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PETROLOGICAL ANALYSIS OF POTTERY FROM BREIDDIN HILL, MONTGOMERYSHIRE

Report sent for publication to Chris Musson, Clwyd-Powys Arch. Trust.

Elevem fabric types of late Bronze Age and Iron Age pottery were submitted for petrological examination. Nos. B140604, B157904, B013102, B157805, B157505, B013917 and B5161 come from stratified late Bronze Age levels, while the remainder are from contexts of uncertain date.

Group One

Nos. B140604, B157904, B013102, B157805, B157505, B013917, B5161, B360103 and B7.

The pottery in this group tends to be in a thick, coarse fabric, the paste varying in colour from buff to dark grey. Numerous small angular fragments of white felspar can be identified macroscopically in all the samples.

Thin sectioning shows an optically anisotropic clay matrix containing frequent lath-shaped grains of plagioclase felspar, up to 1mm. across. Also present are a number of grains of pyroxene, and a little epidote. Subangular grains of quartz are usually quite plentiful, average size 0.10-0.30mm. An inclusion of lava was observed in no. B5161.

The mineralogy suggests that the inclusions are from a naturally weathering diabase rock. As the Breiddin Hills are composed predominantly of a laccolite of dolerite (Watts,1885), a local source for the temper would seem to be indicated. A belt of igneous lavas

are to be found at the south-east base of the Breiddin Hills, which could account for the lava inclusion in no. 5161.

Group Two

B350511.

Thick purplish fabric, with large angular inclusions of sandstone, up to 8mm. across.

In thin section the fabric consists of an optically anisotropic clay matrix containing crushed coarse sandstone and subangular quartz grains, the latter averaging below 0.10mm. in size. The sandstone is composed predominantly of rounded polycrystalline quartz grains of undulose extinction. Plagioclase felspar is frequently present.

The sandstone temper of this sherd is similar to that identified by Peacock in certain Iron Age pottery from Western England (1968, Group C), and may suggest that it came from the same source, the 'Cowleigh Park' beds situated immediately to the west of the Malverns.

Group Three

B711704.

Moderately thick fabric with a slight vesicular texture, black throughout.

Thin sectioning reveals an optically anisotropic clay matrix with a scatter of subangular quartz grains, average size 0.20-0.25mm., and rounded clay pellets. Also noticeable are a considerable number of angular shaped voids, commensurate with the vesicular mature of the

pottery.

Although no limestone can be seen either in fresh fracture or thin section, in view of the angular shape of many of the vesicles, it is possible that these represent inclusions of limestone which have been lost due to the particular soil conditions at the site. It seems quite possible, therefore, that this sherd belongs to Peacock's Group B1, with an origin in the area of the Malvern Hills(ibid.).

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Peacock, D.P.S. (1968) 'A petrological study of certain Iron Age pottery from western England' PPS , 34 (1968), 414-427.

Watts, W.W. (1885) 'On the igneous and associated rocks of the Breiddin Hills' Quarterly Journal of the Geological Soc. of London, 41 (1885), 532-546.