

INTRODUCTION: 60135 is an oblate ellipsoidal rock with a core of shocked anorthosite partly coated with a smooth glass (Fig. 1). The sample was collected from a level area 100 m southwest of the Lunar Module. It may have been perched and its orientation is not definitely known. Zap pits are present but areas on both the anorthosite and the glass are free of zap pits.



FIGURE 1. S-72-37966.

PETROLOGY: A thin section of the anorthosite at the glass contact consists of three 3x3 mm patches of fine-grained shock mosaics of plagioclase (Fig. 2) which probably represent original grains. A 500 μm deformed mafic grain (olivine?) occurs at their mutual junction. Brown vesicular, columnar devitrified glasses invade the anorthosite and surround the mafic grain. Macroscopically the plagioclase is variably white, milky, cloudy and vitreous.

The vesicular coat varies from glass at the exterior, through spherulitic and bow-tie structures of plagioclase and mafic minerals to intergrown ragged plagioclase laths with interstitial glass in the interior (Fig.2). These laths can be seen macroscopically. The bulk is 90% or more of plagioclase. The glass coat makes small apophyses into the anorthosite but without extensive veining.

CHEMISTRY: Eldridge et al. (1973) measured K, U, Th, and cosmogenic radionuclides in the rock. The abundances of the incompatible elements are extremely low (K_2O 0.017%, Th 0.27 ppm, U 0.068 ppm).

EXPOSURE AGE: The ^{26}Al and ^{22}Na abundances (Eldridge et al., 1973) indicate saturation values, hence an exposure long with respect to the half-life of ^{26}Al .

MICROCRATERS: Size characteristics and cumulative size distributions of the crater population (Fig. 3) on the glass surface of 60135 are presented by Neukum et al. (1973). This surface is a production surface and rock has a simple (i.e., untumbled) surface history.

PROCESSING AND SUBDIVISIONS: The rock is undivided except for chips taken for thin sections of the anorthosite and the coat.

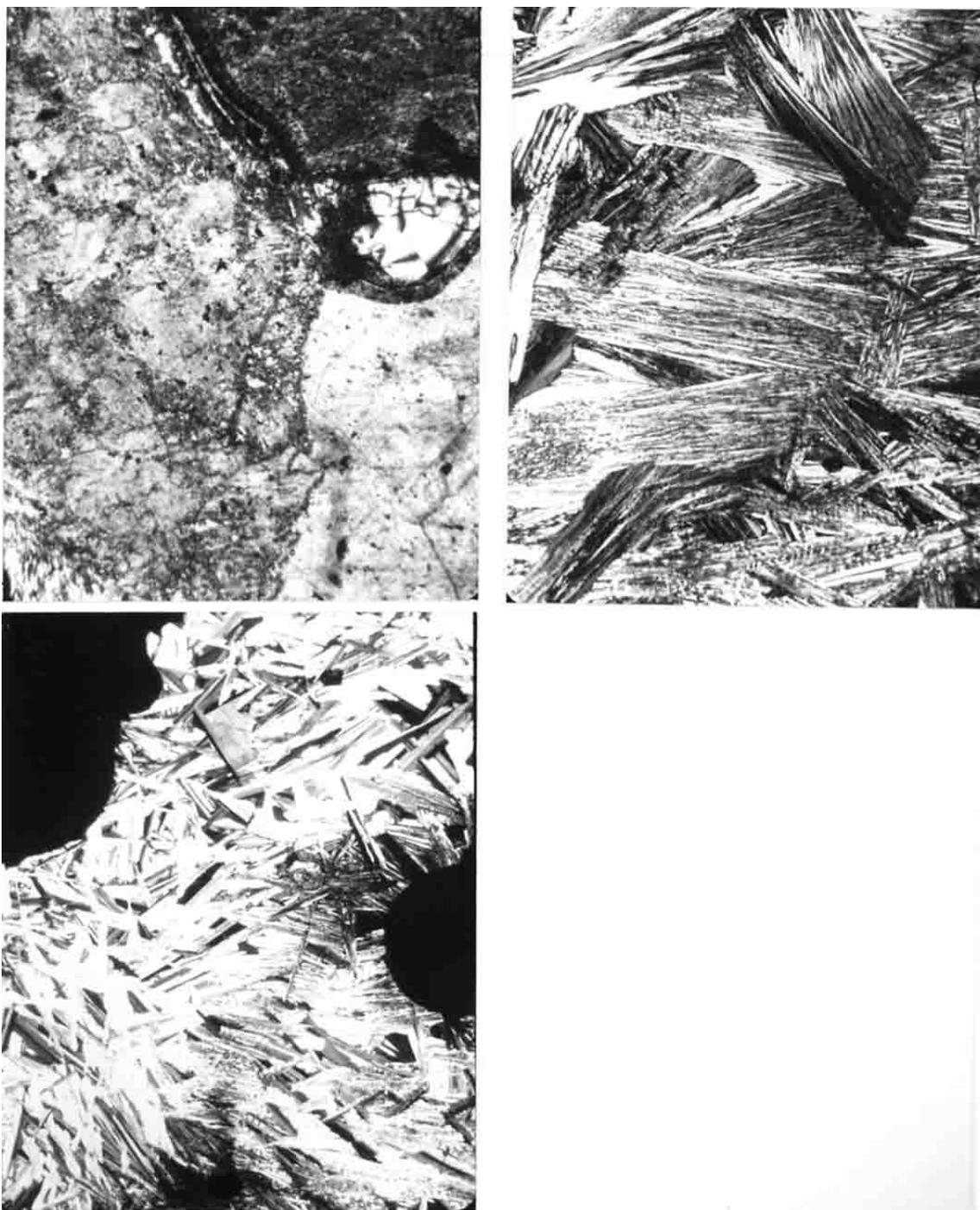


FIGURE 2.

- a) 60135,6. Anorthosite, shocked, with mafic grain at junction, xpl. Width 2 mm.
- b) 60135,5. Spherulitic coat, xpl. Width 1 mm.
- c) 60135,6. Vesicular, basaltic spherulitic coat, xpl. Width 2 mm.

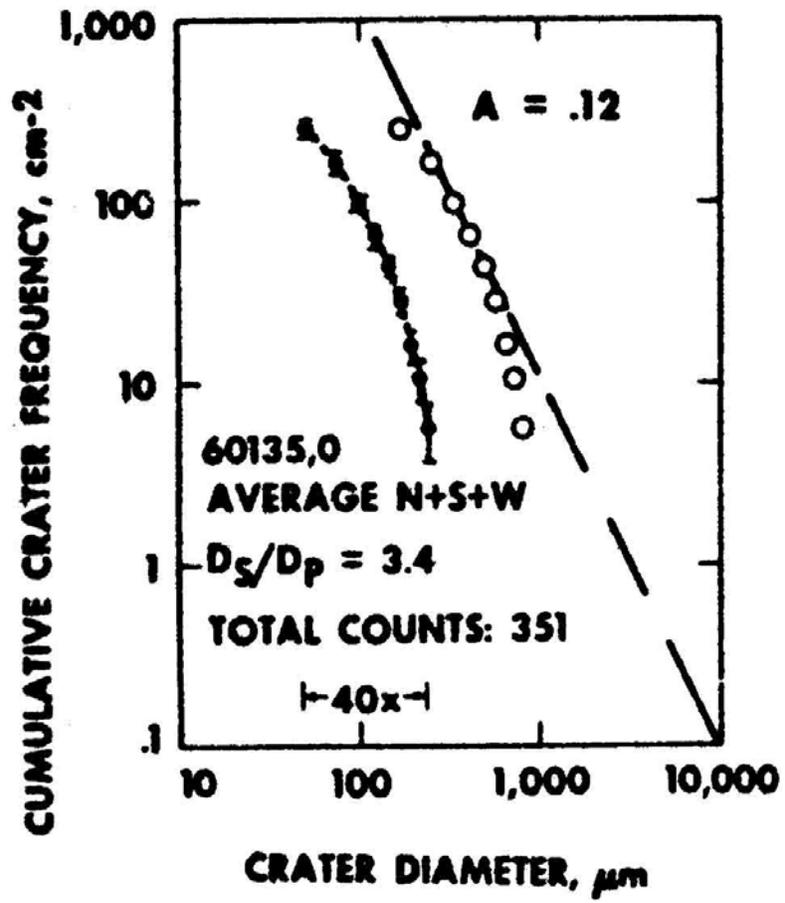


FIGURE 3. Microcraters; from Neukum et al. (1973).