

Assessment of the Ceramic Building Material from the Skegness to Ingoldmells Pipeline (SIP 04): Area 6

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A collection of ceramic building material was recovered from archaeological investigation on the line of the Skegness to Ingoldmells Pipeline, carried out by Network Archaeology Ltd, and submitted to the authors for identification and assessment. This assessment covers the material from a single site, Area 6.

Description

Fabrics

The fabric of the brick was not examined closely for this assessment since it was clear that the majority of the fragments came from a single period of activity on Area 6 and that a subsample could be examined at a later stage, once stratigraphic interpretation had been complete. However, three calcareous yellow brick fragments were noted.

The flat roof tile, on the other hand fell into fabric groups which were recognisable from other sites in this part of east Lindsey. These consist of a fine, sandy oxidized fragment which has an inclusionless groundmass (Fabric 2); a fine sandy fabric with a dark grey or black core (Fabric 3) and a calcareous yellow fabric (Fabric 4). The first two of these fabrics were probably produced in East Lindsey, although their source is unknown. The calcareous yellow tiles are of a type which occurs on numerous sites along the east coast. They were produced in the Low Countries in the late medieval period but could also have been produced from Upper Jurassic marls, either locally or in Cambridgeshire.

The hearth tile has a fabric which differs from both the bricks and the flat roof tile. It is possible that it is a production of the later medieval and post-medieval potteries in the Toynton All Saints area although no hearth tiles or hearth tile wasters have yet been recorded from the various kiln sites and waster dumps investigated in the area.

The Flemish floor tiles all probably had a sandy calcareous fabric, typical of Flemish floor tiles, although in some cases post-burial alteration makes it difficult to see the calcareous groundmass.

Forms

The majority of the ceramic building material from Area 6 consists of brick (Table 1). The bricks were mostly made in a mould lined with straw although one had been made in a mould lined with rounded calcareous sand. No complete lengths were present but six had

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measurable widths, ranging from 71mm to 120mm, and 29 had measureable thicknesses, ranging from 37mm to between 75 and 80mm.

The flat tiles were mostly undiagnostic fragments but one nib was present (fabric 2).

The floor tiles were all undecorated and examples with a white overall slip and a plain glaze were present, as were tiles with no slip and a dark green (copper-mottled) glaze. One had a measureable side, 120mm, and four had measureable thicknesses, ranging from 26mm to 30mm. The likelihood is that all the fragments come from tiles from the same pavement in which "yellow" and "green" tiles were laid in a chequer pattern.

A single hearth tile was present. This was unglazed, with knife-cut, bevelled sides and a sanded base.

The field drain and pantile fragments were featureless body sherds.

Table 1

Form	2	3	4	Grand Total
?			2	2
BRICK	27	149	1	177
FIELD DRAIN			1	1
FLAT	2	15		17
FLAT?	1			1
FLOOR	3	11		14
HEARTH	1			1
MORTAR	3			3
PANT		3	1	4
Grand Total	37	181	3	221

Assessment

Plot 13 / Area 6 (CH 2800)

A total of 221 fragments, representing no more than 192 objects and weighing 20.809 Kg, was recovered from Area 6. The material is analysed here using provisional site phasing provided by J Sleep.

Period 1

No ceramic building material was recovered from Period 1 deposits.

Period 2

Thirty seven fragments of ceramic building material were recovered from Period 2 deposits (Table 1). The majority of these were bricks, which were present in several features and formed the structure of hearth 1305. Only two definite and one possible fragment of flat roof tile were present (in the fills of Ditch 1303, Pit 1278 and layer 1234). Three fragments of

Flemish floor tile were recovered, from Pit 1278 and a single fragment of hearth tile was recovered from layer 1308.

Table 2

context group	BRICK	FLAT	FLAT?	FLOOR	HEARTH	MORTAR	Grand Total
D1303		1					1
DEP 1209	1					3	4
HEARTH 1305	13						13
LAYER 1234			1				1
LAYER 1242	2						2
LAYER 1308					1		1
LAYER 3020	1						1
PIT 1278	9	1		3			13
SH1230	1						1
Grand Total	27	2	1	3	1	3	37

In most cases the ceramic building material appears to be debris from buildings (fragments of mortar were recovered from deposit 1209, for example) but in the case of Pit 1278 a number of the brick fragments (4 out of 9) show signs of over-firing, bloating and salt-surfacing. However, it is not possible to interpret these pieces, given the small quantity involved and the moderate degree of over-firing present. They might have been used in an industrial structure, have been waste from the local production of brick, or have been evidence for the destruction of a structure, domestic or otherwise, by fire.

The date of the ceramic building material appears to be given by the association pottery and other finds and the external dating of the plain Flemish floor tiles to the late 15th or early 16th centuries is consistent with this late medieval/early post-medieval date.

Period 3

One hundred and eighty one fragments of ceramic building material were recovered from Period 3 deposits (Table 3). In the main the material is similar in character to that from Period 2, with brick being the most common find, followed by flat roof tiles and Flemish floor tiles. Types which appear in this Period for the first time include field drain from Alluvium 1241 and pantile from alluvium 1202=1233 and occupation 1205. The field drain is probably of 19th century or later date whilst the pantile could be as early as the 16th century although given its stratigraphic context it is perhaps more likely to be later. Vitrified brick fragments were present in layer 1218 (2 fragments) and occupation 1205 (11 fragments). In both cases, these are a small proportion of the total brick present.

The floor tile fragments are of the same character as those from Pit 1278 in Period 2 and are probably from the same late 15th/16th-century pavement.

Table 3

context group	?	BRICK	FIELD DRAIN	FLAT	FLOOR	PANT
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ALLUVIUM 1202=1233		15		1		2
ALLUVIUM 1241		2	1			
DITCH RECUT 1269=1277	2	2		2		
LAYER 1218		12		3	2	
OCC 1205/1211		4				
OCCN 1205		112		7	7	1
PIT 1330					2	
PIT/BEAM SLOT 1264		2		2		
Grand Total	2	149	1	15	11	3

Period 4

Deposit 1201 produced three fragments of ceramic building material: fragments of brick, field drain and pantile. These are presumably either residual from early periods (the brick) or of fairly recent date (pantile and field drain).

Recommendations

The ceramic building material from Area 6 comes from stratified deposits which probably came from structures on the site. These deposits can be dated by pottery finds and are either very late medieval (late 15th to early 16th century) or very early post-medieval in date. They thus provide information on the materials used to construct a dated late medieval/early medieval complex which appears to have little earlier medieval occupation. For these reasons, it is worthwhile determining the source of the materials and in particular the bricks, the floor tiles and the hearth tile.

The first step would be to examine the bricks at x20 magnification to determine how many fabric groups are present (the presence of both bricks made in straw-lined and sanded moulds suggests that there are at least two groups). Then thin section and chemical analysis should be used on a sample of these bricks, and the other objects, to determine the source of clay. Thin sections would be produced by Steve Caldwell, at the University of Manchester, and chemical analysis would be undertaken at Royal Holloway College, London, under the supervision of Dr J N Walsh.

The results would be compared with those from other sites in East Lindsey (such as Partney and Grimsby) and, where relevant, with data from further afield (such as Flemish floor tiles from Launceston Castle, St Peter's Church, Barton-upon-Humber and Hull). A report would then be prepared summarising this work and integrating it with the other archaeological results.

Table 4

Task	Description	Time/amount	Cost (2006-7 prices)
1	Examination of bricks	4 hours at £24.00	£96.00 plus VAT

	at x20 magnification	plus VAT	
2	Thin section analysis (3 red-firing bricks, Flemish tile, hearth tile, Fabric 2, Fabric 3, Fabric 4 brick, Fabric 4 tile)	9 sections @ £24.00 plus VAT each	£216.00 plus VAT
3	Chemical analysis. (18 bricks, 6 Flemish tiles, hearth tile, 6 Fabric 2, Fabric 3, 6 Fabric 4 brick and tile)	38 analyses @ £24.00 plus VAT	£912.00 plus VAT
4	Report	4 hours @ £24.00 plus VAT	£96.00 plus VAT
Total			£1320 plus VAT
Grand Total inc VAT			£1551