

# Protecting Our Moon from Potentially Unsustainable Future Mining

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**Nature reserves protect for generations to come what is most valuable on our moon while also allowing lunar science and commerce.**

## LUNAR MINING SOON

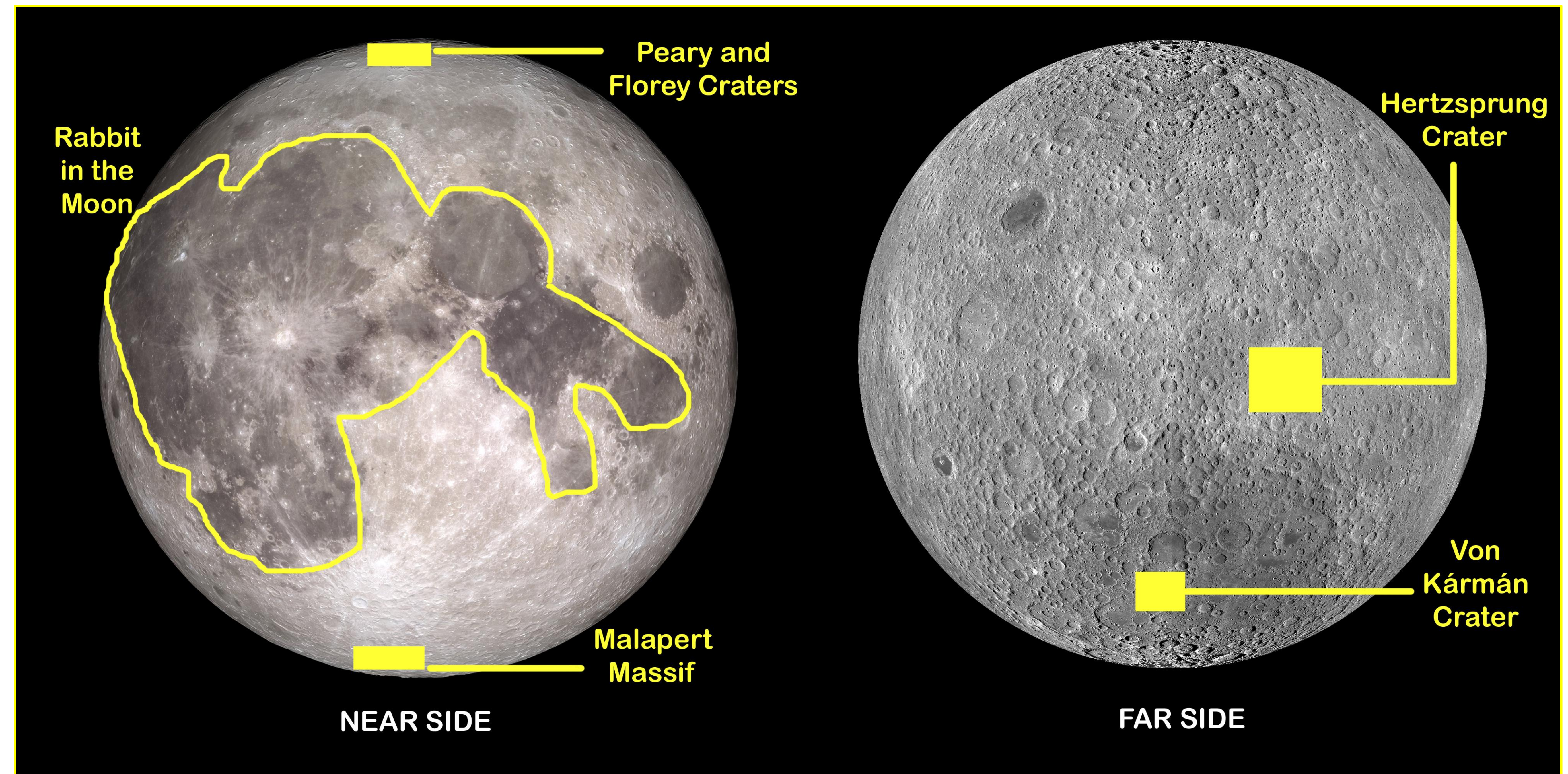
Throughout human history a figure variously known as a rabbit, man, woman, or toad in the moon has played important roles in diverse cultures. Unfortunately, today that figure is under threat from the mining of our moon that already unfolds. A number of national and private players assist mining firms to acquire and process water ice that has proven to exist, rare metals, but especially the energy source helium-3. Such mining could cause ecological damage to our moon that is so severe that it can be viewed from Earth.

## POTENTIAL CALAMITIES

1. Ecological: Everyone on Earth forever after can view the damage.
2. Cultural: The Man/Woman/Rabbit/Toad in the Moon, a part of human cultures for thousands of years, may be lost to future humans.
3. Historical: Remains of important space exploration history can be destroyed or diminished.
4. Scientific: Regolith that is uprooted 3 meters deep, crushed, and sifted loses scientific value, as do hills, rilles, and other features that may be marred by mining processes.

## SOLUTION: VERSATILE RESERVES

Diverse-use reserves simultaneously will provide for the needs of science, environmental preservation, future recreation, and sustainable industry, leaving areas outside of the reserves open for desired business. Initiated according to international best practices as delineated by environmental science perspectives as well as current United Nations environmental policies, these reserves even will preserve locations like the spot of the first human landing on the moon, an immensely important piece of human history and culture. COPUOS will oversee their implementation.



## PRESERVING LUNAR TREASURES

1. Rabbit/Man in the Moon: Part of human cultures for thousands of years and space history today.
2. Peary/Florey Craters: Fantastic North Pole astronomy and recreation.
3. Malapert Massif: High mountains that are unique in the solar system.
4. Hertzprung Crater: Primal geology and a far side equatorial recreational experience.
5. Von Kármán Crater: Memorializes Chang'e-4's historic soft landing on the far side.

## SPACE ETHICS ETHNOGRAPHY

The values underlying these reserves derive from a field study in the United States that compared 121 American Buddhists as values sources (without endorsing Buddhism) with 78 members of the USA general public as a control group. Along with some narrative qualitative data for context, quantitative data derive from the results of a 16-question space environmental ethics survey.

## RESERVES BASED ON VALUES

Innovatively, American Buddhists philosophically stress the importance of interconnection rather than the salience of life in extending the value of nonharm to lunar features. In so doing, the American Buddhists in this study enable protecting outstanding plots on our moon with reserves as a contemporary reflection of a legacy of Buddhist philosophical support for nature reserves extending back to the time of the Buddha himself.

## SOME REFERENCES

1. Buddhism and Space Environments: [buddhismandspace.org](http://buddhismandspace.org).
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4. Mark Williamson, *Space: The Fragile Frontier* (Reston: American Institute of Aeronautics and Astronautics, 2006).