

**INTRODUCTION:** 60677 is a coherent, dark gray, glassy breccia with several different clasts, including a large (14 x 2 mm), friable clast of granoblastic anorthosite (Fig. 1). Many vesicles are present on all surfaces. It is a rake sample collected about 70 m west-southwest of the Lunar Module and lacks zap pits.

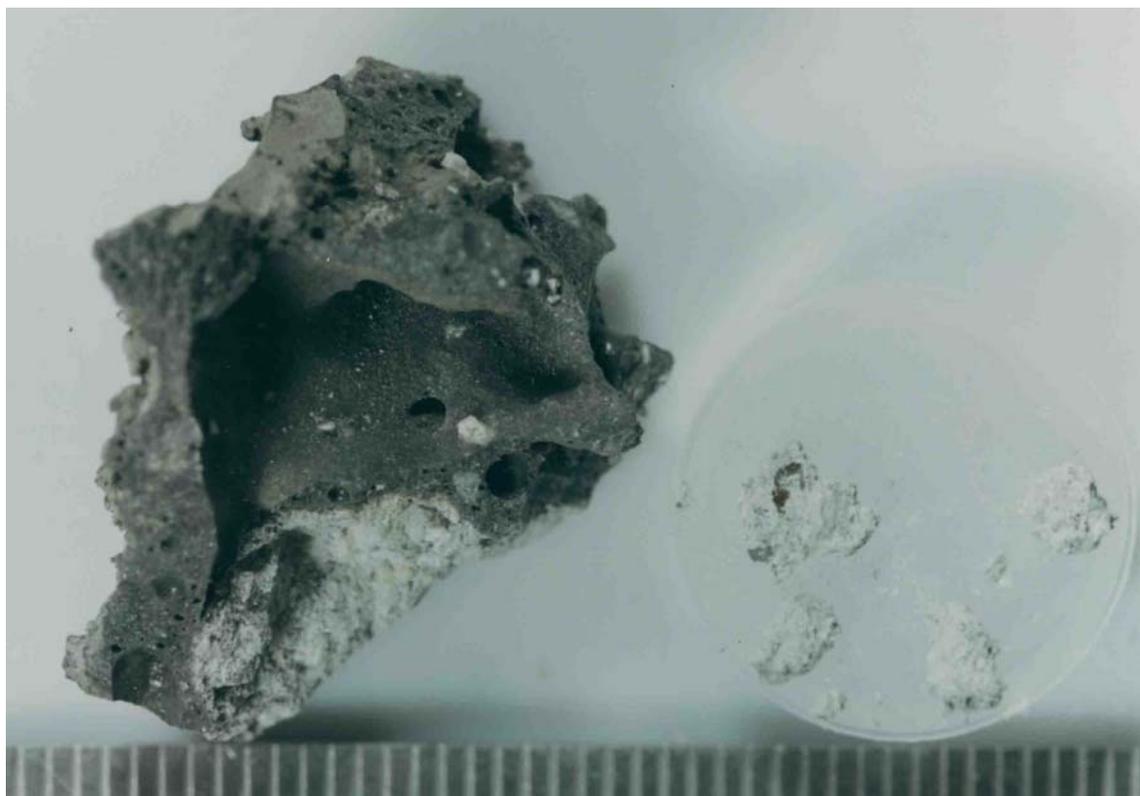


FIGURE 1. Smallest scale division in mm. S-73-20465.

**PETROLOGY:** Warner et al. (1976b) provide petrographic descriptions of both the glassy matrix and a granoblastic anorthosite clast. Dowty et al. (1974a) describe the same anorthosite clast.

The large white clast shown in Figure 1 is an annealed anorthositic breccia with a granoblastic texture (Fig. 2). Small, anhedral olivine grains reside in triple junctions formed by polygonal plagioclases. Pyroxene is absent. Mineral compositions are shown in Figure 3 and tabulated by Dowty et al. (1976). Ilmenite is an accessory phase.

The matrix of 60677 is a very porous mixture of mineral, lithic and glass clasts welded together by glass (Fig. 2). Several breccia clasts and one poikilitic textured clast are mentioned by Warner et al. (1976b).

CHEMISTRY: A defocussed electron beam analysis (DBA) of the granoblastic anorthosite clast described above is presented by Dowty et al. (1974a) and reproduced by Warner et al. (1976b), and here as Table 1. No analysis of the glassy matrix is available.

PROCESSING AND SUBDIVISIONS: In 1973 four small chips (,1) were allocated to Keil for petrography (Fig. 1).

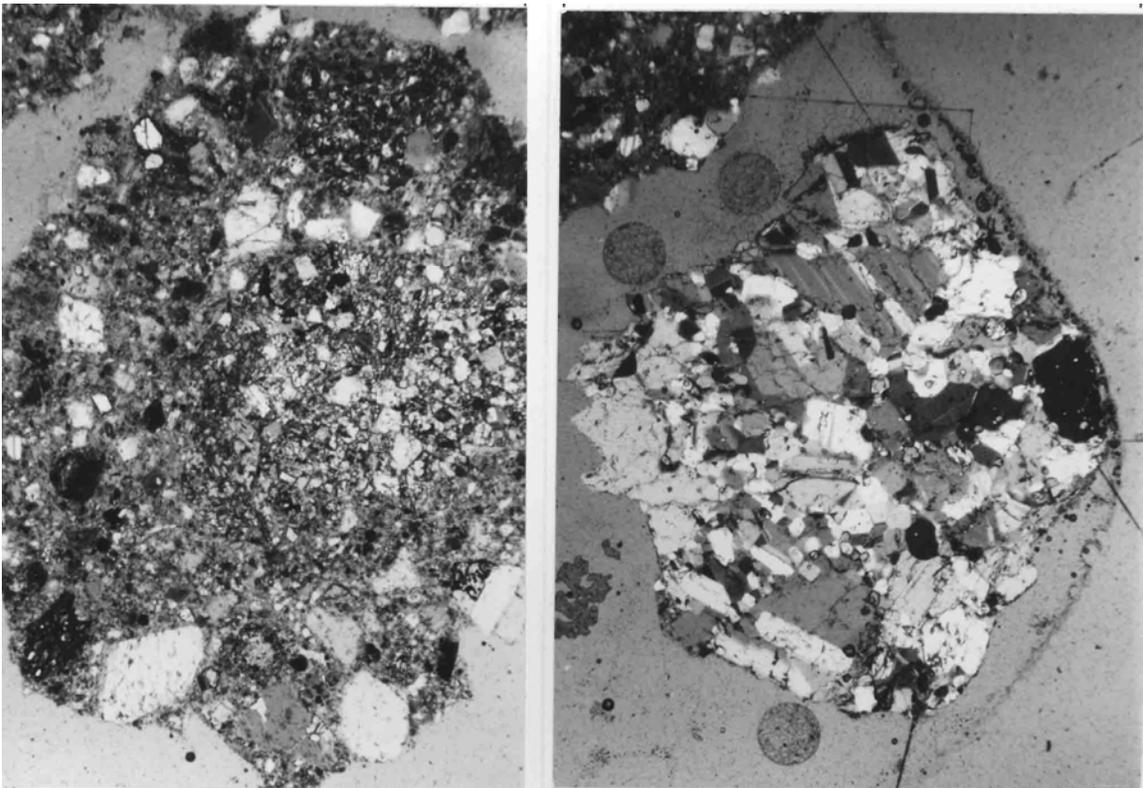


FIGURE 2. 60677,2.

- a) Granoblastic anorthosite, partly xpl. Width 2 mm.
- b) Glassy breccia matrix, partly xpl. Width 2 mm.

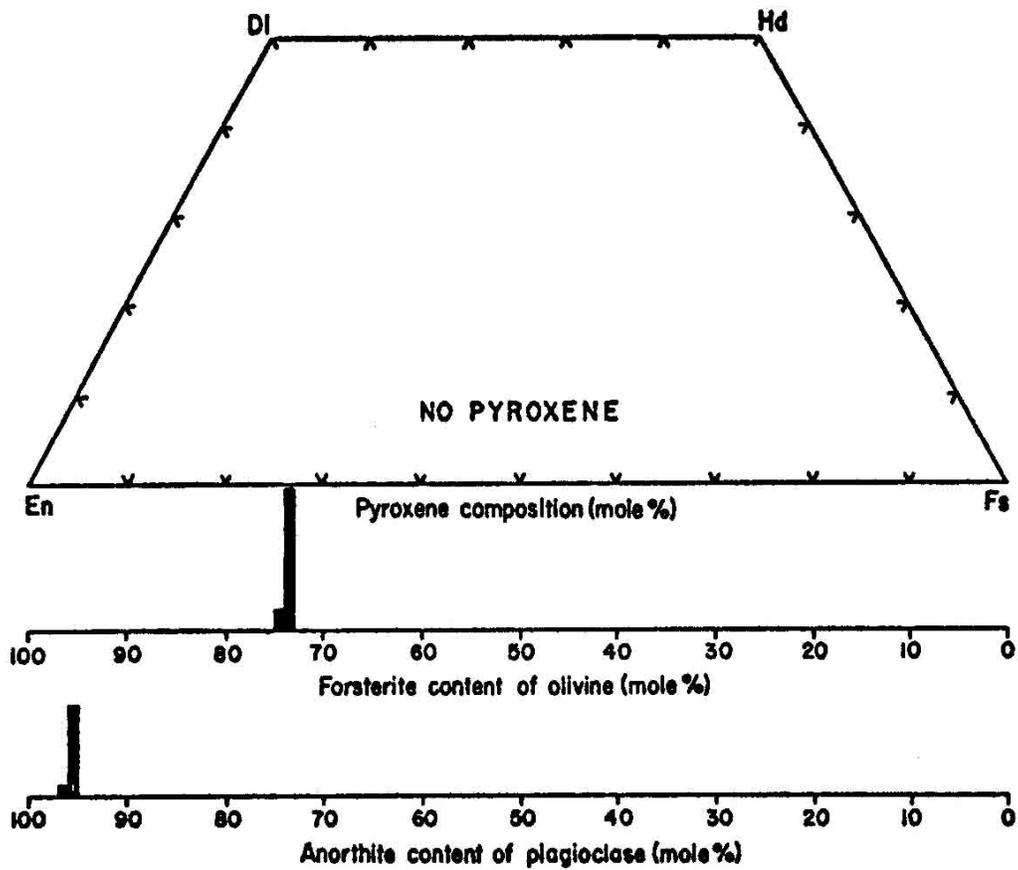


FIGURE 3. Mineral compositions in granoblastic anorthosite; from R. Warner et al. (1976b).

TABLE 1. Chemistry of 60677 anorthosite clast (DBA).

SiO <sub>2</sub>	44.3
TiO <sub>2</sub>	0.04
Al <sub>2</sub> O <sub>3</sub>	34.2
Cr <sub>2</sub> O <sub>3</sub>	0.01
FeO	1.04
MnO	0.01
MgO	1.40
CaO	18.3
Na <sub>2</sub> O	0.56
K <sub>2</sub> O	0.03
P <sub>2</sub> O <sub>5</sub>	0.03