

NORFOLK ARCHAEOLOGICAL UNIT

Report No. 1052

**An Archaeological Excavation at Mission Road, Diss,
Norfolk**

7950 DSS

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Location: Mission Road, Diss, Norfolk
District: South Norfolk
Grid Ref: TM 1284 7953
HER No.: 7950 DSS
Date of fieldwork: 14th to 16th February 2005

Summary

An archaeological excavation on land adjacent to Mission Road, Diss located the remains of a 19th-century brick kiln. These consisted of a substantial square brick-built structure, interpreted as the base of a chimney-type kiln, as well as fragments of the kiln structure. Several samples of waste bricks, clinker and 19th-century pottery were also recovered from the site as well as a fragment of an early-to-mid 19th-century leather shoe.

1.0 Introduction

(Fig. 1)

The archaeological excavation was carried out on grazing pasture adjacent to Mission Road, Diss, prior to development of the land. The site was located within an area of land (9.3 ha) between the railway station and Mission Road/Sandy Lane, Diss, and within this a trench was specifically placed to encompass the known location of the 19th-century brick kiln (shown on the 1:2500 1927 OS map). The object of the excavation was to locate, expose and record any remains of the brick kiln.

The work was commissioned by Persimmon Homes (Anglia) Ltd as part of the planning application attached to the land.

This archaeological excavation was undertaken in accordance with a Method Statement prepared by the Norfolk Archaeological Unit (NAU Ref: 1887/KJP/rev.1) and a Brief issued by Norfolk Landscape Archaeology (NLA Ref: ARJH 21/11/03).

The site archive is currently held by the Norfolk Museums and Archaeology Service, following the relevant policy on archiving standards.

2.0 Geology and Topography

Solid geology in the area is Upper Chalk which is covered by deposits of boulder clay, mainly Lowestoft Till and other Anglian tills, forming part of the High Norfolk Boulder clay plateau (Funnell 1994). The subsoil on the site was formed of a light brown sandy silt containing occasional small flints. The area of excavation exhibited make-up layers of silt and clay to form a mound. The topsoil was a thin loamy silt with abundant roots. The site, an artificial raised mound on a slight slope, stood at an elevation of approximately 28m OD, dropping to less well-drained ground to the south.

3.0 Archaeological and Historical Background

The site was located c. 150m to the east of the main Norwich to London Eastern Region railway line, opened in 1847. Between 1850 and 1856 a local industrialist, Mr Betts, exploited the rail system by building an additional seven miles of track in an

easterly direction towards Scole and to the north towards his estates. The line was used initially for transporting produce to the London markets and to further increase the value of the route, Betts, a brickmaker, opened two brickfields, one near Scole and the other close to Diss station where a clay pit was also situated (Brundell and Whittaker 1953).

The 'old kiln' subject to this investigation is located on the south edge of Bett's Diss brickfield and is represented by a low mound upon which fragments of brick can still be found. A second low mound pertaining to the brickfield is situated c. 50m to the north of the kiln site.

The sites of archaeological interest the surrounding area listed in the Norfolk Historic Environment Record (NHER) are described below:

- NHER 13579: Immediately south of the kiln mound is the route of a disused railway line built between 1850 and 1856 to serve Betts' brickfields and the Frenze estate to the north-east of Diss. (Course of line taken from map in Brundell & Whittaker 1953).
- NHER 16002: 120m to the west of the site is a bricked-up pill box dating from the early 1940s, of a form (type 22) used to defend important installations.
- NHER 16399: Approximately 250m to the south-east of the kiln is the site of a windmill, demolished in 1902. On Bryant's 1826 map of the area it is described as 'Old Blk Mill'.
- NHER 34175: In the vicinity of the mill (NHER 16399) a late medieval or early post-medieval book clasp with several other post-medieval objects was found.
- NHER 33786: In the field to the east of Sandy Lane adjacent to the kiln site several prehistoric and Romano-British artefacts have been located by fieldwalking and detecting in 1997-98.

No other recorded archaeological work has been carried out in the vicinity of the site.

4.0 Methodology

(Fig. 2)

The objective of this excavation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of surviving archaeological deposits within the designated area.

The Brief required that the area marked as 'Old kiln' on the 1:2500 1927 OS map (NHER 7950) be excavated in order to examine and characterise the remains of the brick kiln which was represented on the ground as a low grass covered mound.

The revised project design stipulated that a single trench be dug into the mound in an effort to locate the kiln. After a trench 16m by 1.5m (24 sq. m) had been excavated which did not find evidence of the kiln, NLA approved a trench extension. This extension was located midway along the north side of the existing east-to-west trench and orientated north-to-south. It was positioned to encompass the eastern and western edges of the mound and measured 6m x 1.5m, enlarged to a width of 3.75m around the base of the brick kiln foundations (c. 16 sq. m.). The original trench and the extension together measured c. 40 sq. m.

Machine excavation was carried out with a wheeled JCB-type excavator using a toothless ditching bucket under constant archaeological supervision.

Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection. Prior to the backfilling of the trenches with spoil, the brick kiln base was first covered with a length of orange plastic fence material.

All archaeological features and deposits were recorded using NAU *pro forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits.

A level was transferred from an Ordnance Survey benchmark of 26.00m on the junction of Mission Road and Sandy Lane. Due to the lack of suitable deposits, no environmental samples were taken.

Site access was sufficient for the work to be carried out. Weather during the excavation varied between sleet showers and generally overcast conditions.

5.0 Results

(Figs 3, 4, 5, 6 and 7; Plates 1, 2 and 3)

Introduction

The initial trench measured 16m x 1.5m, was orientated east-to-west and positioned to extend over the width of the mound. The depth of the soil was reduced in 10mm spits during this process and deposits recorded down to an overall depth of 1.2m.

The topsoil ([11]) was quite thin over the area of excavation, being on average 0.10m deep and consisted of a light brown clayey silt with many short grass roots (Plate 1).

At the east end of the trench, a natural clay subsoil was observed at the base whereas the rest of the trench contained a silt subsoil ([15]).

During the reduction of the trench only one feature was observed, a pit ([35]) filled with brick rubble (Fig. 6; Plates 2 and 3). The visible portion of this pit extended into the trench for c. 0.7m (Fig. 3). Several samples of brick were recovered from this pit along with fragments of a leather shoe.

The trench contained a number of deposits that constituted the artificially raised mound and which represented make-up layers and dumps of material.

Both north and south-facing trench sections were recorded, the results of which are discussed separately below.

South facing section

(Fig. 4)

The underlying natural was not observed in this section as the base deposit consisted of a mid brown sandy silt subsoil ([15]) that was on average 0.50m thick. This was overlaid by a c. 0.25m thick deposit of mid grey ashy clay silt ([14]), which contained numerous charcoal flecks and extended the whole length of the trench. This was overlaid in the west and east ends of the trench by a 0.60m thick deposit of mid brown sandy silt with occasional chalk inclusions ([13]).

Several make-up deposits were identified. A shallow dump of burnt material including clinker and burnt clay ([12]) was located between deposit [13] and the topsoil ([11]).

Adjacent (to the east) was a deposit of sandy silt with clay lumps ([26]) which was overlaid by a sandy clay deposit brown grey sandy clay ([25]) located directly beneath the topsoil.

Truncating deposits [25] and [26] was a shallow pit ([34]) 0.20m deep, which contained a silty clay with brick rubble and charcoal flecks ([22]). This feature was directly beneath the topsoil so appeared to be quite recent. The pit also cut a sequence of deposits which appeared in section to have slumped from west to east.

These deposits included a dump of clay and chalk ([24]) 0.15m thick overlaid by a 0.10m thick brownish sandy clay layer ([23]). Over this was a thin band of burnt orange clay and brick dust ([17]) which in turn was covered by a firm greenish sandy clay 0.12m thick containing flints, chalk and clay lumps ([20]). This last deposit overlaid a 0.05m thick narrow band of yellow clay ([19]) resting directly upon the grey charcoal deposit ([14]). At the east end of the trench a second band of yellow clay ([21]) beneath deposit [13] and cutting [14] appeared to be identical to deposit [19].

The topsoil ([11]) was above deposit [13].

North facing section

(Fig. 5)

A simpler sequence of deposits than in the south facing section was recorded here.

At the eastern end of the trench the base deposit was a c. 0.50m deep mid brown subsoil ([15]). Above this layer was the band of grey ashy silt with charcoal ([14]), that was also observed in the opposite section. Above this deposit was a 0.06m thick band of chalk and sandy clay ([27]) which lay beneath a brown silt deposit ([13]) from which several fragments of post-medieval pottery were recovered.

Beneath deposit [13] along the trench to the west was a make-up deposit of brownish grey sandy silt containing lumps of clay and chalk ([26]), which was between 0.40m to 0.50m thick. Above this layer was the topsoil ([11]).

In the western end of the section a 0.60m thick dump of yellow grey clay silt and chalk lump ([28]) and a 0.20m thick deposit of mid grey sandy clay ([29]) were recorded between deposits [26] and [14].

At the extreme west end of the section a pit ([35]) was cut into through the grey ashy deposit [14] and the subsoil [15], the bottom of the cut 0.10m above the base of the trench. The pit measured 1.10m wide at the base and 1.6m across its upper fill and had a depth of 0.55m. The lowest deposit in the pit, along the basal cut, was thin disconnected bands of yellow clay ([30]) Above this was the main lower fill ([33]), a mid brown silt with moderate inclusions of small flints and charcoal flecks which varied between 0.12m to 0.33m thick.

In the centre of the feature deposit [33] was overlain and flanked by a rubble deposit ([32]) of broken red and yellow bricks, burnt flints, charcoal and sandy clay. This dump of rubble was on average 0.20m thick and comprised two discrete deposits of material each approximately 0.50m wide located in the middle portion of the pit.

Above the rubble at the sides and lower silt in the centre of the pit was the upper deposit ([31]), which was on average 0.25m thick and composed of a firm greenish grey sandy clay containing charcoal, flints and lumps of clay. Also in the upper level

of this fill were several disconnected bands of yellow clay identical to those found in the base of the pit.

The trench extension

(Fig. 3)

This trench was 6m long and reduced by the machine using the same methodology as for the original trench. The sections of the trench revealed a deposit similar to that found in the south facing section of the main trench (Fig. 4). The ashy grey deposit ([14]) was observed for approximately 0.50m to the north of the main trench before fading into the subsoil.

At approximately 6m along the trench and 0.30m down from the ground surface a red to pink brick feature was uncovered. This was excavated by hand and machine to reveal a substantial brick platform ([36]). The soil surrounding the platform, a mid brown sandy silt ([37]), yielded several pieces of post-medieval brick, one curved.

Kiln Base

(Fig. 7; Plates 4 and 5)

The brick platform was exposed by hand on three sides, the east facing side being fully exposed to the base (Plate 4). The platform measured 1.5m north-east to south-west and 1.25m north-west to south-east. It survived to a depth of 0.60m, which consisted of seven courses of bricks (Plate 5).

The general condition of the platform was good with some damage on the north upper face where the top layer of bricks had been dislodged leaving a reddy pink layer of mortar. As the top of the kiln base was only covered by a thin layer (c. 0.15m) of topsoil and silt it would have been susceptible to damage from the plough.

Dislodged bricks (from the demolition) were not apparent in the surrounding soil, implying removal prior to the current excavation.

The body of the platform was built mainly of red bricks with several 'white'-faced bricks noted in the general construction as well as on the upper face, particularly on the east side. The full bricks measured 0.22m x 0.11m x 0.07m. Two of the bricks at the platform base on the east side exhibited a raised rounded ridge along the centreline of the long side, a marking from the manufacturing process.

6.0 The Finds

Introduction

The finds and environmental material from the site is presented in tabular form with basic quantitative information in Appendix 2: Finds by Context.

In addition to this summary, more detailed information is included in separate reports below. Supporting tables for these contributions are also included in the Appendices.

Pottery

By Lucy Talbot

Three sherds of post-medieval pottery, weighing 0.281kg, dated to between the 19th to 20th century were collected from a single deposit ([13]). All were common domestic wares (Appendix 3).

Ceramic building material

By Lucy Talbot with Ken Hamilton

Eleven examples of post-medieval brick, weighing 11.762 kg, were recovered (Appendix 4). Seven examples were retrieved from the fill ([32]) of pit [35] and four pieces from the deposit ([37]) surrounding the brick kiln base.

Methodology

The assemblage of ceramic building material was quantified by form and fabric. The fabrics were identified by eye and the main inclusions noted. Fabric descriptions and dates are based on the provisional type series established by Sue Anderson (previously Suffolk Archaeological Unit).

Results

The assemblage consists of six pieces of 'white fired', medium sandy brick, actually a pale yellow colour with coarse inclusions of grog, ferrous pellets and crushed and burnt flint (2.595kg, contexts [32] and [37]). These are the likely products of the brick kiln. One of these bricks ([37]) shows evidence of extreme over-firing whereby it has split and the fabric has vitrified at one end.

The deposit surrounding the brick kiln base ([37]) produced a group of three bricks held together by mortar and forming part of a curve or arch (kiln structure). Known as refractory bricks, these are of a different fabric to regular house bricks as they have a higher coarse aggregate content enabling them to withstand constant high firing temperatures. These bricks are known to have been used in the construction of kilns since the 1700s (Ken Hamilton, *pers comm*). One of the bricks in the group of three has the lettering BA stamped on one partial face.

Shoe fragments

By Lucy Talbot with Frances Collinson

An early 19th-century leather shoe (right) with part of the heel from a left shoe (SF1) was recovered from the upper fill ([31]) of pit [35]. Studded with very small steel (or possibly copper/brass) nails and larger iron nails for fixing sole to leather uppers. Probably worn by woman but possibly a child.

Whereas a stitched shoe could date from the late 8th to early 19th century, studded ones are generally of early-to-mid 19th-century date.

7.0 Conclusions

This excavation revealed the surviving foundations of a brick kiln and the upstanding mound which surrounds it. Although the brick kiln site was apparent from both cartographic evidence and the surviving mound, previous to this work the exact location of the kiln was not known.

The flat platform foundation of the brick kiln was likely the base of a chimney kiln (E. Rose *pers comm*). No trace of the chimney brickwork was evident, although the curved brickwork fragment found in the surrounding soil was probably part of the kiln structure. The refractory bricks specifically made for the kiln structure may have been made elsewhere and imported to the site for the purpose of constructing Betts' kiln. This might explain the initials BA stamped on the fragment of structure.

The pit filled with brick rubble at the west end of the trench appeared contained, amongst the broken bricks, early-to-mid 19th-century leather shoe fragments. These were a narrow fit and may have suited a small woman or a child. This probably represents an incidental disposal as not other domestic rubbish was recovered from this feature. An alternative theory, however, for the presence of the shoe is that it was deliberately placed somewhere in the kiln structure. It is known that concealing children's shoes within buildings was a common practice in the Victorian period to protect against bad luck. A similar shoe was found concealed within a chimney at the Abbey Hotel, Wymondham (Frances Collinson *pers comm*). The shoe fragments may have been deposited in the pit when the kiln was dismantled.

Acknowledgements

The work was commissioned by Persimmon Homes (Anglia) Ltd. The machining was skilfully undertaken by Chris Reeve of Bressingham.

The archaeological site work was carried out by Ana Maria Silva and the author. Thanks go to Kenneth Penn (NAU) and Edwin Rose (NLA) for their advice.

The finds were processed and researched by Lucy Talbot (NAU). Frances Collinson of the Gressenhall Rural Life Museum assessed the shoe fragments. Ken Hamilton (NLA) commented on the bricks. NHER information was provided by Jan Allen (NLA).

The report was illustrated by David Dobson, produced by Julie Curl and edited by Alice Lyons.

Bibliography

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Appendix 1: Context Summary

Context	Category	Description	Period
11	Deposit	Topsoil	Modern
12	Deposit	Clinker: burnt clay	Post-medieval
13	Deposit	Mid brown sandy silt	Post-medieval
14	Deposit	Grey silty clay with charcoal	Post-medieval
15	Deposit	Mid brown subsoil	?Post-medieval
16	Deposit	Light brown subsoil	?Post-medieval
17	Deposit	Orange burnt clay deposit	Post-medieval
18	Deposit	Topsoil, same as [10]	Modern
19	Deposit	Yellow clay	Post-medieval
20	Deposit	Green sandy clay	Post-medieval
21	Deposit	Yellow clay. Same as [19]	Post-medieval
22	Deposit	Silty clay and rubble: Fill of [34]	Post-medieval
23	Deposit	Brownish sandy clay	Post-medieval
24	Deposit	Mix of clay and chalk	Post-medieval
25	Deposit	Brownish grey sandy clay	Post-medieval
26	Deposit	Sandy silt with clay lumps	Post-medieval
27	Deposit	Sandy clay with chalk	Post-medieval
28	Deposit	Sandy silt with clay	Post-medieval
29	Deposit	Grey sandy clay	Post-medieval
30	Deposit	Thin yellow clay layer	Post-medieval
31	Deposit	Upper fill of [35]	Post-medieval
32	Deposit	Rubble fill of [35]	Post-medieval
33	Cut	Lower fill of [35]	Post-medieval
34	Cut	Pit	Post-medieval
35	Cut	Pit	Post-medieval
36	Masonry	Brick kiln base	Post-medieval
37	Deposit	Soil surrounding kiln base [36]	Post-medieval

Appendix 2: Finds by Context

Context	Material	Quantity	Weight (kg)	Period
13	Pottery	3	0.280	Post-medieval
32	Ceramic building material	7	4.861	Post-medieval
32	Vitrified material	1	0.065	-
37	Ceramic building material	3	6.901	Post-medieval

Appendix 3: Pottery

Context	Fabric	Form	Quantity	Weight (kg)	Date
13	Stoneware	Jar body sherd	1	0.040	19th to 20th century
13	Stoneware	Jar base	1	0.227	19th to 20th century
13	Domestic china	?Lid rim	1	0.013	19th to 20th century

Appendix 4: Ceramic Building Material

Context	Form	Quantity	Weight (kg)	Period
32	Brick	7	4.861	Post-medieval
37	Brick	4	6.901	Post-medieval









