A Report on Archaeological Fieldwork undertaken at 8 Church Lane, South Witham, Lincolnshire (NGR SK 9277 1929)

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For: Edren Homes limited
(Planning Application No. 01/0187/668)

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Summary

An archaeological excavation was carried out on land at 8 Church Lane, South Witham, Lincolnshire, between 8th and 30th April 2002 in response to the discovery of Roman and medieval archaeological deposits during preliminary evaluation work undertaken on the site in December 2000. The opening of an area of c.1550m² revealed further evidence of first- to second-century Romano-British and eleventh- to fifteenth-century medieval occupation in the form of ditches, gullies, pits and postholes. Residual early Saxon pottery also indicated occupation on or near the site during this period. In terms of medieval industrial activity, the recovery of iron slag indicated iron smelting and smithing having been undertaken in the vicinity, in addition to suggestions of bread production in the form of environmental evidence and a possible bread oven or malting kiln structure. The recovery of a small assemblage of residual and unstratified flint artefacts testifies to prehistoric activity in the vicinity of the development area. These results broadly tally with findings from an archaeological watching brief subsequently undertaken in June 2002 by ULAS a short distance to the north of the present site in Church Street.

1: Introduction

1.1 An archaeological excavation was undertaken by University of Leicester Archaeological Services (ULAS) at 8 Church Lane, South Witham, Lincolnshire. Fieldwork on the site was in accordance with the *Project Brief for an Archaeological Excavation* prepared by the Community Archaeologist for South Kesteven District Council (March 2002) and the approved *Design Specification for a Scheme of Archaeological Excavation* (ULAS Specification 02/597, 2002). An *Archaeological Desk-Based Assessment* compiled by Archaeological Project Services (A.P.S. Report No. 071/00) had earlier concluded that the site possessed archaeological potential on the basis of the discovery in the vicinity of Romano-British and medieval material. Archaeological excavations undertaken to the north of the village by English Heritage in the 1960s revealed a site of the Knights Templar, including a farm and preceptory. Subsequently, an archaeological evaluation carried out in December 2000 by ULAS established the presence of several phases of archaeological activity (ULAS Report No. 2001/179).

2: Site Location (Figures 1 & 2)

2.1 The application area is situated west of Church Lane on the eastern side of the village of South Witham in the District of South Kesteven, Lincolnshire. Occupying a former orchard and garden area adjacent to the church of St. John the Baptist, the site lies within the historic village core.

3: Geology

3.1 The proposed development site occupies an east-facing slope at a height of *c.*105m above OD and is centred on NGR SK 9277 1929. The local geology consists of a brashy calcareous fine loamy soil overlying Jurassic limestone.

4: Aims and Objectives

4.1 As detailed in the design brief, and proceeding from the findings of the archaeological evaluation, the stated research aims of the excavation were, in accordance with the English Heritage and East Midlands Archaeological Research Frameworks agendas, to accurately date and phase occupation on the site, and to target and/or identify any specific activities occurring on or in close proximity to the site – notably, metalworking.

4.2 Specifically, regarding the Roman period, it was necessary to attempt to establish whether, as suspected, the site was abandoned during the second or third century and re-occupied in the fourth century. Furthermore, it was deemed a priority to establish the focus of any Romano-British occupation in addition to the form and function of any subsequent medieval activity on the site.

5: Methodology

5.1 A single substantial area was opened, totalling *c.*1550m², which was selected in order to target the area of proposed housing in accordance with the brief issued by the County Planning Archaeologist.

5.2 Topsoil was removed in spits using a JCB wheeled excavator fitted with a 1.6m toothless ditching bucket; machining was conducted under constant archaeological supervision.

5.3 Archaeological deposits were hand cleaned and planned; trench plans were produced at a scale 1:20 and section drawings at 1:10.

5.4 The location of the trench and the features therein were surveyed using a Topcon GTS303 Total Station linked to a Psion hand held data logger.

5.5 All procedures undertaken adhered to the Institute of Field Archaeologists' *Standard and Guidance for Archaeological Excavations*.

6: Archaeological and Historical Background

6.1 The archaeological and historical context of the site is discussed in some detail in the *Archaeological Desk-Based Assessment* and *Archaeological Evaluation* reports. However, the evidence will be reiterated here in outline.

6.2 The Knights Templar order is known to have owned property in South Witham from the mid-twelfth century. Archaeological excavations conducted in Temple Field to the north of the village in 1965-7 revealed a farm and preceptory belonging to the order dating to the early fourteenth century. The church of St. John the Baptist, in which the Templars had a half share, is situated directly to the north of the development area.

6.3 Although located at the historic village core, the site appears never to have been occupied by buildings during the historic period; a series of maps dating from the eighteenth and nineteenth centuries show no indications of development within this area of the village. The existence of fishponds in the locality during the medieval period is suggested by the presence of a drain – Fishpool Dyke – bordering the eastern edge of the proposed area of development (Albone 2000: 3).

7: Results of the Excavation

7.1: The Prehistoric Period (Appendices 1 & Six; Figure 12)

A small assemblage of residual and unstratified flint artefacts provided indications of human activity on the site between the Mesolithic and Bronze Age periods. An Iron Age beehive quern and a single sherd of Iron Age scored ware pottery were located in Pit 135, perhaps suggesting Iron Age origins for the first-century Roman activity.

7.2: The Roman Period (Figures 3, 4, 10.1 & 10.3)

The Roman period was represented by a single pit and one, possibly three, gullies or ditches of predominately first-century date. Located in the south-eastern area of the excavation, Feature 135 was an elongated, sub-rectangular pit-like feature measuring 3.7m x 1.1m x 0.5m deep, with 45º sides and a flattish base. Aligned broadly east-west, the feature's single clay silt fill contained substantial quantities of limestone rubble and an assemblage of mid- to late first-century Roman domestic pottery as well as two near-complete quern stones, one of late Iron Age beehive type and the other an early Roman flat type. Around 20m to the north of Feature 135, a shallow ditch (122) was traced, extending *c.*20m west from the eastern trench baulk before terminating in a butt end (Figure 10.1). The 2m-wide, 0.5m-deep flat-based feature was the western continuation of a ditch encountered during the archaeological evaluation in 2001 in Trenches 5 (Ditch 20) and 2 (Ditch 8), and produced first-century pottery.

The excavation was traversed by two parallel shallow ditches, running north-east to south-west, both of which had been previously observed during the archaeological evaluation in 2001. Feature 181 (Figure 10.3) was shown to be a heavily truncated ditch measuring 1m wide and 0.2m deep with gradually sloping sides and a flattish base; it was traced running south for *c.*32m before being truncated by the gully 141/267. The feature appeared to be the same linear feature as Ditch 17/28 (Trenches 4 & 6) identified in the 2001 evaluation and yielded first-century domestic pottery. Feature 185 was situated *c.*8m to the west, traced running south for *c.*28m and cut by the later kiln/oven 231/256; this was the same ditch as had been encountered in 2001 as Ditch 29 in Trench 7. The 2001 evaluation identified this as a 0.4m-deep ditch

with a v-shaped profile. The earlier work also suggested that the latter in fact represents two parallel, perhaps recut gullies or shallow ditches of possible Roman date.

7.3: The Medieval Period (Figures 3-11 & 13)

The great majority of features encountered in the excavation were dated to the early medieval period. A gully or shallow ditch (141/267), running directly parallel with the trench edge, flanked the southern boundary of the archaeological evaluation for its entire 16m length (Figure 10). The gully was between 0.75m and 1.2m wide and 0.4m deep, had an open V-shaped profile sloping to a flat base, and appears to have been associated and/or contemporary with a group of features directly to the north, the most notable of which was the possible kiln/oven feature 231/256 (see below).

The principal feature of the southern excavation area was the surviving substructure of a possible bread oven or malting kiln (231/256), located close to and parallel with the southern site boundary and measuring *c.*7m in length, 1.6m wide and 0.7m deep overall (Figures 5-7 & 13). Nothing survived of the feature above ground level. The keyhole-shaped structure was composed of two elements. The eastern component consisted of an oval cut (231) into the natural limestone, measuring 1.6m x 2m wide and 0.7m deep, the tapering sides of which were lined with roughly dressed, unmortared coursed limestone masonry (232) set onto the flattish limestone bedrock base. A blackened and reddened area (276) of the latter centred on and spreading back from the entrance to the feature indicated its having been exposed to intense heat. A thin dark brown primary clay silt (245) had accumulated prior to the deliberate backfilling of the feature with coarse limestone rubble (233).

The mouth of the kiln/oven opened onto a linear feature, possibly a flue (256), *c.*2.3m in width, 0.6m deep and extending for some 5m towards the west. Although time constraints prevented its further excavation, the feature appeared to gradually broaden as it extended westwards. A representative section excavated across the east end of the feature revealed a steep-sided unlined cut, the base of which gradually sloped eastwards towards its junction with the stone-lined chamber (231). A 0.5m-thick clay primary silt (257/271) had accumulated prior to the backfilling of the feature with clay silt/limestone rubble (258), ceramic evidence placing this final phase to between the mid-fifteenth and sixteenth centuries. Although environmental analysis of the primary silts failed to provide indications as to the possible function(s) of the structure, possible parallels are discussed below (Section 8.2).

A scatter of small features was situated to the east of the kiln/oven, ranged east-west along and broadly parallel with the southern boundary gully 141/267. Separated by the north-south gully 181, these comprised, to the west, postholes 171, 174, 175, 177 and 234, Feature 238 and Gully 240. Four postholes (152, 163, 165 and 167) lay to the east. Although none of these features produced any dateable material, their broad correspondence with the kiln/oven and gully suggests that they pertain to the same phase of activity and therefore may have been functionally related

The extreme south-eastern corner of the excavation was occupied by the fragmentary stub of two adjoining walls (143 & 144) measuring 1.8m N-S and 1.4m E-W, the unbonded limestone fabric of which survived to a height of three courses (*c.*0.4m).

(Figure 9). An absence of associated features or of dating mitigated against linking it with the hearth structure 262 to the north (see below).

The western sector of the excavation was dominated by a series of early medieval rubbish pits, a number of which contained quantities of iron working tap slag from their upper fills. Pit 191 (Figure 11.1) was roughly square in plan, measuring 2.3m x 2m and 0.6m deep, and Pit 211 measured 1.3m x 1m and 0.5m deep. Pit 209 (Figure 11.3) was approximately 2m in diameter and 1.3m deep and contained an assemblage of mid-twelfth century pottery (see below, Appendix 2). A fourth, heavily truncated sub-rectangular pit (179) measuring 12m x 0.8m lay ten metres to the east.

Traces of a masonry structure dominated the area of the trench midway along the eastern edge of excavation, situated immediately south of the Roman gully/ditch 122. The broadly rectangular structure was defined on its southern side by the single surviving course of a poorly-constructed, unbonded limestone wall (264) of varying (0.4m-0.8m) width; the stub of a possible flanking wall survived to the north (265) (Figure 8). The wall(s) defined a floor or yard surface of compacted limestone fragments in a silty clay matrix (263) measuring approximately 5m+ in length and 2.4m wide. The north-western corner of this area was occupied by a hearth or oven base (124, 261). A crude arrangement of irregular unmortared limestone blocks (124) defined a roughly square, flat-based hearth measuring *c.*4.5m x 4.5m and containing an ashy silt fill (261) that produced twelfth to fifteenth-century pottery. The masonry fabric showed signs of exposure to heat. The ill-defined and ephemeral nature of these remains made it unclear as to whether this was a domestic or industrial structure. A possibly contemporary shallow (drip?) gully (126), 0.6m-0.8m in width, ran directly south of and parallel to the structure for a length of 4.4m+, butt ending slightly to the west of the building.

A possible hearth, oven base or pit (137) was located around 12m to the south in the south-eastern corner of the trench (Figure 11.2). The feature consisted of a shallow sub-rectangular depression or scoop cut into the natural clay with near-vertical sides and an uneven, undulating base. The single clay silt fill (138) contained substantial quantities of ash, some charcoal and a single sherd of mid-twelfth century Stamford ware pottery. The feature measured 2.2m x 1.8m x 0.3m deep. The feature did not show any indications of having been exposed to direct heat, suggesting that it represents the base of a heavily truncated pit. Environmental analysis of its fill revealed it to contain residues generally associated with the cultivation and production of bread wheat (Appendix Five).

Finally, a line of four small oval postholes (104, 106, 108 & 110) was situated in the northern sector of the trench, directly to the east of Gully 181 and aligned east-west. A single, slightly larger posthole (112) formed an outlier *c.*4.5m to the south. Feature 104 produced four fine Stamford ware pottery sherds. As with the other postholes encountered in the excavation, their insubstantial character suggests considerable truncation and/or that they pertain to some form of fence line rather than a structure.

7.4: The Post-Medieval Period

The post-medieval or modern period was represented by several probable limestone quarry pits (Features 118, 189, 211 & 215), randomly scattered across the site and measuring between 3m and 10m in diameter. A smaller, nineteenth-century pit (100) was encountered in the north-eastern area of excavation. None of these were features were excavated.

8: Conclusions

8.1: The Roman Period

The Roman period was represented by a small number of features consisting of a single pit and a number of gullies or ditches dating to the first and early second centuries. There was also limited (ceramic) evidence for a subsequent fourth-century revival of activity. The quern stones and domestic pottery assemblage recovered from Pit 135 are characteristic of domestic occupation, whilst the linear features are indicative of property subdivision. Whilst two of the ditches (181 and 185) appearing to have been contemporary with one-another, the varying alignments of these features does suggest differing occupational phases, mirroring the evidence from the archaeological evaluation (Chapman 2001: 17). The apparent second- to fourth-century occupational hiatus accords with the perceived picture for the area during this period. The recovery of residual early Anglo-Saxon pottery from Roman and medieval contexts on a site close to the village core is significant in terms of highlighting the possible pre-medieval origins of rural settlement.

8.2: The Medieval Period

The excavation has been valuable principally for the evidence it has yielded for medieval industrial production processes. Firstly, there was substantial evidence for the site having been associated with the smelting and, possibly, smithing of iron during the twelfth and thirteenth centuries in the form of substantial ironworking waste in the fills of several pits. The absence of any clear structural evidence does, however, suggest that production was being undertaken offsite, although in the vicinity. Indications of iron manufacture and/or working tally with findings from previous archaeological investigations in South Witham, most recently from a watching brief subsequenty undertaken by ULAS at Church Street, a short distance to the north of Church Lane (Thomas 2002).

Secondly, environmental analysis has yielded corroborative evidence to support suggestions of fine white bread production on the site during the early medieval period in the form of bread wheat remains along with lesser quantities of barley and rye. This material strengthens the case for the kiln or oven feature 231/256 having been associated with the manufacturing of bread, possibly in the parching of grain. Although finds from the feature itself provided no clues as to its possible function, its distinctive form of rounded masonry-lined chamber and elongated flue does appear to be paralleled in structures identified elsewhere as malting kilns, such as those excavated at Boteler's Castle, Oversley, Worcestershire in 1992 (Jones *et al.* 1997)

and at Sherrard Street in Melton Mowbray (Jones, forthcoming). Although malting is associated with the production of beer, not bread, the South Witham structure may have been constructed in order to parch grain (for which task it would have been quite suited) or else undergone a change of use during its working life.

Environmental evidence supports suggestions of the kiln/oven feature having been contemporary with the gully or ditch (142) running the length of the southern edge of the excavation. This would appear to represent some form of boundary serving to define the production activity being undertaken immediately to the north, whilst the group of ephemeral postholes and gullies located to the east of the oven or kiln were, perhaps, functionally linked. South Witham is recognised as having been the location of two religious houses during the medieval period, one of which, the Knights Templar order, is known to have occupied a preceptory on the northern edge of the village. The suggestion of the production of parched grain and, by implication, of fine white bread would strengthen claims to the site having fulfilled a provisioning function for an elite such as a religious order. It is perhaps worthy of note that the structure appears to have been finally backfilled during the fifteenth century, during which period the monastic houses were suppressed and ceased to function.

The fragmentary remains of an ill defined, crudely constructed masonry structure (124/261/264/265) that dominated the eastern sector of the excavation appear to have been broadly contemporary (twelfth- to fourteenth-century) with the industrial features to the west. Although it remains unclear as to whether this arrangement of hearth, rammed limestone floor and fragmentary walling was domestic or industrial in character or functionally linked to the kiln/oven, it is, along with the wall intersection to the south (143 & 144), material evidence for the existence on the site of masonry structure(s) during the medieval period.

Finally, it is evident that the excavation has been successful in addressing certain of its research aims as outlined in the Design Specification; namely, the better understanding of medieval industrial practice and the pre-medieval origins of village evolution.

9: Site Archive

The site archive, consisting of finds, site plans, photographs and paper records, will be Held by the Lincolnshire Museums Service under the accession number 2001.448

10: Acknowledgements

Fieldwork was undertaken by the author with the assistance of Alex Beacock, Meredith Collins, Matthew Parker and James Rolfe (ULAS). The project was managed by Dr Patrick Clay and monitored on behalf of the planning authority by Gail Smith. Roman pottery was identified by Nick Cooper, medieval pottery by Debbie Sawday, slag by Dr. Graham Morgan, flint by Lynden Cooper and animal bone by Jennifer Browning.

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Appendix One: The Romano-British Pottery Nicholas J. Cooper

Introduction

A total of 154 sherds of Romano-British pottery weighing 4.918kg was retrieved from stratified contexts during the excavation phase of the project. Additionally 1.666kg of pottery came from unstratified contexts. The pottery has been recorded using the ULAS form and fabric series (see appendix) and has been quantified using sherd count and weight (g), and in the case of the pit group from 135, estimated vessel equivalents (EVEs) as well. A quantified summary of the assemblage is tabulated below and the full recorded presented in the appendix. Overall, the pottery amplifies the conclusions drawn from the evaluation phase assemblage (Cooper 2002), that there is occupation of first century date, and limited evidence for activity again in the fourth century.

Retrieval and Condition

The average sherd weight of the stratified material is 32g, a figure exaggerated by the large vessel types represented in fill (136) of the pit feature 135, but indicative of primary deposition of rubbish close to a settlement. This conclusion is supported by the large numbers of joining sherds, and the substantial completeness of a number of vessels. The vast majority of pottery was retrieved from a single feature, Pit 135 (136), but small amounts of material came from the fills of four other cut features potentially of Roman date, 181, 122. Additionally, material came from the fills of cut features of post-Roman date.

Pottery from Pit 135, fill (136)

This feature contained a coherent group of vessels probably dating to the latter half of the first century AD and perhaps as early as the middle decades of that century. The group comprised 133 sherds weighing 4.655kg (average sherd weight 35g) and an EVE value of 1.99. At least six jars or storage jars are represented, five in a locally hand made shell-tempered fabric (CG1/CG3A) and one in a very hard, grog-tempered fabric (GT). The second part of the group comprises five, very similar, necked bowls or jars, with burnished external surfaces, in a 'transitional' grey ware fabric containing quartz and a small amount of shell. Two other vessels were represented, the first possibly residual; a single sherd of Iron Age Scored ware in a shell-tempered fabric, and the second, a few joining sherds from a sandy oxidised fabric with white slip and rouletted decoration, which may be intrusive. Additionally, a single sherd of Early Anglo-Saxon pottery is presumably intrusive in the top of the fill.

Romano-British Pottery From South Witham, 2001.448
Assemblage from pit fill (136)

Fabric*	Sherds	%Sherds	Weight	%Weight
CG	79	59	3533	76
GT	9	7	698	15
GW	38	29	360	8
WS	6	4	46	1
Scored	1	1	18	<1
Total	**133**	**100**	**4655**	**100**

* For Key to abbreviations used in the tables please refer to appendix 1.

The group is similar in character to the early Roman groups from Empingham (Cooper 2000, 75, fig 34), and Great Casterton (Corder 1951, 8, fig.5, 1-21) (though lacking the imported wares found in the latter) which lie a few miles to the south of the site, across the border, in Rutland. The barrel-shaped jar in CG3A with inward sloping flat rim is paralleled in first century groups from the West Bridge area of Leicester (Clay and Pollard 1994, 98, fig.66.259, Site 6 phase 1D). The lack of imported fine wares such as samian hinders a more precise dating of the group, although their absence in itself, together with the transitional nature of the grey ware fabrics, probably supports a date in the early post-conquest period, probably, but not certainly before about AD 70 or 80, by which time the transition to a more 'Romanised' suite of forms and fabrics is complete. Given that only half the fill was excavated, it might be assumed that this forms only part of a more substantially complete group than presented here. Further supporting evidence for an early date is provided by the occurrence of an Iron Age beehive quern with the group.

Pottery from other contexts

The remaining pottery again comprises predominantly locally made shell-tempered wares and grey wares probably dating to the first and second centuries. The grey wares include examples from the Lower Nene Valley industry, (centred around modern Peterborough) in contexts (192) and (270), which *might* indicate activity from the early-middle second century and perhaps into the third. However, only a single sherd of colour-coated ware, from a fourth century bowl form, from (138), was excavated across the site. Given the ubiquity of this regional ware at Empingham and Great Casterton and the lack of imports such as samian, which might be expected during the middle of the second century, it is probably safe to say that activity does not extend beyond *c*. AD 150.

South Witham, 2001.448
R-B Pottery from other contexts

Fabric	Sherds	Weight
C2	1	10
WW	1	30
GW	4	50
CG	12	154
SW	1	14
Unclas	2	5
Total	**21**	**263**

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Appendix 1:
A summary of the ULAS Roman Pottery Form and Fabric Type Series

To allow this report to be used independently, a summary of the fabric codes used, their common names, and concordance with the National Roman Fabric Reference Collection (Tomber and Dore 1998; Pollard 1999) when appropriate, is provided below. For further detail on the ULAS form and fabric series see Pollard (1994) 'The Late Iron Age and Roman Pottery' in P.N. Clay and R.J. Pollard *Iron Age and Roman Occupation in the West Bridge Area of Leicester: Excavations 1962-1971*. Leicester: Leicestershire Museums Arts and Record Service.

C Colourcoated wares
C2 Fine white fabrics usually Lower Nene Valley origin (LNV CC) but also from the Lower Rhineland (Cologne KOL CC)
C3 Pale oxidised fabrics. Number of sources but here denotes a probable Lower Nene Valley origin
C7 Variant of C11 probably from Lower Nene Valley
C11 Dark oxidised fabrics. Here probably from Lower Nene Valley
C13 Oxfordshire red or brown colourcoted ware (OXF RS).
C17 Fabrics similar to C2,3 and 11.

MO Mortarium fabrics
MO4 Mancetter-Hartshill as WW2 (MAH WH)
MO6 Lower Nene valley (LNV WH)

WW White wares
WW2 Fine as M04. Mancetter-Hartshill or Lower Nene Valley origin (MAH PA)
WW3 Fine sandy. Here probably denotes Upper or Lower Nene Valley origin
WW4 Medium sandy. Verulamium region or Mancetter Hartshill (VER WH?)

OW Oxidised wares
OW2 Fine or fine sandy of uncertain Midlands sources.
OW3 Coarse sandy as OW2
OW9 Much Hadham burnished ware (HAD OX; Going 1987, Fabric 4).

GW Grey wares
GW3, 5, 6, 9 A gradation from fine to very coarse for fabrics of unknown source.
GW4 Lower Nene Valley greyware. Fine light grey fabric (LNV RE).
GW12 Used here to denote greyware of 'London ware' type (Perrin 1980).

BB Black-burnished wares
BB1 of South-East Dorset origin.

CG Calcite gritted wares
CG1A Fossil shell tempered fabrics (low sand content) of Late Iron Age to second century date.
CG1B Fabric as A but becoming widespread in the later Roman period from Harrold, Beds. (Brown 1994) (HAR SH).
CG3B of mid- Roman date. Production locally at Bourne and Greetham (BOG SH)

GT Grog tempered wares

GT3 coarse fabric not in 'Belgic' forms. Also used here to denote Soft Pink Grogged ware (GT3A; PNK GT; Booth and Green 1989).

MG Mixed gritted wares
MG3 Fine to medium sandy grey ware with calcite. Local and early in date.

SW Sandy wares
SW2 fine sandy fabric usually in 'Belgic' style.

Summary of Generic Form Type classifications in digital archive record
1: Flagons and Jugs
2: Flasks and bottles
3: Jars
4: Bowl-Jars
5: Bowls
6: Dishes
7: Platters
8: Cups
9: Beakers
10: Lids
11: Misc

Iron Age and Roman Querns **Nicholas J. Cooper**
Pit fill (136) contained two quern fragments.
1) Upper stone of a 'beehive' quern, measuring 260mm in diameter and 140mm in height. Central perforation is 25mm in diameter. Fashioned from a fine, light grey, sandstone. This type of quern is characteristic of Iron Age sites across the region.

2) Lower stone, with central, tapering, pivot hole, of a flat quern, measuring 330mm in diameter and 80mm in height. The central pivot hole has a max. diameter of 20mm. It is fashioned from coarse grained sandstone, probably gritstone, and is of Roman date.

Romano-British Tile **Nicholas J. Cooper**
A total of seven fragments of Romano-British tile, weighing 200g was retrieved from the following contexts tabulated below. None of the fragments was large enough to identify the form of tile represented.

2001.448 South Witham. Romano-British Tile			
Cut	Context	Fragments	Weight
135	136	1	34
141	142	5	136
179	180	1	30
Total		**7**	**200**

Early Anglo-Saxon Pottery **Nicholas J. Cooper**

A total of 19 sherds of early Anglo-Saxon pottery dating from c. AD 450-650 and weighing 144g, was retrieved from the excavations, 15 from stratified contexts. Most

of these sherds have been included in the catalogue of post-Roman (Medieval pottery) compiled by Deborah Sawday below, but it is worth treating the material separately as its occurrence within the village core has significant implications for the origin of the settlement. The material is tabulated below.

2001.448 E. Anglo-Saxon pottery c. AD 450-650			
Cut	Context	Sherds	Weight
135	136	1	14
	170	3	12
191	192	2	12
	208	2	20
209	210	3	32
	212	1	8
254	255	1	2
	275	2	14
US		4	30
Total		**19**	**144**

All of the sherds are from handmade vessels manufactured in a granitic rock-tempered fabric, recognised widely across the East Midlands, with a source in the Charnword area of north-west Leicestershire (Williams and Vince 1997). The fabric has been specifically identified during excavations in Leicester (Blinkhorn 1999 fabric 4) and, closer to hand, at Empingham and Tickencote in Rutland (Blinkhorn 2000, fabrics EM4 and TK2).

Two rim sherds are represented, both from plain upright rimmed globular vessels, from (210) and (136). In addition, two decorated sherds were also recorded both with incised line decoration. The most diagnostic example, with horizontal and triangular incised patterns is unfortunately unstratified; the other, with a single incised line is from (210). The consistency of the fabric, recognised forms and decoration would point to a later fifth or sixth century for the assemblage, most of which appears to be residual within medieval features.

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Appendix Two: The Medieval Pottery Debbie Sawday

The one hundred and thirty eight sherds (1841 grams) of late Saxon and medieval pottery recovered from the evaluation and excavation were examined under a binocular microscope and catalogued with reference to the ULAS fabric series (Davies and Sawday 1999), (Table 1).

Fabric/Ware	Sherd Nos.	%	Weight Grams	%	Av. Sherd Weight
Late Saxon/Early Medieval					
ST3 – Coarse Stamford ware	6		116		19.3
ST2 – Fine Stamford ware	82		1020		12.4
ST1 – Developed Stamford ware	5		69		13.8
Stamford sub total	**(93)**	**(67.3)**	**(1205)**	**(65.4)**	**(12.9)**
LI – Lincoln/Lincs Shelly ware	4		87		43.5
SP – Splashed ware	3		65		21.6
LY2 – Stanion Lyveden type ware 2	6		57		9.5
Sub Total	**106**	**76.8**	**1414**	**76.8**	**13.3**
Medieval/Later Medieval					
NO3 – Nottingham ware 3	8		143		17.8
BO2 – Bourne AB ware/type ware	4		49		12.2
BO1 – Bourne D ware	4		36		9.0
LY1 – Stanion Lyveden type ware 1	3		72		24.0
LY – Stanion Lyveden type ware	8		65		8.1
MS – Medieval Sandy ware	5		62		12.4
Sub Total	**32**	**23.1**	**427**	**23.1**	**13.3**
Totals	**138**	**99.9**	**1841**	**99.9**	

Table 1: The late Saxon and medieval pottery totals from the evaluation and excavation by fabric, sherd numbers, and weight (grams)

The Stratigraphic Record

Those features (excluding those found during the evaluation) containing late Saxon and early medieval pottery, dating from the late 11th or 12th centuries, (table 2) and those containing medieval pottery, dating from the 13th century, (table 3), are shown below.

The fill of the pits, [209] and [269], which were only half excavated, produced seventy one sherds, weighing 961 grams, of the fine Stamford ware fabric, ST2, dating from the mid 12th century. The other features listed in table 2 may also be contemporary, but given the very small amounts of pottery recovered, the dating of these features, notably the pits [137] and [254], the post hole [104], and the gullies [267] and [275], must be treated with some caution as a maximum of only eight sherds was recovered from each. Furthermore the dating of such fabrics as the sandy Stanion Lyveden type ware, fabric LY2, which occurred in both the pits [269] and [254], and of the unclassified Stanion Lyveden type ware in context [275], remains tentative, but a date from the 12th century seems not unlikely.

The presence of the glazed Stanion Lyveden fabric LY1, the Bourne fabric BO2, the Nottingham ware fabric NO3, and of an unclassified Medieval Sandy ware, in most of

the remaining contexts with pottery, (table 3), suggests a date from the 13th century for this group as a whole. However, once again, the pottery assemblages are very small, and so the dating evidence must be treated with caution.

Nevertheless a slightly later date for the abandonment of one of these features is suggested by the five sherds from the back fill (258)[of the grain dryer, [256]. These comprised fragments of an unclassified Medieval Sandy ware thought to date from the 14th or 15th centuries, and sherds of the later Bourne fabric, BO1, dating from *circa* 1450 into the 16th century (McCarthy and Brooks 1988, 409).

Fabric/ Feature	ST3	ST2	ST1	LI	LY2	LY	SP	Totals
Pit [137]		1/5						1/5
Pit [209]		55/731						55/731
Gully [267]		1/7						1/7
Pit [269]		16/230	2/52	1/5	1/6			20/293
Pit [254]	4/62	2/17			2/12			8/91
Post hole [104]		3/14		1/2				4/16
Gully [275]						4/42	2/8	6/50
Totals	4/62	78/ 1004	2/52	2/7	3/18	4/42	2/8	95/1193

Table 2: Features containing late Saxon/early medieval pottery by fabric, sherd numbers and weight (grams).

Fabric/ Feature	ST1	LY1	LY2	LY	SP	BO2	NO3	MS	BO1	Totals
Hearth [124]		1/50		1/17		1/20				3/87
Pit [179]		1/3			1/57		6/135			8/195
Pit [191]				3/6						3/6
Layer [262]						2/16	1/4	2/31		5/51
Ditch [207]	2/6							1/5		3/11
Grain Dryer] [256]			1/4				1/4	1/12	2/18	5/58
Totals	2/6	2/53	1/4	4/23	1/57	3/36	8/143	4/48	2/18	27/388

Table 3: Features containing late Saxon and medieval pottery by fabric, sherd numbers, and weight (grams).

The Pottery Record

The earliest material included a fragment of a straight sided bowl rim in the early coarse Stamford ware, fabric ST3, dating from the 11th century, which was recovered during the initial evaluation of the site, together with several sherds of late Saxon Lincoln or Lincolnshire shelly ware. The slightly later fine Stamford ware fabric, ST2, most of which was found in the fills of the pits [209] and [269], included a collared cooking pot and a minimum of five externally sooted bowls, Kilmurry vessel forms 4 and 1 (Kilmurry 1980), dating from the mid 12th century. Most of the remaining Stamford ware from the site was externally sooted, and only six of the ninety three Stamford ware sherds were glazed, one of the latter having the copper glaze dated from *circa* 1150 at Stamford (*ibid.*).

Several of the medieval jugs showed evidence of decoration, notably a fragment of Splashed ware, possibly from Nottingham, which occurred together with a highly decorated Nottingham ware vessel in the pit [179]. Both had applied clay strips, the latter in complex linear and curvilinear patterns. Similar highly decorated pots are dated from the mid thirteenth century at Nottingham (Coppack 1980, fig.70). A tiny fragment of a jug in the oolitic Stanion Lyveden fabric, LY1, from the same pit was covered externally with a white slip and grid stamps under a transparent lead glaze, a type of decoration typical of the Stanion kilns (Bellamy 1983, fig.3). Another jug in the same fabric, from the hearth [124] was decorated with applied clay strips under the glaze.

Conclusions:

The relatively high average sherd weight of 13.3 grams (Table 1), suggests that much of the pottery represents secondary, if not primary, waste deposits associated with occupation in the area. Furthermore, with over 67 per cent of the total by sherd numbers and over 65 per cent of the total by weight occurring in the late Saxon Stamford ware (Table 1), the evidence also suggests that that activity or occupation was at its most intense during the twelfth century, but continued throughout the medieval period.

The vessel forms noted above, cooking pots, bowl and jugs, are typically domestic in nature. There is no evidence of any specialist pottery use associated with the iron working that was also being carried out in the vicinity. Typical also - for the late Saxon and medieval period – is the range of pottery fabrics present. The Stamford, Lincoln, Nottingham, Stanion Lyveden and Bourne wares are all the products of major local centres of pottery manufacture in the region during this period. The Splashed and Medieval Sandy wares are also probably local in origin.

Whilst the seemingly high incidence of decorated jugs is of interest, it cannot be taken as evidence of status – when, as here, the pottery sample is so small – and the vessels in question are in the relatively coarse Nottingham and Stanion Lyveden wares. However, it has been demonstrated elsewhere, at West Coton in Northamptonshire, that some medieval sandy ware jugs – notably the very fine products of the Brill Boarstall kilns – were used as table wares – in this instance, in the hall of the medieval manor (Blinkhorn 1998-1999).

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Site/Parish: 8 Church Lane, South Witham, Lincs. Accession No/ Doc Ref: 2001 448/southwitham3 Material: late Saxon & medieval pottery Site Type: village core	Submitter: R. Kipling Identifier: D. Sawday Date of Id: 25.10.02 Method of Recovery: excavation

Context	fabric/ware	sherd nos.	weight grams	Comments
POT				
105 [104] post hole	ST2 – Fine Stamford ware	3	14	One convex base fragment, all externally knife trimmed & sooted. *Circa* 1050-1200.
105	?LI- ?Lincoln/Lincs Shelly ware	1	2	?late Saxon? – tiny wheel thrown fragment.
124 hearth	BO2 – Bourne A/B ware/type ware	1	20	Hand made base, clay rolled out with applied wall. Sooted ext. *Circa* 13th C.
124	LY – Stanion Lyveden type ware	1	17	Coil built wall, ?*circa* 1100/1150+
138 [137] pit	ST2	1	5	Very thin lead glaze, *c*.1050-1200.
180 [179] pit	SP - Splashed ware	1	57	Hand made /jug, vertical applied clay strip in same clay as the body, glazed, *circa* 1100– 1250
180	NO3 – Nottingham Green Glazed Sandy ware	3	105	Joining sherds from a jug neck and body, lightly reduced grey interior, greenish yellow glaze, decorated with vertical applied clay strips, and thumbed horizontal and curvilinear applied clay strips, all in same clay as body of pot. Similar highly decorated vessels dated from the mid 13th C.+ at Nottingham, (Coppack 1980, fig.70), (Mc Carthy and Brooks 1988, figs.162-163). Sooted internally.
192 [191] pit	LY	3	6	*Circa* 1100/1150-1400.

208 [207] ditch	ST1 – Very fine/developed Stamford ware	2	6	Both lead glazed, *circa* 1150-1250.
208	MS – Medieval Sandy ware	1	5	Orange sandy fabric, traces of lead glaze, possibly Nottingham, ?later 13th – 14th C.+
210 [209] pit	ST2	17	208	Upper profile of straight sided bowl, form 1-53, mid 12th C+, (Kilmurry 1980), sooted and knife trimmed ext., min 1 vessel.
210	ST2	6	137	Sooted and knife trimmed ext, ?bowl, min. 1 vessel
210	ST2	11	172	As above, min. 1 vessel
210	ST2	17	193	As above, min. 1 vessel
210	ST2	3	12	Misc. sherds, 2 sooted, 1 glazed
210	ST2	1	9	Collared cooking pot rim, form 4-58, (*ibid.*), early – mid 12th C.
249 [179] pit	NO3	3	30	Jug, joins 180
249	LY1 – Oolitic Stanion Lyveden type ware 1	1	3	Grid stamped over white slip, glazed, 13th C.+ typical Stanion decoration, (Bellamy 1983, fig 3).
255 [254] pit	ST3 - Coarse Stamford ware	4	62	Joining sherds, minimum two vessels, with convex externally knife trimmed and sooted bases. *Circa* 900-1050+
255	ST2	2	17	Both knife trimmed and sooted ext.
255	LY2 – Stanion Lyveden type ware 2	2	12	Sand and oolitic fabric, *circa* 1100+
258 [256] ?grain dryer	LY2	1	4	Sooted ext.
258	NO3	1	4	Grey interior, copper green glaze, later 13th C.+.
258	MS – Medieval Sandy ware	1	12	Orange sandy ware base fragment with brown glaze, possibly Nottingham or Derby, (McCarthy and Brooks 1988, 276), 14th – 15th C.
258	BO1 – Bourne D ware	2	18	Circa 1450+
261 [124] hearth	LY1	1	50	?Jug body with applied clay strips, one notched, in the same clay as the body, under glaze,

				13th – 14th C.
263 [262] layer, ?occupation	?BO2	2	16	Hand made and wheel thrown body sherds, sand and ooliths, possibly Bourne wares or type wares, 13th C.
263	NO3	1	4	Green glaze, grey interior, later 13th C.
263	MS	1	11	A wheel thrown jug neck and rim with, greenish yellow glaze with copper flecks. Whilst the rim form is reminiscent of early to mid 13th C. forms at Nottingham, the sandy fabric also has calcareous inclusions – possibly a product of the Stanion Lyveden or Bourne industries.
263	MS	1	20	Everted cooking pot rim – similar at Nottingham dated from the later 13th C., (Coppack 1980, fig.78.166-167).
268 [267] gully	ST2	1	7	Knife trimmed & sooted ext, *circa* 1050-1200.
270 [269] pit	ST2	12	215	Join, one vessel, knife trimmed and lightly sooted ext, odd spots of glaze on rim etc. Bowl, form 1-47, (Kilmurry 1980), 12th C.
270	ST2	4	15	Knife trimmed, two externally sooted
270	ST1	2	52	Lead glazed int and ext, sooted ext, *circa* 1150-1250
270	?LI	1	5	?late Saxon
270	LY2	1	6	*Circa* 1100+
275 [274] gully	SP	2	8	Wheel thrown with spots of brown glaze, probably Nottingham. *Circa* 1100+.
275	LY	4	42	Two sherds link, all hand made and sooted ext, *circa* 1100/1150+
U/S	ST1	1	11	Copper glaze, *circa* 1150+
U/S	LY2	2	35	

Appendix 3: The Animal Bone — Jennifer Browning

Introduction and Methodology

A small animal bone assemblage, consisting of 216 fragments, was recovered during the hand excavation of Roman and medieval features at South Witham, Lincolnshire. These were mostly cut features including pits, ditches, postholes and gullies. A further 151 bone fragments were unstratified.

Bones were identified with reference to the comparative skeletal material held by the School of Archaeology and Ancient History at Leicester University. Typically, species, anatomy, state of fusion and completeness was recorded for each specimen and fragments were also examined for evidence of butchery, pathological conditions and gnawing. The results were recorded upon a computerised spreadsheet. Except where distinctions between sheep and goat bones were clear, the term 'sheep' is used throughout to mean 'sheep or goat'. 'Ox-size' is likely to represent mainly cattle or horse, although may possibly include red deer and large pig remains. Bone fragments classed as 'sheep-size' are most likely to derive from sheep/goat and pig or possibly roe deer and dog. This method merely serves as a rough and ready way of extracting some information about bone fragments that would otherwise be classed together as 'unidentified'.

The bones were quantified using two basic methods. The first was a simple count of all the identified fragments (total fragments). However, where large bones have fragmented, a single bone could be counted several times, which would significantly influence the results. This happened in the case of a fragmented horse mandible in the medieval assemblage. To help redress the balance a restricted fragment count was carried out following the 'epiphysis only' method outlined by Grant (1975). This includes only those bones with an epiphysis present, in addition to mandibles with teeth. Shaft fragments, loose teeth, vertebrae and rib fragments are not included. For such a small assemblage further quantification was unnecessary.

The bone was generally in a good state of preservation, with the bone surface surviving intact, although fairly fragmented. Some recent breakage had occurred, although it was possible to re-assemble many of the fragments.

Results

Species proportions

The table below shows the amount of bone from Roman and medieval contexts. It serves to demonstrate that although there was a similar amount of bone from each phase the Roman assemblage was concentrated in three features rather than widely distributed.

Phase	Contexts	Number	Percentage
Roman	123,136,182	112	52%
Medieval	111, 113, 124, 132, 138, 142, 170, 192, 208, 210, 212, 247, 249, 255, 258, 263, 270	104	48%
		216	

Table 1: Distribution of assemblage, between the Roman and medieval phases.

Between 41% (roman) and 51% (medieval) of the assemblage was positively identified to species, a fairly usual percentage, which reflects the condition of the bone.

Cattle, sheep, pig, horse and goat were identified in the Roman assemblage (table 2). The identified assemblage was small; particularly once the restricted fragment count was applied, which means that the results must remain rather tentative. However, it can be seen that the assemblage is dominated by the main domesticates, cattle, sheep/goat and pig. There was no evidence for wild animals in the assemblage. The total fragments count tends to exaggerate the dominance of cattle in the assemblage, probably due to the fact that larger bones potentially break into more fragments. This is partially addressed by the total fragment count, which also increases the importance of pig. In terms of bone numbers, horse remains the same although its relative importance is improved using the restricted fragment count.

Roman	cattle	sheep/goat	goat	sheep	pig	horse	cattle-size	sheep-size	unidentified	Total
Total fragments	21	13	1	1	8	2	26	25	15	112
	46%	28%	2%	2%	17%	4%				
Restricted fragment count	3	4	1	1	4	2				18
	20%	27%	7%	7%	27%	13%				

Table 2: Species representation using both the total and restricted fragment count.

Cattle, sheep, dog, horse and pig were identified in the medieval assemblage (table 3). The identified assemblage was very small but a few general trends can be observed. The main domesticates, cattle, sheep and pig, together comprise 43% of the assemblage using the total fragments count. This is increased to 63%, using the restricted fragment count. Using both methods cattle were recovered in the greatest proportions, followed by sheep and then pig. This is fairly typical of many domestic assemblages. Horse dominates the assemblage, using the total fragments method but this proportion is inflated by a number of mandible fragments that are not included in the restricted fragment count. Nevertheless, horse is still the second most commonly recovered species after cattle. A single well-preserved dog mandible was recovered.

Medieval	cattle	sheep/goat	pig	horse	dog	cattle-size	sheep-size	unidentified	Total
Total fragments	15	6	2	29	1	20	7	24	104
	28%	11%	4%	55%	2%				
Restricted fragment count	7	2	1	5	1				16
	44%	13%	6%	31%	6%				

Table 3: Species representation using both the total and restricted fragment count.

Age profiles

There were few mandibles and epiphyses in the assemblage, so it is not possible to make detailed comment on the age profiles of the animals whose remains were deposited at the site.

Very few bones with epiphyses present or mandibles were recovered from the Roman contexts, meaning that reliable age profiles cannot be established. However, deciduous teeth were recorded in both sheep and cattle mandibles denoting the presence of younger animals, in the case of sheep suggesting that the animals were less than 40 months, according to eighteenth-century comparisons (Silver, 1969, 297). Few bones had surviving epiphyses. However of bones with epiphyses most were fused, with the exception of a pig femur.

By contrast, there was no evidence for immature animals in the medieval assemblage. All bones, where an epiphysis was present, were fused and all *in situ* teeth recorded were permanent. A horse mandible contained a set of very worn teeth suggesting that this animal may have been quite elderly.

Butchery, burning and gnawing

Few butchery marks were observed in the assemblage. Seven bones from Roman contexts showed signs of butchery, mostly on cattle or cattle-size bones. There was only a single occurrence of butchery each on sheep and pig bones. These were a mixture of chop and cut marks, which appear to be consistent with the disarticulation of the carcass and separation into joints of meat.

The medieval assemblage followed a similar pattern, with only one instance of butchery on a pig bone and five instances on cattle bones. Part of a cattle cranium with the horncore removed was recorded in pit 212, which suggests that the horn may have been utilised.

Only two burnt fragments were identified in the assemblage, an unidentified fragment from the Roman context 182 and a sheep-size shaft fragment from context 136. This is not to say that bone, or rather joints of meat, were not cooked, only that evidence of prolonged contact with fire was not typical. Methods of cooking such as boiling would leave little trace upon the bones themselves.

A small proportion of bone showed signs of gnawing. Three bones in the Roman assemblage were affected, two of which were pig and one belonged to sheep. A total of six bones in the medieval assemblage appeared to have been gnawed, all the bones derived from cattle and sheep. This suggests that bones were not always deposited within features immediately.

Pathology

A single specimen displayed signs of abnormal pathology. This was a 1st and 2nd phalange of horse from the fill of the medieval flue (258), which have fused together with exotoses (new bone formation) around the joint. A number of conditions may have been caused this, such as osteoarthritis, spavin or a bacterial lesion. Ring bone is a form of exotosis, which affects the interphalangeal joints of horses feet, resulting from concussion (Baker 1980, 120) and this is also a possible cause.

Comments

It is difficult to form any firm conclusions based on an assemblage of this size and quality. There were no remains from small mammals, birds or fish and no evidence was recovered for the presence of wild animals. The absence of small animals may be a result of hand recovery, as experimentation has shown that these remains are far more likely to be recovered in sieved samples. However, small animal bones were also absent from the sieved samples. No great differences were observed between the Roman and medieval assemblages, although horse bones comprised a greater proportion of the medieval assemblage and pig bones were more frequent in the Roman contexts. Given that earlier Roman levels exist on the site, there is likely to be a degree of residuality amongst the medieval material. The majority of bones probably derive from animals that were exploited for food. Of the main domesticates, cattle and sheep bones are the most numerous. It is likely that cattle contributed the most to the diet due to the greater meat yield per animal. The bones of pig are far less numerous, particularly in the medieval phases: a pattern that is common to most medieval sites (Grant 1988, 158). The evidence suggests that at least some of the sheep and cattle were of a horned variety and that the horns may have been utilised. The animals on the site appear to be domestic stock and could well have been raised locally. Both the horse and dog bones suggest that animals were mature; the dog could have been kept for hunting or herding sheep, the horse for riding or traction.

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Appendix Four: The Metalworking Slag

Dr. Graham Morgan & Dr. Roger Kipling

The total weight of the ironworking slag assemblage was 13.38 kilos, the vast majority of which (12.62 kilos) was tap slag. The remainder consisted of 750 grammes of hearth slag (contexts 210 & 270), 20 grammes of tap slag (contexts 210 & 270) and 10 grammes of vitrified clay or hearth lining (context 270). The assemblage indicates that iron smelting was being undertaken in the vicinity. However, the absence of structural evidence for industrial process in the form of kilns or furnaces from the site would point to these processes having been undertaken off-site.

CONTEXT	TAP SLAG	HEARTH SLAG	HEARTH LINING
U/S	20g		
124	600g		
138	10g		
142	1.75 kilos		
210	7.3 kilos	650g	
212	500g		
233	650g		
255	90g		
263	30g		
270	1.73 kilos	100g	10g
273	40g		
275	150g		
TOTAL	12.62 kilos	750g	10g

Appendix Five: The Environmental Evidence Angela Monckton

Introduction

The site was excavated by ULAS directed by Roger Kipling and sampling was carried out during the excavation to recover charred plant remains which can provide evidence of the crops, diet and activities of people in the past. In this area there is a lack of evidence from charred plant remains from medieval sites other than in Lincoln and Boston, so it was hoped that these remains would provide evidence about the area in these periods. Samples were taken from an oven or kiln and from pits and other features on the site of Late Saxon to medieval date. A Roman pit was also sampled.

The Order of Knights Templar is known to have owned property in South Witham from the mid twelfth century and the pottery spot dates quoted below suggest that all the Late Saxon-1200 AD samples could fall within this period. In addition a farm belonging to the order is known at Temple Field to the North of the village dated to the early fourteenth century, covers the period represented by the rest of the medieval samples.

Methods

Samples from ten contexts were processed by wet sieving in a York tank with a 0.5mm mesh and flotation into a 0.5mm mesh sieve. The flotation fractions (flots) were air-dried and these were then sorted for plant remains using a x10 stereo microscope. For the richer samples a proportion of the flot was sorted and the remainder scanned for additional species. The plant remains were identified by comparison with modern reference material in the Department of Archaeology of the University of Leicester. The remains were counted and listed (table 1), the plant names follow Stace (1991) and are charred seeds in the broad sense unless described otherwise. In order to compare and interpret the samples the proportions and ratios of cereal grains, seeds and other remains were considered.

Results

The cereals: The majority of the identified grains were of wheat (*Triticum* sp), mainly of the characteristic short broad shape of free-threshing wheat. Wheat chaff fragments (rachis segments which form the central axis of the cereal ear) were found, some of these could be identified as of bread wheat (*Triticum aestivum* s.l.). Scanning more material did not produce remains of other types of wheat rachis. Barley grains (*Hordeum vulgare*) were also found in smaller numbers and these included hulled grains with occasional twisted grains suggesting the possible presence of hulled six-row barley. Oats (*Avena* sp.) were also found to be quite abundant in one sample. Rye (*Secale cereale*) was scarce and was only found in single numbers in two of the samples. The grains were examined for signs of germination but little was found.

Wild plants: The seeds found were mainly weeds of arable land such as stinking mayweed (*Anthemis cotula*) which was common in medieval times and is a plant of heavy soils. Another arable weed was corn gromwell (*Lithospermum arvense*) which has a large seed. Weeds particularly associated with autumn sown cereals included corn cockle (*Agrostemma githago)* and corn-flower (*Centaurea cyanus)* which is

more typical of lighter soils and is particularly associated with free-threshing cereals such as wheat as found here. A group of weeds typical of disturbed ground such as is found in settlements, garden type cultivation or of spring sown crops was also present but not numerous. These included goosefoots (*Chenopodium* sp), docks (*Rumex* sp) and chickweed type plants (*Stellaria* sp.). Leguminous plants were notably few in comparison with some other sites of this date; they included a few vetches or vetchling (*Vicia/Lathyrus)* and clover type plants (*Medicago, Melilotus or Trifolium*) which can occurr as arable weeds but also grow on grassland. Others plants of grassy vegetation included eyebright or bartsia (*Euphrasia* or *Odontites*) and ribwort plantain (*Plantago lanceolata*). Plants of damp or wet ground were represented by spike-rush (*Eleocharis* sp.) and sedges (*Carex* sp) perhaps as weeds of poorly drained land or from ditch sides. Others plants included large and small grasses (Poaceae) which, with most of the plants here can occur in cultivated fields as arable weeds.

The Features Sampled

Roman pit (136): the sample contained mainly wheat grains including free-threshing wheat with a little barley and a few seeds with grasses most numerous. The remains were similar to those from the medieval features on the site and although they could be Roman they did not contain any characteristic material.

Late Saxon AD 1050-1200, hearth or pit (138): the sample was very rich in charred cereals and was dominated by wheat grains of free-threshing type and contained wheat chaff (rachis), some of which was identifiable as of bread wheat while most of the remaining chaff, classified as free-threshing wheat (table 1), was also consistent with the form of bread wheat although broken and abraded. Considering the quantity of chaff, on average there are three grains to each segment of rachis in the ear of the wheat, so over half the chaff was absent and had probably been removed by processing the cereal. Weed seeds were relatively few and were mainly the larger seeds including large grasses, corn-flower and corn gromwell, while stinking mayweed which has small seeds was represented mainly by part of a seed head. This suggests that the grain may have been burnt before the final stage of processing by hand sorting to remove the larger contaminants, although sometimes this stage was omitted. Barley grains were also present in smaller numbers perhaps mixed with the wheat on disposal. Occasional grains of wheat and barley had evidence of germination (table 1), but were very few. The grain appears to represent a bread wheat crop which had been threshed and partly cleaned. Another sample of this date from pit (270) contained only single numbers of items including free-threshing wheat grains, a small grass seed and no chaff. It perhaps represented part of the scatter of the same material as in the previous sample.

Early-middle twelfth century, pit (210): this sample, like that from (270) contained a small number of items, mainly cereal grains but including free-threshing wheat and barley with a few weed seeds (table 1).

Medieval (1100-1250 AD), pit (180): this sample, like the rest from the site, was dominated by cereal grains but differed in that the main cereal was oats, although the species could not be confirmed as insufficient chaff was found the size of some of the grains suggested this was cultivated oat. This was found with arable weeds including

large grasses and with the wet ground plants of spike-rush and sedges suggesting this was grown on poorly drained ground .

Medieval (AD 100-1400), pit cut 191: the sample from context (192) contained a moderate number of cereal grains with a single weed seed and no chaff. The grains were of free-threshing wheat and barley with a few oats and a single possible rye grain. This may represent waste from a domestic fire including grains accidentally spilled or burnt as waste during food preparation. A sample from context (244) from the same pit was similar except that it contained a few chaff fragments including bread wheat and barley, possibly also cleaned from the cereal before consumption and burnt in a hearth. Both samples contained light coloured sediment as often seen in the fill of cesspits, sample (192) contained a few small fly puparia and sample (244) contained two fish vertebrae both of which are common finds in cesspits. The feature may therefore contain some latrine waste as well as domestic rubbish. A sample from a possible hearth (261) of thirteenth-fourteenth century date contained a few free-threshing wheat grains and arable weed seeds but was very heavily contaminated by roots and contained too few remains for analysis so was not examined further.

Kiln/oven, primary silt (245) predating thirteenth-fourteenth century: the feature was backfilled with rubble containing thirteenth-fourteenth century pottery and the primary fill below this was sampled. This sample contained very few charred plant remains which consisted mainly of wheat grains with a few weed seeds (table 1). The sample also contained a moderate number of snail shells, none of which were burnt. These included *Trichia* sp., *Oxychilus cellarius, Cochlicopa lubrica, Discus rotundatus* and *Carychium* sp. which are all found in damp places such as pits or ditches and also in rubble. If these snails were well sealed in the silt this would indicate that the feature was left open, however it is possible that if the snails colonised the rubble fill the shells may have accumulated at the base of the rubble after abandonment. The sample contained too few remains to indicate the use of the feature which may have been cleaned out after use.

Medieval gully (142): this feature respects the kiln so may be contemporary in use. The sample compares with that from (138) in being rich in free-threshing wheat grains and containing bread wheat chaff with a few arable weeds with large grasses most numerous. It appears to represent wheat at a similar stage of processing, being partly cleaned. Some barley with a few oats and occasional rye grains are also present, with a nutshell fragment perhaps suggesting the inclusion of domestic rubbish in the feature.

Discussion

The main crop found on the site was bread wheat identified from chaff which is more diagnostic than grains. Despite examining more of the sample, rivet wheat which is another type of free-threshing wheat, was not found, however, its presence on the site cannot be excluded. Bread wheat and rivet wheat have been found together in medieval deposits of early medieval date from Flaxengate, Lincoln from thirteenth century deposits (Moffett 1996) but is so far unrecorded from rural Lincolnshire. It has been found from the eleventh-thirteenth century onwards from Leicester (Moffett 1993, Monckton 1999), but is so far only known from Melton Mowbray and the village of Saxby in Leicestershire as sites outside the city. There have been more

finds of rivet wheat in Northamptonshire, perhaps because it favours a more southerly distribution as it is thought to have been introduced from the continent. The earliest find to date is from Highham Ferrers, Northamptonshire, dated to just before AD 1000 (Moffett *pers. comm.*). Rivet wheat is now known from an increasing number of sites in the midlands from the Early Medieval period onwards (Moffett 1991) and evidence at present suggests that this crop spread in use during the medieval period. It is unknown if the cereal was cultivated in Lincolnshire at this period and further investigation of the dated distribution of this cereal is required in this area. The samples here may represent the production of bread wheat crops as this was the preferred cereal for fine white bread consumed by the wealthy.

When free-threshing wheat is processed the grain is easily separated from the ear by first threshing and then winnowing to remove small light weed seeds and the light chaff. The grain would then be coarse sieved to remove the larger chaff fragments and then fine sieved to retain the grains but remove small weed seeds (Hillman 1981, Jones 1990). Hence the presence of chaff in the rich samples (138) and (142), suggests that the grain was produced nearby because this wheat is easily threshed to reduce the bulk before transport. This may therefore represent partly cleaned grain brought to the site with most of the seeds and chaff being removed by fine sieving. Some chaff and larger seeds remained to be removed before use of the grain. The cereal may have been burnt for a number of possible reasons if not burnt accidentally in a domestic context. It may have been burnt during parching the grain for storage or to facilitate milling, it could however have been spoiled which may not be apparent when charred. Charred cereal remains can originate from thatch, but the find here of abundant grains with few seeds make it unlikely that this is the source of these remains.

Unfortunately there is no evidence from the kiln or oven itself to suggest its function but such features could be used for a number of purposes such as malting, parching grain for storage or to facilitate milling. They may also have been used as baking ovens but could have been used for other purposes not connected with cereals. The other remains from the site did not contain sufficient evidence of germination to suggest malting was carried on here, although it would have been carried out somewhere in the vicinity to supply beer. The remains from the gully (142) near the kiln may be contemporary with the use of the kiln and may suggest processing of bread wheat, perhaps parching grain for storage or before milling. The presence of quite abundant bread wheat on the site suggests the use of the cereal to make bread. After milling into flour baking could have been carried out in a large oven to supply the wealthy people in the area.

The remaining samples, with the exception of sample (180), consist mainly of grains with few weed seeds and occasional chaff fragments and may represent waste from cereal consumption. The material being removed from hearths as domestic rubbish including grains spilled and burnt accidentally during food preparation or cooking.

Sample (180) consists mainly of oats and large grasses and may represent animal fodder rather than oats for human consumption. The crop contains wet ground plants indicating the cultivation of poorly drained and oats will grow in these conditions. This differs from the bread wheat which does not contain such plants and is likely to have been grown on better land.

Conclusions

The sample from a feature of Roman date contained similar remains to the medieval samples. The main crop found in the medieval samples was bread wheat with some barley oats and occasional rye grains in the later samples. The bread wheat was identified from chaff (rachis) and the presence of chaff was thought to indicate nearby production of the cereal. The richest samples were interpreted as partly cleaned bread wheat crops with some of the chaff removed and few seeds present. The grain may have been burnt during processing, perhaps during parching for storage or before milling. The grain may have been part of a crop for use to make bread, and bread wheat was favoured for producing fine white bread for the wealthy. No evidence was found from the plant remains for the function of the kiln or oven although remains from nearby may suggest that it could have been used for parching grain for storage or before milling, or perhaps used as a bread oven, although other functions are possible. The other crops included barley, while occasional rye grains were insufficient evidence that this was grown as a crop here. A sample with mainly oats as possible fodder also contained plants suggesting that it was grown on wet ground, while the wheat was likely to have been autumn sown on better drained land. A few samples were thought to contain domestic waste from food preparation.

Acknowledgements

I am grateful to Roger Kipling for taking the samples and for providing information about the site and to Andy Coupe for processing the samples.

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Table 1. CHARRED PLANT REMAINS FROM SOUTH WITHAM, LINCOLNSHIRE .

Sample No.	**10**	**7**	**8**	**1**	**2**	**3**	**4**	**6**	
Date/phase	**RB**	**LS**		**Med**					
Context	**136**	**138**	**210**	**180**	**192**	**244**	**245**	**142**	
Feature type	**Pit**	**Hth**	**Pit**	**Pit**	**Pit**	**Pit**	**Kiln**	**Gu**	
Cereal chaff									
Triticum aestivum s.l. rachis	-	15	-	2	-	1	-	3	Bread wheat
Triticum free-threshing rachis	-	89	-	1	-	-	-	11	Wheat free-threshing
Triticum sp. rachis	-	2	-	-	-	-	-	-	Wheat
Hordeum rachis	-	2	-	1	-	1	-	-	Barley
Cereal rachis	-	6	-	1	-	-	-	3	Cereal
Awns	-	+	-	-	-	-	-	-	Cereal barbs
Cereal culm node	-	13	-	7	-	2	-	1	Cereal straw frag.
Cereal grains									
Triticum free-threshing	28	319	6	6	23	29	7	133	Wheat free-threshing
Triticum sp(p)	23	66	2	-	5	6	2	31	Wheat
Triticum sp. tail-grain	-	10	-	-	-	-	-	19	Wheat
Triticum sp. germinated	-	4	-	-	-	-	-	-	Wheat
Hordeum vulgare L. hulled	1	84	1	1	-	-	-	16	Barley
H. vulgare L. hulled,twisted	-	-	-	-	-	7	-	5	Barley
Hordeum vulgare L.	4	-	3	-	14	15	-	6	Barley
Hordeum sp. tail grains	-	-	-	4	-	-	-	-	Barley
Horduem sp. germinated	-	6	-	-	-	-	-	1	Barley
Secale cereale L.	-	-	-	-	1cf	-	-	3	Rye
Avena sp.	-	13	-	43	3	1	-	10	Oat
Cereal grains	14	369	5	2	14	24	1	56	Cereal
Cereal/Poaceae	3	31	-	11	5	5	-	-	Cereal/Grass
Cereal embryos	-	2	-	-	-	-	-	4	Cereal embryos
Collected									
Corylus avellana L.	-	-	-	1	-	-	-	1	Hazel nutshell frag.
Wild plants									
Chenopodium album L.	-	1	-	-	-	-	-	-	Fat-hen
Chenopodium sp.	-	-	1	-	-	-	-	-	Goosefoots
Montia fontana L.	1	-	-	-	-	-	-	-	Blinks
Stellaria sp	-	-	-	-	-	-	1	-	Chickweed type
Agrostemma githago L.	-	-	-	1	-	-	-	1	Corn cockle
Agrostemma githago L. capsule	-	1	-	-	-	-	-	-	Corn cockle

Rumex sp	-	-	-	1	1	-	-	-	Docks
Thlaspi arvense L.	-	+	-	-	-	-	-	-	Field penny-cress
Polygonum sp.	-	-	-	1	-	-	-	-	Knotweeds
Vicia sp	1	-	-	-	-	-	-	-	Vetches
Vicia/Lathyrus	-	-	-	1	-	-	-	-	Vetch/Vetchling
Medicago sp	-	2	-	-	-	-	2	1	Medick
Medicago/Melilotus/Trifolium	-	-	-	-	-	-	1	-	Clover type
Apiaceae	-	-	-	-	-	-	-	3	Carrot family
Galium aparine L.	-	+	-	-	-	-	-	-	Cleavers
Plantago lanceolata L.	-	2	-	-	-	-	-	-	Ribwort plantain
Euphrasia/Odontites	-	8	-	-	-	-	-	3	Eyebright/Bartsia
Lithospermum arvense L.	-	2	-	-	-	-	-	-	Field Gromwell
Crepis sp.	-	-	-	-	-	-	-	3	Hawk's-beard
Anthemis cotula L.	-	17	1	3	-	-	-	29	Stinking Mayweed
Centaurea cyanus L.	-	1	-	1	-	-	-	-	Corn-flower
Centaurea sp.	-	2	-	1	-	-	-	-	Knapweeds
Asteraceae	-	-	1	2	-	-	-	-	Daisy family
Eleocharis sp.	-	-	-	21	-	-	-	-	Spike-rush
Carex sp	-	-	-	3	-	-	-	-	Sedges
Bromus hordeaceus/secalinus	-	14	-	4	-	-	-	3	Brome grass
Poaceae (large)	6	46	-	107	-	1	1	51	Grasses large
Poaceae (small)	2	3	-	6	-	-	-	4	Grasses
Indeterminate seeds	2	5	-	5	-	-	-	4	Indeterminate seeds
Culm fragment small	-	3	-	-	-	-	-	-	Grass stem
Woody bud small	-	1	-	1	-	-	-	-	Bud
TOTAL	85	1140	20	233	66	92	16	401	items = 2053
Vol sample	9.5	5.5	17	9	35	9	10	19.5	litres
Flot volume	45	400	8	260	7	34	7	60	mls
Part of flot sorted	all	12.5	all	all	all	all	all	25	%
items per litre of sample	8.9	1658	1.2	259	1.9	6.0	1.6	82	

Key: Remains are seeds in the broad sense unless stated.
Phases: RB = Roman period, LS + Late Saxon- 12th century, Med = medieval 1100/1150-1400 AD.
Hth = hearth/pit, Kln = kiln/oven, Gu = gully, frag = fragment, + = present in another part of the sample.

Appendix Six: The Lithic Material — Lynden Cooper

The lithic material consisted of a small assemblage of residual or unstratified flints. Twelve pieces of flint were recovered, of which seven came from archaeological features. The raw material was a semi-translucent brown flint typical of the Midlands till deposits, with the sole of exception of a retouched piercer, probably manufactured from grey Lincolnshire Wolds flint. There is a slight Mesolithic component in the bladelets, although the obliquely retouched piece is not typologically distinctive. There is also a possible Late Neolithic oblique arrowhead present, typologically unusual in that the retouch is very abrupt and inverse. The remaining pieces are undiagnostic, but may probably be assigned to a general later prehistoric date of Neolithic to Bronze Age. The material is described typologically and technologically in the following table. The assemblage has close parallels with material subsequently

Context	Description	Date
123	1 x oblique arrowhead?	Late Neolithic
192	1 x patinated flake	?
208	1 x retouched piercer	Neolithic to Bronze Age
210	1 x patinated bladelet	Mesolithic
Unstratified	5 x flakes	Neolithic to Bronze Age
	1 x obliquely retouched bladelet	Mesolithic
	1 x piercer	Neolithic to Bronze Age
	1 x retouched potlid	

Appendix Seven: Site Context Index

CONTEXT	FEATURE	TYPE	DESCRIPTION	COMMENTS
100		19thc pit cut		Not exc.
101	100	19thc pit fill		Not exc.
102		Posthole cut		Not exc.
103	102	Posthole fill	Compact dark brown clay loam	Not exc.
104		Posthole cut		
105	104	Posthole fill	Compact dark brown clay loam	
106		Posthole cut		
107	106	Posthole fill	Compact dark brown silty clay loam	
108		Posthole cut		
109	108	Posthole fill	Compact dark brown silty clay loam	
110		Posthole cut		
111	110	Posthole fill	Compact dark brown silty clay loam	
112		Pit cut		
113	112	Pit (?) fill	Compact dark brown/black silty loam	
114	-	Context Void	-	
115	-	Context Void	-	
116	-	Context Void	-	
117	-	Context Void	-	
118		Quarry pit cut		Not exc.
119	118	Quarry pit fill		Not exc.
120	-	Context Void	-	
121	-	Context Void	-	
122		Ditch cut		
123	122	Ditch fill	Olive green-tinged brown silty clay	
124		Hearth	Unmortared roughly shaped limestone block construction	
125		Gully cut		
126	125	Gully fill	Compact mid grey silty clay	
127		Posthole cut		
128	127	Posthole fill	Firm mid grey-brown clay silt	
129		Posthole cut		
130	129	Posthole fill	Firm mid grey-brown clay silt	
131		Posthole cut		
132	131	Posthole fill	Firm mid greenish-grey clay silt	
133		Posthole cut		
134	133	Posthole fill	Firm mid grey-brown clay silt	
135		Pit (?) cut	Soft mid grey-brown clay silt	
136	135	Pit (?) fill		
137		Pit/hearth cut	Moderate compact ashy dark grey clay silt	
138	137	Pit/hearth fill		
139	-	Context Void	-	
140	-	Context Void	-	
141		Ditch/gully cut		
142	141	Ditch/gully fill	Compact mid grey clay silt	
143		Wall	Unmortared coursed limestone wall	
144		Wall	Unmortared coursed limestone wall	
145		Pit cut		
146	145	Pit fill	Compact mid grey clay silt	
147		Posthole cut		Not exc.
148	147	Posthole fill	Firm mid brownish-grey clay silt	Not exc.
149		Posthole cut		Not exc.
150	149	Posthole fill	Firm mid brownish-grey clay silt	Not exc.
151		Posthole cut		
152	151	Posthole fill	Firm mid brownish-grey clay silt	
153		Posthole cut		Not exc.
154	153	Posthole fill	Firm mid brownish-grey clay silt	Not exc.
155		Posthole cut		Not exc.
156	155	Posthole fill	Firm mid brownish-grey clay silt	Not exc.
157		Posthole cut		
158	157	Posthole fill	Firm mid brownish-grey clay silt	
159		Posthole cut		Not exc.
160	159	Posthole fill	Firm mid brownish-grey clay silt	Not exc.
161		Linear feature (?) cut		Not exc.
162	161	Linear feature (?) fill	Firm mid brownish-grey clay silt	Not exc.
163		Posthole cut		
164	163	Posthole fill	Firm mid grey clay silt	

165		Posthole cut		
166	165	Posthole fill	Firm mid brownish-grey clay silt	
167		Posthole cut		
168	167	Posthole fill	Firm mid grey clay silt	
169		Posthole cut		
170	169	Posthole fill	Firm mid grey clay silt	
171		Posthole cut		
172	171	Posthole fill	Firm mid grey clay silt	
173		Posthole cut		
174	173	Posthole fill	Firm mid grey-brown clay silt	
176	175	Posthole fill	Firm mid grey-brown clay silt	
177		Posthole cut		
178	177	Posthole fill	Heavy dark orange-brown sandy clay loam	
179		Pit cut		
180	179	Pit fill	Tightly compact pale orange-brown sandy silty clay	
181		Ditch/gully cut		
182	181	Ditch/gully fill	Friable mid grey-brown loamy clay	
183		Posthole cut		
184	183	Posthole fill	Heavy dark orange-brown sandy clay loam	
185	-	Context void	-	
186	-	Context void	-	
187		Pit (?) cut		
188	187	Pit (?) fill		
189		Quarry pit cut		Not exc.
190	189	Quarry pit fill		Not exc.
191		Pit cut		
192	191	Pit fill	Loose mid-brown loamy clay	
193	-	Context Void	-	
194	-	Context Void	-	
195		Posthole cut		
196	195	Posthole fill		
197		Gully cut		
198	197	Gully fill		
199	-	Context Void	-	
200	-	Context Void	-	
201	-	Context Void	-	
202	201	Context Void	-	
203		Posthole cut		
204	203	Posthole fill		
205		Pit/p'hole cut		
206	205	Pit/p'hole fill		
207		Gully cut		
208	207	Gully fill	Friable light-mid brown clay silt	
209		Pit cut		
210	209	Pit fill	Pale mid-grey fine plastic clay silt	
211		Quarry pit cut		Not exc.
212	211	Quarry pit fill		Not exc.
213		Gully cut		Not exc.
214	213	Gully fill		Not exc.
215		Quarry pit cut		Not exc.
216	215	Quarry pit fill		Not exc.
217		Posthole cut		
218	217	Posthole fill		
219		Posthole (?) cut		
220	219	Posthole (?) fill		
221		Posthole (?) cut		Not exc.
222	221	Posthole (?) fill		Not exc.
223		Posthole cut		Not exc.
224	223	Posthole fill		Not exc.
225		Posthole cut		Not exc.
226	225	Posthole fill		Not exc.
227		Gully cut		
228	227	Gully fill		
229		Posthole cut		
230	229	Posthole fill		
231		Kiln/oven	Construction cut	
232	231	Kiln/oven	Masonry lining	
233	231	Kiln/oven	Coarse limestone rubble backfill	
234		Posthole cut		
235	231	Posthole fill	Heavy dark orange-brown sandy clay loam	

236		Posthole cut		
237	236	Posthole fill	Heavy dark orange-brown sandy clay loam	
238		Posthole cut		
239	238	Posthole fill	Heavy dark orange-brown sandy silt loam	
240		Linear feature		
241	240	Linear feature fill	Compact mid brown clay silt with crushed limestone	
242		Posthole cut		
243	242	Posthole fill	Friable mid brown clay silt	
244	191	Pit fill	Friable dark brownish grey loamy clay	
245	231	Pit fill	Friable dark brown clay silt, rare limestone	
246	122	Ditch fill	Compact yellow-green-tinged pale brown fine silty clay	
247	122	Ditch fill	Slightly plastic pale yellow-brown silty clay	
248	122	Ditch fill	Compact pale yellow-brown fine silty clay	
249	179	Pit fill	Mod compact dark grey sandy silt clay	
250		Posthole cut		
251	250	Pit fill	Friable dark brown clay silt, 70% limestone rubble	
252		Gully cut		
253	252	Gully fill	Friable mid-brown clay silt	
254		Pit cut		
255	254	Pit fill	Friable brown clay silt	
256		Flue cut		
257	256	Flue fill	Friable brown clay silt, rare limestone	
258	256	Flue fill	Friable brown clay silt, 50% limestone rubble	
259		Posthole cut		
260	259	Posthole fill	Friable brown clay silt	
261	124	Hearth fill	Friable mid grey-brown silt	
262		Floor constr. cut		
263	262	Floor	Very compact mid grey-b rown silty clay; frequent limestone fragments	
264		Wall	Unmortared coursed limestone wall	
265		Wall	Unmortared coursed limestone wall	
266	191	Pit fill	Moderate compact mid orange-brown silty clay	
267		Pipt cut		
268	267	Gully fill	Friable mid grey-brown clay silt	
269		Gully cut		
270	269	Pit fill	Friable dark grey-brown clay silt	
271	256	Kiln/oven fill	Friable brown clay silt, rare limestone	
272		Gully cut		
273	272	Gully fill	Friable mid grey-brown clay silt	
274		Gully fill		
275	274	Gully fill	Friable mid grey clay silt, 60% limestone rubble	
276		Area of burning	Red to black patch of burnt limestone at flue entrance	
277	231	Pit fill	Dark brown fine clay silt, slightly plastic	
278		Pit cut		
279	278	Pit fill	mid grey-brown friable clay loam	
280	191	Pit fill	Moderate compact mid orange-brown silty clay	

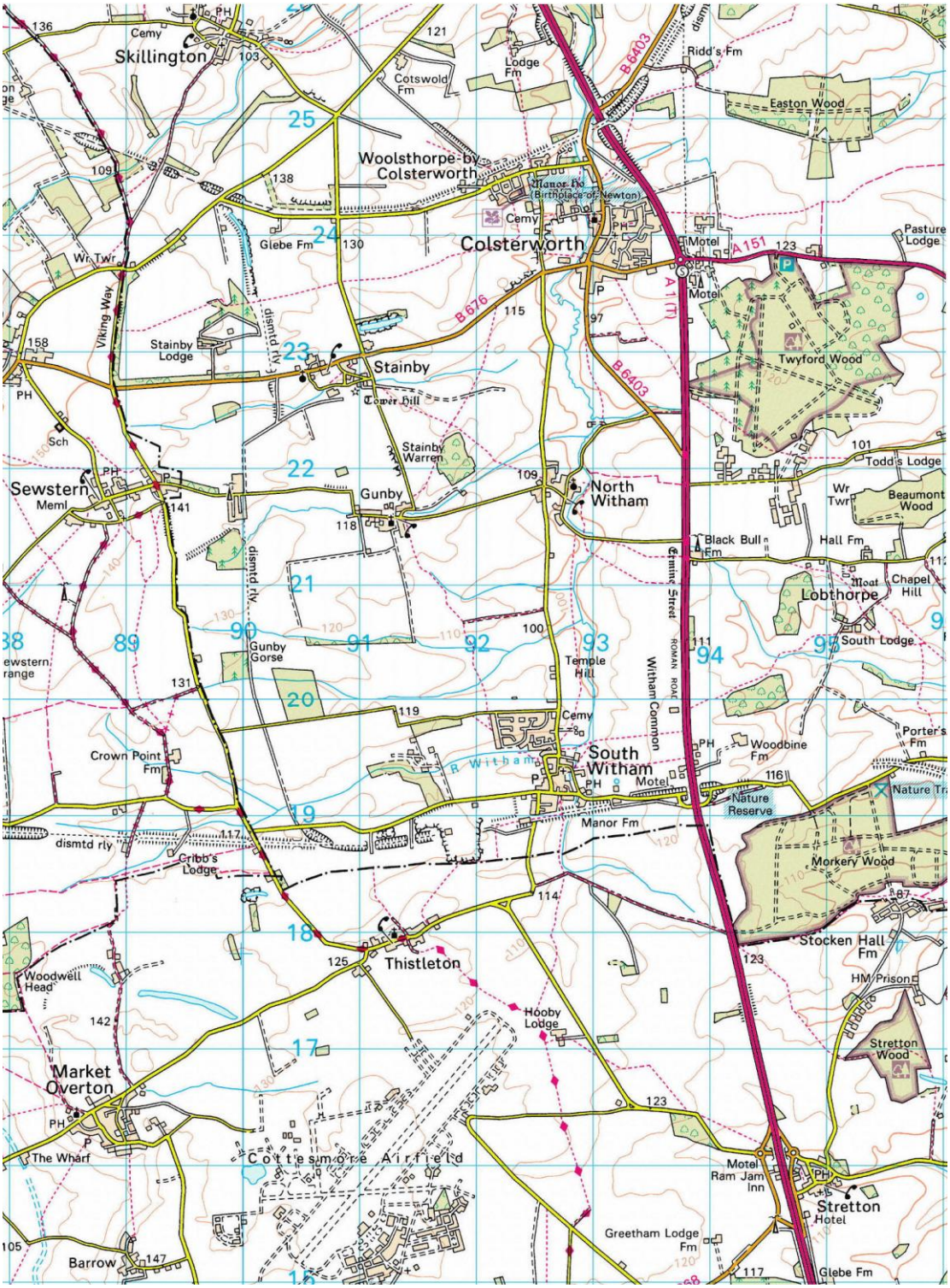

Figure 1: Site Location, South Witham, Lincolnshire (SK 9277 1929)

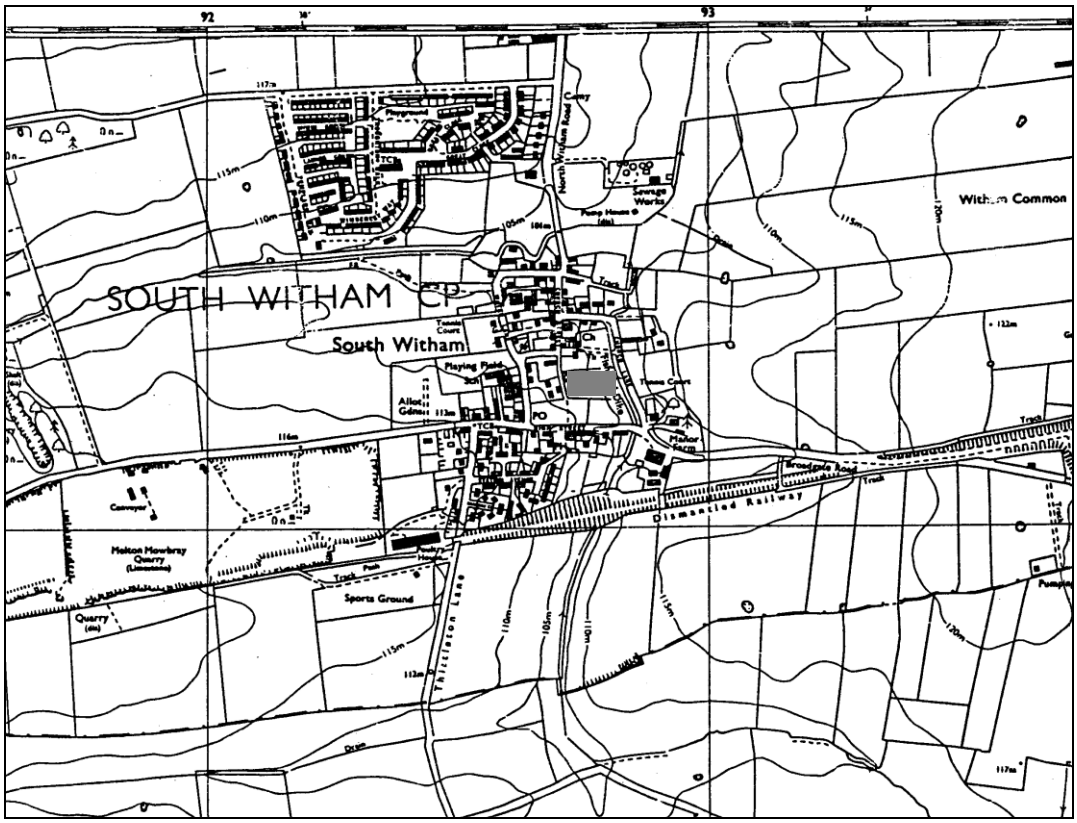

Figure 2: 1970 Ordnance Survey map with development area greyed. Scale 1:2500

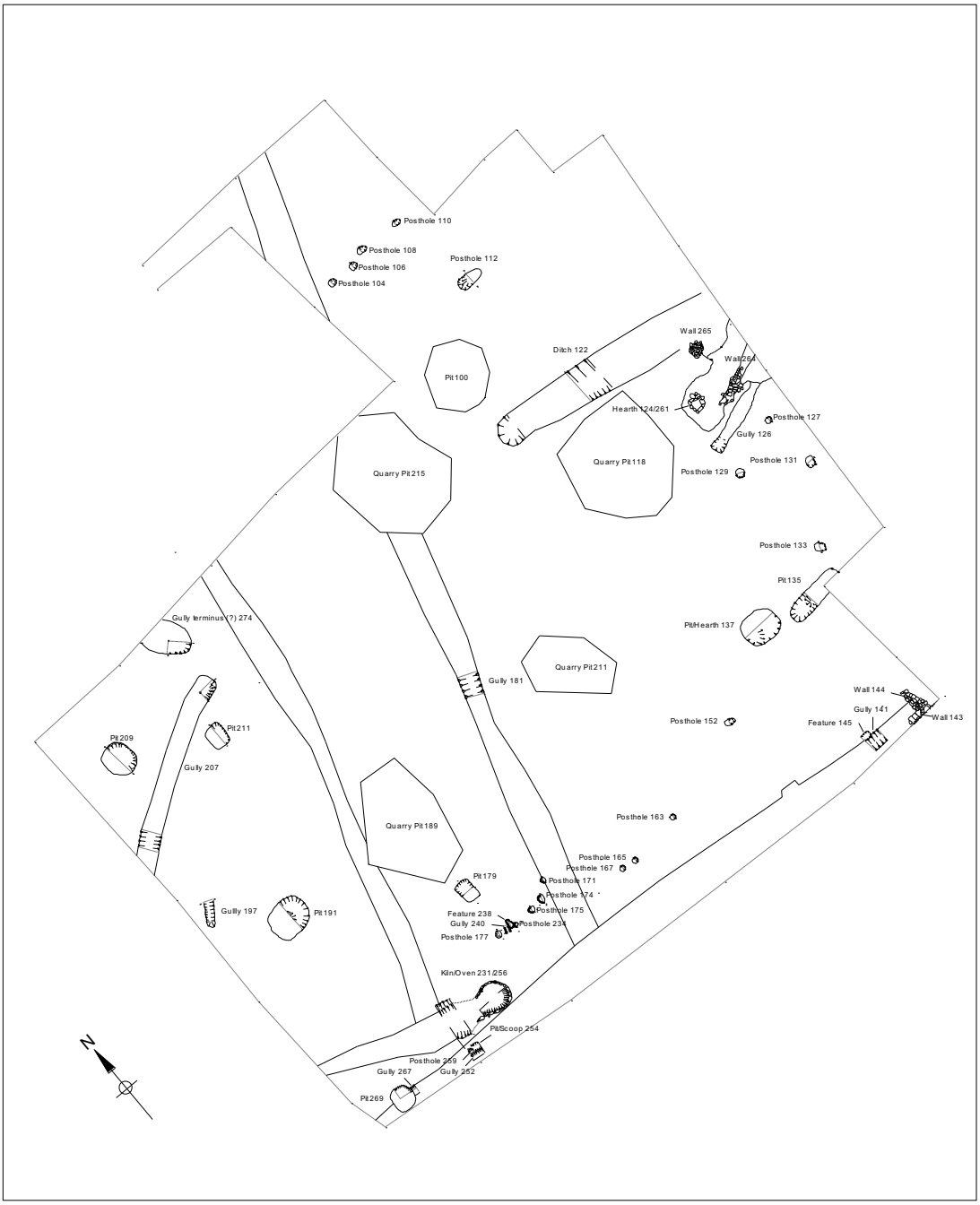

Figure 3: General Plan of Area of Excavation

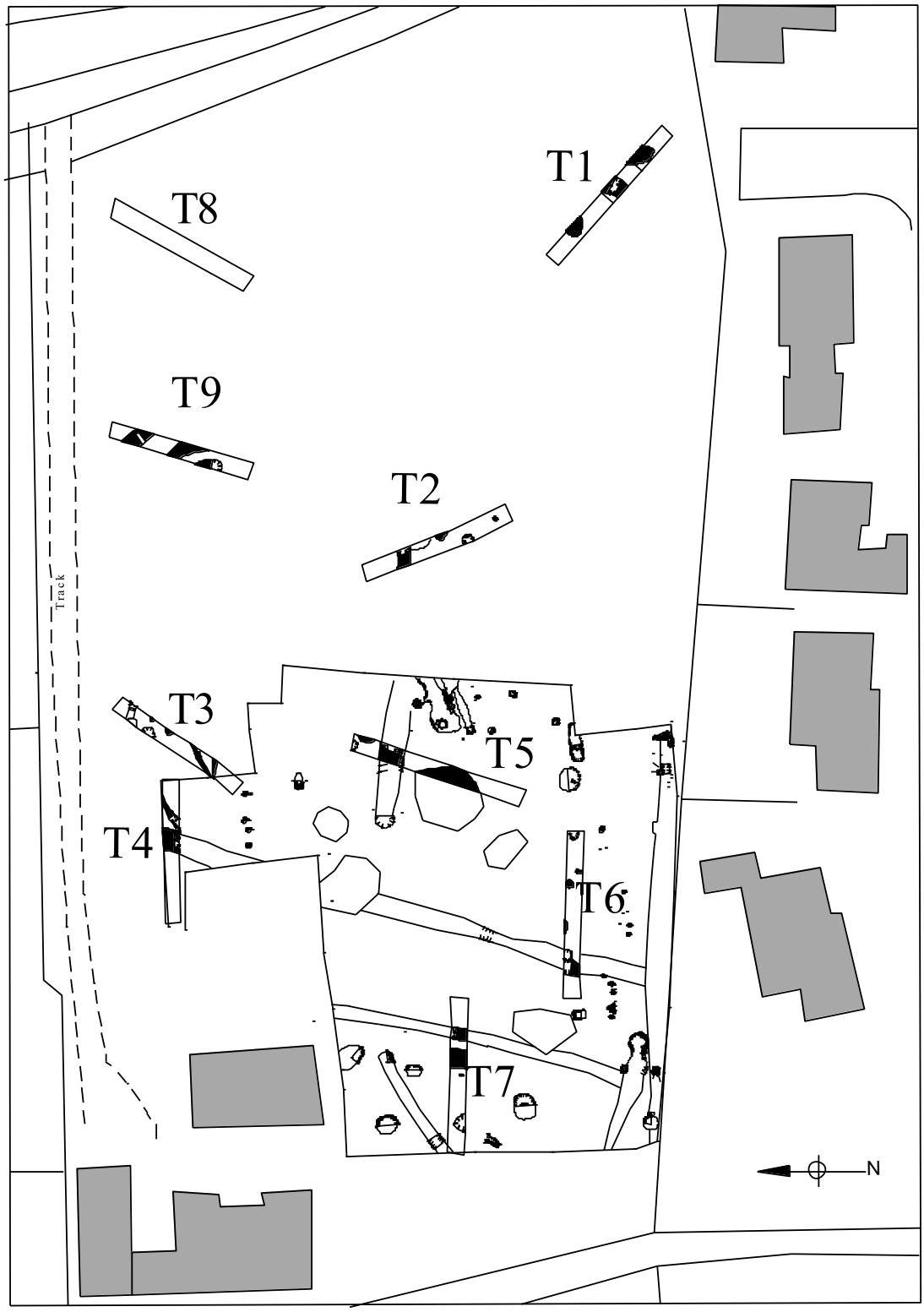

Figure 4: South Witham: Excavation Area with 2001 Evaluation Trenches overlaid.

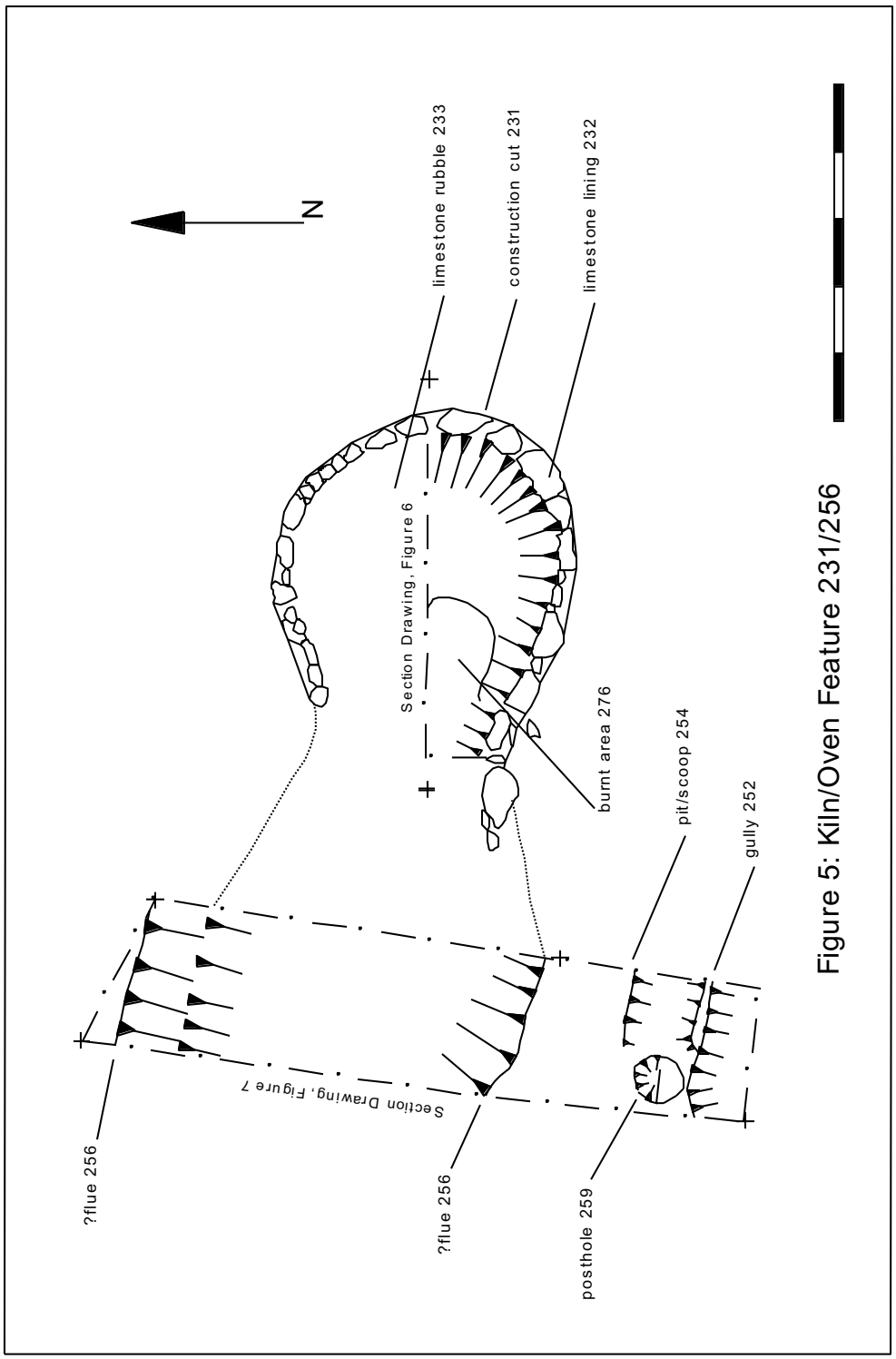

Figure 5: Kiln/Oven Feature 231/256

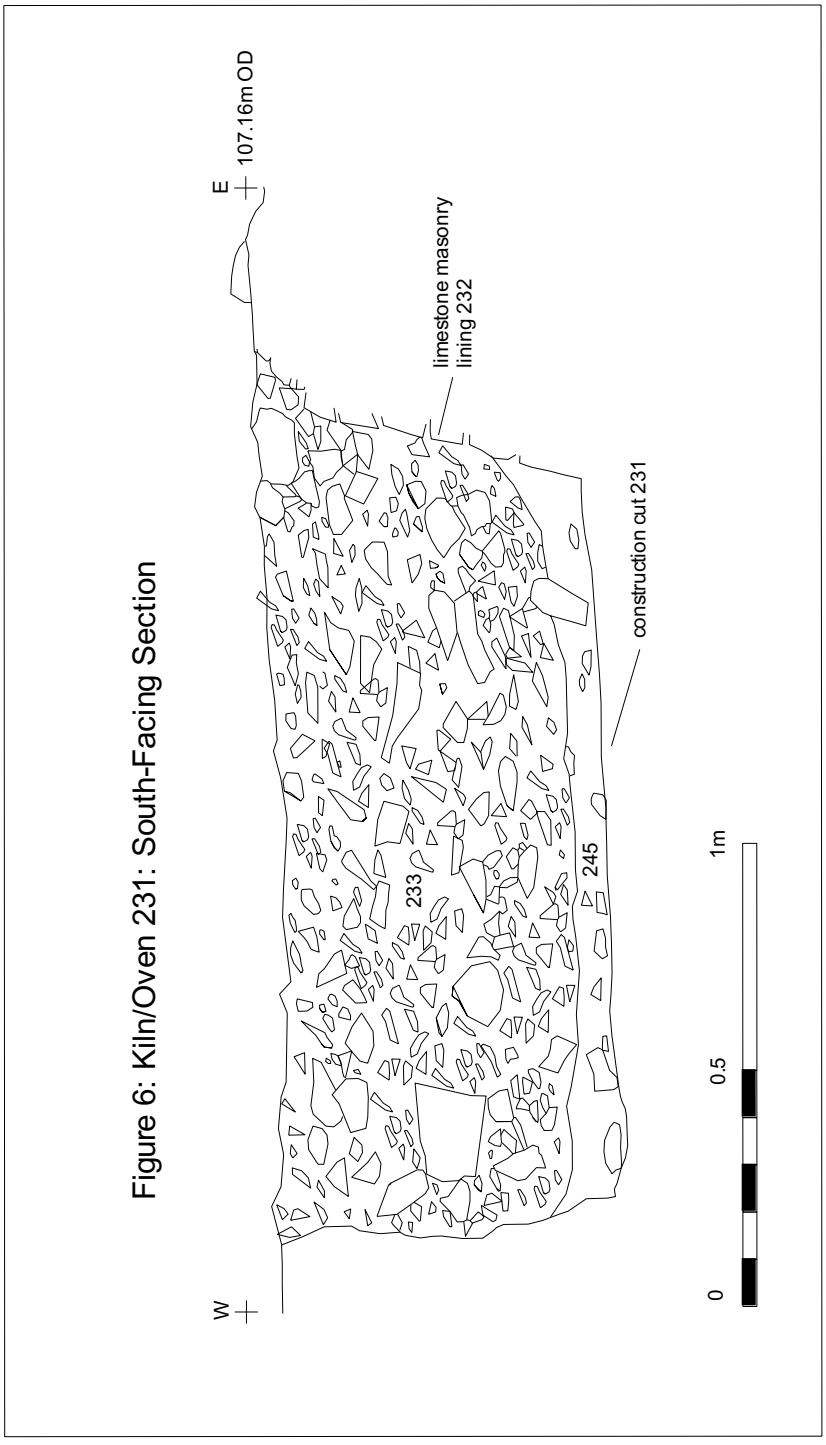

Figure 6: Kiln/Oven 231: South-Facing Section

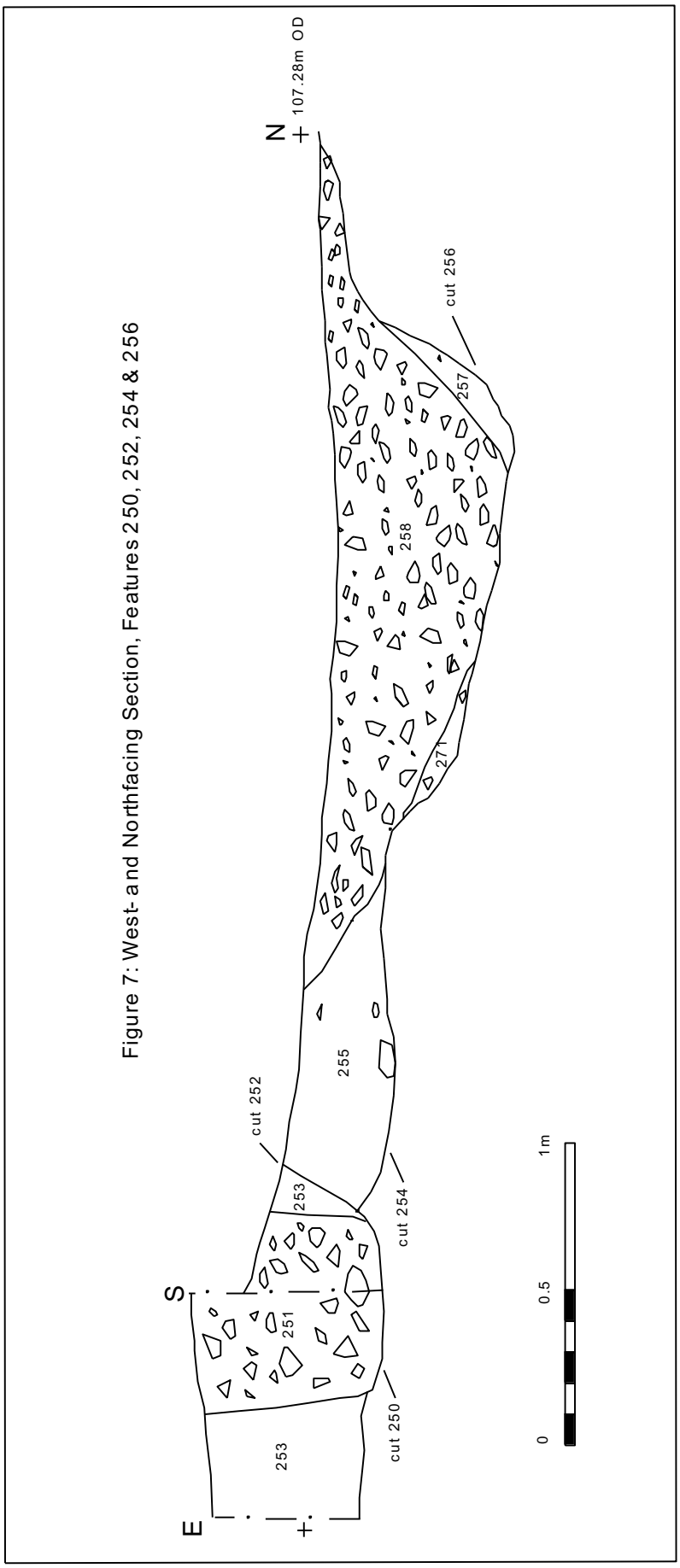

Figure 7: West- and Northfacing Section, Features 250, 252, 254 & 256

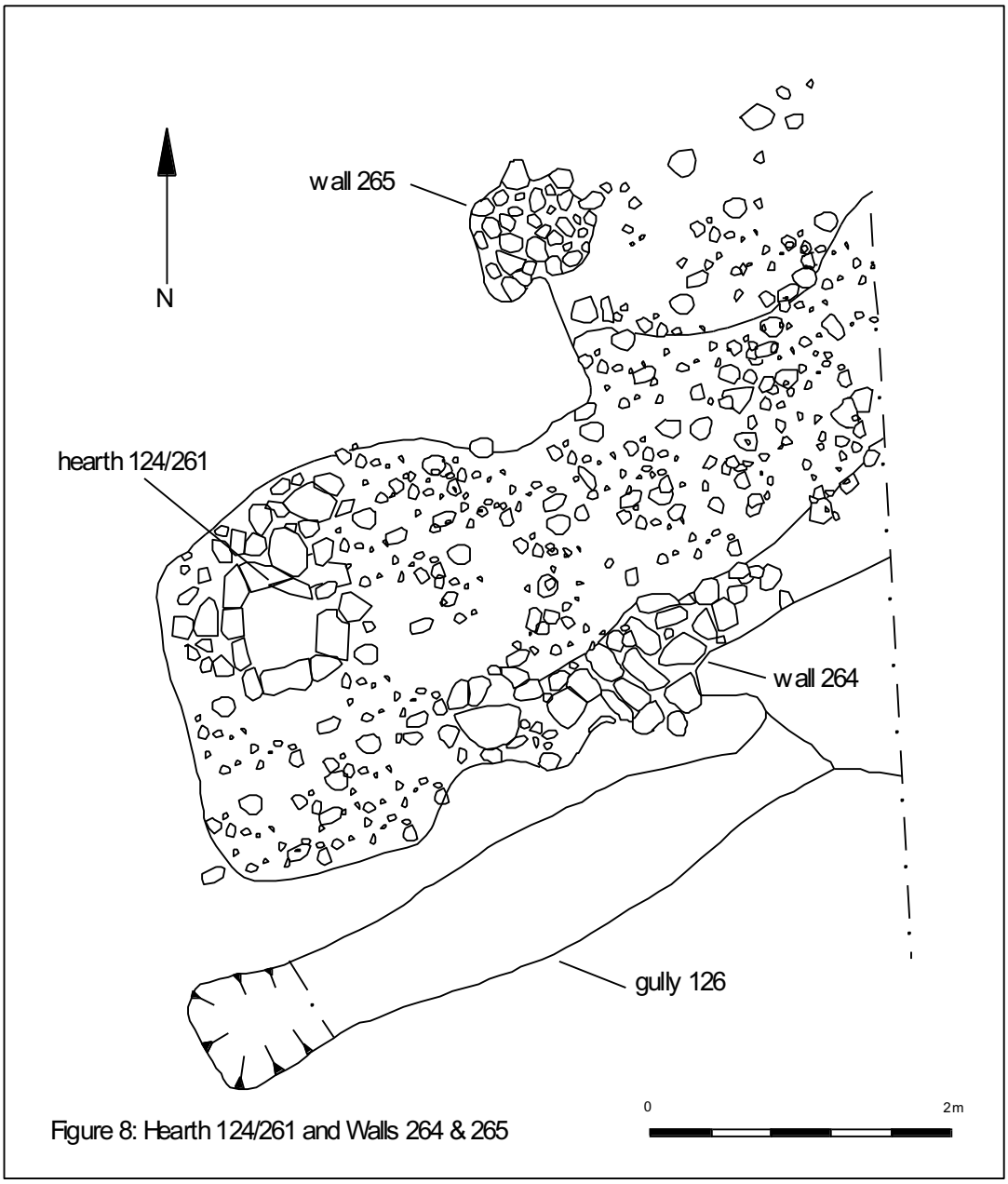

Figure 8: Hearth 124/261 and Walls 264 & 265

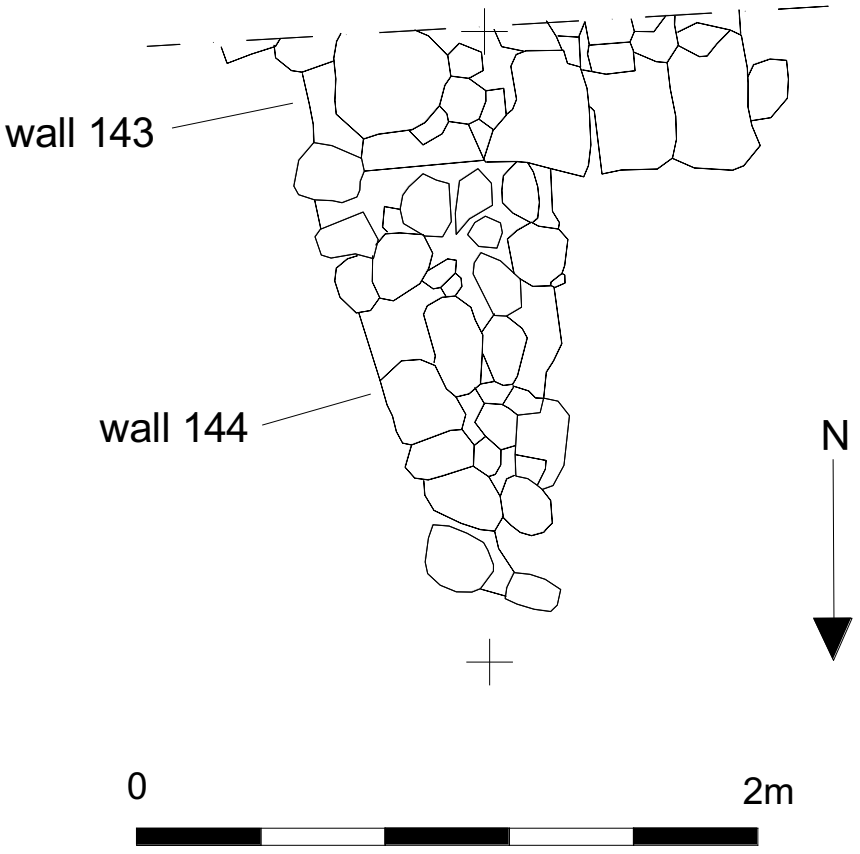

Figure 9: Junction of Walls 143 & 144

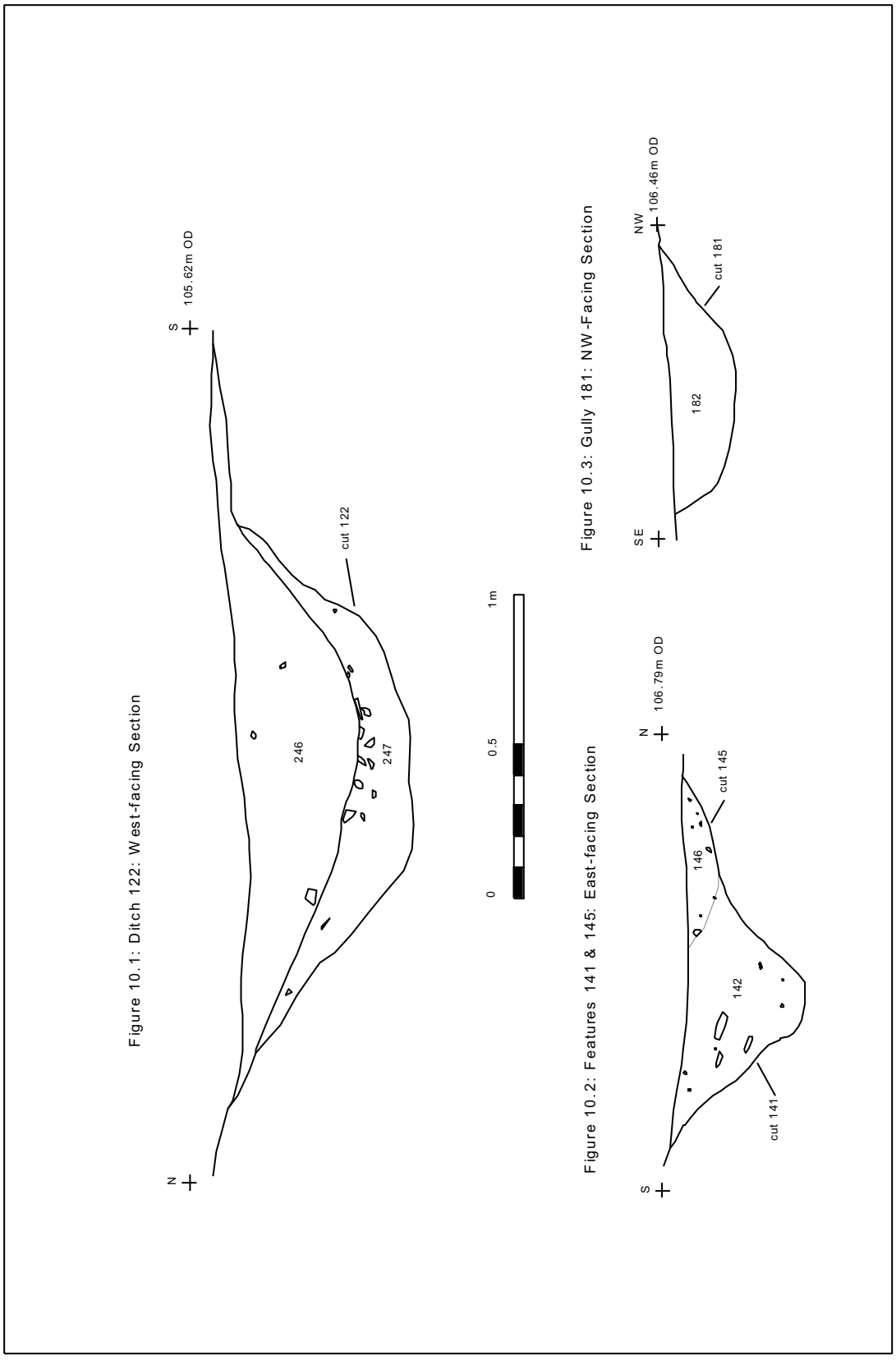

Figure 10: Sections, Features 122, 141, 145 & 181

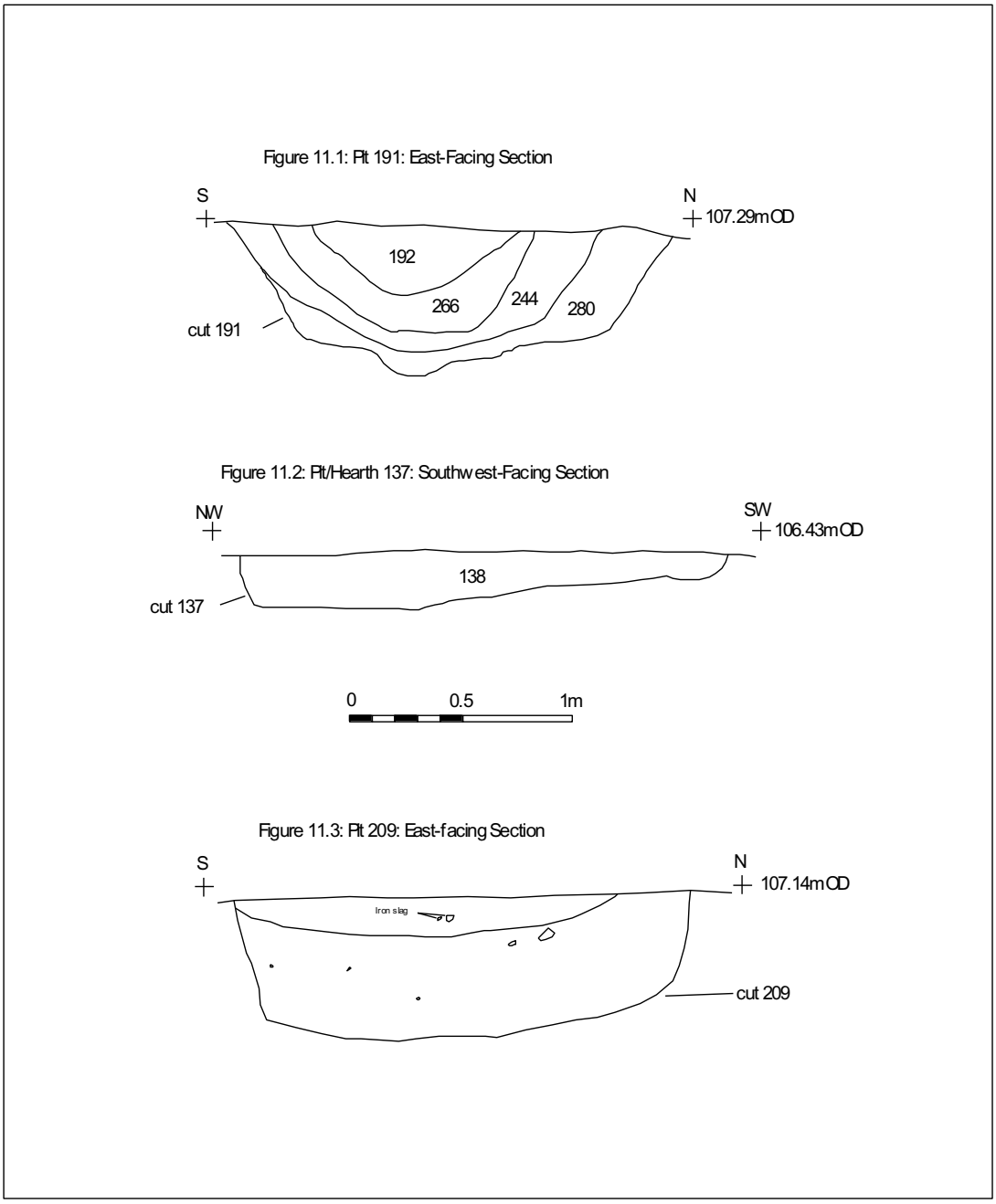

Figure 11: Sections, Features 137, 191 & 209

Figure 12: Selected Lithic Material

Figure 13: Kiln/Oven Feature 231 viewed north-east