

The Ceramic Building Material from Wawne, East Yorkshire (OSA02EX02)

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Seventy-five fragments of ceramic building material were recovered from the On Site Archaeology excavations at Wawne, East Yorkshire (OSA02 EX02). They have been assessed here to establish the nature of the evidence and the potential of this evidence for answering questions about the economy and architecture of the Wawne site

Methodology

Each of the fragments was examined under x20 magnification and its fabric characteristics noted. On the basis of this survey a number of fabric groups were assigned. These have been given site-specific subfabric codes starting with CBM1 and have been assigned to one of two ware codes: FCLAY or MTIL. Metrical data was recorded for all bricks and hearth tiles (Table 1).

Table 1 Dimensions in mm of bricks and hearth tiles

Context	context group	subfabric	Form	L	B	TH
1013	1021	CBM3	HEARTH			33
1019	1021	CBM3	HEARTH			21
1013	1021	CBM3	HEARTH?			31
1176	1177	CBM4	BRICK		126	44
1178	1179	CBM4	BRICK	240	130	39
1001	1001	CBM4	BRICK		108	60
1001	1001	CBM4	BRICK		116	50
1001	1001	CBM4	BRICK	221	113	54

Description

Fired Clay (FCLAY)

Sub-Fabric CBM1.

A single fragment of burnt clay was recovered from [1156]. The fragment is tempered with a coarse, mixed quartzose gravel and abundant organic matter. The latter seems to be chaff rather than straw but could have been added either as chaff or in dung. The fragment was burnt after breakage and before the decay of the organic matter, which has left a black, carbon-rich core to the fragment.

The fragment has one flat face and no sign of wattle impressions. It may therefore either be from a wattle and daub structure or the infilling of a lath-filled panel in a timber-framed building.

Medieval (and post-medieval?) tile (MTIL)

Sub-fabric CBM2

Twenty fragments of ceramic building material had a fine-textured, micaceous fabric with some evidence for the mixing together of clays of different textures and a variable amount of added quartzose sand. Visually, the fabric of these fragments is very similar to that of Beverley ware pottery.

Most of the fragments were from flat tiles, of which one had a rounded peg hole with a raised surround. Fragments of brick were also found and one piece of a possible hip tile.

All of these fragments were in contexts associated with Humber ware or were stratigraphically later than such contexts.

Sub-fabric CBM3

Fifteen fragments were found which had a similar matrix to that of CBM2 but contained moderate amounts of a coarse quartzose sand. This sand included grains of quartz, chert and flint as well as sparse rounded calcareous grains.

Most of these fragments came from flat tiles including one with a triangular nib and one with a square peg hole. In addition, there were three fragments of hearth tiles, with sooting on their upper surfaces, two fragments which were probably from hearth tiles but where the upper surface did not survive and a single fragment of a louver with sooting on the interior surface.

One of the flat tiles came from a context associated with Beverley glazed ware and no later types [1201] but given the lack of other tile or brick fragments in the large groups of 12th/13th-century date from the site it is most likely that the tile dates context [1201] to the later medieval period than that the context dates the tile earlier.

Sub-fabric CBM4

Thirty-two fragments of ceramic building material were made from a calcareous clay. This could be seen both on the surfaces of the objects, which often had a creamy/yellow coating ('salt-surfacing') caused by the interaction of salt, clay minerals and calcium carbonate, and by the presence of abundant yellow spots visible in the body. Few larger inclusions were present.

The fragments were mainly flat tiles (20 in total) and bricks (12 fragments). The latter included some large fragments from context 1001 which suggest that a brick structure survived on the site to the end of its period of occupation. Many, however, were stratified in deposits associated with Humber ware and no definite post-medieval wares.

Some of the brick fragments had straw impressions on their bases and sides indicating that straw was used to line the mould as opposed to the quartz sand found on CBM2 and CBM3.

The mostly likely source of a calcareous clay in the Wawne area would be the Humber Estuary and brick kilns utilising Humber estuarine clay are still to be found on the south bank, at Barton-upon-Humber.

Sub-fabric CBM5

A single fragment of a flat tile with a calcareous body and a quartz sand temper was found in an unstratified context.

Sub-fabric CBM6

Four fragments were found with a poorly mixed fabric which includes lenses and streaks of light-firing and red-firing clays. These clays vary in texture from being almost inclusionless (apart from very fine mica) to containing abundant quartz sand.

Three of the fragments were from bricks, all from the subsoil and therefore quite likely to be of post-medieval date. The fourth fragment was a flat tile from context [1161], which is associated with late medieval pottery.

Interpretation

Chronology

It is clear than in the first phase of medieval occupation on the Wawne site the only use of ceramic building material was for daub (CBM1). It is not possible to say how exactly the daub was used but it is clear that it was only fired accidentally, either due to the demolition and clearance of a structure or through an accidental fire.

The remaining tiles and bricks were all used on the site in the late medieval period, ie from the late 14th century onwards. The pottery seems to suggest that there was a hiatus in activity during the late 15th/mid 16th century, since several distinctive pottery types of this date were absent. The majority of the CBM used in this period was of two fabric groups: a micaceous silty clay with or without additional tempering (CBM2 and CBM3) and a calcareous clay, rarely with additional tempering (CBM4 and CBM5). In most cases the two groups were found in the same contexts and although it is likely that they indicate two or more separate building episodes it is not possible from this site to establish the order in which they were used.

The pottery suggests, though, that there was further activity in the later 16th/mid 17th century. It is likely that CBM6 bricks were first used on the site at this period.

Function

The main use of CBM on the Wawne site was as roofing. There are no crest tiles in the collection, but given the small size of the assemblage this is not surprising. It is likely, however that the roofs included hipped roofs. The presence of tiles of different fabrics and with different methods of fastening (pegs of two shapes and nibs), suggests that several different roofing episodes took place. These might indicate different structures, additions to a single structure or replacement of broken tiles. Without further data it is impossible to decide which of these options is correct.

The hearth tiles could have been used either in a centrally-placed hearth on in a fireplace. The former is more likely if taken in conjunction with the single fragment of louver. These structures were placed on the crest of the roof and were shaped so as to draw smoke up through the roof. They would only work, therefore, in a central hall open to the roof.

The bricks include no mortared examples and it is known that bricks were sometimes used in late medieval structures to form a shallow sill on which a timber frame was placed. Two large fragments of brick come from late medieval deposits, [1176] and [1178]. Both are quite broad and thin which may indicate an earlier date (Table 1). The three measurable bricks in CBM4 fabric from context [1001] are noticeably narrower and taller. In the late 16th century the use of brick increased considerably through the introduction of chimney stacks, although these would certainly have been mortared. This is, however, a possible context for the CBM6 bricks.

Assessment

Further recording

There is no further recording required.

Illustration

For future reference, illustrations of the peg holes and the louver fragment are required.

Characterisation

There are published studies of medieval CBM from Beverley and Hull but it is not certain exactly how the Wawne fabrics relate to these, hence the use of an independent fabric series. Chemical and thin-section analyses of the CBM from Blanket Row, Hull, have been prepared by the author, however, together with a study of the roof tiles from St Peters Church, Barton-upon-Humber, which included samples of tiles from the Beverley tiliary for comparison. It would be possible to correlate these three series through the preparation of thin-sections and chemical analyses. Ideally, a single thin-section of each fabric group would be prepared together with chemical analyses of six samples of each fabric. However, in this case there are not six examples of some of the fabrics, which would therefore have to await further discoveries before they could be studied. There are, however, sufficient samples of CBM2, CBM3 and CBM4.

Costing

Preparation, analysis and report on six thin-sections: 6 @ £21 = £126.00 plus VAT = £148.05

Preparation, analysis and report on eighteen ICPS samples: 18 @ £21 = £378 plus VAT = £444.15

Appendix One

context group	context	Form	subfabric	Nosh	NoV	Weight	Description	Action
us	machining	FLAT	CBM4	1	1	19		
us	machining	FLAT	CBM5	1	1	40		
?	1210	FLAT	CBM3	1	1	147	TRIANGULAR NIB	DR
1000	1000	BRICK	CBM6	1	1	138		
1001	1001	BRICK	CBM4	1	1	1157		
1001	1001	BRICK	CBM4	1	1	1045		
1001	1001	BRICK	CBM4	1	1	1443		
1001	1001	FLAT	CBM3	1	1	9		
1001	1001	FLAT	CBM2	1	1	61		
1001	1001	BRICK	CBM4	1	1	19		
1004	1003	BRICK	CBM6	2	1	39		
1004	1003	FLAT	CBM4	1	1	29		
1004	1003	FLAT	CBM2	1	1	1	VABR	
1021	1013	HEARTH?	CBM3	1	1	145		
1021	1013	FLAT	CBM4	3	3	361		
1021	1013	FLAT	CBM2	1	1	22		
1021	1013	HEARTH	CBM3	1	1	221	SOOTED UPPER SURFACE	
1021	1013	BRICK	CBM4	1	1	188	SOME STRAW IMPRESSIONS BASE AND SIDE	
1021	1019	HEARTH	CBM3	2	2	53	SOOTED UPPER SURFACE	

1021	1019	BRICK	CBM4	3	3	158	
1021	1019	FLAT	CBM3	1	1	45	
1021	1019	FLAT	CBM2	5	5	116	
1021	1019	FLAT	CBM2	1	1	73 ROUND PEGHOLE WITH RAISED RIM AROUND HOLE	
1021	1019	FLAT	CBM4	10	10	244	
1038	1037	FLAT	CBM4	1	1	23	
1038	1037	FLAT	CBM3	1	1	43	
1043	1041	FLAT	CBM3	1	1	159	
1056	1055	HEARTH?	CBM3	1	1	401	
1057	1057	FLAT	CBM2	2	2	169	
1057	1057	BRICK	CBM2	3	3	409	
1057	1057	BRICK	CBM4	1	1	50	
1057	1057	BRICK	CBM2	1	1	6	
1057	1057	FLAT	CBM3	2	2	47	
1057	1057	HIP?	CBM2	1	1	192	
1057	1057	FLAT	CBM4	4	4	784	
1057	1057	BRICK	CBM4	2	2	90	
1057	1057	LOUVER	CBM3	1	1	65 SOOTED INT;THUMB IMPRESSIONS EXT;COIL BUILT	DR
1057	1057	FLAT	CBM3	1	1	15	
1136	1135	FLAT	CBM2	1	1	14	
1152	1161	FLAT	CBM2	3	3	43	
1152	1161	FLAT	CBM6	1	1	77	

1158	1156	DAUB	CBM1	3	3	32 BURNT WITH CARBON-RICH CORE AND OXID SURFACE
1177	1176	BRICK	CBM4	1	1	710 STRAW IMPRESSIONS
1202	1201	FLAT	CBM3	1	1	232 SQUARE PEG HOLE
