

The fired clay from Holbeach Road, Spalding, Lincolnshire (HOLS03)

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A small collection of fired clay was submitted for identification and assessment. The material was of three types: handmade bricks of late medieval or post-medieval date and two types of debris from salt extraction. In total, 46 fragments were submitted, of which two are either definitely or probably bricks, 43 are probable salt extraction debris and one is an unusual white-firing tile (Table 1).

Table 1

Context	FCLAY	PMTIL	FCLAY/PMTIL	Grand Total
502	1			1
601		1		1
602			1	1
604	1			1
1000	12			12
1001	5	1		6
1002	24			24
Grand Total	43	2	1	46

Fabric

A representative sample of the material was examined at x20 magnification. Two main fabric groups were present

Fabric 1

This fabric contains moderate quantities of straw, represented now by long impressions with a flat cross section, about 4-5mm wide. The groundmass contains abundant quartz and mica silt up to 0.1mm. The micas are mainly muscovite but include definite flakes of biotite. The frequency of silt varies and is lowest in the brick and putative brick fragments.

The material varies in colour, due to differences in firing temperature and/or duration. However, all of the material is completely oxidized and the straw inclusions are completely burnt away. The lower-fired material is a light brown colour whilst the higher fired material is red. Both the lower fired and higher fired fragments have evidence for contact with salt water. In the lower fired material this takes the form of a white skin or crust whilst on the higher fired material there are changes in colour to the body (a purple tinge) together with a thin salt/ash glaze.

Fabric 2

An inclusionless white fabric with a groundmass containing moderate sponge spicules. The clay is highly calcareous, although most if not all of calcareous matter has probably been chemically combined with the clay groundmass. The single example of this fabric has a layer of moulding sand on the base composed of rounded ?chalk grains c.0.5mm across.

Form

The material seems to have been part of four types of object.

Brick

Rectangular handmade bricks thrown into a mould lined with straw.

Flat tile

A single fragment (fabric 2) seems to come from a flat tile. It is c.15mm thick and has a sanded base. The upper surface appears to have two knife-cut surfaces, one parallel to the base and the other at an angle of c.135 degrees.

Trough lining?

Three fragments have a flat surface with extensive salt surfacing (ie a white crust). Two of these were lower fired and the third higher fired.

Plano-convex bricks

Thirty-five fragments appear to come from large objects (perhaps c.200 by 300mm by 150mm) with one roughly flat surface and the other roughly rounded. The straw impressions suggest that these objects were wrapped in straw during forming.

Function

Neither of the brick fragments show any evidence for the presence of mortar or clay bonding and may have been used in dry walling. One fragment has lost all its original surfaces as a result of spalling, perhaps evidence for prolonged exposure to freeze/thaw action.

The flat tile shows no sign of wear and its near-pipeclay appearance suggests that it might have been used for decoration or display (perhaps as part of a wall plaque?). Such an item would imply a domestic rather than an industrial context.

The trough lining? Fragments have clearly been exposed to salt water and heat but interestingly the heat seems to have been insufficient to bake the clay to a red colour. It would be possible by re-heating a sample of the lower fired pieces to establish the upper limit for the firing temperature but broad comparison with other fired clays suggests a maximum temperature in the range 700 to 900 degrees C.

Finally, the plano-convex bricks show no signs of wear, nor any signs of bonding. Furthermore, the salt surfacing in once case runs down a broken edge, suggesting that the bricks were fired after breakage and may have originally been used in an unfired condition. Their function and even original form is open to doubt but given their association with the trough lining they were probably used in a salt extraction process.

Assessment

This collection seems to be associated with both domestic and industrial activity. The industrial activity is probably salt extraction. However, there is a difference in the nature of the fired clay found here and that previously noted by the author on late medieval/early post-medieval saltings. Thus, the material was either associated with a different stage in the process or comes from a salting where a different method of salt extraction was employed. Further information might be extracted from more detailed analysis of these fragments but what is really required is a collection where the objects were left *in situ* or at least as complete or larger fragments.

List of Fired Clay

Context Description	Cname	Form	Nosh	Subfabri c	Firing
502	FCLAY		1	FABRIC 1	RED
601	PMTIL	BRICK	1	FABRIC 1	RED
602	FCLAY/PMTI L	BRICK?	1	FABRIC 1	RED
604	FCLAY		1	FABRIC 1	RED
1000	FCLAY		2	FABRIC 1	LIGHT BROWN
1000	FCLAY	PLANO- CONVEX BRICK	10	FABRIC 1	RED
1001	BASE SANDED (CHALK SAND?);TWO KNIFE- TRIMMED SURFACE AT 135 DEGREES	PMTIL FLAT	1	FABRIC 2	OFF-WHITE
1001		FCLAY PLANO- CONVEX BRICK	4	FABRIC 1	RED
1001	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY TROUGH LINING?	1	FABRIC 1	LIGHT BROWN
1002		FCLAY	1	FABRIC 1	LIGHT BROWN
1002		FCLAY PLANO- CONVEX BRICK	11	FABRIC 1	LIGHT BROWN
1002		FCLAY PLANO- CONVEX BRICK	10	FABRIC 1	RED
1002	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY TROUGH LINING?	1	FABRIC 1	RED
1002	ONE FLAT FACE HEAVILY SALT-SURFACED	FCLAY TROUGH LINING?	1	FABRIC 1	LIGHT BROWN