

M8/8

**LAND BETWEEN 38 ROBEY STREET AND
THE REAR OF 49-54 HIGH STREET
LINCOLN
LINCOLNSHIRE**

**PHOTOGRAPHIC BUILDING SURVEY,
ARCHAEOLOGICAL EVALUATION
AND WATCHING BRIEF
REPORT**

Site code: RSL 05
NGR: SK 97172 69996
Planning Ref: 2004/0545/F
Acc Code: 2005.117
PCA Ref: 05/167

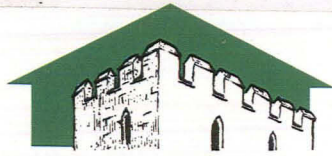
Report prepared for
John Bell Civil Engineering
by
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September 2008



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Mark,

Here is one copy of the Land
between 38 Robey Street and the rear of
49-54 High Street, Lincoln Photographic
Building Survey, Archaeological Evaluation
and Watching Brief report.

Best wishes

Charlotte

With Compliments

Land between 38 Robey Street and
49-54 High Street, Lincoln
Evaluation Report
Appendix 7

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Summary

Pre-Construct Archaeology (Lincoln) carried out a standing building photographic survey, an archaeological evaluation and an archaeological watching brief on behalf of John Bell Engineering (Lincoln) on land situated between 38 Robey Street and the rear of 49-54 High Street, Lincoln (centred on NGR: SK 97172 69996).

The photographic survey was conducted on five standing buildings, prior to the demolition of four of these. A single evaluation trench was excavated, and this was followed by a watching brief during construction; in compliance with the requirements of the City of Lincoln Archaeologist.

A number of archaeological features and deposits dating to the medieval period were identified, including two keyhole-shaped oven/kiln structures, a hearth and a wall.

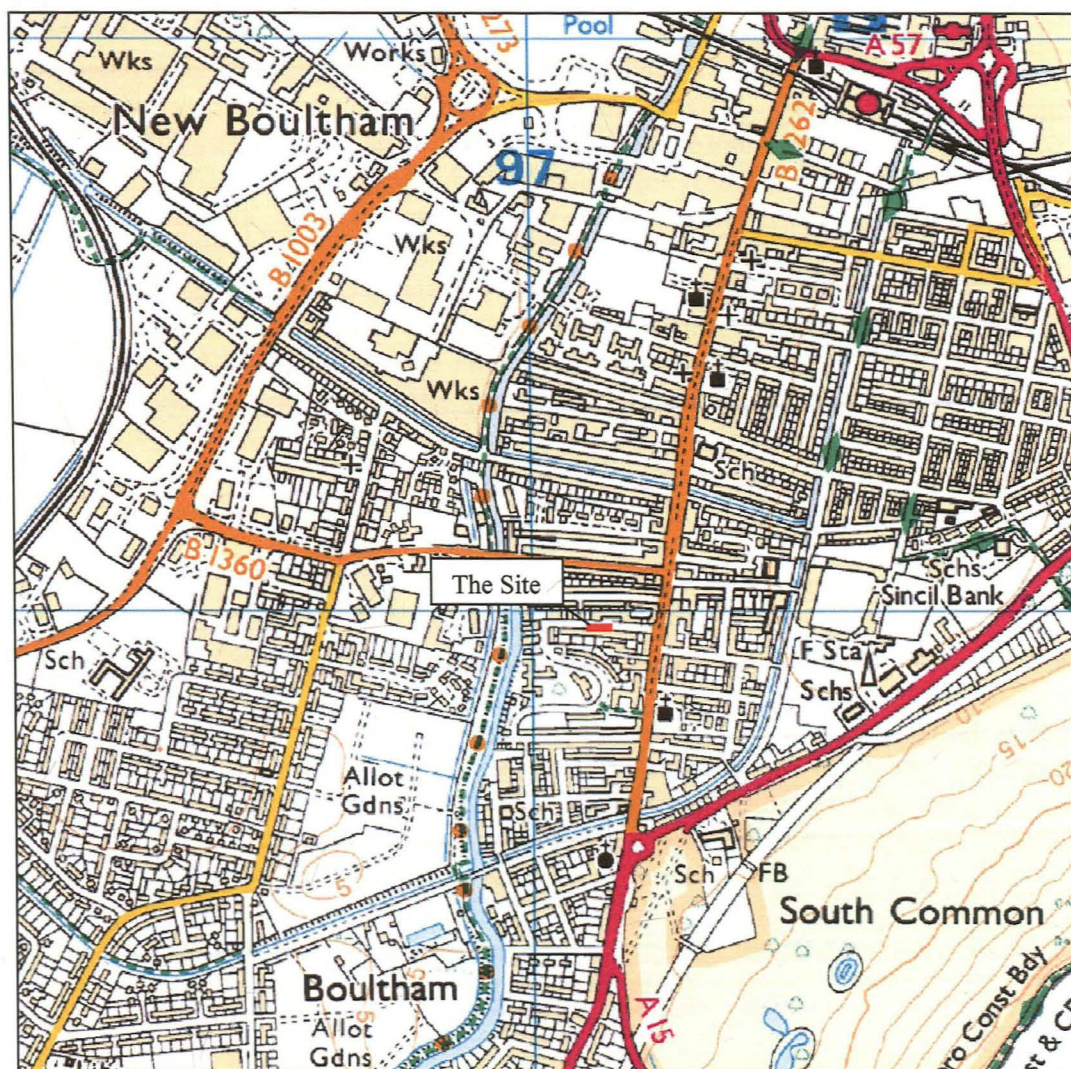


Figure 1 Site location. (1:12,000)
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1.0 Introduction

In April and June 2005 Pre-Construct Archaeology (Lincoln) (PCA Lincoln) carried out a standing building photographic survey, an archaeological evaluation and an archaeological watching brief on behalf of John Bell Engineering (Lincoln) on land between 38 Robey Street and the rear of 49-54 High Street, Lincoln (centred at NGR: SK 97172 69996).

This work was undertaken on the recommendation of the Lincoln City Archaeologist to fulfil a requirement for a programme of archaeological recording attached as a condition of planning permission (Ref. 2004/0545/F).

The archaeological programme was carried out in accordance with a detailed Archaeological Works Specification (PCA Lincoln 2005) and through ongoing consultation with the City of Lincoln Archaeologist. This work followed the standards recommended in *Archaeology and Planning: Planning Policy and Guidance Note 16* (Department of Environment 1990), *Management of Archaeological Projects* (English Heritage 1991), *Recording Historic Buildings; A Descriptive Specification* (3rd Edition) (RCHME 1996), *Standard and Guidance for Archaeological Investigation and Recording of Standing Buildings or Structures* (IFA 1996), *Standards and Guidance for Archaeological Evaluations* (IFA 1999), *Standards and Guidance for Archaeological Watching Briefs* (IFA 1999) and the *Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice* (Lincolnshire County Council, 1998).

Copies of this report will be deposited with the client, the City of Lincoln Archaeologist, and the Lincolnshire Historic Environment Record (HER). Reports will also be deposited at The Collection, Lincoln, along with an ordered project archive for long-term storage and curation.

2.0 Site Location and Description (Figs. 1 and 2)

The site is located in the parish of St Botolphs in the Wigford suburb of Lincoln, c. 2km south of the city centre. It is situated on the north side of Robey Street, to the west of High Street (centred at NGR: SK 97172 69996).

The site comprises of a roughly rectangular plot, measuring c. 1200m² and at the beginning of the works was occupied by a car showroom, motor workshop, electrical substation and two further buildings. The car showroom, motor workshop and one of the other buildings have now been demolished and the archaeological works subsequently undertaken. The ground level lies at approximately 6.20m AOD.

The underlying geology of the area is mapped as Undifferentiated river terrace sand and gravel of the Pleistocene and Recent era (BGS 1973).

3.0 Archaeological and historical background

The earliest archaeological evidence of human activity within the Lincoln area is derived from a cluster of worked flints, dating to the Mesolithic period, identified approximately 1km north east of the city in the area of the Roaring Meg spring.

A small quantity of Neolithic and Bronze Age worked flints have also been recovered from later medieval and post-medieval contexts in the St Catherine's suburb of Lincoln. Further work in this area, sieving alluvial deposits underlying medieval layers, has recovered over 400 worked flints dating from the Mesolithic period through to the Bronze Age (Rylatt 2008).

By the later prehistoric period, Lincoln is thought to have been a major centre for the *Corieltavi*, the local tribal group that dominated the East Midlands during the Late Iron Age. Evidence for Iron Age settlement around Lincoln appears to concentrate predominantly in the area of the Witham Valley (Jones *et al.* 2003).

Archaeology relating to the Roman conquest and occupation is well represented locally and in Lincoln is of national significance with important extant structural remains, including entrance gateways such as the Newport Arch, the north gate of the legionary fortress/*Colonia* and segments of walling such as the Mint Wall in Bailgate (*ibid.*).

Roman settlement is not recorded in the Wigford suburb before the 2nd century AD as the area was believed to be prone to flooding; however successive landfill operations enabled the development of the suburb along the Fosse Way and Ermine Street (Steane *et. al.* 2001). Excavations in the area of the St Mary's Guildhall have identified this suburb with traders' houses fronting on to Ermine Street and the Fosse Way from 3rd century AD onwards (Jones 2002).

A watching brief to the rear of 49, 50 and 50a High Street identified a number of small pits and possible walls; these are thought to be associated with Roman commercial properties fronting the Fosse Way, though this was not substantiated by dateable evidence (CLAU 2002).

Early Saxon settlement in Lincoln is currently poorly understood. Small quantities of pottery and other cultural debris identified in the Upper City suggest activity, though not necessarily actual settlement within the former Roman defences. Evidence for settlement in the mid-Saxon period is stronger, though focused outside of the city defences, with occupation shifting from outside to inside the former city defences towards the mid 9th century (*ibid.*).

During the medieval period Lincoln was a thriving and prosperous city. This was enhanced after the Norman Conquest by the construction of the royal castle and cathedral in the Upper City (Dobney *et. al.* 1996). By the end of the 12th century Lincoln was the largest urban centre in the East Midlands and a pre-eminent European city. Most of Lincoln's commercial success was based on the growing woollen and cloth industries, which were exported throughout the country and western Europe (Jones *et. al.* 2003).

There is archaeological evidence for suburbs at Newport, Newlands and Thorngate in the late 11th and 12th century. There is also archaeological evidence of the same date for an expansion of the *Butwerk* suburb and possibly the Lower Wigford suburb. The Wigford suburb, in which Robey Street is located, had a clear identity during the

medieval period, caused by its separation from the rest of the city by the River Witham (Jones *et. al.* 2003).

The suburb of Wigford can be divided into three areas; the upper and central third may have been occupied as early as the late 9th-early 10th century, while the lower third may not have been occupied until the 11th century. The upper third appears to have been mainly residential while the central third had a commercial focus, though there is no clear division between the two. There has been little archaeological intervention in the lower third of Wigford, in which Robey Street is located, so its formation and development remains poorly understood (Steane *et. al.* 2001).

In the 12th century Wigford appears to have been a wealthy suburb. St Mary's Guildhall is thought to have been initially constructed as a magnate of the highest order in the 1150s. It may have been constructed by Henry II as a royal *hospicium* to accommodate the royal crown wearing in the city. St Andrew's Hall opposite, was also a grand 12th century house and one of a number of elaborate buildings built throughout the central and northern parts of the suburb (Jones *et. al.* 2003).

The post-medieval period saw another expansion of Lincoln, reaching far beyond the medieval suburbs (Jones *et al.* 2003). The parish of St Botolphs was included in this expansion and documentary evidence for the development site becomes evident.

Excavations within the Wigford suburb have identified elements of industrial activity, as well as domestic occupation. These include pottery and tile kilns dating to the 13th-16th century (Steane *et. al.* 2001).

The Lincoln UAD Industrial Archaeology Survey records a Carriage works and wheelwrights workshop (Industrial Monument ID 5152) within the site and identifies the buildings occupied by the car showroom as that of the wheelwrights shop, blacksmiths shop and paint shop, laid out *c.* 1900.

4.0 Methodology

Standing Building Photographic Survey

The photographic survey was undertaken on 27th April 2005. This was undertaken in 35mm monochrome (using Ilford FP4 plus ISO125 film stock) for archival purposes, supplemented with digital colour photography (using a 10.4 M pixel format). It included general shots of the site and detailed photography of room arrangement; main elevations and constructional details such as window openings, and fixtures and fittings, such as doors and window fenestration. The photography was complemented by detailed written descriptions of all of the structure, including room records, brickwork records and measured sketches.

Evaluation

After the demolition of three of the buildings, a single trench 1.90m in width and 27m in length was excavated east to west across the site by mechanical excavator fitted with a toothless bucket. Deposits were removed in spits not exceeding 0.20m in depth until the first archaeologically significant horizon was encountered.

Archaeological features were sample excavated by hand to establish depths and profiles and, where possible, date and function. Features were recorded in plan and in section at appropriate scales (1:50 and 1:20). Written accounts were prepared on pro forma context record sheets. A photographic record (colour and monochrome) was maintained throughout the project, and selected prints have been reproduced in this report.

Watching Brief

In consideration of the results of the evaluation the City Archaeologist stipulated that a watching brief should be maintained on all development groundworks. Archaeological features were sample excavated to establish depths and profiles and, where possible, date and function. Features were recorded in plan and section at appropriate scales (1:50 and 1:20). Written accounts were prepared on pro forma context record sheets and samples taken as appropriate. A photographic record (colour and monochrome) was maintained throughout.

5.0 Results

Standing Building Photography Survey (Appendix 7; Fig. 9)

General Site Arrangement (Fig. 2)

The five buildings that were subject to the photographic survey were closely spaced and all fronted onto Robey Street. They consisted of a car showroom with associated offices, a garage, an electrical substation and a further industrial unit.

Site Setting

The first edition Ordnance Survey map of 1889 (Fig. 8) shows an almost continual row of properties fronting the High Street with gardens and orchards to the rear. Robey Street is not mapped. The 1907 edition of the Ordnance Survey map shows Robey Street with the street frontage almost entirely occupied by buildings. Building 3 is most notable by its absence; a lane linking Cranwell Street with Robey Street is marked in the approximate position subsequently occupied by Building 3.

The Lincoln UAD Industrial Archaeology Survey records a Carriage works and wheelwrights workshop (Industrial Monument ID 5152) within the site and identifies the buildings occupied by the car showroom (building 2) as that of the wheelwrights shop, blacksmiths shop and paint shop laid out *c.* 1900.

Building 1

Building 1 is a 20th century brick built single storey structure with a corrugate fibreglass roof and no outstanding features. It has folding garage doors in the southern façade and a skylight in the roof. The metal basin, toilet and possible kitchen space suggests this had been used as an office and rest space.



Building 1; Front façade, looking north

Building 2

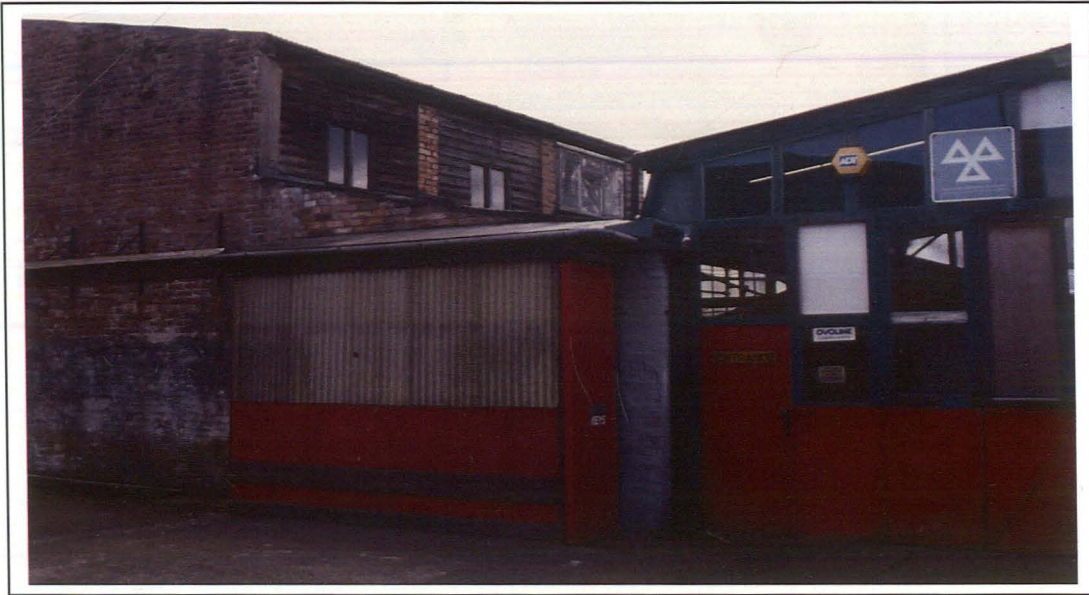
Building 2 is the c. 1900 brick building identified as Industrial Monument 5152. It is single storey with the majority of the frontage glazed, presumably to function as a car showroom. It has a grey slate roof, and there are no outstanding features.



Building 2 (Industrial Monument No. 5152); Front faced, looking north

Building 3

Building 3 is a 20th century two storey brick built motor workshop with corrugate fibreglass roof and no outstanding features. The ground floor was used as a garage with modern wooden partitions to create office spaces. The upper floor was used as an office space with no internal features.



Building 3; Western side of building, looking north-east

Building 4

Building 4 is an early 20th century brick built electrical sub station with a flat concrete roof. The doorway is arched with three stepped brickwork insets and the windowsills are of sloped brickwork. An internal survey of this building was not possible for health and safety reasons. This building was not demolished as part of the current works.



Building 4; looking northwest

Building 5

Building 5 is a 20th century single storey brick structure with a corrugate fibreglass roof and no outstanding details. The internal space is largely open with a partitioned off areas for a toilet and office space. A simple brick arch stood between the entrance porch and the main workshop.



Brick arch in Building 5; facing east



Building 5; looking northwest

*Archaeological Intervention**Trench 1 (Figs. 3 and 4)*

The earliest deposit encountered within the evaluation trench was alluvial deposit (103) at 1.22m below present ground level. This was sealed by what appeared to be a dump deposit (108).

Constructed on top of deposit (108) were limestone wall foundation (104), limestone hearth (106) and mortar floor (109). These features were sealed by dump deposit (102), dated to early-mid 16th century, which in turn was sealed by a modern levelling deposit (101).

Wall foundation (104) was constructed with roughly hewn limestone blocks of varying sizes laid in irregular courses, of which three survived. A number of pottery sherds and tile fragments were recovered from within the fabric of the wall foundation, dating to the early-mid 13th century.

Immediately adjacent to wall foundation (104), but not directly stratigraphically related, was hearth (106). This was constructed of small limestone rubble with pitched stones around the edge. Towards the southern end of this feature, a large dressed stone (105), which had been fractured by heat, had been placed on top of the rubble. A thin layer of ash (107) sealed the entire structure.

A small compact mortar surface with limestone and tile fragments (109) was also identified. Tile fragments recovered from this date to the mid/late 12th-13th century, roughly contemporary with wall (104). All three features are likely to have belonged to the same structure.

Watching Brief (Figs. 3 and 5-7)

The watching brief involved the observation of ground reduction which removed deposit (101), exposing a keyhole shaped stone built structure (118) (see below), part of a second similar structure (110) and several large spreads of demolition deposit (116, 117, 125, 126 and 135). The excavation of the foundation trenches was observed, and a number of dump deposits (111, 112, 114, 121, 123, 129 and 130) were identified as well as a pit [127] and a possible robber trench [133].

The dump deposits identified were all very similar in character and the excavators on site found it difficult to distinguish between deposits. To prevent difficulty with dating, the excavators attributed unique context numbers to dump deposits according to their association with identified features; hence contexts (111), (112), (121), (123) and (129) are the same deposit, while contexts (114) and (130) are the same as (108).

Deposit (117), dated to the late 15th-early/mid 16th century, appeared to align with wall foundation (104) and may therefore have been associated, though no robber cut was observed during the evaluation. Similarly deposit (135) which appeared to align with mortar floor deposit (109) may represent robbing of this feature. The other demolition deposits identified, (116), (125) and (126), may not be directly associated with features that were identified on site.

Two cut features were also identified. Rubbish pit [127] has been dated to the 13th century, while robber trench [133] has been dated to the late 13th-early/mid 14th century. The latter was only observed in section but appeared to run parallel with wall (104).

Structure (118) (Figs. 3 and 5)

Structure (118) was a large keyhole shaped feature, built of roughly hewn limestone, the inner surface being faced. The top course of stonework around the curved section was steeply pitched suggesting that there may have been a inclined roof or capping to the structure.

There was at least one step leading down to the limestone floor, which was sealed by a lime-rich clay deposit (124). This deposit did not appear to have been dumped within (118) and may have been associated with its use. This was sealed by a crushed mortar and sand deposit (120) dating to the 13th-15th century.

This was sealed by tile-rich deposit (119). This may have been a dump deposit to backfill the structure once it had fallen into disuse, although the regular placement and angle of the tiles suggested that it may have been a collapsed 'capping' to the structure.

The entire structure was sealed by dump deposit (121) / (123), dated to the late 13th-early/mid 14th century. A construction cut was not observed for this feature but the difficult nature of the dump deposits identified on site may have prevented one being observed.

Structure (110) (Figs. 3 and 6)

This appeared to be a similar structure to (118), though less complete. Only two courses of stonework survived, along with part of the floor (113). The construction and curved shape strongly suggests that was also a keyhole shaped oven. The structure was sealed by dump deposit (111) / (112), dated to the late 13th-early/mid 14th century.

6.0 Discussion and Conclusions

The demolished buildings have been recorded photographically and written records were made of their construction and layout. The buildings appeared to be of limited architectural merit.

The evaluation trench and watching brief identified relatively well preserved structural remains of probable 13th century AD date.

There was no direct evidence of a robber trench cut associated with wall foundation (104), which may have been dismantled relatively soon after it fell into disuse. Alternatively, evidence of robbing may have been obscured by the homogenous nature of the later dump deposits.

The keyhole shape of structure (118) is similar to other stone structures found in Lincoln which have been interpreted as corn-drying ovens or malting kilns. All of these structures, with the exception of one, are open at one end creating an open 'flue'. Structure (118) had a closed 'flue', as did one other similar structure identified at Wragby Road, Lincoln.

The keyhole shaped structure identified at Wragby Road has been interpreted as an oven or corn-drying kiln, as a sample of charred material from the base of the structure identified several hundred charred cereal grains. However, this sample also identified eggshell, fish bones and other domestic rubbish that may be interpreted as forming part of cess disposal (PCA 2003).

The closed 'flue' of these two structures may be a temporary blocking of the 'flue' while the structure was in use. If this were so it would be expected that the basal fills of the two structures would be very similar. However the basal fill at Wragby Road was rich in charcoal and domestic rubbish, while within structure (118) it was lime-rich.

Though these structures are likely to have had a small-scale industrial use, they do not demonstrate evidence of intense heat, as might be expected with kiln and oven-type structures.

The features identified during the evaluation and the wall removed by robber trench [133] are likely to form part of the same building, possibly a workshop associated with structures (118) and (110). The better preservation of structure (118) suggests that this may have been a replacement for structure (110).

The development of the Wigford suburb is poorly understood, particularly the lower third. It has been suggested that the lower part of Wigford may not have been occupied until the 11th century AD (Steane *et. al.* 2001). The archaeological remains identified within current site, dating to the 13th-14th century AD, are later than this but probably reflect initial development within the suburb. The dump deposits identified on site may indicate that the area was prone to flooding and was therefore initially unsuitable for occupation. Similar dump deposits dating to the late medieval period were identified during archaeological investigations at Cranwell Street (HER 70485).

Excavations to the rear of the Golden Eagle public house, to the south of the current site, identified a cobbled surface dating to the 13th century as well as a contemporary well (HER 70577). Archaeological work at Dixon Street (HER 70587), to the north of the current site, and Queen Street (HER 70344) to the east of the current site, identified rubbish pits dating to the 12th-13th century AD. The limited evidence identified in the immediate vicinity of the current site could suggest domestic and residential activity. The industrial character demonstrated on the current site in the form of the keyhole shaped structures and associated possible workshop contrasts with other archaeological evidence in the vicinity and suggests that the lower part of the Wigford suburb may have combined residential and commercial activity in contrast with the predominantly commercial character of the upper part of Wigford and the predominantly residential character of the central part of the suburb.

7.0 Acknowledgments

Sincere thanks are expressed to the commissioning body John Bell Engineering (Lincoln). The fieldwork was conducted by Jen Kitch, Alex Brett, Linda Hamilton, Mike Daley and Aaron Chapman.

8.0 Bibliography

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9.0 Site archive

The archive is currently held by Pre-Construct Archaeology (Lincoln) at their head office at 47 Manor Road, Saxilby, Lincoln, LN1 2HX. This will be deposited with The Collection within six months of acceptance of the final report.

Appendix 1 Colour Plates



Hearth 106 and wall 104 within evaluation Trench 1, facing north



Key-hole oven 118 showing sloped walls and steps, facing south



Key-hole oven 118 showing depth of wall and step leading inside, facing north-west



Northern end of Structure 118 showing angled stone, looking north



Possible structure 118 capping (deposit 119), looking east



Remains of structure 110, looking east

APPENDIX 2 Context List

Context	Description
101	Demolition layer; dark grey black ashy silt with frequent modern rubble. 0.30m in depth.
102	Dumping/levelling deposit; mid brown grey sandy silt with occasional pea gravel and small chalk fragments. 0.76m in depth. Early-mid 16th century
103	Alluvial deposit; mottled pale grey sandy silt, with occasional yellow sand patches. Unexcavated.
104	Wall foundation; roughly hewn limestone blocks measuring 0.30m in length by 0.20m in width, with smaller rubble infilling. Two irregular courses of dry stone construction $\geq 0.82\text{m}$ in length, 0.38m in width and 0.40m in depth. Early-early/mid 13th century or late 13th-late 14th century
105	Stone; single heat fractured limestone slab measuring 0.60m in length, 0.30m in width and 0.04m in depth. The surface face is dressed and a curved edge along which runs a groove, forms part of hearth 106.
106	Hearth structure; roughly hewn limestone blocks measuring 0.10m in length, 0.05-0.15m in width and 0.10m in depth. Pitched stones face edge. Hearth measures $\geq 1.38\text{m}$ in length, 0.10m in width and $\geq 0.10\text{m}$ in depth.
107	Deposit sealing hearth 106; black charcoal rich ashy silt. $\geq 1.20\text{m}$ in length, 0.70m in width and 0.09m in depth.
108	Dumping deposit; mid brown sandy silt. 0.20m in depth.
109	?surface; compacted lime mortar floor with small limestone and tile fragments. $\geq 0.50\text{m}$ in length, 0.50m in width and 0.0.2m in depth. Mid/late 12th-13th century
110	?Structure; remains of curved wall, probably remains of a keyhole shaped kiln/oven. Roughly hewn limestone blocks, 0.10-0.23m in width, 0.20-0.44m in length and 0.10-0.18m in depth, with lime mortar in two irregular courses. 1.86m in length, 0.34m in width and 0.18m in depth.
111	Dumping/levelling deposit; Same as 108, overlying 113. Late 13th-early/mid 14th century
112	Dumping/levelling deposit; Same as 108, overlying 110. 13th-early/mid 14th century
113	?Structure; remains of a rough limestone cobble floor, associated with wall 110, cobbles measure 0.10-0.30m in length, 0.10-0.20m in width and 0.05-0.08m in depth.
114	Dumping deposit; mid brown sandy silt, underlying floor 113. 0.20m in depth.
115	Natural; mid orange sand. Unexcavated.
116	Wall demolition/dump deposit; limestone fragments, mortar, tile and pottery and animal bone. 4.40m in length and 1.50m in width. 13th-14th century
117	Wall demolition/dump deposit; limestone fragments, mortar, tile and pottery and animal bone. 4.85m in length and 1.00m in width. Late 15th-early/mid 16th century
118	Structure; keyhole shaped kiln/oven with angled stones suggesting a roof/capping to structure; roughly hewn limestone blocks measuring 0.15-0.25m in length, 0.20-0.40m in width and 0.05-0.10m in depth. 4 irregular courses bonded with lime mortar, similar stones used to form 'flag' floor, structure 3.20m in length, 2.40m in width and 0.65m in depth.

Context	Description
119	?Structure 118 capping/backfill; broken nib tiles with yellow brown coarse sandy mortar. 0.15m in depth. 13 th century
120	Dump fill within 118; mid yellow sand and crushed mortar deposit. 0.45m in depth. 13 th -15 th century
121	Dumping/levelling deposit; Same as 108, butting 118. Late 13 th -early/mid 14 th century
122	Backfill within 118; Same as 119 13 th -15 th century
123	Dumping/levelling deposit; Same as 108, sealing 118. Early/mid -late 13 th century
124	Fill of 118; Lime rich clay layer lining the base of [118]. 0.04m in depth.
125	Wall demolition/dump deposit; limestone fragments, mortar and tile spread. 4.20m in length and 1.30m in width. Early/mid -late 13 th century
126	Wall demolition/dump deposit; limestone fragments, mortar and tile spread. 4.80m in length and 2.60 in width. Mid 12 th -early/mid 13 th century
127	Cut of pit; Sub-rounded in plan with steeply sloped sides and concave base. 1.50m in diameter and 0.42m in depth.
128	Fill of 127; mid brown sandy silt. 1.50m in diameter and 0.42m in depth. 13 th century
129	Dumping/levelling deposit; Same as 108.
130	Dumping deposit; same as 114
131	Flood deposit; same as 103
132	Natural; same as 115
133	?robber trench cut; linear with steeply sloped sides and flat base. ≥1.60m in length, 1.22m in width and 0.68m in depth.
134	Fill of 133; mid brown sandy silt with frequent limestone fragments, mortar, tile and pottery and animal bone. 13 th -14 th century
135	Wall demolition/dump deposit; limestone fragments, mortar and tile spread. 4.20m in length and 0.60m in width.

APPENDIX 3 Ceramic Reports and Archives

THE POST-ROMAN POTTERY FROM LAND BETWEEN 38 ROBEY STREET AND REAR OF 49-54 HIGH STREET, LINCOLN (RSL05).

JANE YOUNG CERAMIC CONSULTANT

INTRODUCTION

In total, eighty-three sherds of pottery representing sixty-nine vessels were recovered from the site. The pottery ranges in date from the Saxo-Norman to the post-medieval period. The pottery was examined both visually and using a x20 binocular microscope, then recorded using the fabric codenames (CNAME) of the City of Lincoln Archaeology Unit and other nationally agreed codenames. The assemblage was quantified by three measures: number of sherds, vessel count and weight and the resulting archive entered onto an Access database (see below). Recording of the assemblage was in accordance with the guidelines laid out in Slowikowski, *et al.* (2001).

CONDITION

With the exception of a few well-abraded sherds the pottery is mainly in a slightly abraded to fairly fresh condition with sherd size mainly falling into the small to medium range (below 50grams). In total seven vessels are represented by more than one sherd and only one cross-context vessel was noted. Few vessels from any period have exterior soot residues showing that they have been used over an open fire. White internal 'kettle fur' deposits caused by the heating of water or containment of urine was found on two vessels. The condition of one sherd suggested that it had been deposited at some stage in a waterlain environment.

THE POTTERY

In total sixty-nine vessels in twenty-three identifiable post-Roman pottery ware types were recovered from archaeological interventions on the site (Tables 1 and 2). The range of form shapes is quite wide for a small assemblage with examples of various types of jug and jar forming the body of the assemblage. Examples of bunghole vessel, cup, press-moulded dish and pipkin were also found.

Table 1 Pottery types with total quantities by sherd and vessel count

codename	full name	earliest date	latest date	total sherds	total vessels
CIST	Cistercian-type ware	1480	1650	1	1
DST	Developed Stamford ware	1150	1230	2	2
HUM	Humberware	1250	1550	1	1
LEMS	Lincolnshire Early Medieval Shelly	1130	1230	5	5
LFS	Lincolnshire Fine-shelled ware	970	1200	4	4
LLSW	Late Lincoln Glazed ware	1350	1500	2	2

LSW1	12th century Lincoln Glazed ware	1100	1200	2	2
LSW1/2	12th-13th century Lincoln Glazed ware	1100	1300	4	4
LSW2	13th to 14th century Lincoln Glazed Ware	1200	1320	26	17
LSW2/3	13th to 15th century Lincoln Glazed Ware	1200	1450	3	3
LSW3	14th to 15th century Lincoln Glazed Ware	1280	1450	2	2
LSW4	15th century Lincoln Glazed Ware	1450	1530	2	2
LSW5	light firing Lincoln Glazed ware	1280	1325	1	1
LSWA	Lincoln Glazed ware Fabric A	1100	1500	2	2
LSWV	Lincoln Sandy ware Variant Generic	1180	1230	1	1
MEDLOC	Medieval local fabrics	1150	1450	2	2
MP	Midlands Purple ware	1380	1600	4	1
NSP	Nottingham Splashed ware	1100	1250	1	1
POTT	Potterhanworth-type Ware	1250	1500	12	11
ST	Stamford Ware	970	1200	2	2
STANLY	Stanion/Lyveden ware	1150	1250	1	1
STSL	Staffordshire/Bristol slipware	1680	1800	1	1
TOYII	Toynton Late Medieval ware	1450	1550	2	1

Most of the post-Roman pottery was recovered from wall foundations **104**, layers **102**, **111** and **121**, dump deposit **117** and the backfill of oven **118** (fills **119**, **122** and **123**).

Table 2 Showing ceramic date of the post-Roman pottery found on the site

Ceramic date	Total sherds	Total vessels
Saxo-Norman to early medieval (11 th to early/mid 13 th)	18	18
Medieval (13 th to mid 15 th)	52	42
Late medieval to early post-medieval (15 th to 16 th)	12	8
Late 17 th to 18 th	1	1
Totals	83	69

Saxo-Norman to Early medieval

Eighteen vessels post-date the late 10th century and predate the second quarter 13th century. Nine of the vessels are shell-tempered coarsewares (LFS and LEMS) and nine are finewares mainly produced in Lincoln (LSW1 and LSW1/2), Stamford (DST and ST) and Nottingham (NSP). The coarseware sherds are most probably of mid/late 11th to 12th century date whilst most of the datable Lincoln ware jug sherds probably date to between the mid/late 12th and early/mid 13th centuries. One of the two Stamford ware vessels (ST) is in Fabric A and one is in Fabric A/B, both are probably of mid/late 11th to mid 12th century date. The Developed Stamford ware vessels (DST) have a copper-speckled glaze and are of post-mid 12th century date. Of note is a near-vitrified sherd (LSWV) with an almost metallic glaze that has rows of tiny square roller-stamping vertically up the vessel wall. The vessel, which is thin-walled and may have been handmade, is visually similar to Lincoln Glazed ware but has a coarser fabric than is usual for city products and may have been produced elsewhere.

Medieval to Late Medieval

Overall, forty-two of the pottery vessels submitted for examination are of medieval to late medieval type and can be dated to the period between the early 13th and 15th centuries. Most of these vessels were made in Lincoln (LSW1/2, LSW2, LSW2/3, LSW3, LSW5 and LSWA) and span the life of the Lincoln medieval glazed ware industry (13th to 15th century). Vessel forms are mostly jugs in a range of shapes and sizes with a single identifiable jar also occurring. One of the jugs has cracked during firing but is unlikely to be a waster (LSW2). Only three of the jugs appear to have been decorated and elements are confined to applied plain strips or scales. Thirteen shell-tempered jar or bowls, produced locally at Potterhanworth (POTT) or at an unknown local centre (MEDLOC Fabric A) are the only coarseware present.

Late Medieval to Early Post-Medieval

Eight vessels, mainly jugs, but also including a cup and at least one bunghole vessel, belong to the period between the mid 15th and mid 16th centuries. Four of the jugs are Lincoln products produced in the Wigford suburb (LLSW and LSW4). The two LSW4 jugs are in a newly defined fabric, Fabric D. This fabric is reduced, coarser than LLSW and contains moderate to common laminated shale/clay pellets. A fifth jug is in Humber ware (HUM). Two sherds in Late Medieval Toynton ware (TOYII) are from a single bunghole jug; this vessel is unusual in that it has a heavily trimmed lower body and basal angle. A Cistercian ware (CIST) cup and the rim of a jar/bunghole vessel in Midlands Purple ware (MP) are likely to have been made at Ticknall in Derbyshire.

Late Post-medieval to Early Modern

A single vessel, a Staffordshire-type press-moulded dish, is of late 17th to 18th century date.

DISCUSSION

Most of the vessels are represented by single sherds and there is only one cross-joining pot. This, together with the fragmentary nature of some of the pottery suggests that much if not all of the pottery recovered from this site arrived as part of dumping and levelling episodes. As such the assemblage is difficult to interpret. It is possible however, to suggest that the earliest post-Roman occupation in the area is likely to have been of post-conquest date. Occupation appears to have been continuous in the area up until the early post-medieval period, sometime in the first half of the 16th century. The two LSW4 Fabric D sherds have been removed to the Lincoln Fabric Type Series (one has been drawn as DR1). The entire collection should be kept for future study.

REFERENCES

Slowikowski, A. Nenck, B. and Pearce, J. 2001. *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2.

THE CERAMIC BUILDING MATERIAL FROM LAND BETWEEN 38 ROBEY
STREET AND REAR OF 49-54 HIGH STREET, LINCOLN (RSL05).

JANE YOUNG CERAMIC CONSULTANT

INTRODUCTION

A total of one hundred and seven fragments of ceramic building material weighing 9928grams and ranging in date from the medieval to the early modern period were recovered from the site. The material was examined both visually and using a x20 binocular microscope, then recorded using the fabric codenames (CNAME) of the City of Lincoln Archaeology Unit and other nationally agreed codenames (CNAME). The assemblage was quantified by two measures: number of fragments and weight. The resulting archive was entered onto an Access database (see below). The recording of the assemblage was in accordance with the guidelines laid out in Slowikowski, *et al.* (2001). The CLAU tile type series was consulted for comparative material.

CONDITION

The material is in variable condition with most tile fragments showing a little abrasion. Many of the medieval flat roof tiles have mortar adhering and in several cases this extends over broken edges suggesting reuse of broken tile in rubble infill.

THE CERAMIC BUILDING MATERIAL

The Ceramic Building Material

A range of ceramic building material comprising almost entirely of medieval to late medieval roof tile was recovered from the site (Table 1). With the exception of an unusual narrow medieval flat roof tile in a possible Fabric type 12, all of the fragments found on the site are typical of those recovered from previous excavations within the city.

TABLE 1: CERAMIC BUILDING MATERIAL CODENAMES AND TOTAL QUANTITIES BY FRAGMENT COUNT AND WEIGHT

codename	full name	total fragments	total weight in grams
DRAIN	Drain (general)	1	425
FINIAL	Finial tile	1	42
GNIB	Glazed nibbed tile	3	508
NIB	Nibbed tile	15	1940
NIBDISC	Nibbed tile (discarded)	4	225
PNR	Peg, nib or ridge tile	22	3490
PNRDISC	Discarded peg, nib or ridge tile	61	3298

Medieval to late medieval

Most of the ceramic building material recovered from the site is medieval flat roof tile (GNIB, NIB, NIBDISC, PNR and PNRDISC) with one hundred and five fragments in total coming from the site. All three of the newly defined Lincoln Tile Fabrics (Fabrics 12-14 as defined at St Catherine's Priory- LIC06) were noted at this site as well the more common Lincoln Fabrics (Fabrics 1, & and LSWA). The fabric types recovered suggest that ceramic tile was in use in the area from the mid/late 12th or early 13th century. With the exception of two late medieval to early post-medieval tiles from contexts **102** and **121**, the fabrics suggest a date no later than the mid 14th century for the tiles. The diagnostic suspension nib types present are all of mid/late 12th to mid 13th century date and include examples of the earliest nib types to be found in the city (Type 1A). The presence of three fragments of glazed flat nib tile confirms an early dating for the group. Of note is an unusual nib tile from context **104**. The tile has a single Type 3A nib and appears to have been cut to form 1/3 of the width of a normal tile (DR2). No fragments of ridge tile were present amongst the material recovered, although the spike of a finial was recovered from context **121**.

Early Modern

A single early modern fragment of a brown-glazed stoneware drain was recovered from the site.

DISCUSSION

The ceramic building material recovered dates between the medieval and the early modern periods. The medieval material is mainly typical of types found on sites elsewhere in the City, especially those recovered from the southern part of the Wigford suburb. It is difficult to interpret such a small assemblage; however it is possible to suggest an early date (mid/late 12th to mid 13th century) for much of the assemblage, although at least some of this material represents secondary use, as a number of tiles exhibit mortar over broken edges.

Most of the undiagnostic tile has been discarded in accordance with guidelines set down by the City and County Museum; all of the remaining material should be retained. The unusual narrow nib tile has been drawn for the Lincoln Tile Type Series (DR2).

REFERENCES

Slowikowski, A. Nenk, B. and Pearce, J. 2001. *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics*. Medieval Pottery Research Group, Occasional Paper 2.

Pottery Archive for Robey Street, Lincoln (RSL05)

Jane Young

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description
102	ST	A	jar/pitcher	1	1	18		BS		glaze;discoloured;waterlain ?
102	HUM		jug	1	1	45		BS		
102	LLSW		jug	1	1	45		base		probably not St. Marks
102	CIST		cup	1	1	2		BS		
102	LFS		?	1	1	8		base		
102	TOYII		bughole jug	2	1	41		base with bung		plain bung;stacking scar;lower body heavily trimmed;concretions;waterlain ?large fresh fragments
102	MP	orange fabric	jar/bunghole vessel	4	1	295		rim & BS		cut-out on rim;white internal deposit;part int glaze;large fresh fragments
104	LSW2		jug	1	1	10		BS		cu speckled glaze
104	LSWV	oxid;med-coarse sandy;near vitrified	jug	1	1	21	multi vertical ? Rows tiny square roller stamping	BS		near vitrified sherd with almost metallic glaze;no clear wheelthrowing lines;thin walled
104	LFS		small jar ?	1	1	3		BS		soot int & ext
104	LSWA		?	1	1	2		BS		very abraded
104	LSW2		jug	1	1	12		rim		reduced glaze;SCUFF rim
104	LSW2		jug	1	1	13		BS		cu glaze

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description
104	LSW1		jug	1	1	14		rim		inturned rim;odd fabric with quite common ca
104	LEMS		jar	1	1	9		rim		thin everted rim
104	MEDLOC	Fabric A	jar ?	1	1	14		base		soot from basal angle upwards
104	LEMS		?	1	1	2		BS		
104	LFS		jar	1	1	7		BS		
104	ST	A/B	jar/pitcher	1	1	2		BS		glaze
104	LSWA		jug	1	1	16		rim		inturned rim;abraded
104	LSW3		large jug	1	1	60		BS		cu glaze
111	LSW2		jug	1	1	3		BS		cu glaze
111	LSW2		early baluster jug	1	1	147		handle		grooved rod handle cracked during firing
111	POTT		large narrow-necked jar	1	1	85		rim		everted rim;unusual
111	POTT		large jar	1	1	33		BS		soot
111	LSW2		jug	1	1	4		BS		cu glaze
111	LSW1/2		jar	1	1	11		BS		glaze runs int
111	LEMS		jar	1	1	18		BS		
111	LEMS		jar	1	1	38		rim		everted rim
111	STANLY	A	pipkin	1	1	79	4 rows incuse stamps down handle	rim with handle		staight handle with curved end;plugged handle join;? ID;veru unusual
111	LSW2		jug	1	1	37	thumbbed bsal angle	base		staking scar

context	ename	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description
111	LEMS		bowl	1	1	16	nail decoration on rim edge	rim		rolled rim
112	LSW2		jug	2	1	41	thumbbed basal angle	base		
116	POTT		jar	2	1	28		BS		soot
116	MEDLOC	A	jar	1	1	13		BS		soot;? ID or odd fine POTT
117	LLSW		tall-necked jug	1	1	59		UHJ		grooved strap handle
117	LSW4	Fabric D	jug	1	1	90		LHJ		oval strap handle;pocked reduced glaze;Fabric Type Sherd
117	LSW4	Fabric D	jug	1	1	170		rim with UHJ	DR1	upright rim;2 deep upper thumbings;strap handle with 2 central ridges;Fabric Type Series
117	LSW1		jug	1	1	6		BS		
117	POTT		jar	1	1	29		rim		
117	LSW1/2		jug	1	1	7		BS		
117	POTT		jar	1	1	16		BS		
119	POTT		jar	1	1	11		BS		
120	POTT		jar	1	1	18		BS		soot
121	LFS		?	1	1	10		base		
121	LSW1/2		small jug	1	1	4		BS		
121	LSW3		jug;baluster ?	1	1	18		BS		
121	NSP	fine/sandy	jug/jar	1	1	5		base		
121	POTT		jar/bowl	1	1	49		base		internal deposit
121	POTT		jar	1	1	7		BS		

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description
121	POTT		jar/bowl	1	1	29		base		soot
121	POTT		?	1	1	12		base		soot
121	LSW5		jug/jar	1	1	6		BS		? ID;light firing LSW with spots of glaze;soot
122	LSW2/3		jug	1	1	11	thumbed basal angle	BS		
122	LSW2/3		jug	1	1	16		BS		
123	LSW2		jug	2	1	7		BS		cu glaze
123	LSW2		jug	1	1	4		BS		
123	LSW2		jug	1	1	7		BS		concretions
123	LSW2		jug	1	1	13		BS		concretions
123	LSW2		jug	1	1	2	applied strip	BS		cu glaze
123	LSW2		biconical jug	7	1	128	thumbed basal angle;sets of 2	base & BS	vessel 1	fresh breaks with no joining sherds;shoulder cordons;soot on underside of base;reduced glaze
123	DST	C	jug	1	1	23		base		cu mottled glaze
123	STSL	buff fabric	press moulded dish	1	1	13	pressed rim edge;trailed & combed brown on yellow	rim		
123	LSW1/2		jug	1	1	3		BS		pocked glaze;fresh breaks no joining sherds;concretions
125	LSW2		jug	1	1	41	vertical rows of scales	BS		soot on lower body;cu speckled glaze
125	LSW2		biconical jug	1	1	93		base	vessel 1	lower body cordon;soot on base

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	ref no	description
128	LSW2		jug	1	1	13	applied vertical strip;applied scales	BS		
134	LSW2		small jug ?	1	1	6		BS		int & ext reduced glaze
134	LSW2/3		jug	1	1	9		BS		
134	DST	C	jug	1	1	33		BS		cu specks in glaze;incidental ?

Ceramic Building Material Archive for Robey Street, Lincoln (RSL05)

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context	cname	fabric	sub type	frags	weight	ref no	description
102	PNR	hard dull oxid sandy		1	147		flat roofer;abundant medium subround to round quartz moderate fe;mortar;med to early post-med ?
102	PNR	dull oxid/bright oxid/dull oxid sandy		1	338		flat roofer;near vitrified;fine quartz bedding with comm fine ca;worm/stick impression on bedded side;abundant medium subround to round quartz moderate fe;mortar;med to early post-med ?
102	PNRDISC	Fabric 1		1	15		flat roofer
102	PNRDISC	LSWA		1	88		flat roofer;abraded
104	NIB	Fabric 12 ?	Nib type 3A	1	140	DR2	adapted nib;part moulded part pulled;very odd width;1/3 tile;mortar
104	PNRDISC	Fabric 14		1	48		flat roofer
104	PNRDISC	Fabric 13		1	119		flat roofer
109	NIB	Fabric 12 ?	re-applied ? Triangular	1	56		upper edge is cut;finger marks ?
109	PNRDISC	Fabric 1		1	84		flat roofer
111	PNRDISC	Fabric 7		1	65		flat roofer;soot
111	PNRDISC	Fabric 7		1	47		flat roofer
111	PNRDISC	Fabric 12 ?		4	14		flat roofer;same tile
111	PNRDISC	Fabric 12		1	166		flat roofer

context	cname	fabric	sub type	frags	weight	ref no	description
111	PNRDISC	Fabric 7		1	78		flat roofer;corner
111	PNRDISC	Fabric 7		1	80		flat roofer;vitrified;salt surfacing;corner
111	PNRDISC	Fabric 7		1	20		flat roofer;vitrified;salt surfacing
111	PNRDISC	Fabric 7		1	38		flat roofer;corner
111	PNR	Fabric 14 ?		1	143		flat roofer;hard fired
111	GNIB	Fabric 12	Nib type 1/2	3	508		same tile;left corner;deep triangle;spots of glaze
111	PNR	Fabric 14		1	32		flat roofer;thin tile;corner
111	PNR	Fabric 12		1	180		impression on struck surface;flat roofer
111	PNR	Fabric 12		1	91		flat roofer
111	PNRDISC	Fabric 14		1	50		flat roofer;corner
111	PNRDISC	Fabric 1		1	68		flat roofer
116	NIB	Fabric 14	Nib type 2	1	173		right corner
116	PNR	Fabric 7		1	136		flat roofer
116	PNRDISC	LSWA		1	77		flat roofer
117	NIB	Fabric 7	Nib type 2B ?;round peg hole	1	92		round peghole 1mm below nib
117	PNRDISC	LSWA		2	98		flat roofer;same tile;corner
117	PNRDISC	Fabric 7		1	68		flat roofer
117	PNRDISC	Fabric 14		1	52		flat roofer
117	PNRDISC	Fabric 7		1	14		flat roofer
117	PNRDISC	Fabric 1		1	34		flat roofer

context	cname	fabric	sub type	frags	weight	ref no	description
119	NIB	Fabric 7	Nib type 1A	1	695		very early large well formed nib;full width of 23mm;finger marks from mould removal;2 corners
121	PNR	LSWA		1	204		flat roofer
121	DRAIN	brown glazed stoneware		1	425		junction box?;scored on underside
121	FINIAL	LSW		1	42		point;part oxid glaze
121	NIBDISC	Fabric 7	moulded	1	42		
121	NIBDISC	Fabric 7	moulded	1	49		
121	PNR	Fabric 12		1	396		flat roofer;burnt;edge possibly cut to 1/3 width as scored line down break;10-15mm thick
121	PNR	Fabric 13		1	88		flat roofer
121	PNRDISC	LSWA		1	45		flat roofer
121	PNR	Fabric 12		3	241		flat roofer;same tile;fresh breaks no joining sherds;1 fragment kept;finger pulls down struck side
121	PNRDISC	Fabric 7		1	87		flat roofer;mortar
121	PNRDISC	Fabric 7		1	56		flat roofer;mortar
121	PNRDISC	Fabric 12		1	30		flat roofer
121	PNRDISC	Fabric 13		1	68		flat roofer
121	PNRDISC	Fabric 13		1	30		flat roofer
121	PNRDISC	Fabric 13		1	62		flat roofer
121	PNRDISC	Fabric 7		1	119		flat roofer;mortar;large void from pebble
121	PNR	LSWA		4	597		flat roofer;same tile;single frag kept rest discarded;corner
123	PNRDISC	Fabric 12		1	29		flat roofer

context	cname	fabric	sub type	frags	weight	ref no	description
123	PNRDISC	Fabric 12		2	10		flat roofer;same tile;fresh breaks with no joining sherds;mortar including over broken edges
123	PNRDISC	Fabric 7		1	89		flat roofer;thick mortar incl over broken edges
123	PNRDISC	Fabric 12		3	94		flat roofer;same tile
123	PNRDISC	Fabric 12		1	21		flat roofer
123	PNRDISC	LSWA		2	168		flat roofer;same tile;mortar
123	PNRDISC	Fabric 7		1	40		flat roofer;mortar;vitrified
123	PNRDISC	Fabric 12		3	126		flat roofer;same tile;mortar
123	PNRDISC	LSWA		2	22		flat roofer
123	PNRDISC	Fabric 14		1	19		flat roofer
123	NIB	Fabric 7/13	Nib type 1A	1	192		very large deep nib;left corner
123	PNRDISC	Fabric 7		1	77		flat roofer;mortar;vitrified
123	NIB	Fabric 12	moulded	4	180		same tile;mortar
123	PNRDISC	Fabric 12		1	25		flat roofer
123	NIB	Fabric 13/14	Nib type 1/2	1	78		mortar including over broken edges
123	NIB	Fabric 7	moulded	1	200		mortar;finger/paw impressions
123	NIB	Fabric 7	Nib type	3	134		same tile;vitrified;right corner
123	NIBDISC	LSWA	moulded	1	98		very abraded
123	PNR	LSWA		1	169		flat roofer;spalling
123	PNR	Fabric 7		1	292		flat roofer;mortar including over broken edges
123	PNR	Fabric 7/13		1	191		flat roofer;cracked during firing

context	cname	fabric	sub type	frags	weight	ref no	description
125	PNRDISC	Fabric 14		1	29		flat roofer
125	PNRDISC	Fabric 12		3	122		flat roofer;same tile
125	PNRDISC	Fabric 12		1	80		flat roofer
126	PNR	Fabric 7		1	122		flat roofer;? Edge of moulded nib;finger mark
126	PNR	Fabric 7		1	123		flat roofer;corner;thick tile
126	PNRDISC	Fabric 7		1	42		flat roofer
126	PNRDISC	Fabric 7		1	335		flat roofer;mortar
126	PNRDISC	Fabric 7		1	138		flat roofer
134	PNRDISC	Fabric 14		1	12		flat roofer
134	NIBDISC	Fabric 12	moulded	1	36		abraded

APPENDIX 4 Faunal Remains

By Jennifer Wood

Introduction

A total of 130 (2500g) fragments of animal bone were recovered by hand during archaeological works undertaken by Pre-Construct Archaeology Lincoln.

The remains were recovered from subsoil (102), 13th century wall foundation [104], 13th- 14th century finds spreads (111), (112), (121) and (123), possible 13th - 14th century wall demolition deposits (116) and possible 15th- 16th century wall demolition deposit (117), 13th century pit [127] and possible 13th- 14th century robbed out wall (134).

Methodology

The entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one. The data produced the basic NISP (Number of Identified Specimen) counts.

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982), Levine (1982) and Payne (1973), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

The remains were generally of a moderate- good overall condition, averaging at grades 2 - 3 on the Lyman criteria (1996).

A total of 13 fragments of bone recovered from subsoil (102), possible wall demolition deposits (116) and (117) and find spreads (111) and (121) displayed evidence of butchery, possibly associated with jointing/disarticulation of the carcass and meat removal.

Two horncores recovered from subsoil (102) and wall destruction deposit (116) displayed evidence of horn removal, suggesting hornworking was undertaken in the vicinity.

A single large mammal sized long bone fragment recovered from wall foundation [104] displayed evidence of burning. No evidence of carnivore gnawing, or pathology were noted on any of the remains.

Table 1, Summary of Identified Bone (NISP)

Taxon	Date						Total
	13 th Century	13 th Century?	13th - 14 th Century	13th or 17 th Century	Late 15th Early-Mid 16 th Century	Early/Mid 16 th Century	
Cattle	1	3	17	1	6	7	35
Sheep/Goat			24		2	2	28
Pig			2	1	1	1	5
Dog	1		1			1	3
Domestic Fowl			2	1	1		4
Goose			1				1
Roe Deer?						1	1
Fish		1					1
Large Mammal		4	28	3	3	7	45
Medium Mammal	1			1		2	4
Small Mammal			1	1			2
Unidentified				1			1
Total	3	8	76	9	13	21	130

As can be seen from Table 1, the majority of the remains were identified as cattle and large mammal sized, followed by sheep/goat, with pig, dog, domestic fowl, goose, possible roe deer and fish remains also identified. The assemblage was relatively small, although relatively cohesively dated group of bone, which provides limited information on the animal utilisation and husbandry practices undertaken on site. Cattle and sheep/goat provided the majority of the meat for consumption on site. Little aging evidence is available for the cattle remains; however the tooth wear scores for the sheep/goat remains (Table 2) suggest that the majority of the animals butchered were much older animals, probably representing wool flock surplus. This may be a reflection of the economic boom for the wool trade late 12th – mid 14th centuries (Sykes, 2006).

Little burnt bone was recovered suggesting limited in the form of hearth sweeping were present, either due to being away from actual settlement area or the area was kept particularly clean. No evidence of gnawing was noted on the remains, suggesting the waste was rapidly disposed and buried reducing the access of scavengers.

The skeletal elements represented suggest the remains were probably from food and butchery waste. The horncores with evidence of horn removal cut marks suggests small scale craft industry was undertaken in the area. Small scale or cottage craft industry was common within medieval settlement, through to the post medieval periods.

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Key:

CODES AND REFERENCES USED IN CATALOGUING ANIMAL BONE

Taxon: Species, family group or size category.

Non-species specific codes: -

- : Equid- Horse Family
- : Gadidae- Cod Family
- : Passer- *Passerine*, Small songbirds i.e. Sparrow or Finches
- : Turdid- *Turdidae*, Blackbird/Thrush family
- : Corvid- *Covidae*, Crow family i.e. Crow, Rook or Jackdaw
- : Galliform- Fowl or Pheasant
- : Large Mammal – Cattle, Horse, Red Deer size
- : Medium Mammal- Sheep/Goat, Pig, Dog, Roe Deer size
- : Small Mammal- Cat, Rabbit size
- : Micro Mammal- Mouse sized
- : Unidentified- Not identified to species

Element: Skeletal element represented.
: Unidentified- Not identified to element

Side: L-Left, R- Right, B- Both

Zones: Records presence/absence of individual areas of the bone.
Based on Zone illustrations in Serjeantson, D, 1996 *The Animal Bones, in Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations*, Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London.

Prox & Dist: Fusion of proximal and distal epiphyses
: X- Not present, F- Fused, U- Unfused, B- Unfused diaphysis and epiphysis present, V- Fusion Line visible.

Age Range: Age range based on age at fusion. Based on Silver, I, A, 1969, *The Ageing of Domestic Animals*, in D. Brothwell and E.S. Higgs, *Science in Archaeology*, Thames and Hudson.

Path: Presence of pathology, details in notes column.

Butch: Presence of butchery, details in notes column.

Burnt: Presence of burning, details in notes column.

Gnaw: Presence of gnawing, details in notes column.

Worked: Fragment shows evidence of working, details in the notes column.

Fresh Break: Fresh break noted, fragments re-fitted as one bone.

Associated: Articulating or adjoining bones.

Measured: Measurements taken as according to Von den Driesch, A, 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum.

Tooth Wear: Tooth wear score for aging data, taken as according to:
• Grant, A, 1982 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B Wilson *et al.* *Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series 109, 91-108, Oxford

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Surface: Taphonomies noted on the bone surface:

W- Weathered

A- Abraded

R- Rootlet etched

D- Chemical etching from digestion

Condition: Grades 0-5, where 0 = pristine and 5= indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Based on Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

No.: Number of individual bones/fragments

(g): Weight in grams

Notes: Notes on observed taphonomies, differences and associations.

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No.	(g)	Notes
102	Cattle	Metacarpal	L	N	N	N	N	Y	Y	N	N	X	U	N	N	N	N	N	N	N	N	X	3	1	18	
102	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	X	2	1	2	single knife cut on the blade
102	Sheep/Goat	Scapula	L	N	Y	N	Y	Y	N	N	N	F	X	N	Y	N	N	N	N	Y	N	X	2	1	12	Knife cuts on the neck.
102	Roe Deer?	Metatarsal	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	11	
102	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	9	Fragments
102	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	3	28	
102	Cattle	Mandible	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	69	Erupting M3 insitu
102	Sheep/Goat	Tibia	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	17	
102	Cattle	Metatarsal	L	Y	N	N	N	N	N	N	N	F	X	N	Y	N	N	N	N	N	N	X	3	1	23	knife cuts on the proximal end
102	Cattle	Skull- frontal	L	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	Y	N	N	N	X	2	1	80	+horncore, chopped at base of horncore
102	Cattle	Femur	R	N	N	N	N	N	N	N	Y	X	U	N	N	N	N	Y	N	N	N	X	2	1	52	
102	Pig	Tibia	R	N	N	Y	Y	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	27	
102	Cattle	Phalanx (I)	R	Y	Y	Y	Y	Y	Y	N	Y	F	F	N	N	N	Y	N	N	N	N	X	2	1	23	Carnivore tooth marks on proximal end
102	Cattle	Metacarpal	R	Y	Y	Y	Y	N	N	N	N	F	X	N	Y	N	N	N	N	Y	N	X	2	1	98	Snapped midshaft
102	Large Mammal	Innominate	R	Y	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	62	
102	Medium Mammal	Thoracic	B	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	N	N	X	2	1	20	
102	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	8	
102	Dog	Humerus	L	N	N	Y	Y	Y	Y	N	Y	X	F	N	N	N	N	N	N	N	N	X	3	1	28	
104	Cattle	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	2	Upper PM
104	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	1	Burnt grey
104	Fish	Vertebra	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	Large gadid
104	Cattle	Caudal	B	N	N	N	N	N	N	N	N	F	F	N	N	N	N	N	N	N	N	X	2	1	5	
104	Cattle	Skull-zygomatic	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	15	
104	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	7	
104	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
111	Cattle	Tibia	R	N	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	X	3	1	52	

Cbxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No.	(g)	Notes		
111	Cattle	Femur	R	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	17	Single condyle	
111	Cattle	Calcaneus	R	Y	Y	Y	Y	Y	Y	Y	Y	F	X	N	N	N	N	N	N	N	Y	N	X	3	1	39		
111	Cattle	Metatarsal	L	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	N	N	Y	N	X	2	1	54		
111	Cattle	Ulna	R	N	N	Y	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	19		
111	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	5	Upper M3	
111	Sheep/Goat	Radius	R	N	N	Y	Y	Y	Y	N	N	U	U	N	N	N	N	N	N	N	N	N	X	3	1	5	infant/juvenile	
111	Fowl	Scapula	R	Y	Y	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	2	1	0		
111	Pig	Metatarsal (IV)	L	Y	Y	Y	Y	Y	Y	N	N	F	U	N	N	N	N	N	Y	N	N	N	X	2	1	9		
111	Pig	Metatarsal (III)	L	Y	Y	Y	Y	Y	Y	N	N	F	U	N	N	N	N	N	N	N	N	N	N	X	2	1	9	
111	Cattle	Innominate	R	N	N	Y	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	N	X	3	1	27	Chop mark on ilium above acetabulum	
111	Sheep/Goat	Mandible	R	Y	Y	Y	Y	Y	Y	Y	Y	X	X	N	N	N	N	N	N	N	N	Y	X	2	1	41		
111	Sheep/Goat	Innominate	R	N	N	Y	Y	Y	N	Y	N	F	X	N	N	N	N	N	N	N	N	N	X	2	1	7		
111	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	22		
111	Sheep/Goat	Femur	R	N	N	N	N	N	N	Y	Y	X	F	N	N	N	N	N	N	N	N	N	X	3	1	16		
111	Cattle	Innominate	L	N	N	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	2	1	79		
111	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	5	43		
111	Sheep/Goat	Femur	R	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	N	X	3	1	10		
111	Sheep/Goat	Femur	L	N	N	Y	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	15		
111	Sheep/Goat	Tibia	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	9		
111	Cattle	Phalanx (II)	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	N	Y	N	X	2	1	11		
111	Cattle	Phalanx (II)	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	N	Y	N	X	2	1	9		
111	Large Mammal	Lumbar	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	9	Articular facet	
111	Sheep/Goat	Tibia	R	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	11		
111	Sheep/Goat	Tibia	R	N	N	Y	Y	Y	Y	Y	Y	X	F	N	Y	N	N	N	N	N	Y	N	X	2	1	28	Knife scored around proximal shaft and snapped through	
111	Goose	Humerus	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	6		
111	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	Y	X	2	1	4	Lower M2=g	
111	Sheep/Goat	Mandible	L	Y	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	5		
111	Sheep/Goat	Mandible	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	9		
111	Sheep/Goat	Mandible	L	N	N	N	N	Y	Y	Y	Y	X	X	N	N	N	N	N	N	N	N	Y	X	3	1	31		
111	Sheep/Goat	Mandible	L	Y	Y	Y	Y	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	Y	X	3	1	38		

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No.	(g)	Notes	
111	Sheep/Goat	Mandible	R	Y	Y	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	YX		3	1	43	
111	Sheep/Goat	Mandible	R	N	N	N	N	N	N	N	N	YX	X	N	N	N	N	N	N	N	N	N		4	1	3	
111	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		2	1	8	
111	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	YX		3	1	2	Lower M1=k
111	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	5	Lower M3 broken
112	Large Mammal	Rib	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	12	
112	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	2	33	
112	Cattle	Metatarsal	L	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	N	N	Y	NX		2	1	65	
112	Cattle	Tibia	R	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	28	
112	Sheep/Goat	Metacarpal	R	N	Y	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	N	NX		3	1	5	
112	Small Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	1	Rabbit?
116	Cattle	Horncore	L	Y	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	28	
116	Large Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	3	23	
116	Large Mammal	Thoracic	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		3	1	8	
116	Cattle	Radius	R	Y	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	Y	NX		3	1	55	
116	Cattle	Horncore	L	Y	Y	Y	Y	Y	Y	N	N	X	X	N	Y	N	N	N	N	N	N	NX		3	1	93	Knife marks/chops circling the horncore base
116	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		2	1	14	
117	Sheep/Goat	Femur	R	N	N	N	N	N	N	Y	Y	X	F	N	N	N	Y	N	N	N	N	NX		3	1	18	Possible carnivore gnawing on the distal end
117	Pig	Skull- occipital	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	NX		2	1	31	Juv
117	Cattle	Horncore	R	Y	Y	Y	Y	Y	Y	Y	Y	X	X	N	N	N	N	N	N	N	N	NX		2	1	48	no obvious cut marks
117	Cattle	Metatarsal	L	Y	Y	N	N	N	N	N	N	F	X	N	Y	N	N	N	N	N	N	NX		2	1	56	two knife marks on the proximal anterior
117	Cattle	Calcaneus	R	N	Y	N	N	Y	Y	Y	N	X	X	N	N	N	Y	N	N	N	N	NX		3	1	44	Possible carnivore gnawing on the proximal end
117	Cattle	Nav-Cuboid	L	N	Y	Y	Y	Y	Y	Y	Y	X	X	N	N	N	N	N	N	N	N	NX		2	1	23	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No.	(g)	Notes	
117	Sheep/Goat	Radius	L	Y	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	3	1	5	
117	Large Mammal	Cervical	B	N	N	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	N	X	2	1	54	
117	Cattle	Skull- occipital	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	15	
117	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	14	
117	Fowl	Tarso-metatarsus	L	N	N	N	N	Y	Y	Y	Y	X	F	N	Y	N	N	N	N	N	N	N	X	3	1	0	Single knife cut on the spur scar
117	Large Mammal	Scapula	L	N	N	N	N	N	Y	N	N	X	X	N	Y	N	N	N	N	N	N	N	X	2	1	43	Knife cut on the blade
117	Cattle	Scapula	R	Y	Y	N	N	N	N	N	N	F	X	N	Y	N	N	N	N	N	N	N	X	2	1	52	chopped through the glenoid
121	Large Mammal	Innominate	R	N	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	27	
121	Cattle	Tibia	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	1	60	
121	Dog	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	1	Lower canine
121	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	4	64	
121	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	4	
121	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	N	X	3	1	11	knife mark on visceral side of the rib, cut and snapped through
121	Large Mammal	Innominate	B	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	21	
121	Sheep/Goat	Metacarpal	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	5	
121	Cattle	Scapula	L	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	2	1	18	
121	Fowl	Sternum	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	6	
121	Sheep/Goat	Tibia	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	7	
121	Sheep/Goat	Ulna	L	N	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	4	
121	Large Mammal	Scapula	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	4	22	Blade fragments
121	Sheep/Goat	Metatarsal	R	Y	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	Y	N	X	2	1	6	
123	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	6	
123	Small Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	0	
123	Pig	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	2	1	2	Broken lower incisor
123	Large Mammal	Costal Cartilage	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	2	
123	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	12	
123	Cattle	Radius	R	N	N	Y	Y	Y	Y	N	N	U	U	N	N	N	N	N	N	N	N	N	X	2	1	30	Infant (calf)
123	Fowl	Ulna	L	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	N	N	N	N	X	2	1	1	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measured	Tooth Wear	Surface	Condition	No.	(g)	Notes	
123	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	4	
	Medium																										
123	Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	2	1	2	
128	Dog	Humerus	L	N	N	Y	Y	Y	Y	Y	Y	U	F	N	N	N	N	N	N	Y	N	X	3	1	48		
128	Cattle	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	33	Upper M2	
	Medium																										
128	Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	fragment	
134	Cattle	Metapodial	R	N	N	N	N	Y	Y	N	N	X	U	N	N	N	N	N	N	N	N	X	3	1	15		

Table 2, Tooth Wear Age Scores

Context	Taxon	Side	dpm4	PM4	M1	M2	M3	Notes
111	Sheep/Goat	R		l	n	m	k	> 8 years
111	Sheep/Goat	R			m	j	h	> 8 years
111	Sheep/Goat	L		g	k	h	f	3 - 5 years
111	Sheep/Goat	L					h	5 - 8 years

APPENDIX 5 Lithic Materials

By Jim Rylatt

1.0 Introduction

This report concerns one piece of worked flint recovered during an archaeological evaluation and watching brief on two house plots at Robey Street, Lincoln. This artefact is a product of the lithic technology that was practiced during the Neolithic.

2.0 Method of study

The lithic artefact was physically examined in order to create an archive catalogue. Its attributes were noted in order to determine its place in the reduction sequence, describe observable characteristics of the lithic technology utilised and provide an assessment of its functional potential. The catalogue also records the presence of patination, cortex and whether the piece has been burnt. The piece has been weighed and metrical data is recorded if it is a complete flake, tool or core. It was examined with a x3 hand-lens to determine whether there is any evidence of localised modification that could be indicative of use.

3.0 Catalogue

Context	Type	Dimensions	Description
104	Blade	42x18x6 3.4g	Tertiary blade with scars of 4 comparable removals from same platform- has flat platform, but platform edge is very heavily/roughly abraded; has two small pronounced bulbs, indicating hammer had irregular surface making contact in two places (poss. Antler?); prob. Feathered termination, but modified by post-depositional damage- extensive chipping to lateral and distal edges (both dorsal and ventral margins) indicative of significant post-depositional damage; greyish-brown to caramel-brown semi-transparent flint. E. Neo

NB: measurements are only given for complete flakes, tools and pieces- the first figure relates to the maximum length, measured perpendicular to the striking platform; the second to maximum breadth, measured at a right angle to the length; the third to maximum thickness.

4.0 Comments

This blade provides an indication of a later prehistoric presence on the site. The recovery of only a single piece of worked lithic material could indicate that this was a brief and ephemeral episode of activity. However, it is clear that this was a residual artifact with significant post-depositional damage, which was recovered from a much later archaeological context- limestone wall foundation (104). This raises the possibility that this blade forms part of a much larger assemblage, some elements having been disturbed and exposed by later activity, while the majority remains undisturbed in more deeply stratified deposits. Parallels can be drawn with lithic material found approximately 600m to the south, in the St Catherine's suburb of Lincoln. Two separate archaeological interventions have recovered small quantities of early Neolithic and later Neolithic to early Bronze Age worked flint from medieval and post-medieval contexts (Rylatt 2007, 2008). At a third site there was extensive investigation of the sediment underlying the medieval archaeology. Sieving of these alluvial deposits recovered 468 pieces of struck flint and seven fragments of fire cracked pebble (Rylatt

forthcoming). This material included both early and late Mesolithic microliths and, as such, represents the first instance that early Mesolithic activity has been identified within the City of Lincoln. The largest component of the assemblage represented an early Neolithic presence at the site (c 4000-3300 BC). There was also relatively small-scale late Neolithic to early Bronze Age activity. Consequently, the lithic material that has been recovered from St Catherine's and Robey Street is potentially indicative of relatively extensive earlier Neolithic activity along the eastern margins of the Upper Witham as it approaches and merges with the Brayford Pool.

5.0 References

Rylatt, J. 2007 St Catherine's Excavation, Lincoln, Lincolnshire (SCEL 07). Lithic Materials. Unpublished report for Lindsey Archaeological Services.

Rylatt, J. 2008 Upper Witham Internal Drainage Board Building, Lincoln, Lincolnshire (LUWD 07). Lithic Materials. Unpublished report for Allen Archaeological Associates.

Rylatt, J. forthcoming St Catherine's, Lincoln, Lincolnshire (LISC 06). Lithic Materials. Unpublished report for Lindsey Archaeological Services.

APPENDIX 6 Quern Report

By Jenny Mann

Lava querns were imported from the Rhineland from Roman times onwards, and continued in use well into the post-medieval period. Broken fragments were frequently reused as hardcore on surfaces or as walling rubble. This piece was found in the fill of a possible oven (118), and traces of mortar adhering to the broken edges suggest that it may have been incorporated into the structure itself.

<i>Context</i>	<i>Material</i>	<i>Object</i>	<i>Description</i>
124	Stone	Quern	Vesicular lava. Fragment, c. 79 x 63 x 62mm (max). Edges abraded; small worn area of original grinding surface(?) survives. Traces of mortar adhering.



Figure 2 Detailed site location (Scale 1:500)

Site
 Building Surveyed
 Area of Evaluation and Watching Brief

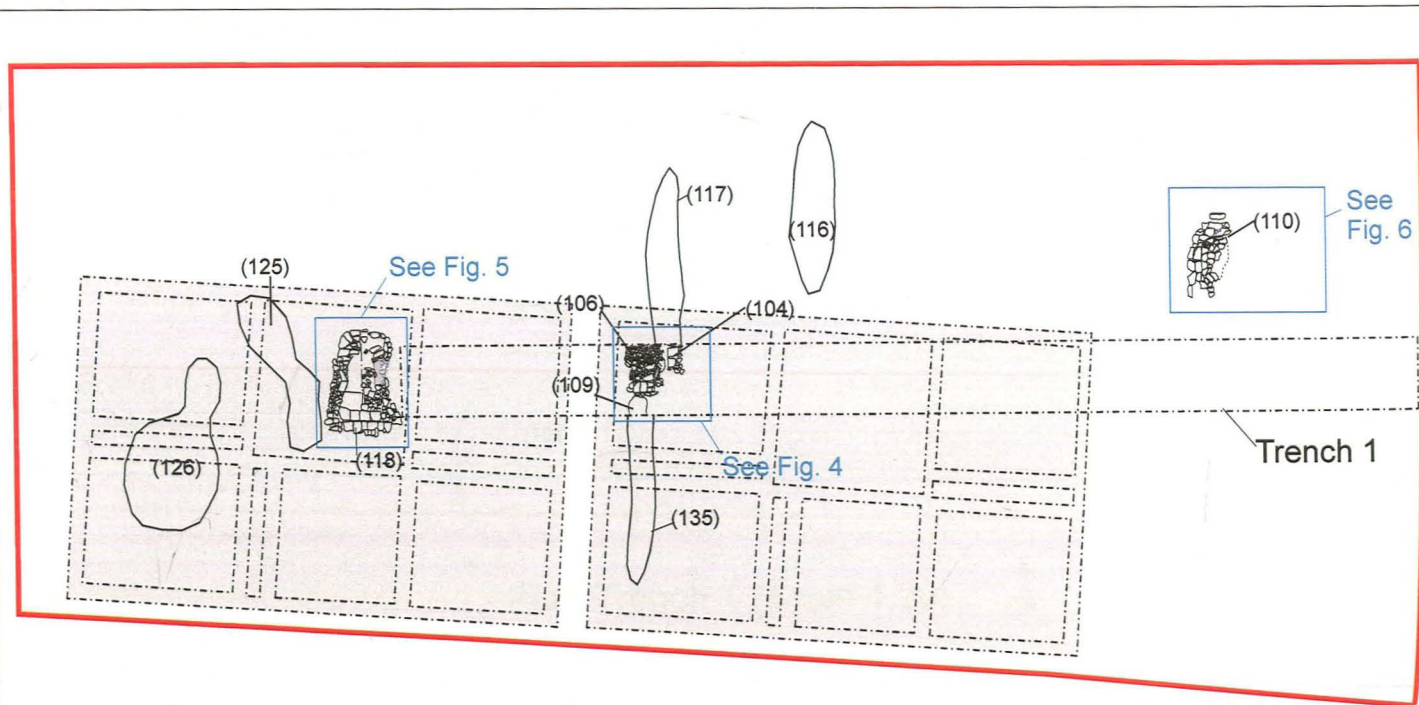
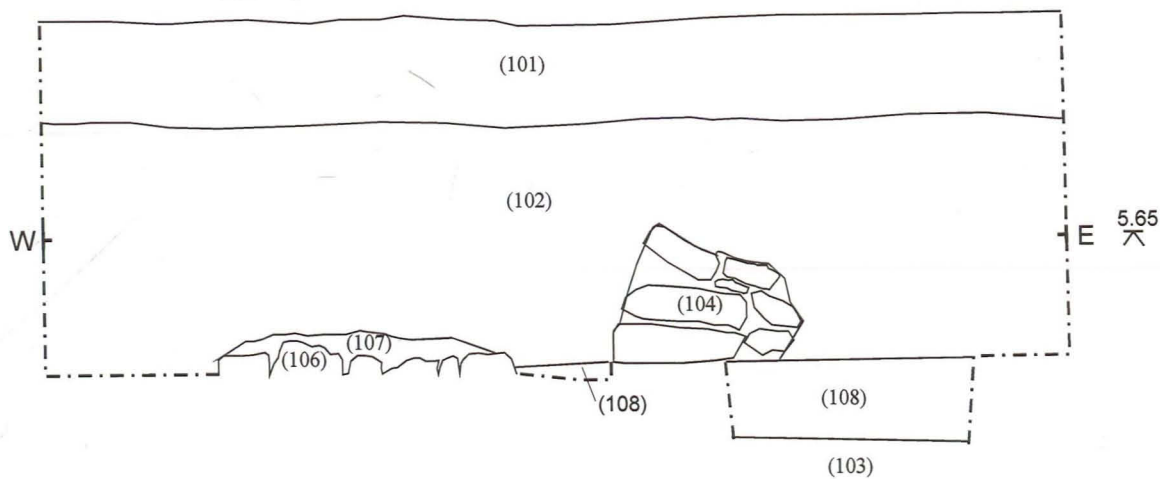


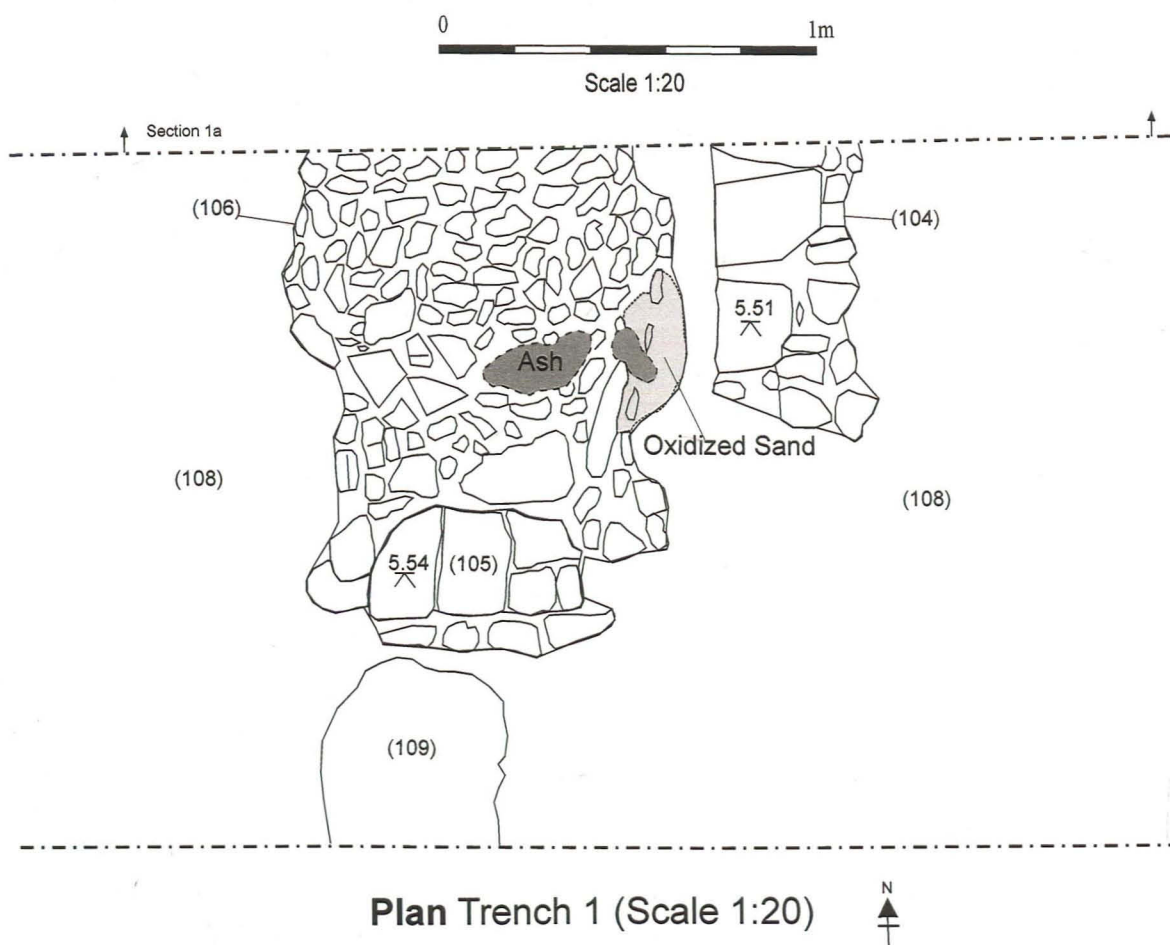
Figure 3 Area of Evaluation and Watching Brief (Scale 1:200)

Area of Archaeological Intervention
 Evaluation Trench
 Foundation Trenches



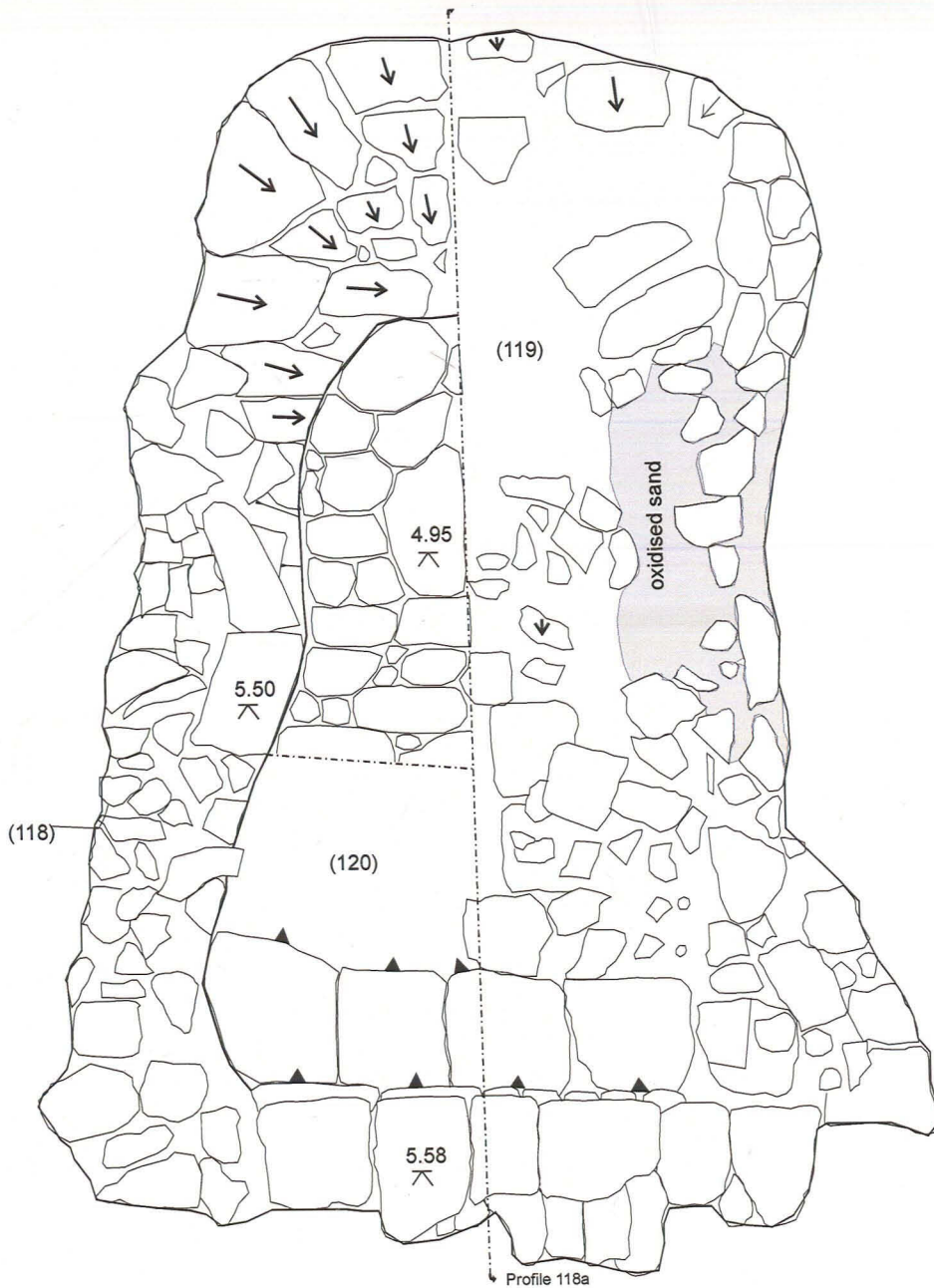


Section 1a South facing section of Trench 1 (Scale 1:20)



Plan Trench 1 (Scale 1:20)

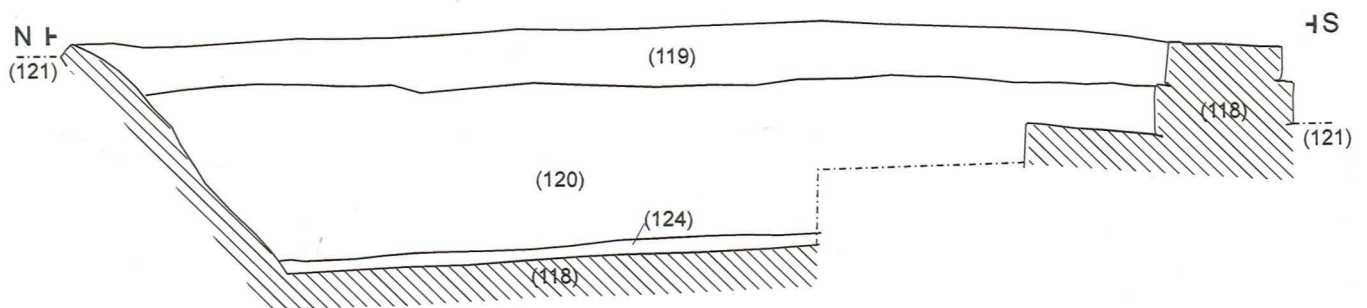
Figure 4 Plan and section of Trench 1



Plan Kiln/oven (118) (Scale 1:20)



Scale 1:20



Profile 118 a West facing profile of kiln/oven (118) (Scale 1:20)

Figure 5 Plan and profile of kiln/oven (118)

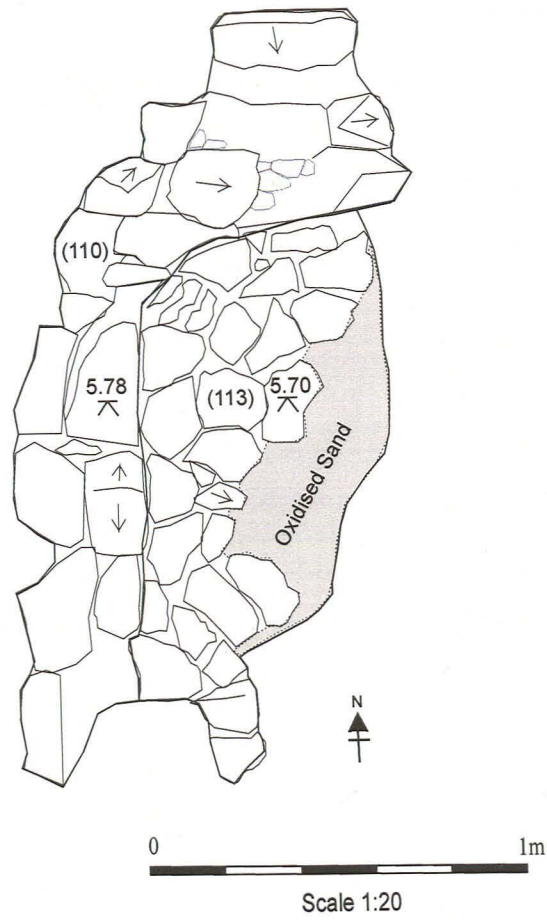


Figure 6 Plan of Structure (110) (Scale 1:20)

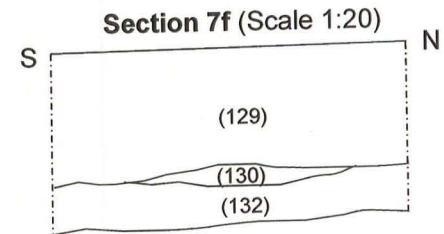
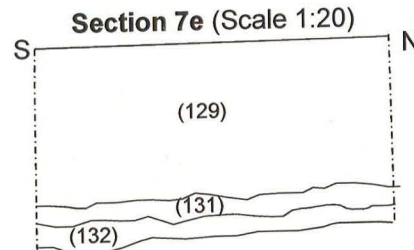
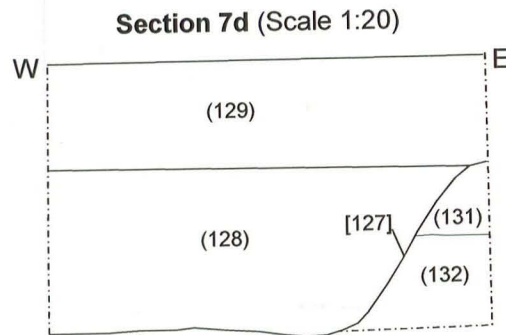
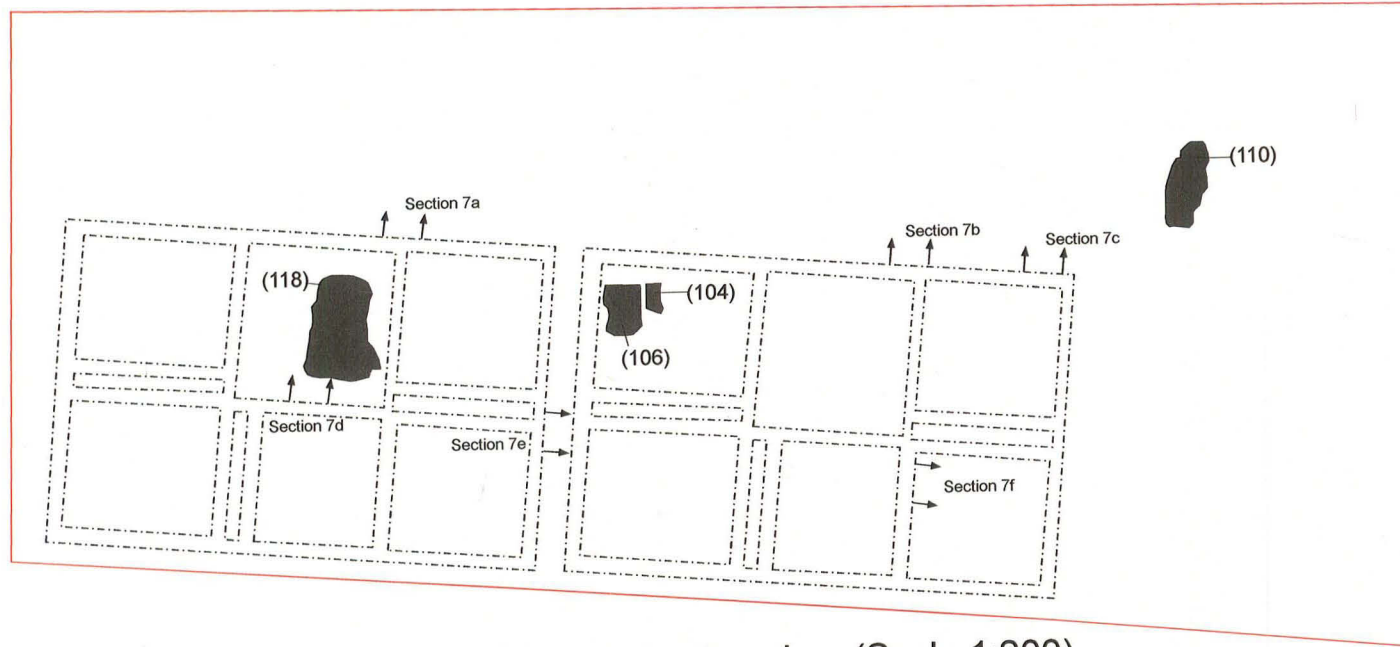
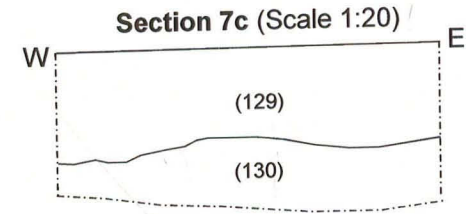
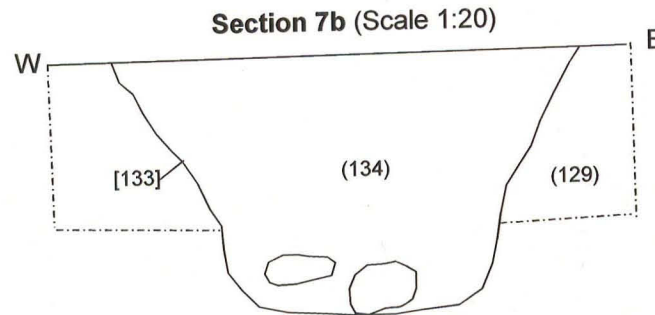
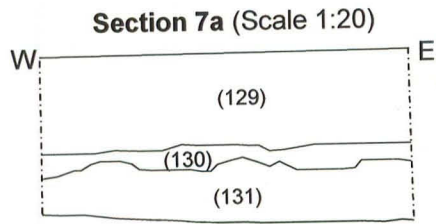


Figure 7 Plan and section of foundation trenches observed in watching brief

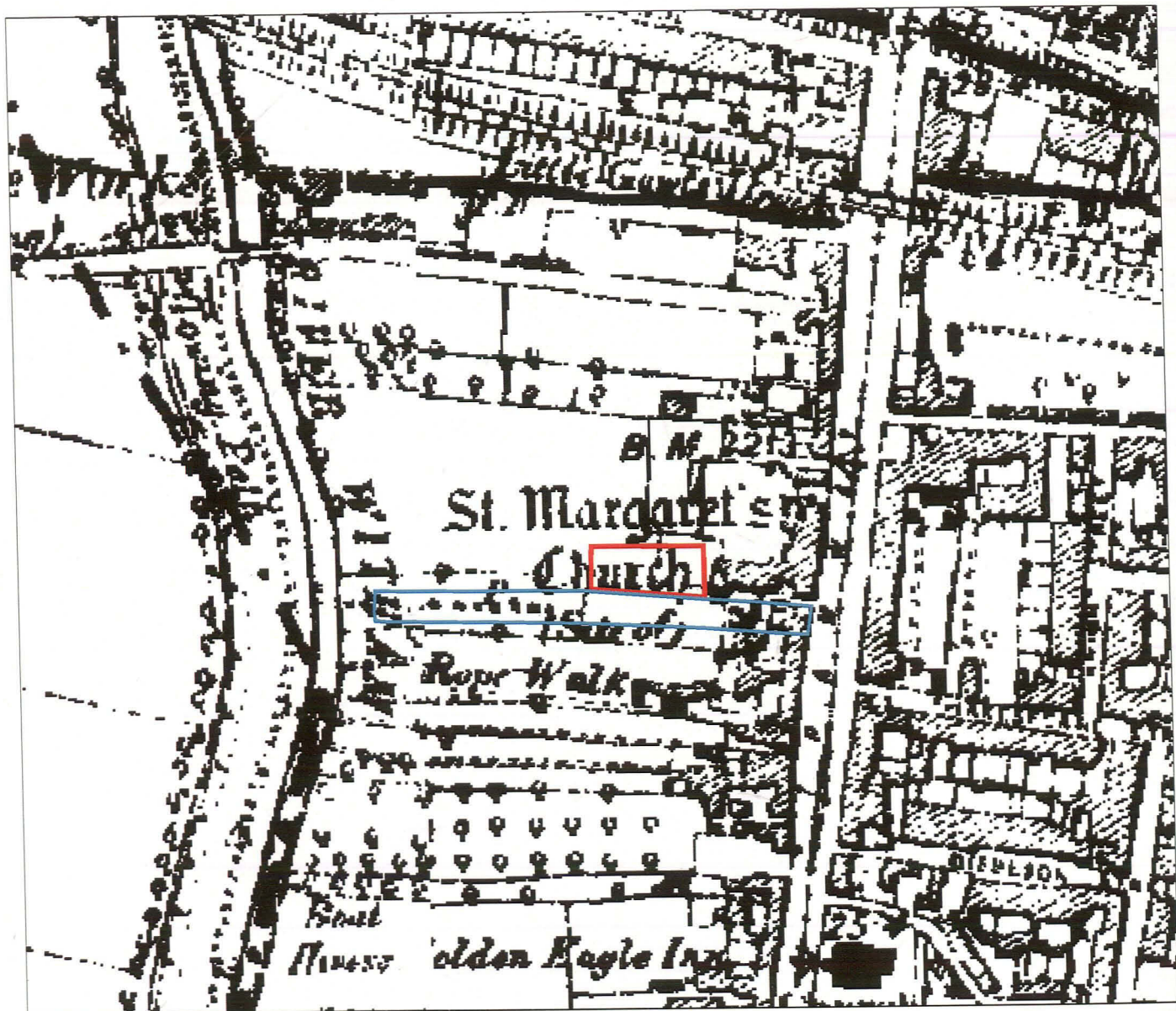


Figure 8 1st Edition Ordnance Survey Map of 1889
(Scale approximately 1:4000)

 Approximate position of Robey Street

 Approximate position of site





Figure 9 Detailed photograph location plan (Scale 1:400)

□ Site

■ Building Surveyed

↑ Photograph number and direction



