

## Coarse Augite Fabric Group

(Samples MC 2013/120, 121, 122, 124, 125, 151, 160, 168, 169, 170, 171, 172) (Fig. 13)

### Inclusions

30-35%. el & eq. a-r. < 4-1 mm. Single-spaced, and well-aligned to margins of samples. Bimodal, moderately to well-sorted grain size distribution.

### Coarse fraction

10-15%. < 2 mm

*Dominant:* Clinopyroxene; sa-sr. < 2 mm. cleavage. Second-order birefringence. Augite.

*Common:* Sanidine; eq. sa-sr. < 3.2 mm (samples MC 2013/151, 160).

*Common-Few:* Biotite; el. a.-sa. < 2.5 mm. Brown. Perfect cleavage (samples MC 2013/120, 121, 122, 151, 160, 168).

*Few-Absent:* Zeolite; eq & el. sa-sr. < 3 mm. Euhedral microphenocrysts of leucite in an opaque to brownish groundmass (samples MC 2013/120, 121, 122, 125, 151, 170).

*Few-absent:* Olivine eq. sa-sr. < 2 mm (sample MC 2013/169, 170).

*Few-rare:* Chert; el. sr. < 3mm

*Very rare-absent:* Leucite; eq. sa. < 3 mm (sample MC 2013/120).

### Fine fraction

85-90%. < 0.2mm

*Dominant* Sanidine

*Common:* Biotite

### Matrix

55-60%. Brown in PPL, and reddish brown in XP. Relatively homogeneous. Distinct firing horizons (samples MC 2013/124, 151, 160, 169, 172). Some samples are red throughout (samples MC 2013/120, 121, 122, 170), whereas others are grey (samples MC 2013/168, 171). Optically inactive (samples MC 2013/124, 125, 151, 160, 168, 169, 170, 171, 172), to moderately active (sample MC 2013/120, 121).

### Voids

10%. Consisting mainly of macro-vughs, with some planar voids and channels (samples MC 2013/120, 121, 151). Alignment of voids to margins of sections.

### Comments

This fabric is characterised by well-sorted, sand-sized augite and sanidine inclusions, set in a red

base-clay with fine sanidine and biotite. The principal mineral inclusions include augite and sanidine, plus less common biotite and chert. Occasionally, coarse inclusions of zeolite can be identified, as well as rarely leucite and olivine. The sub-rounded nature of the augite and sanidine inclusions suggests that they were the product of weathering. The presence of these volcanic mineral inclusions, as well as the composition of rock fragments, suggests that the clay used to produce these ceramics was a volcanic tuff.

The samples in Fabric 13 were made from a tuff deposit. Coarse inclusions and voids show a preferred alignment, suggesting that the vessels were wheel thrown. Some vessels were well fired in an oxidising atmosphere, while most show evidence for distinct firing horizons: some have a grey core and red rim (sample MC 2013/160, 169, 172), which suggests that an incomplete oxidation process took place, whereas others have a grey rim and red core (samples MC 2013/151). This evidence suggests considerable variability in the firing atmosphere. All but two vessels were fired at a high temperature, and this fabric comprises both olla type 2 and olla type 3a cooking jars. This type of vessels was used for cooking, which might explain the variability noted in the firing atmosphere.

This fabric is related to Fabric 7 (the Augite Tempered Tufo Fabric), because of the presence of coarse inclusions of augite and sanidine, and less common biotite, olivine, zeolite and leucite. Fabric 7 was used to produce tiles. However, there also exist important differences between the two fabrics. More specifically, the coarse inclusions in Fabric 13 are smaller and better sorted, and the clay matrix is more homogeneous. The differences noted between the two fabrics might be linked to the types of artefacts for which they were used.

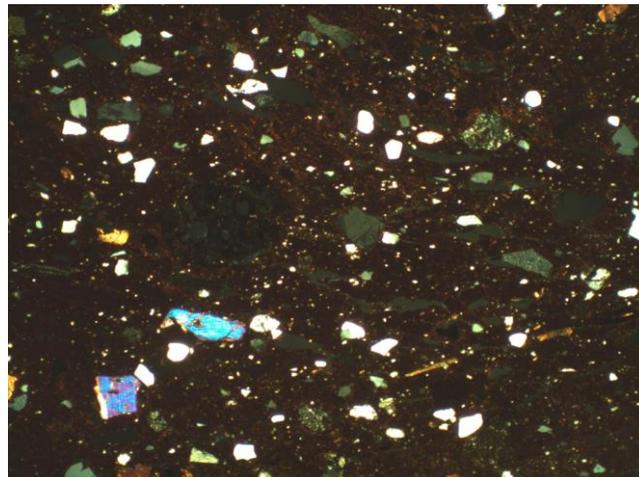


Fig. 13: Coarse Augite Fabric in XP. Width of image = 5.8 mm.