

Moon

Our Moon is thought to be 4.51 billion years old, just slightly younger than the Earth. Although it's around 239,000 miles away from us in space, and only about a quarter of the size of the Earth, we are able to see it in the night sky without using a telescope. Every 27 days the Moon completes one orbit around the Earth, which is why we can predict the Moon phases on a calendar. When the Earth is positioned between the Sun and Moon, we are only able to see the parts of the Moon illuminated by the sunlight.



TOUCH THE MOON!

NWA 12985

Found: Northwest Africa, 2016

Mass: 33 gm

Class: Lunar (feldsp. breccia)

Specimen weight: 2.68 gm, Partial Slice

Provenance: Abrams Planetarium 2020.002

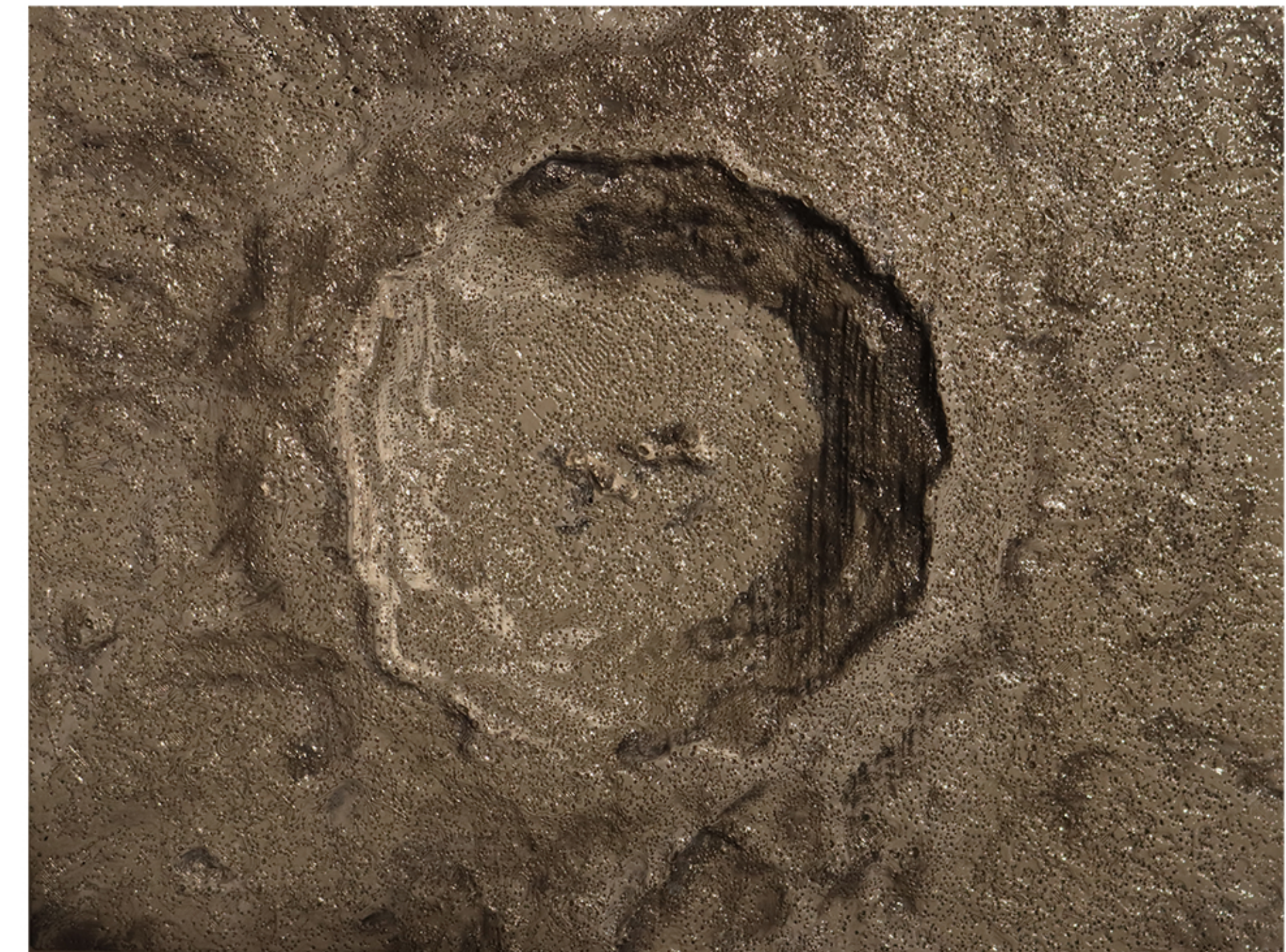
What do craters tell us about the Moon?

The Moon's surface is covered with thousands of craters of all sizes. Rocks from outer space are constantly colliding with the Moon, leaving craters along the way. The moon has a very thin atmosphere, so even the smallest meteoroids (just microns across) will leave a crater where they crash-land. Once made, the craters stay put because there is no weather, such as wind or rain, to sweep them away.



What is the difference between a Moon rock and a lunar meteorite?

It's true that lunar meteorites are made of rock that comes from the Moon, but just like other meteorites they go through a change when exiting the moon's atmosphere and entering the Earth's atmosphere. When a small celestial body collides with the Moon, rocks are kicked up from the surface. Those rocks travel so fast that, when they enter Earth's atmosphere, their exterior melts and turns into a fusion crust. Moon rocks that are collected directly from the Moon's surface will not have a fusion crust.



Copernicus Crater

This lunar crater gets its name from the astronomer Nicolaus Copernicus, the first person to propose that the Earth revolved around the sun. The Copernicus Crater formed 800 million years ago as a result of debris from asteroid 495 Eulalia colliding with the Moon's surface. It can be seen from Earth using binoculars because of its size, 93 kilometers wide and 3.8 kilometers deep. Can you find this crater on the wall in front of you?