Coarse Calcite Fabric Group

(Samples MC 2013/77, 78, 107, 108, 148, 152, 153, 154, 157, 158) (Fig. 15)

Inclusions

25-28%. el & eq. a-r. < 3.5-1 mm. Close- to single-spaced, randomly orientated in the core and well-aligned to margins of sections. Bimodal, and moderately to well-sorted grain size distribution.

Coarse fraction
18%. < 3.5-1 mm.

*Dominan*t: Calcite a-sa. < 3.5 mm.

Dominant-Common: Sanidine; eq. a-sa. < 2-1 mm

Common: Opaque inclusions; eq & el. r. < 1 mm.

Common: Micritic calcite, pore-fill (samples MC 2013/77, 153, 158).

Fine fraction
82%. < 0.2 mm

Dominant: Sanidine
Common: Calcite
Few: Opaque inclusions

Matrix

57-60%. Brown in PPL, and reddish brown in XP (samples MC 2013/77, 152). Slightly heterogeneous due to the presence of sand- and silt-sized opaque inclusions. Distinct firing horizons (samples MC 2013/107, 148), or various alternations of reddish and grey colours (samples MC 2013/78, 108, 153, 154, 157, 158). Optically moderately active (sample MC 2013/77), to inactive (samples MC 2013/78, 108, 153).

Voids

15%. Consisting mainly of meso-vughs (samples MC 2013/78, 152), but also macro-vughs and channels (samples MC 2013/77, 153, 158) Angular-shaped voids are the result of burnt calcite inclusions (sample MC 2013/153), which has fired out (samples MC 2013/148, 152, 154). Moderate to random orientation in the core, and moderate to well aligned to margins of sections (sample MC 2013/107, 148, 153, 154).

Comments

This fabric is defined by the presence of moderately to well-sorted, angular sub-angular inclusions of calcite and sanidine, set in a red base-clay with fine sanidine and iron. The calcite inclusions appear to derive from the weathering of limestone rock. The fresh nature of the calcite inclusions suggests that they were added to the clay matrix, rather than being the product of weathering. The principal minerals include sanidine, plus less common iron. Given that the sanidine inclusions are

well-sorted, and sub-angular to sub-rounded, the raw materials used to produced these ceramics appear to have come from a volcanic clay. The presence of micrite in voids, and the absence of calcareous textural features in the clay matrix, suggests that these fine-grained minerals are secondary, rather than the result of the mixing of two clay sources.

The samples in this fabric were made from a volcanic clay deposit. It appears that crushed calcite has been used as temper, and added in a moderately sorted condition to this base clay. Inclusions and voids are randomly orientated in the core of the section, and aligned near the rim, suggesting that the vessels were handmade and wheel finished. Most, if not all, samples were fired at a high temperature, and calcite inclusions have been fired out, leaving characteristic voids behind. There also appears to be considerable variety in firing atmosphere, given that some samples are oxidised, others are reduced, but the majority of the samples are characterised by different firing horizons. This evidence suggests that the firing process was considerably uncontrolled. All the samples of Fabric 3 belong to olla type 3a vessels.

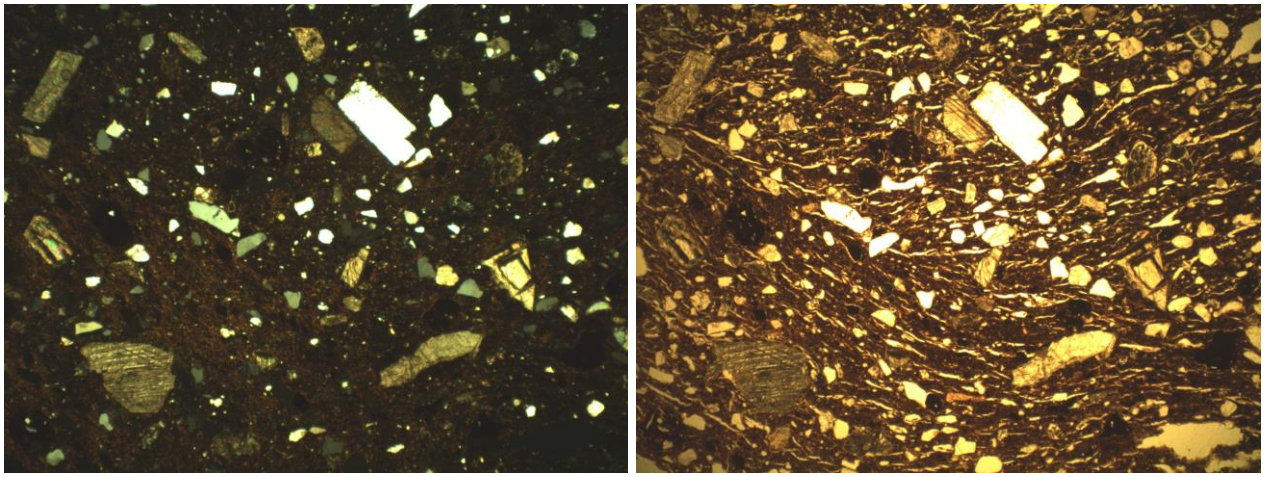

Fig. 15: Coarse Calcite Fabric in XP (left) and PPL (right). Width of individual images = 5.8 mm.