

Ancient Monuments Laboratory
Report 71/88

PETROLOGICAL EXAMINATION OF EARLY-
MIDDLE IRON AGE POTTERY FROM
MIXNAM'S PIT, THORPE, SURREY.

D F Williams PhD FSA

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Summary

A detailed fabric examination by thin sectioning divided the sample sherds into seven broad fabric groups based on the range of non-plastic inclusions present:

(1) Flint and shelly limestone, (2) Flint and shell, (3) Shell, (4) Flint, (5) Quartz, (6) Quartz and shell, and (7) Ferruginous. At this stage there appears to be no reason to suspect anything other than a fairly local source for the pottery.

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PETROLOGICAL EXAMINATION OF EARLY-MIDDLE IRON AGE POTTERY FROM MIXNAM'S

PIT, THORPE, SURREY

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Introduction

A small number of early-middle Iron Age sherds from Mixnam's Pit were submitted for a fabric examination in thin section under the petrological microscope. The main object of the analysis was to confirm the validity of a provisional identification of sherds in the hand-specimen and allocation to fabric groups. It being assumed that most, if not all, of the pottery was made fairly locally to the find-site. Mixnam's Pit lies two miles south of Staines on London Clay, closeby to Bagshot Beds and Brickearth (Geological Survey 1" Map of England Sheet no. 269).

Petrology

On the basis of the range of non-plastic inclusions present in the Mixnam's Pit sample sherds, a number of fabric divisions have been made. The original fabric numbering of the samples has been retained throughout.

Fabric A : Flint and Shelly Limestone

H8 (117)

G10 (96/1) "Flint fabric 1"

G10 (96/2) "Flint fabric 1"

G10/2 (91) "Flint/Shell fabric 1"

G8 (84/1) "Flint/Shell fabric 1"

Pit D7 (67/2)

A groundmass containing frequent small rounded pieces of limestone, a scatter of quartz grains, average size under 0.30mm with a few slightly larger grains, a little shell with associated sparry calcite indicating that they are fossils, angular pieces of flint up to 2mm. across, though most are smaller than this, flecks of mica, iron ore and occasional elongate voids that perhaps once held chaff or grass.

Fabric B : Flint and Shell

G10/9 (90) "Shell fabric 1"

D7 (67/1) "Flint/Shell fabric 2"

Fairly similar under the microscope to the above group, except that these two sherds lack the frequent small rounded limestone fragments and contain instead larger pieces of shell.

Fabric C : Shell

A2/3 (4)

Pit 68 (84/2)

A very similar fabric to Fabric A, but appearing to lack any sign of flint inclusions.

Fabric D : Flint

Square A (30) "Flint fabric 1"

H2/2 (101) "Flint fabric 2"

Sherd (30) contains a fairly clean clay matrix with with a scatter of quartz grains up to 0.80mm across and angular pieces of flint up to 0.60mm across, together with some flecks of mica and a little iron ore. While sherd (101) is slightly finer-textured, with a smaller average size-range of both quartz and flint, and the odd piece of limestone.

Fabric E : Quartz

D7 (67/3) "Sandy fabric 2"

Square J (126) "Sandy fabric 2"

A groundmass of frequent quartz grains up to 0.20mm across, with a scatter of slightly larger grains, together with some quartzite, flecks of mica, ferruginous inclusions and the odd piece of flint.

Fabric F : Quartz and Shell

Pit C8 (56) "Sandy/Shell fabric 1"

A very similar fabric to Fabric E, except that sherd (56) also contains a sparse scatter of shell fragments.

Fabric G : Ferruginous inclusions

Pit C8/2 (55)

A clean clay matrix with a scatter of quartz grains up to 0.50mm across and frequent rounded pieces of opaque oxides.

Discussion

From the above thin section results it is clear that although a variety of fabrics have been suggested for these sherds, all of them could have been made from raw materials obtained locally or fairly locally to the Mixnam's Pit site. The London Clay on which the site is situated, for example, contains much shelly limestone as well as being in places a fairly sandy clay. In modern times it has been extensively utilized for brick and tile making (Dewey and Bromehead, 1915). The angularity of many of the larger flint inclusions in some of the sherds suggests the deliberate addition of crushed flint to the clay, and flint pebbles can be found over much of the surrounding area. While it is possible that the opaque oxides noted in sherd (55) may be derived from the pockets of ferruginous sands that occur in both the London Clay and the Bagshot Beds (ibid.).

Reference

Dewey, H. and (1915) The Geology of the Country around Windsor and Chertsey,
Bromehead, C.E.N. London.