

The projected landing point is within the unit mapped as smooth terrain material (unit Is). This unit is similar in texture, topographic relief, and albedo (moderately low) to plains units that overlie the Fra Mauro Formation outside the map area. Such plains materials are probably volcanic, but it is also possible that the smooth terrain unit is a facies of the Fra Mauro, smoother than normal because it was ponded in topographically low areas as the formation flowed across the pre-Imbrian surface during deposition.

Individual craters in the site are assigned ages according to the criteria shown in figure 1 (modified after Trask, 1969). The age criteria are based on observed crater superposition relationships, which indicate that craters are sharp and fresh in appearance when formed but become increasingly degraded by lunar erosion processes through time. Small craters are degraded faster than large craters, so that a small subdued crater may be the same age as a larger less subdued one.

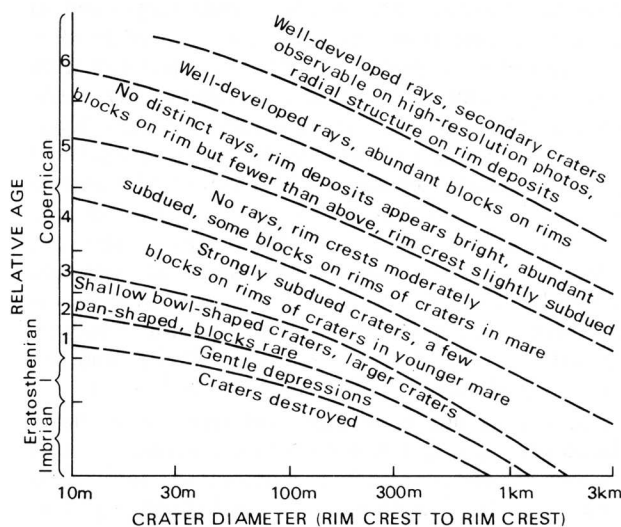


Figure 1.--Relationship between crater morphologies, crater diameters, and postulated ages (modified from Trask, 1969).

The graph in figure 1 was developed for craters on mare surfaces; some uncertainty is introduced when the graph is applied to craters formed on hummocky surfaces like the Fra Mauro Formation.

Much of the surface of the map area appears to be covered by ray deposits from the crater Copernicus. The material is probably similar to the apparent ray deposit seen at the Apollo 12 landing site, where it consisted of a light-colored fine-grained layer a few centimeters thick (E.M. Shoemaker and others, 1970, written commun.). In walls of craters younger than the Copernicus event, this light layer may be exposed beneath darker ejecta layers.

Lineaments are not conspicuous in the site, perhaps because they are obscured by the abundance of curved, irregular lines in patterned ground re-

sulting from slumping and downslope creep of unconsolidated surficial materials. Most mapped lineaments trend northeast and northwest, coinciding with the lunar tectonic grid system (Strom, 1964) or with the radial pattern of sculpture lines emanating from the Imbrium basin. The large belt of Fra Mauro (unit Ifr) in the site is roughly bounded by lines radial to the basin; the ridge may be defined by Imbrian sculpture or it may be a radial flow ridge or filament in the basin ejecta blanket.

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