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A NOTE ON THE PETROLOGY OF SOME PREHISTORIC CERAMIC MATERIAL FROM IRBY, WIRRAL, MERSEYSIDE 2683

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Summary

Thin sectioning was undertaken on Iron Age clay moulds and briquetage. It was found that the moulds consisted of two basic fabrics, one containing fragments of weathered igneous rock and the other highly vesicular. Both of these could be locally made. The fabric of the briquetage suggests a source in the Middlewich-Nantwich area of Cheshire.

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A NOTE ON THE PETROLOGY OF SOME PREHISTORIC CERAMIC MATERIAL FROM IRBY, WIRRAL, MERSEYSIDE

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PETROLOGY & FABRIC

[1]. ITS 1 Find No. 902 Context 649 Tr. VI

[Identified as inner mould for bronze-working] Soft, rough, sandy fabric, with small sparse inclusions of a hard fine-textured dark coloured rock, mottled light buff outer surface and part core [Munsell 7.5YR 7/4] and very dark grey inner surface and part core [2.5Y N3/]. Thin sectioning shows moderately frequent subangular quartz grains, generally below 0.50mm in size, some shreds of mica and several fragments of a much weathered fine-grained igneous rock.

Prehistoric clay moulds have also been recovered from two other sites in the region, Beeston Castle and the Breiddin Hillfort, and at each site they seem to have been made from locally derived materials. At Beeston Castle, unlike the local pottery which contained many rock inclusions, the clay moulds were essentially quartz tempered [Howard, 1993]. In contrast, those recovered from the Breiddin Hillfort were dolerite tempered, the same as the crucibles and some of the pottery from the site [Tylecote and Biek, 1991]. There seems at present no reason to suspect anything other than a fairly local origin for the Irby mould also,

the clay and/or temper deriving from the boulder clays of the district which contain a very wide range of much travelled igneous material [Wedd *et al*, 1923].

[2]. ITS 2 Find No. 8195 Context 5341 Tr. XXIX

Soft, rough, very light-weight extremely vesicular fabric, patchy dark brown [10YR 5/3] to dark grey [7.5YR N3/] in colour. This sectioning confirms that the main component in the clay matrix are frequent elongate voids, representing organic material which was burnt out during firing. In view of the high amount of organic material that must once have been present in the sherd, this was most probably deliberately added by the potter. Also present are some silt-sized quartz grains and a few clay pellets.

It is difficult to be certain of origins when dealing with such a common range of inclusions, but it may nevertheless be worth noting that this sample, which is very organic and only moderately sandy, could easily fit into the fabric description of the Droitwich briquetage organic fabric (II) [Morris, 1985, 343-344]. Of course, another, possibly local, source may be equally likely. One of the clays noted by Poole in a fired clay and daub assessment at Irby was described as fine and silty with no additional inclusions, possibly deriving from local marine deposits [1997, 82]. It is possible this may have been used with the addition of organic material.

[3]. ITS 3 Find No. 5321 Context 3055 Tr. XIX

[Droitwich briquetage?]

Three, very small, irregular fragments of fired clay in a soft, rough, friable, slightly sandy fabric, light reddish-brown throughout [between 5YR 6/4 - 5/4]. Thin sectioning shows frequent subrounded to subangular quartz grains, average size below 0.50mm, shreds of mica, a few clay pellets and a little iron oxide. Due to the small size of ceramic sample and the commonly encountered range of non-plastic inclusions present, it is difficult to try to allocate a likely source on this evidence alone. There may be similarities between this material and the description of the sandy, marly, Droitwich briquetage Fabric (1) [Morris, 1985, 342-343]. The fact that no "marl" or limestone appears in the Irby section does not necessarily rule out this material from belonging to a Droitwich salt-container, since limestone can be rare or absent in some of the latter fabrics, which derive from the local Keuper Marls [Morris, 344-345]. However, a sandy fabric containing pieces of "unwedged" clay has also been found amongst the plentiful fragments of fired clay and daub recovered from Irby, which is thought to derive from the local clays, which include Keuper Marls as well as boulder clays [Poole, 1977, 82]. Without further work on the fabrics of the local Irby pottery, it is probably unwise to speculate about the possible origins of these small fragments of fired clay.

Petrologically, the following four sherds can all be accommodated within the general fabric groupings described by Morris for Stony VCP, thought to originate from the Middlewich/Nantwich area of Cheshire [1985, 357-366; Royle and Woodward, 1993].

[4]. ITS 4 Find No. 7563 Context 9503 Tr. XLI

[Stony VCP]

Fairly soft, rough, sandy fabric containing small angular fragments of igneous and sedimentary rock, reddish-yellow outer surfaces [5YR 7/8] and light grey core [7.5YR N7/]. Thin sectioning shows moderately frequent ill-sorted grains of quartz ranging up to 0.70mm in size, with the majority silt-sized and just above, shreds of mica, a few discrete grains of potash and plagioclase felspar and several fragments of igneous and sedimenary rock. The rock fragments are composed for 3

the most part of porphyritic rhyolite, with a little biotite-granite and a finegrained micaceous sandstone.

[5]. ITS 5 Find No. 8151 Context 5321 Tr. XXIX

A somewhat similar fabric to No. [4], if slightly coarser in texture.

[6]. ITS 6 Find No. 7341 Context 6168 Tr. XXXVI

Soft, rough fabric containing large angular fragments of biotite-granite and also a fine-grained igneous rock, light pinkish-white [5YR 8/4] to light reddish-brown [5YR 6/3] throughout. The fabric is particularly distinctive in the hand-specimen as there are large prominent flakes of biotite mica, both in the pieces of granite and as discrete grains. In thin section, large fragments of biotite-granite can be seen together with some porphyritic rhyolite. Also present are discrete grains of quartz, biotite mica, plagioclase and potash felspar and a some iron oxide. Unlike Samples Nos. [4], [5] and [7], which have a very sandy clay matrix, in this sherd the clay matrix is fairly clean and fine-textured.

[7]. ITS 7 Find No. 6955 Context 6458 Tr. XXXVII

A similar looking fabric to Nos. [4] and [5] but with more visible inclusions of rock. In thin section these seem mostly to be of a granitic composition, with a single piece of porphyritic rhyolite and a little micaceous sandstone.

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