

XE128.0846869
7-31-69

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Effective September 1, The University of Texas at Dallas)

SPECIAL TO RICHARDSON DAILY NEWS
PLANO STAR-COURIER
(Per info requests)

July 31, 1969

RELEASE ON RECEIPT

Al Mitchell, Director of Public
Affairs - Ext 215

MOON ROCKS EXPECTED AT UT DALLAS NEAR END OF SEPTEMBER

Geoscientists at The University of Texas at Dallas expect to get their first look at Moon rocks and possibly at lunar soil samples by late September.

Assoc. Prof. Ian MacGregor of the Southwest Center for Advanced Studies made this estimate in an interview this week. The SCAS, on Sept. 1, will become UT at Dallas.

Professor MacGregor is one of 142 scientists in nine nations who have been designed by National Aeronautics and Space Administration as moon sample analysts. The rocks and soil samples are those gathered by Astronauts Neil Armstrong and Edwin (Buzz) Aldrin during their moon-walk of July, and are at present in the laboratories of the NASA Manned Spacecraft Center at Houston.

Prof. Anton L. Hales, who heads the Geosciences Division, Assoc. Prof. Charles Helsley, and Research Scientist James L. Carter are expected to join in the analyses at UT Dallas.

The September arrival, said Professor MacGregor, depends on NASA's distribution program, and how the samples go to different investigators. "First looks," he said, "may be by people who are planning non-destructive analysis," and then will pass the samples to another laboratory.

The UTD group is assigned the task of determining mineralology of ^{some of} the samples, in hope of making some interpretations of the genesis of the rocks and the history of the Moon, he said.

Professor MacGregor explained that the origin of both Earth and Moon seem tied

together. "We hope we can see aspects of evolution that we can't see so well on Earth," he said. Due to the lack of weather erosion on the Moon, it's possible that scientists can look back in time, to the extent that a stage of development on the lunar surface may still exist even though it is historic and has been modified or erased on Earth.

Professor MacGregor said that some evidence seems to exist, from early reports made in Houston, that volcanic rocks form part of the lunar samples.

He was not surprised to hear Astronauts Armstrong and Aldrin report that the rocks had a range of colors when seen on the Moon, but wonders whether the lighting "may be playing tricks" there.

The "moon pearl", found in a core sample taken by Aldrin, may be a droplet formed as a ~~meteorite~~ meteorite struck the surface and splashed heated material, Tektites found on Earth have a pearly, glassy appearance, and have/long thought to be moon material flung into space by such impacts and drawn into the Earth by its gravity. ^{said Professor MacGregor.}
^{been}

The most interesting report from Houston so far, he said, is that of small, glassy and apparently spherical formations that may have been formed by the continued bombardment of the Moon by micrometeorites, themselves no bigger than dust grains. "There has been nothing else of great surprise," he said.

The fine-grained surface material probably says a lot about erosion, said Professor MacGregor, and the bombardment of both micrometeorites and by the energetic particles of the solar wind.

There was some surprise, he said, in the fact that the Eagle (lunar module, or LM) sank very little into the surface on landing. He thinks that properties of ~~min~~ cohesion are probably very different on the Moon, with light gravity and/vacuum both helping the surface particles to stick together. ^{near-}