bet they would live a lot differently."

Those little opportunities—those little things that we don't really engage with, but really put into perspective humanity's position in the rest of the universe—are things that really warrant our attention. There's just so many wonderful things, both on our planet and outside of it, that we don't really think about, but we should.

More information: Matt Harvey, The Sublime and the Pale Blue Dot: Reclaiming the Cosmos for Earthly Nature, *Environmental Values* (2023). [DOI: 10.3197/096327122X16569260361832](https://doi.org/10.3197/096327122X16569260361832)

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