67655 SHOCKED COHERENT POLYMICT BRECCIA 4.11 g

INTRODUCTION: 67655 is a pale colored, polymict breccia (Fig. 1) which is coherent and fairly heterogeneous. An unusual feature is that almost all of the plagioclase is "flame-textured." It is a rake sample collected 30 m east of the White Breccia boulders and lacks zap pits.

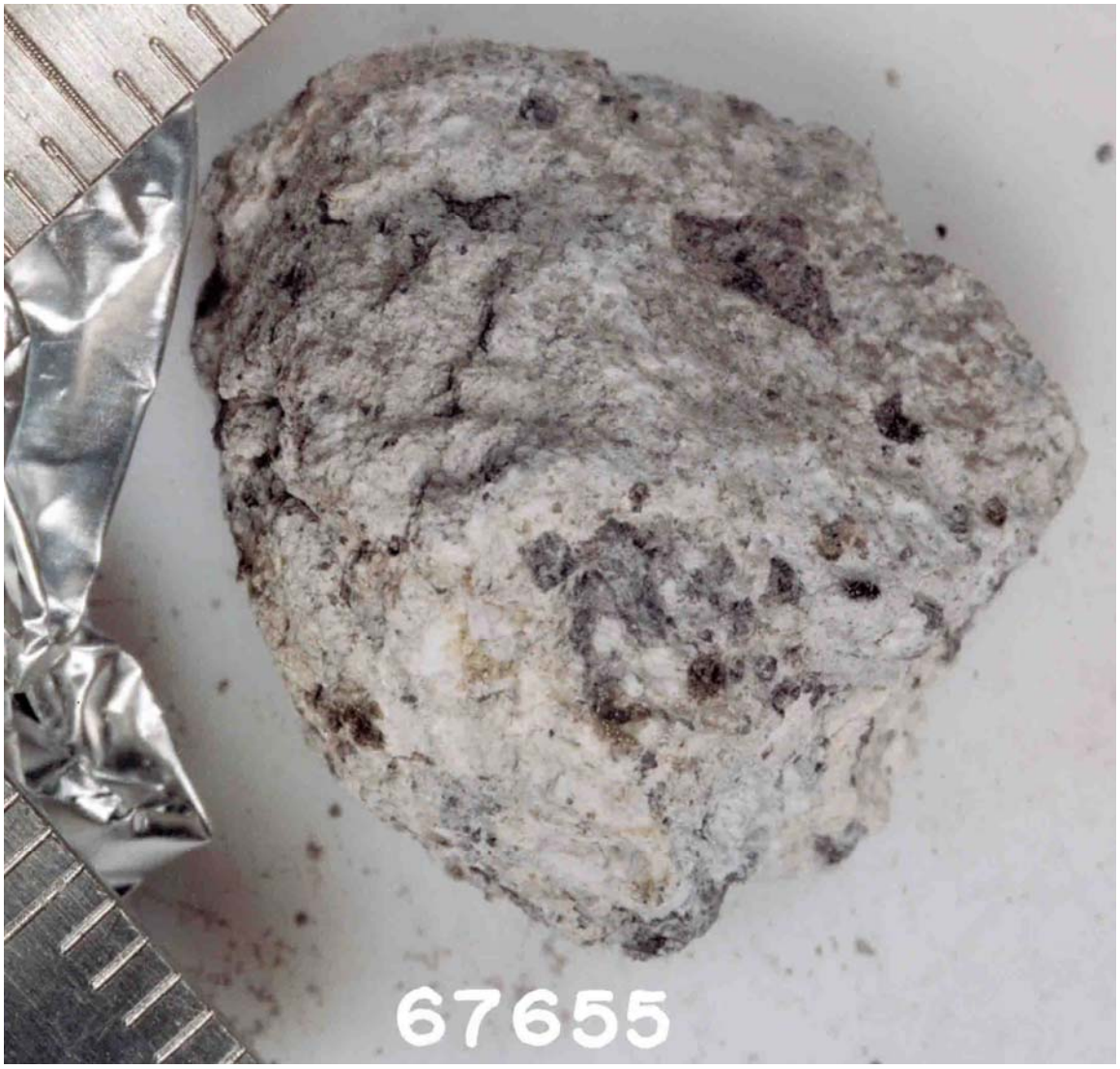

FIGURE 1. Smallest scale division in mm. S-72-49579.

PETROLOGY: Steele and Smith (1973) refer to 67655 as a "recrystallized breccia" with 30% matrix (defined as material less than 5 μm diameter). It is a fairly heterogeneous, polymict breccia (Fig. 2) in which large clasts are more coherent than the fine-grained matrix. The latter is slightly porous. Lithic clasts larger than 300 μm compose ~25% of the rock, and include basaltic impact melts, aphanitic materials, and plagioclase-rich feldspathic granulites. The matrix contains many plagioclase and mafic clasts in the 20-100 μm range, but the interstitial material is of equivocal nature.

An unusual feature is that nearly all of the plagioclase, as single fragments or in lithic clasts, is "flame-textured," and that which is not, is shocked (Fig. 2). This suggests a post-assembly shock event causing maskelynitization followed by devitrification.

PROCESSING AND SUBDIVISIONS: Thin section ,1 was made from one of a few small chips removed.

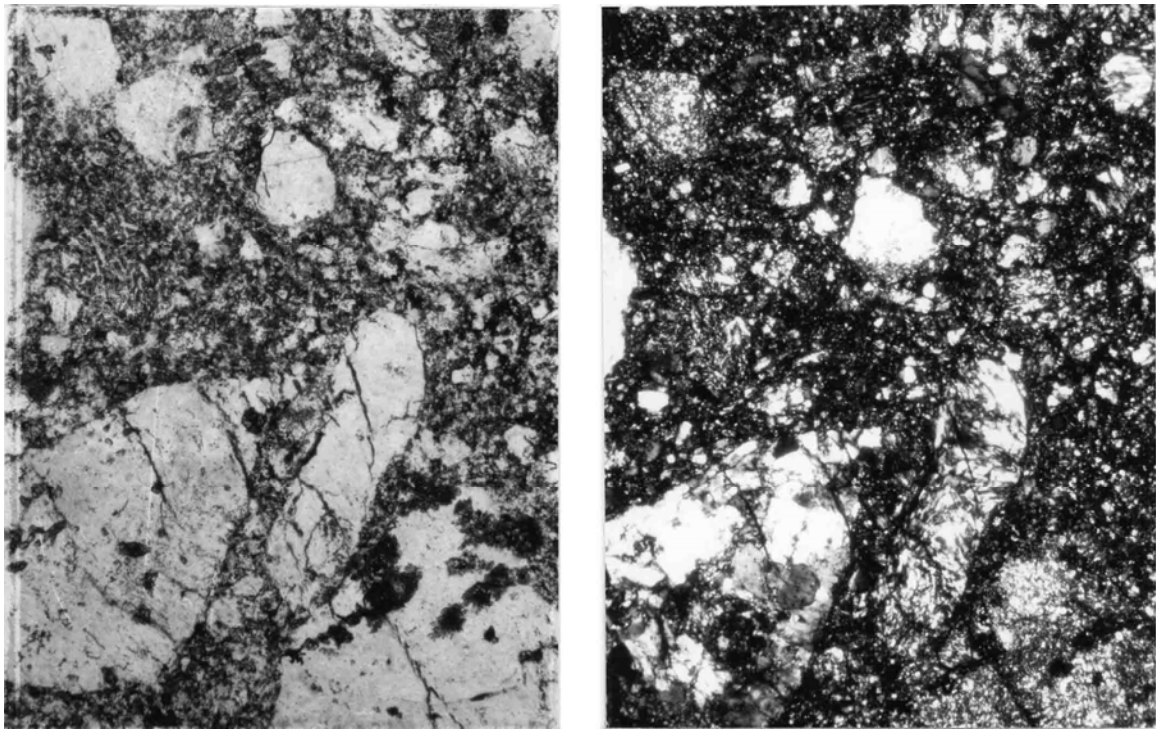

FIGURE 2. 67655,1. General view. Width 2 mm.
a) ppl. b) xpl.