

# abstracts with programs

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## 1971 ANNUAL MEETINGS

THE GEOLOGICAL SOCIETY OF AMERICA (84th)  
THE PALEONTOLOGICAL SOCIETY (63rd)  
THE MINERALOGICAL SOCIETY OF AMERICA (52nd)  
SOCIETY OF ECONOMIC GEOLOGISTS (51st)  
GEOCHEMICAL SOCIETY (16th)  
NATIONAL ASSOCIATION OF GEOLOGY TEACHERS (12th)  
GEOSCIENCE INFORMATION SOCIETY (6th)

NOVEMBER 1-3, 1971  
SHOREHAM AND  
SHERATON-PARK HOTELS  
WASHINGTON, D. C.

PLEASE BRING THIS PROGRAM TO THE MEETING



THE  
GEOLOGICAL SOCIETY  
OF AMERICA

## APOLLO 15 IN LUNAR ORBIT: SIGNIFICANCE OF VISUAL OBSERVATIONS AND PHOTOGRAPHY

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Visual observation of twelve lunar surface targets were made and

recorded while Apollo 15 orbited the moon. Where observations were made, the targets were photographed by the Command/Service Module cameras. The observations revealed significant new data that would not have easily been acquired otherwise such as:

1. Discovery of clusters of cinder cones in the Littrow area. These cones are surrounded by dark halos which merge to form a dark ash-like deposit. This situation is also present in the Sulpicius-Gallus area.
2. Delineation of a landslide or rock-glaciers on the north-western rim of the crater Tsiolkovsky. The landslide is bounded by two faults with about 12 km horizontal displacement.
3. Ascertainment that the ray-excluded zone around the crater Proclus is due to the presence of a fault system on the west rim of the craters.
4. Recognition of layers on the interior walls of the crater Picard. This crater as well as Peirce and Bessel appear to be volcanic in origin.

Use of the capabilities of the human eye in making observations from lunar orbit is an integral part of the geological exploration of the moon; extrapolation of ground truth data collected on the lunar surface to larger portions of the moon is thereby made possible.