

The fired clay from the Proposed Wind Farm site at Orby Marsh, Lincolnshire (OMAR03)

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One hundred and sixty one fragments of fired clay were submitted for identification and assessment. Most of these fragments were briquetage, waste from the extraction of salt, and probably date from the Iron Age or early Roman period. They come from three sites, Fields A, C and L. One fragment of Romano-British tile was found, on Site 9. The remaining fragments are of late medieval and later date and come from 10 different fields.

Description

A proportion of the fired clay fragments were too small and featureless for any interpretation. Seven fragments, from fields A, F (3 fragments), K, L and Y, contain no organic temper and are fairly low-fired. They are therefore likely to be daub, medieval or later brick or tile or accidentally fired clay. Their distribution appears to have no correlation with sites producing briquetage.

Briquetage from Field A

Two fragments of briquetage were recovered from Field A.

Fabric

The fragments both have the same fabric (Fabric 1), to judge by study using a x20 binocular microscope. This fabric contains moderate 'chaff' inclusions, abundant subangular quartz up to 0.5mm across, sparse iron-rich inclusions up to 1.0mm across and sparse rounded chalk fragments.

Forms

Both fragments are body sherds from rectangular troughs. One has a thin wall (ie 3-4mm thick) and the other is indeterminate, being abraded.

Briquetage from Field C

Four fragments of briquetage were recovered from Field C.

Fabric

Two fabrics were present. The first (Fabric 2) contains abundant 'chaff' inclusions in a fine-textured, slightly micaceous groundmass. The second (Fabric 3) is a variegated fabric consisting of poorly mixed lenses of red-firing and white-firing clays. The latter is probably coloured by its high calcareous content. The fabric contains abundant subangular quartz up to 0.5mm across and sparse white flint fragments.

Forms

Three fragments of spacers and one tray were present. The latter comes from the bottom corner of a thick-walled rectangular tray with a flat base and straight sides. The walls appear to slope slightly inwards.

Interpretation

One of the spacers is in fabric 2 and is abraded, whereas the remaining fragments, in fabric 3, are unweathered. Therefore, on this site, the use of Fabric 2 probably preceded the use of the Fabric 3.

Briquetage from Field L

One hundred and twenty nine fragments of briquetage were recovered from Field L. There is some variety in fabrics and forms.

Fabric

There are three fabrics present. The first, Fabric 4, contains abundant 'chaff' in a groundmass of silty clay. The second is identical to Fabric 2 on Field C. The third, Fabric 5, contains abundant 'chaff', sparse rounded quartz and sparse subangular flint fragments.

Forms

Three types of briquetage were noted: trays, spacers and clips. The trays are of two different wall thicknesses and in both cases the walls are straight and probably near-vertical. A few rim fragments are present. The rims are either rounded or very slightly everted. The spacers bear impressions from the trays which they kept apart and were clearly used to secure the trays. The clips were similarly used to link two trays together but rather than being attached to the tray walls, like the spacers, they sat on top of the rims. In one case part of a narrow tray rim remains attached to the clip.

Interpretation

The concordance of fabric and forms is shown in Table 00. There is a clear correlation between fabric and tray type, with narrow walled trays occurring in fabrics 2 and 4 and thick-walled trays in fabric 5. Therefore, the two wall thicknesses cannot represent the same objects, with narrow walls at the top and thicker walls near the base. One of the Fabric 2 clips is attached to a fabric 2 narrow-walled tray rim. With this exception, we have no evidence for whether they different elements were made in the same fabrics. The high number of spacers in fabric 2 might suggest that they were used with fabric 4 or 5 trays but this is perhaps less likely than that the three fabrics indicate three separate phases of salt working debris. If so, there is no evidence from this site for the relative date of the fabrics.

Table 1

Subfabric	CLIP	SPACER	NARROW-WALLED TRAY	THICK-WALLED TRAY	TRAY?	Grand Total
Fabric 4	1	13	31		1	46
Fabric 5		2		15	2	19
Fabric 2	2	32	2			36
Grand Total	3	47	50		1	101

Roman tile

A single fragment of Roman bonding tile or tegula was found, on Site 9. The tile is identified as Roman because of its thickness, which is too thick for a medieval flat roof tile and too thin for a medieval or later brick. The fabric (Fabric 6) has a calcareous groundmass containing abundant quartz and muscovite silt. The tile has moulding sand on the base.

Late Medieval and later Brick and tile

A single fragment of medieval or post-medieval flat roof tile was present. The fabric of this tile (fabric 7) is off-white and contains abundant subangular quartz up to 1.0mm across, sparse fragments of white fine-grained sandstone up to 3.0mm across and sparse rounded quartz grains up to 3.0mm across. This is the only flat roof tile submitted for identification, presumably because such tile was not retained or submitted for assessment.

Fourteen fragments of late medieval or post-medieval brick were present in the collection. They are scattered across nine fields and were made in at least five different fabrics:

Fabric	Description
Fabric 8	Abundant quartz silt
Fabric 9	Abundant quartz and mica silt
Fabric 10	Abundant quartz and mica silt with calcareous clay lenses
Fabric 11	Calcareous groundmass with a quartzose moulding sand
Fabric 12	Calcareous groundmass with abundant quartz and mica silt. One example has moulding straw rather than sand
Fabric 13	Inclusionless clay with a micaceous groundmass

Assessment

The briquetage found on Fields A, C and L can be broadly dated to the later prehistoric or early Roman periods, since after that time this technology was replaced by other methods of extraction.

The broad method of production has been described by Morris (Lane & Morris REF). The trays would have been suspended over a fire and kept in place by spacers and clips. None of the collections is large enough to give any real indication of the relative proportions of the different items but it does seem worthy of note that there are so many spacer fragments relative to the tray sherds and that there are no pedestals present at all.

In contrast with some of the troughs these are clearly straight walled and have rounded rather than flat-topped rims. These appear to be the only useful typological features with which to try and date the industry more precisely.

There is some evidence for the relative date of some of the fabric types but not enough to produce any sequence. However, the fact that each of the sites has produced a distinctive range of fabrics does suggest (a) that the salt makers obtained their raw materials from different sources, (b) those sources are probably very local, perhaps on the sites themselves and (c) there is potential for producing a sequence of fabrics which might eventually be linked with differences in typology.

The brick fragments are presumably brought onto the sites as refuse rather than being used there. However, it might be noteworthy that not one brick has traces of mortar on it whilst one has spalled edges, which suggests that the edges might have been exposed to free-thaw on more than one face whereas in a wall one might expect to find only one spalled face. Nevertheless, it is quite clear from the distribution of these fragments that they are totally unconnected with the briquetage and do not form any clusters – the largest concentration consists of three bricks from field L.

Catalogue of finds

cname	Action	trench	Context	subfabric	Form	Nosh	NoV	Description	Part	Condition
FCLAY	V		85	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM		1	1		BS	
FCLAY	N		49	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM		1	1		BS	ABR
FCLAY	K		23	S MUSC		1	1		BS	
FCLAY	Y		72	A Q SILT;DARK GREY CORE		1	1		BS	
FCLAY	F		64	S MUSC;DARK GREY CORE		1	1		BS	
FCLAY	F		62	S MUSC		1	1		BS	
FCLAY	F		63	A Q SILT;DARK GREY CORE		1	1		BS	
FCLAY	A		15	A SAQ >0.5MM;S RQ		1	1		BS	
FCLAY	L		040	A CHAFF;A Q SILT		3	3		BS	
FCLAY	L		040	A CHAFF;S MUSC		2	2		BS	
FCLAY	L		035	A CHAFF;S MUSC		1	1		BS	
FCLAY	L		035	S RED GSQ;MUSC		1	1		BS	
FCLAY	L		046	A CHAFF;S MUSC		1	1		BS	
FCLAY	L		037	A CHAFF;A Q SILT		1	1		BS	
FCLAY	L		038	A CHAFF;S MUSC		1	1		BS	
FCLAY	L		041	A CHAFF;S MUSC		1	1		BS	
FCLAY	L		041	A CHAFF;A Q SILT		1	1		BS	
FCLAY	L		045	A CHAFF;A Q SILT		5	5		BS	
FCLAY	L		045	A CHAFF;S MUSC		4	4		BS	
FCLAY	L		044	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM		1	1		BS	
FCLAY	L		044	A CHAFF;A Q SILT		4	4		BS	
FCLAY	L		044	A CHAFF;S MUSC		1	1		BS	
FCLAY	L		043	A CHAFF;A Q SILT		1	1		BS	
PMTIL	W		106	A Q SILT;MUSC	BRICK	1	1		BS	ABR
PMTIL	X		76	A Q SILT;MUSC	BRICK	1	1		BS	
PMTIL	K		26	S MUSC;LIGHT GREY CORE	BRICK	1	1		BS	
PMTIL	H		21	A Q SILT;DARK GREY CORE	BRICK	1	1	MOULDING SAND ON TWO FACES	BS	
PMTIL	G		018	CALC;A Q SILT;MUSC	BRICK	1	1		BS	
RTIL	SITE 9		55	CALC;A Q SILT;MUSC;Q MOULDING SAND	BRICK	1	1		BS	
PMTIL	AREA 18		57	CALC BODY;SA Q MOULDING SAND	BRICK	1	1		BS	
PMTIL	F		60	CALC BODY;SA Q MOULDING SAND	BRICK	1	1		BS	
RTIL/PMTIL	L		046	INCLUSIONLESS;SA Q AND CALC MOULDING SAND	BRICK	1	1		BS	
PMTIL	L		041	A Q SILT;M MUSC;CALC LENSES	BRICK	1	1		BS	
PMTIL	L		042		BRICK	1	1	SPALLED ON SIDES	BS	

PMTIL	L	044		BRICK	3	3		BS	
PMTIL	C	9	CALC;A Q SILT;MUSC;S STRAW	BRICK?	1	1	MOULDING STRAW	BS ABR	
FCLAY	PH	L	033	A CHAFF;S MUSC	CLIP	1	1	BS	
FCLAY	L	047	A CHAFF;A Q SILT	CLIP	1	1		BS	
FCLAY	L	044	A CHAFF;S MUSC	CLIP	1	1	INCLUDES NARROW TRAY RIM	BS	
FCLAY	H	103	S MUSC;S GSQ >1.0MM	DAUB?	1	1	POSSIBLE WATTLE IMPRESSION;BLACK CORE	BS	
MTIL	L	045	OFFWHITE;A SA Q >1.0MM;S WHITE SST >3.0MM;S RQ >3.0MM	FLAT	1	1		BS	
FCLAY	PH	L	036	A CHAFF;S MUSC	SPACER1	1	COMPLETE EXAMPLE	BS	
FCLAY	C	058	VARIEGATED;A SA Q >0.5MM;S WHITE FLINT;WHITE SANDY CALC CLAY LENSES	SPACER1	1			BS ABR	
FCLAY	C	11	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	C	10	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	040	A CHAFF;A Q SILT;VITRIFIED	SPACER1	1			BS	
FCLAY	L	040	A CHAFF;A Q SILT	SPACER3	3			BS	
FCLAY	L	040	A CHAFF;S MUSC	SPACER7	7			BS	
FCLAY	L	102	A CHAFF;A Q SILT	SPACER1	1			BS	
FCLAY	L	102	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	034	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	046	A CHAFF;S MUSC	SPACER2	2			BS	
FCLAY	L	037	A CHAFF;A Q SILT	SPACER1	1			BS	
FCLAY	L	037	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	038	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	039	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	SPACER2	2			BS	
FCLAY	L	050	A CHAFF;A Q SILT	SPACER1	1			BS	
FCLAY	L	048	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	101	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	041	A CHAFF;A Q SILT	SPACER4	4			BS	
FCLAY	L	041	A CHAFF;S MUSC	SPACER6	6			BS	
FCLAY	L	045	A CHAFF;S MUSC	SPACER9	9			BS	
FCLAY	L	042	A CHAFF;A Q SILT	SPACER3	3			BS	
FCLAY	L	044	A CHAFF;S MUSC	SPACER1	1			BS	
FCLAY	L	045	A CHAFF;A Q SILT	TRAY	1	1	NARROW	R	
FCLAY	L	045	A CHAFF;S MUSC	TRAY	1	1	NARROW	R	
FCLAY	DR	C	12	A CHAFF;S MUSC	TRAY	1	1	BOTTOM CORNER;THICK WALLED;WALLS SLOPE INWARDS SOMEWHAT	BS
FCLAY	A	14	M CHAFF;A SAQ >0.5MM;S FE >1.0MM;S R CHALK?	TRAY	1	1	NARROW	BS	
FCLAY	L	040	A CHAFF;A Q SILT	TRAY	4	4	NARROW	BS	
FCLAY	L	040	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	2	2	THICK	BS	

FCLAY	L	035	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	2	2	THICK	BS
FCLAY	L	102	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	1	1	THICK	BS
FCLAY	L	102	A CHAFF;A Q SILT	TRAY	1	1	NARROW	BS
FCLAY	L	037	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	1	1	THICK	BS
FCLAY	L	037	A CHAFF;A Q SILT	TRAY	1	1	NARROW	BS
FCLAY	L	039	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	2	2		BS
FCLAY	L	041	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	2	2	THICK	BS
FCLAY	L	041	A CHAFF;A Q SILT	TRAY	2	2	NARROW	BS
FCLAY	L	041	A CHAFF;S MUSC	TRAY	1	1	NARROW	BS
FCLAY	L	045	A CHAFF;A Q SILT	TRAY	6	6	NARROW	BS
FCLAY	L	045	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	4	4	THICK	BS
FCLAY	L	042	A CHAFF;A Q SILT	TRAY	10	10	NARROW	BS
FCLAY	L	042	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	1	1	THICK	BS
FCLAY	L	044	A CHAFF;A Q SILT;S RQ;S SA WHITE FLINT >4.0MM	TRAY	2	2	THICK	BS
FCLAY	L	044	A CHAFF;A Q SILT	TRAY	6	6	NARROW	BS
FCLAY	A	13	M CHAFF;A SAQ >0.5MM;S FE >1.0MM;S R CHALK?	TRAY?	1	1		BS ABR
FCLAY	L	046	A CHAFF;A Q SILT	TRAY?	1	1		BS