Archaeological Excavation at 'The Walnuts', Oundle Road, Woodston, Peterborough (TL 187 976)

John Thomas & Stephen Jones
with contributions from Paul Courtney, Patrick Marsden, Deborah Sawday, Jennifer Browning and Angela Monckton

For

George Wimpey (East Midlands) Ltd

Checked by Project Manager
Signed:.... Date:
Name:.....

University of Leicester
Archaeological Services
University Rd., Leicester, LE1 7RH
Tel: (0116) 252 2848 Fax: (0116) 252 2614

ULAS Report No. 2008-051

CONTENTS

ILLUSTRATIONS

TABLES

Archaeological Excavation at 'The Walnuts', Oundle Road, Woodston, Peterborough (TL 187 976)

John Thomas and Stephen Jones

Summary

Archaeological evaluation and subsequent excavation was undertaken by University of Leicester Archaeology Services (ULAS) at 'The Walnuts', Oundle Road, Woodston, Peterborough in advance of housing development by George Wimpey (East Midlands) Ltd. The earliest evidence came from a scatter of Neolithic pits associated with Peterborough ware located in the southern half of the site. A small scatter of pottery and tile also hinted at nearby Roman occupation although no direct evidence was recovered on the site. A long sequence of medieval and post-medieval occupation was represented across the site. Complex occupation remains close to the Oundle Road street frontage consisted of 12th-13th century pitting, 13th-14th century boundaries and a 15th-16th century agricultural building associated with yard surfaces, drainage and pitting. Further evidence for 16th-17th century occupation included a well, boundary ditches, pits and the creation of a large pond. Evidence for activities to the rear of the properties included changing boundaries, pitting and quarrying remains reflecting use of the area between the 12th and 16th centuries. A wide range of pottery, animal bone and well-preserved environmental evidence adds to the picture of domestic occupation and associated activities on the site, providing important information on the early development of Woodston. The site archive will be deposited with Peterborough City Museums (Accession No. WAL 2003).

Introduction

Woodston is a largely residential area of Peterborough, situated approximately 1.5 miles south of the modern city centre (Figure 1). Historically however, Woodston was part of Huntingdonshire, and settlement there had its origins in a village which grew around the junction of Oundle Road and Wharf Road in the late 10th century.

Redevelopment of an area of land known as 'The Walnuts', to the south of Oundle Road, presented the opportunity for archaeological examination of a significant area within the historic core of the former village. The site lies in close proximity to St. Augustine's church, which has pre-Conquest origins, and the probable site of the medieval manor, two of the early village's key components. A number of chance finds and small-scale interventions have hinted at the archaeological potential within the historic core of Woodston and the present project offered the largest area so far to examine evidence of the areas early development.

The development proposals by George Wimpey (East Midlands) Ltd. outlined plans for residential use at 'The Walnuts' affecting an area of *c.*0.55ha (Figure 2). A trial trench evaluation was undertaken by ULAS in June 2003 which established the archaeological potential of the site, revealing stratified medieval deposits close to the Oundle Road street frontage and Neolithic and medieval remains towards the rear of the site. A subsequent excavation was undertaken by ULAS in August and September 2003, following consultation with the Peterborough City Council Planning Archaeologist.

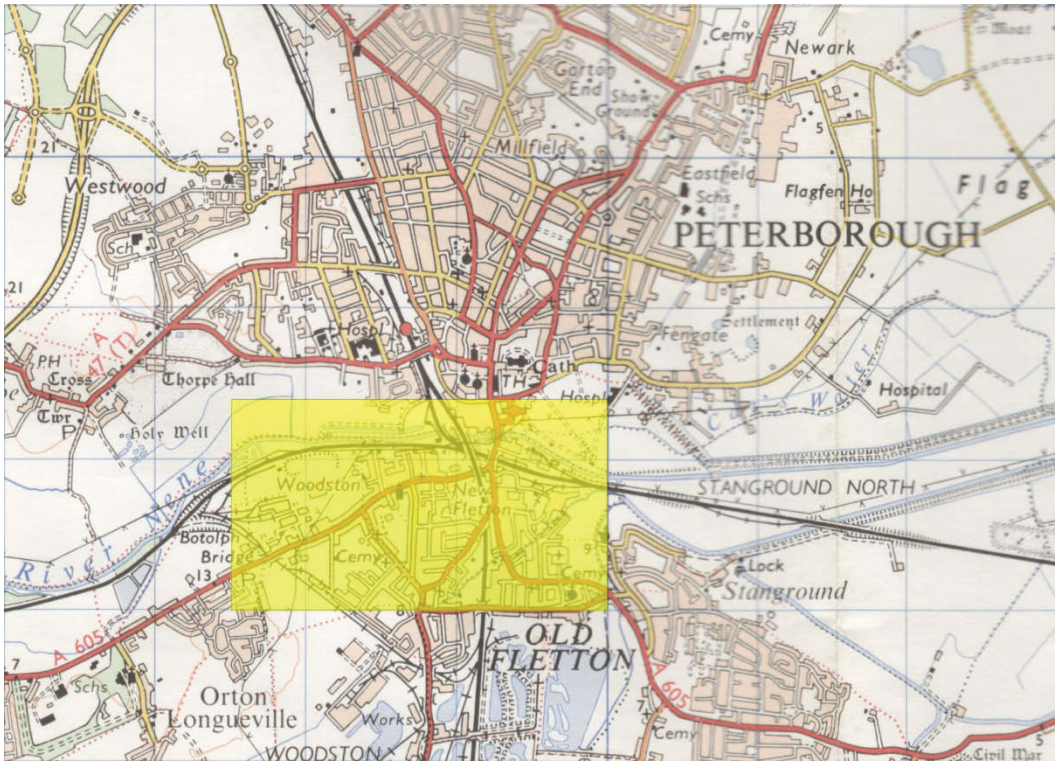

Figure 1 Location of Woodston (highlighted). © Crown Copyright. All rights reserved. Licence number AL 100029495.

Figure 2 Location of the development area within Woodston. © Crown Copyright. All rights reserved. Licence number AL 100029495.

The site lies on fairly level ground at a height of *c.*11.06m OD. The natural substratum consists of Second River Terrace deposits (bedded gravels) over Oxford Clay (fossiliferous interbedded clays, shales and mudstones).

This report presents the results of the fieldwork and incorporates the results of specialist analysis of the artefacts and ecofacts recovered. A small number of features indicated use of the area during the Neolithic period, whilst further evidence of prehistoric activities was provided by a thin scatter of struck flints. Residual Roman finds also hinted at nearby occupation although no direct evidence was revealed. The bulk of the evidence reflected a sequence of occupation from the early medieval period through to the 19th century.

Historical Background - Paul Courtney

The place-name Woodston seems to combine an Old English personal name with the habitative element *–tun* (a farm or settlement; Mawer and Stenton 1926, 229). Woodston was among the lands given to Bishop Aethelwold by King Edgar in order to endow Thorney Abbey in the late 10th century (VCH Hunts, iii, 233). Domesday Book (1, 205a) records that the manor was rated at 5 hides. The abbey had two ploughs on 11/2 hides of land (the demesne or inland). The tenant population comprised 16 villeins with four ploughs. Domesday also recorded a church and a priest, as well as 16 acres of meadow and four acres of underwood (coppice). In addition to Woodston Thorney abbey also held manors in Yaxley 15 hides), Stanground (8 hides), Haddon (5 hides), Water Newton (5 hides), Sibson (2½ hides) and Stibbington (5 virgates), as well as sharing rights in Whittlesey Mere. All these properties lay in the northern part of Normancross Hundred.

In 1279 the Hundred Roll records that Thorney Abbey had 5½ hides and 1½ virgates. There were five virgates to the hide and 25 acres in a virgate. The abbot had 1½ hides (188 acres) in demesne, 1½ acres of pasture, 8 acres of meadow and a windmill. The manor court covered an acre (RH, ii, 643-4). Eight held full virgates (25 acres) and thirteen held half-virgates (14½ virgates in total). All owed work on the abbot's demesne (given in detail). In addition there were 29 cottagers, a product of the expanding population, who were almost certainly supported by wage labour. Dyer (1985) has noted a link between boroughs and adjacent communities of cottagers who provided extra urban workers; though the seasonal economy of the fens (grazing, fowling and fishing) may also have provided work. In addition there were 12 free tenants of which the most important were William de Waldeshef and Martin of Woodston, who each held 2 virgates. These two also had four minor tenants between them. It seems likely that the free tenants were simply not listed in Domesday.

In 1201 the royal courts recorded a dispute between Thorney and the burgesses of Northampton, thought the Victoria County History (VCH, Hunts, iii, 234) has misinterpreted parts of this, especially in relation to the navigation of the Nene. The Northampton merchants normally took their goods by foot, horse or cart to Yaxley, a manor for which the abbot of Thorney had both a market grant and right of toll (*theloneum*). Yaxley was also an important river port on the fen river network with links to Kings Lynn (Masschaele 1997, passim). The Northampton burgesses complained that the abbot made them unload their goods at Woodston, which had no market grant. They also complained that the abbot had raised the tolls while the abbot claimed they were unchanged since the time of King Henry. The court ruled against

the abbot on the first count but supported him on the second (CCR, ii, 65; CCuriaR, i, 449-50; SCPleas, i, 11). The abbot appears to have been trying to create a second market at Woodston, possibly because of its closeness to Peterborough. The Northampton merchants may have suffered as their products are likely to have been manufactured commodities in competition with those produced in Peterborough; while the abbot was trying to sell his demesne goods (corn, wool etc.) to the Peterborough merchants. The abbot of Thorney subsequently obtained a market grant at Woodston for a market and fair in 1268 (CChR, ii, 101. The market is recorded in the Quo Warranto proceedings of 1286 but not the fair, and the market appears to have disappeared by the 1330s (PQW, 298; Masschaele 1997, 170).

There were approximately 65 households in 1279 (RH, ii, 643-4). In 1327, 24 persons in Woodston were taxed 43s-4 1/4d and in 1332, 29 persons were taxed 52s-1d. (ELS, 185-6 and 250-1). No poll tax records survive for Huntingdonshire. The bishopric of Lincoln recorded 96 communicants in Woodston in 1603 (SCH, i, 286). In the 1664 hearth tax 20 persons holding 54 hearths are recorded in Woodston but it is uncertain how many were too poor to pay. (HHT, 28). The Compton census of 1670 recorded 86 communicants (CC, 317). In 1327 Woodston was ranked 17th out of 22 vills in Normancross Hundred. In 1603 it was ranked 9th out of 19 parishes in the deanery of Yaxley and in 1670, 9th out of 20 parishes. It thus seems to have risen in the rural hierarchy since the 14th century, possibly due to the economic impact of the nearby borough. It probably had a population of over 300 in the late 13th century and around 250 in the mid 17th century.

The manorial history of Woodston after the 1279 hundred roll is very poorly recorded. An account roll for Thorney Abbey for 1441-2 records that the demesne was farmed to six individuals (NRO W (A) 5/II/5). The post-Dissolution accounts indicate that neither the windmill or market and fair survived (NA SC6/Hen8/7287). In 1553 the manor was granted by the crown to Sir Walter Mildmay of Apethorpe (Northants), who had already leased it in 1548, who was at this time expanding his estates in the region (CPR Edw VI, 5, 225-6; VCH Hunts, 3, 233). Sir Walter had been formerly active as a land agent in dissolved religious lands and then in the royal administration of such sales. He rose in royal service to become chancellor under Elizabeth (HPHC 1558-1603, ?? ,). A few deeds and other records survive in the Westmorland (Apethorpe) collection in Northamptonshire Records Office, mostly small grants of land to Thorney Abbey by its tenants in Woodston. The Mildmay family probably sold the manor along with Stanground in the 1690s. In 1697, Woodstone and its advowson was bought by Robert Tompson (VCH Hunts, 3, 234). In 1910 the lord of the manor was William Dalrymple Tompson of Iver (Bucks) (Kelly Dir., 82-3).

An act for enclosure in Woodston was passed in 1809 and an award made in 1821 (CROH CC526). An enclosure map of 1821 map also survives (CROH SR20/137). This portrays the village after enclosure and suggests the southern part of the parish had already been enclosed. However, the rectilinear field shapes suggest the enclosure was possibly 18th century. The map also indicates three open-fields existed at the time of enclosure: Orton Field, Middle Field and Fletton Field, all running north-south from the river.

Site Topography

The site lies within the historical core of Woodston, which was centred on the T-junction formed by Wharf Road and Oundle Road. Its main components were St Augustine's church, the manor site and former peasant tofts (enclosures). The latter numbered 16 in 1086 but had evidently been subject to amalgamation and splitting by the time of the 1811 enclosure map (Figure 3). The manorial site clearly lay west of the church, Woodston House, its court evident on the enclosure map. Former peasant tenements also extended east of the church to the parish boundary with Fletton. It is possible, though uncertain, that the tenement immediately east of the church was once the site of the medieval vicarage. Little often distinguished medieval clergy from their peasant flocks and they often held and in the open fields.

The 1811 enclosure map also indicates the presence of the rectory immediately east of the church. Its antiquity otherwise remains uncertain. By 1889, the current rectory house had been built. Palmerston Road had been inserted into the landscape, a short distance east of the excavated site. The development site itself appears to have been pasture with trees. A tennis court had been added by 1926 in the southern part of the site. Between 1958 and 1968 a house and outbuildings had been built at the southern end and a row of garages and other small structures at the north end (OS maps).

The most important archaeological find in the vicinity of the site is the pagan Saxon cemetery about 200 metres south of the present site (HER 1666). This is largely known from 19th century finds made during gravel digging. Roman finds include coins (HER 01617), about 100m to the north-east, and face-urn pot (HER 01564), about 200 m to the south-west; but all such finds were casual in nature. The nature of former Roman settlement in the immediate area of Woodston village is uncertain.

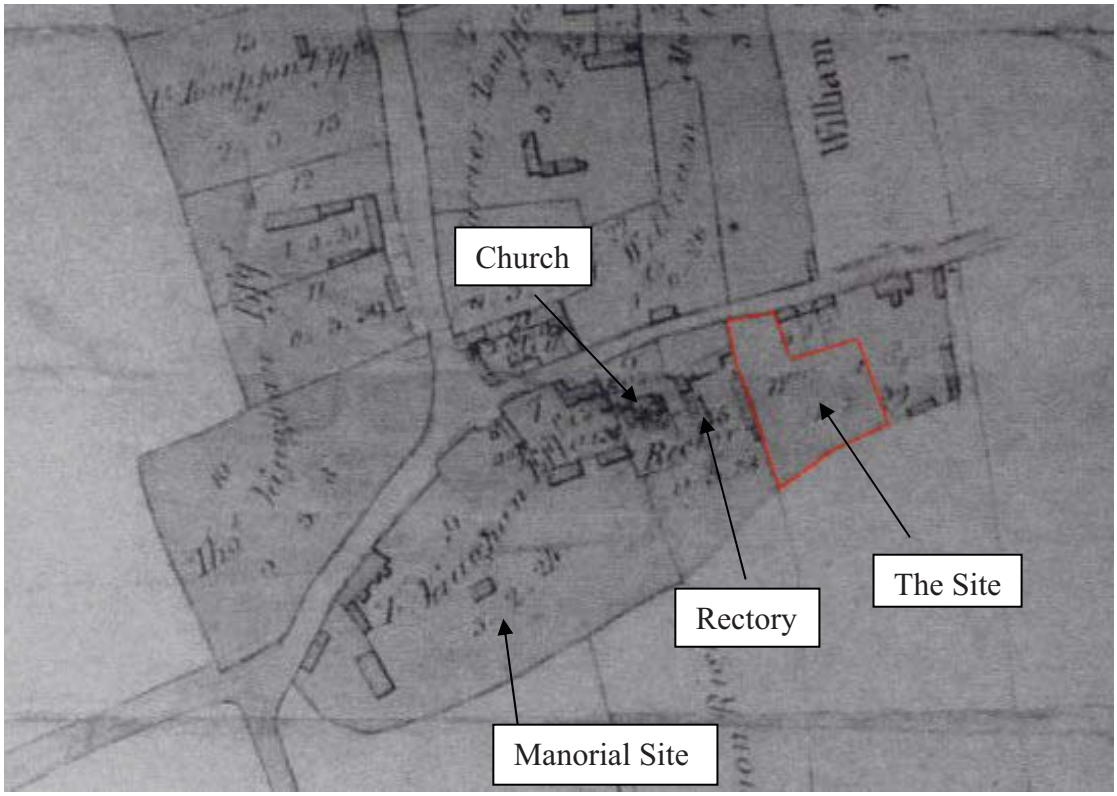

Figure 3 1811 Enclosure Map of Woodston showing location of site, manor and rectory

The Excavation Results – John Thomas and Stephen Jones

The evaluation identified a complex sequence of stratified archaeological remains close to the Oundle Road frontage in the northern area of the site. Further archaeological remains were also present in the central part of the development area, relating to rear plots of properties adjacent to the street. In contrast no remains were revealed in trenches located in the extreme southern part of the site.

In response to the evaluation results and the threat from development proposals three areas were chosen for further excavation work (Figure 4). Area 1 was situated adjacent to the Oundle Road frontage and comprised a *c.*232 metre square area. The central part of the site was excavated in two areas (Areas 2 and 3), comprising *c.*1010 and *c.*505 metres square respectively. All areas were initially machine stripped using a mechanical digger and then archaeological deposits were hand excavated, planned and recorded using standard ULAS techniques.

The programme of work was undertaken in stages due to the presence of Japanese Knotweed in areas of the site which had to be destroyed prior to the ground being disturbed. As a result some areas were avoided until treatment for this was in progress. The main access onto the site also coincided with Area 1, impeding movement on and off site during the excavations and making it necessary that this part of the site was excavated in two halves. A watching brief was also undertaken at the end of the work, which monitored service trenching beneath Oundle Road and in the site entrance.

The recent land use history of the site had meant that archaeological deposits were relatively well-preserved. The area of the former house platform at the south-west of the site was unaffected by the development and foundations for the garages that had recently occupied the frontage were very shallow.

The complex nature of the archaeology in Area 1 has resulted in a high degree of residuality of finds, particularly in the later layers and features. In spite of this a number of key contexts offered sealed and well-dated pottery assemblages which, when combined with stratigraphic information gathered from targeted excavation, resulted in a good understanding of the site's development. The results of each excavated area will be presented in chronological sequence and the overall development of the site considered in the Discussion. Archaeological features and deposits are identified by square and rounded parentheses respectively e.g. Pit [868], Layer (722).

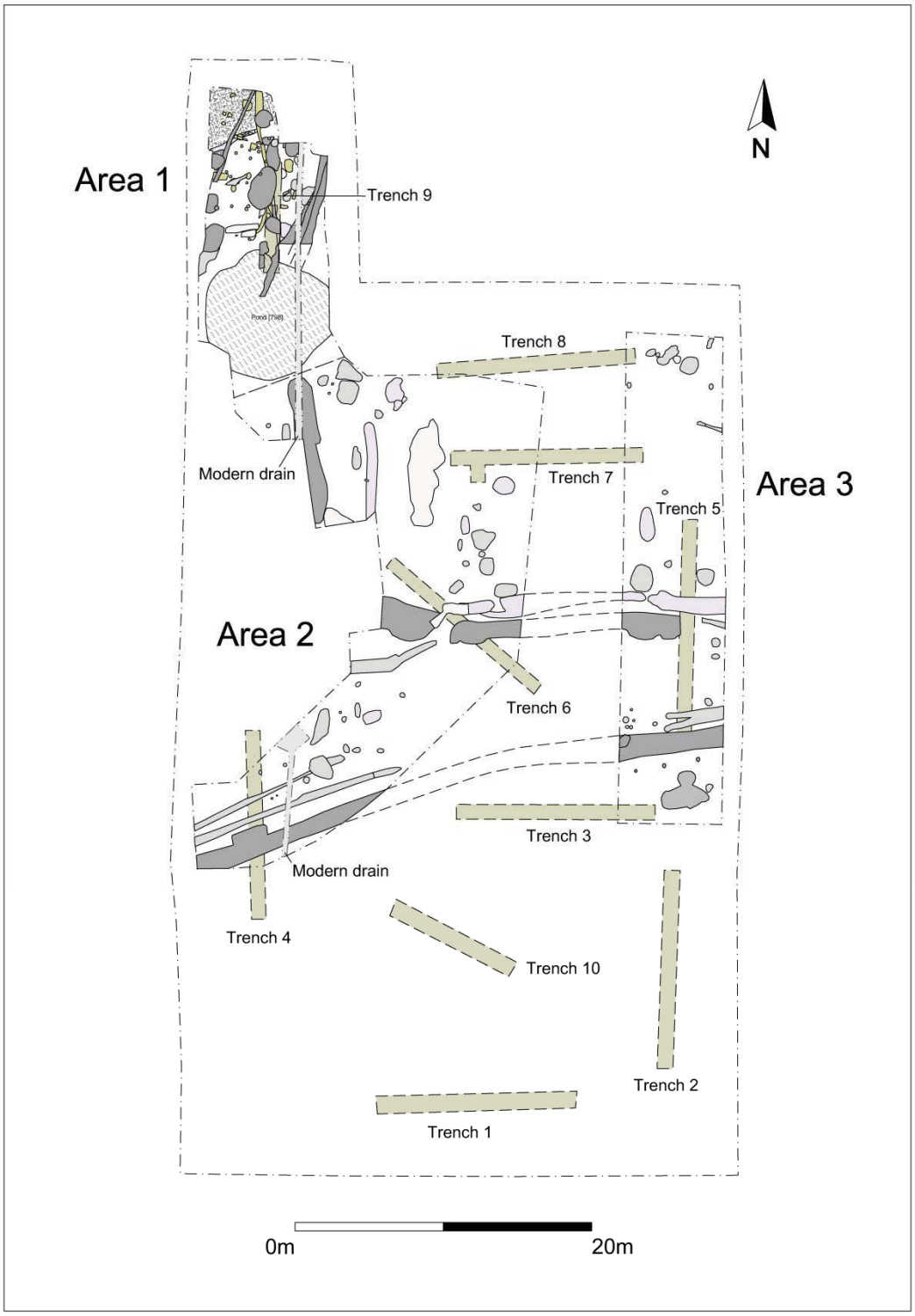

Figure 4 Overall site plan showing locations of evaluation trenches and excavated areas.

Prehistoric and Roman Activity

The earliest evidence for activity on the site came from three small features in Areas 2 and 3 which produced a total of 14 sherds of Neolithic Peterborough Ware and associated flintwork (Figures 5 & 6). A shallow burnt pit [103] located in the northern part of Area 2 contained pottery from probably two vessels and fragments of fired clay. To the east of this a small pit revealed during the evaluation [507] also contained pottery as well as a flint flake. A smaller pit, [307] contained a single Peterborough Ware sherd and lay close to [507], perhaps resulting from contemporary activity. All three were filled with distinctive light greyish brown silty sands. Limited evidence for seeds and cereal grains was recovered from environmental analysis of the pit fills, although the species represented were more typical of medieval deposits and are likely to have been intrusive. A thin scatter of typologically Neolithic/Bronze Age flint flakes was also present across the site in later features indicating that the pits were located in a wider area of occupation around the site.

Three sherds of Roman pottery and a small assemblage of roofing tile were recovered from later features across the site. Although no direct evidence could be related to Roman occupation on the site the finds do point to activities in the vicinity.

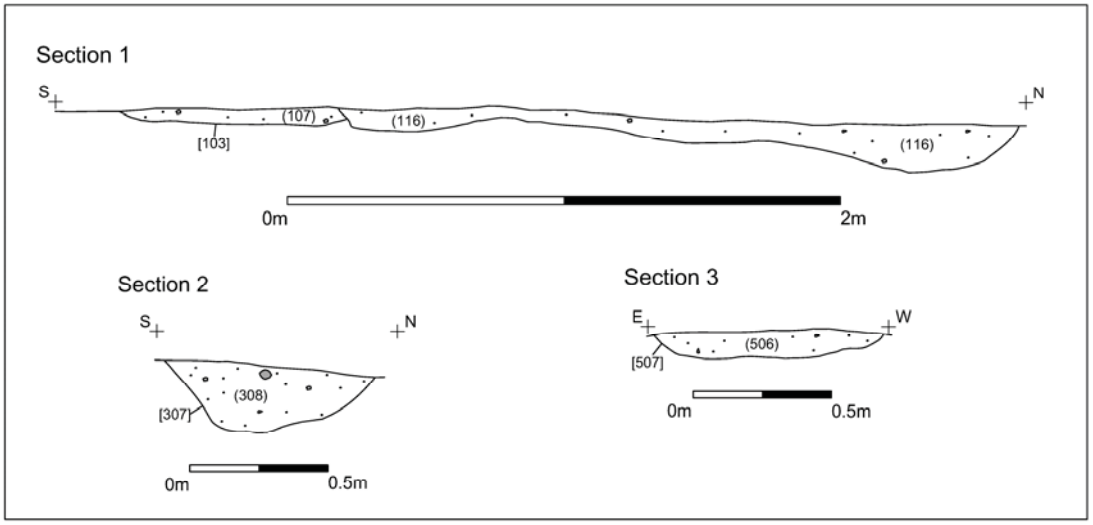

Figure 5 Areas 2 and 3 – Prehistoric pit sections

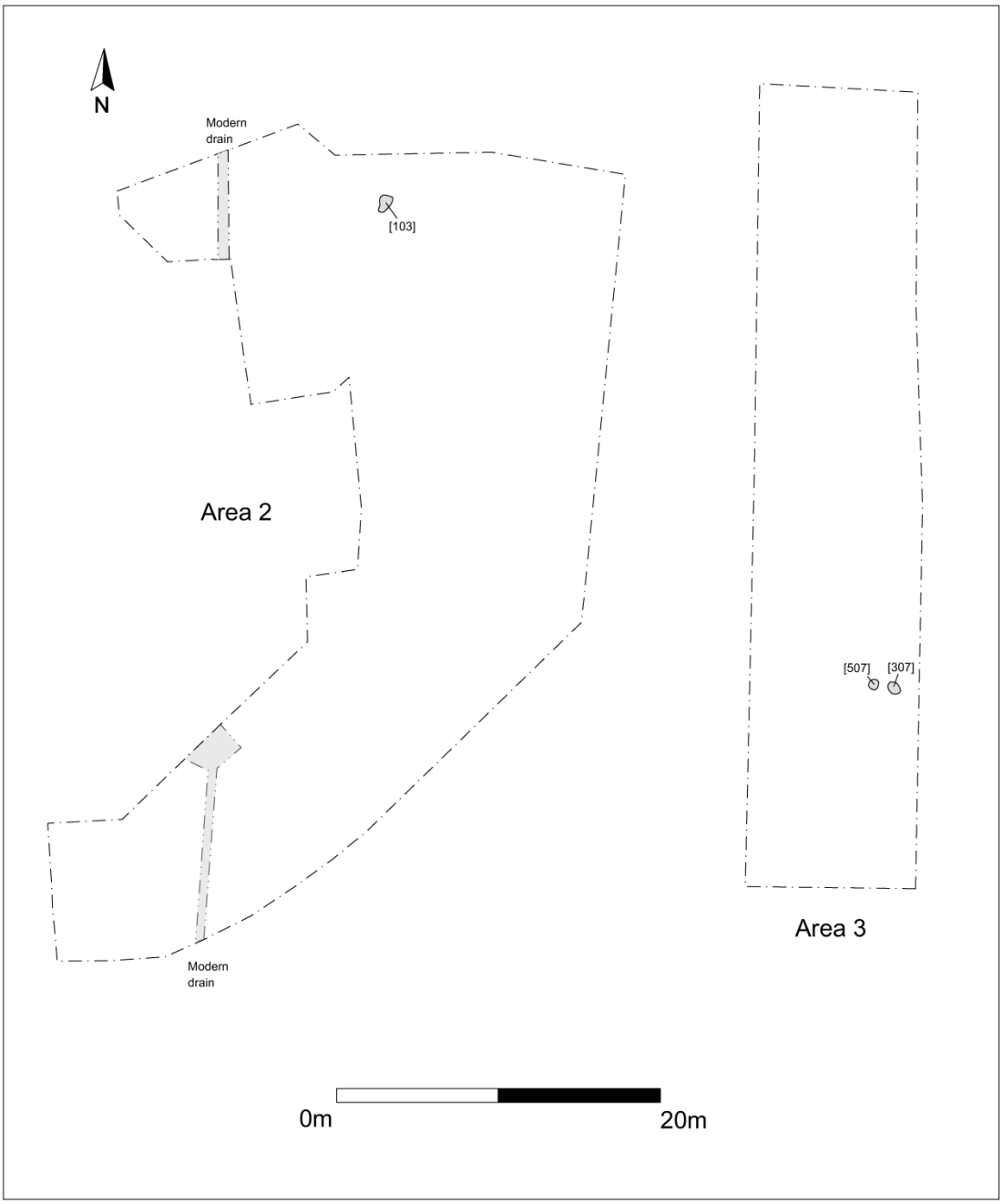

Figure 6 Areas 2 and 3 – Location of Prehistoric pits

Area 1

Medieval and Post Medieval Activity

Early Medieval Activity (Phase A - 12th-13th Century)

A scatter of pits cutting into the natural substratum in the southern part of Area 1 represented the earliest medieval activity adjacent to the street frontage (Figure 7). Due to the intensive nature of subsequent occupation of the site, much of this evidence was poorly preserved. The finds assemblages associated with the pits were indicative of domestic waste, hinting at nearby occupation, although no direct evidence for structures was observed.

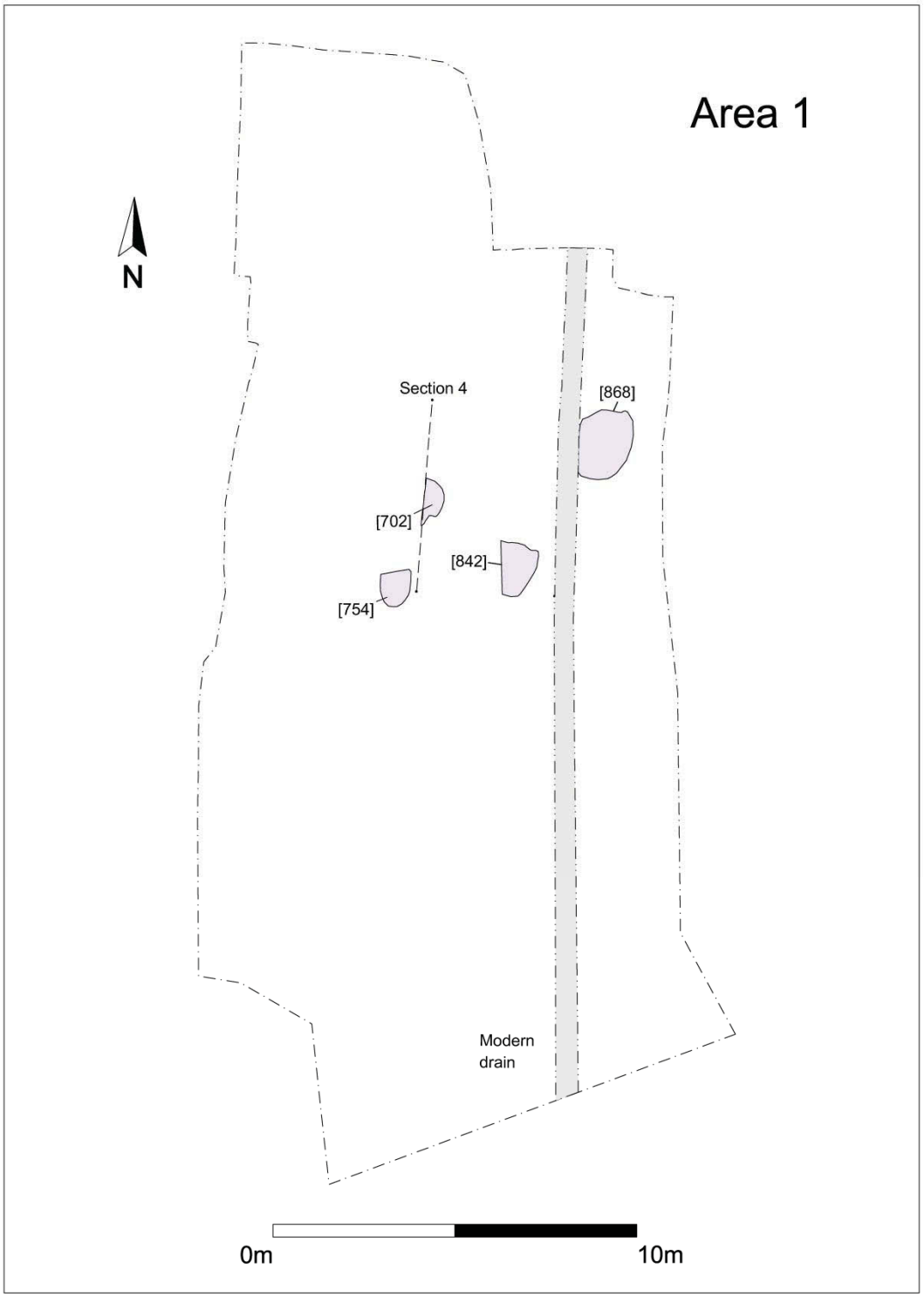

Figure 7 Area 1 – 12th-13th century features

One of the larger pits from the group [868] lay on the western side of the area, measuring *c.*2m diameter x 0.48m deep. This contained two fills (869 & 870), the earliest of which (869) contained broken fragments of Stamford and St Neots ware pottery and charred plant remains. Some of the pottery was sooted from use in cooking while the plant remains were possibly associated with cereal processing or bread making, suggesting the pit had been used to deposit domestic refuse.

To the south-west of [868] a group of three truncated pits [702], [754] and [842] was located. [702] was sub-circular, measuring approximately 1.3m x 0.5m and was 0.47m deep with steep sloping sides and a rounded base (Figure 8). A thin layer of loose, re-deposited natural subsoil (722) at the base of the pit suggested it had remained open for some time before being finally backfilled. The main fill of the pit (703) consisted of organic dark greenish grey silty loam which contained a small assemblage of pottery including Stamford and St. Neots wares as well as shelly ware. Charred plant remains from this pit included free-threshing wheat with some chaff including bread wheat and weed seeds in relatively high densities, suggesting nearby production or processing.

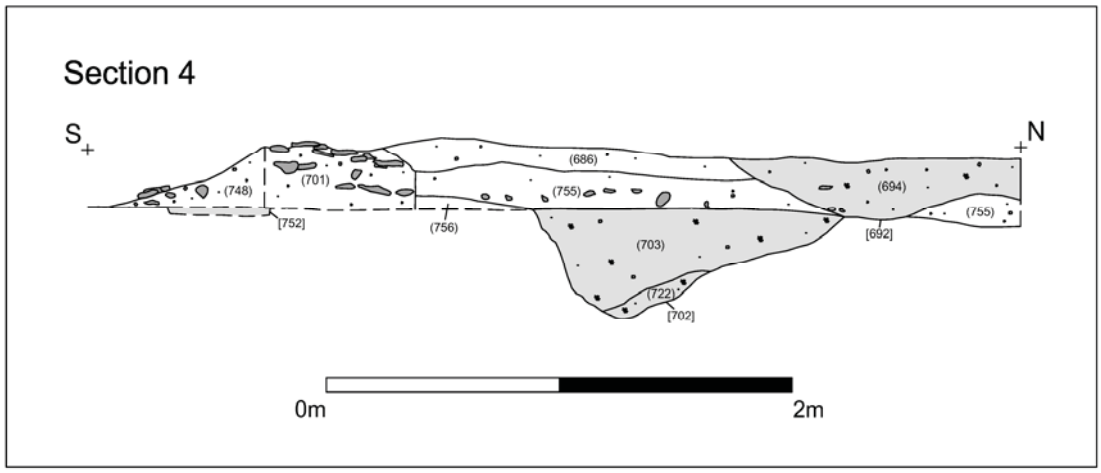

Figure 8 Area 1 – 12th-13th century section drawing of Pit [702]

Pit [754] was very truncated, being only *c.*0.1m deep with a *c.*0.6m diameter and was filled with a greenish grey silty loam deposit (753), similar to (703) in Pit [868]. No finds were associated with this feature although its stratigraphic position suggests it belongs with this earliest medieval phase of activity.

Pit [842] was sub-circular measuring *c.*1.5m x 1m and 0.6m deep. It was filled with dark brownish grey silty clay containing exclusively Stamford and St. Neots ware pottery, possibly suggesting this was one of the earlier features from this phase of activity.

Medieval Activity (Phase B - c.1200-1450)

Slight evidence for activity during the 13th-mid 15th centuries was represented towards the rear of Area 1 by two associated features, apparently reflecting two phases of a boundary (Figure 9). The earliest, a shallow linear feature [752] on an east-west alignment, may have been a truncated ditch from which 13th-14th century pottery (Bourne and Lyveden-Stanion ware) was retrieved. This feature was observed over a length of *c.*1.3m although it had been badly truncated and is likely to have originally continued across the site.

Adjacent and to the north of [752], a stone wall, [701] may have been a replacement boundary (Figure 10). The wall measured *c.*0.65m wide x *c.*0.30m high and consisted of four or five courses of limestone, bonded with pale orangey brown mortar. The wall was observed over a length of *c.*4m although this had also suffered truncation at

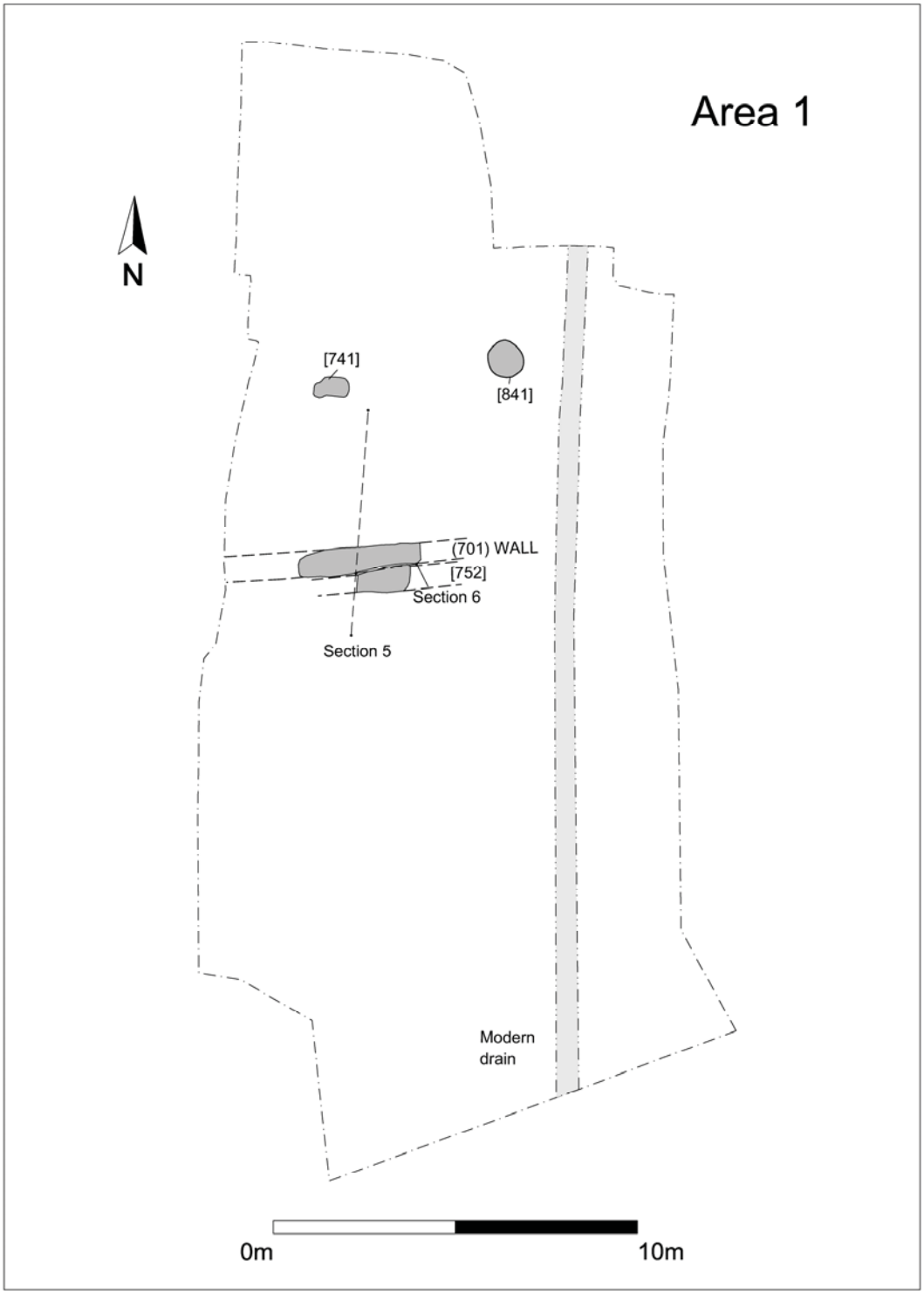

Figure 9 Area 1 – 13th-14th century features

either end from later pit digging. Traces of the wall footings were noted to the east however, indicating that it had once spanned the full length of the excavated area. There was no evidence for an associated foundation trench for [701], although it is possible that any footings were fairly shallow. Layers of slumped clay (748 & 756) to either side of the walls base may have provided some support in lieu of a foundation trench. It is equally possible that these deposits were the remains of a cob wall that

had been allowed to fall into disrepair, eventually slumping against its stone foundations.

Further evidence of activity during this period came from two pits. On the eastern side of the area Pit 841=911 (from evaluation trench 9) was circular measuring *c.*0.8m in diameter and 0.1m deep and filled with dark greyish brown silty clay containing Stamford ware, St. Neots ware as well as shelly wares and Bourne B ware pottery.

Slightly south of the centre of the area a small irregularly shaped pit [741], measuring *c.*0.6m x 0.4 m x 0.3m deep, contained a small assemblage of pottery including Bourne B ware and Lyveden-Stanion ware.

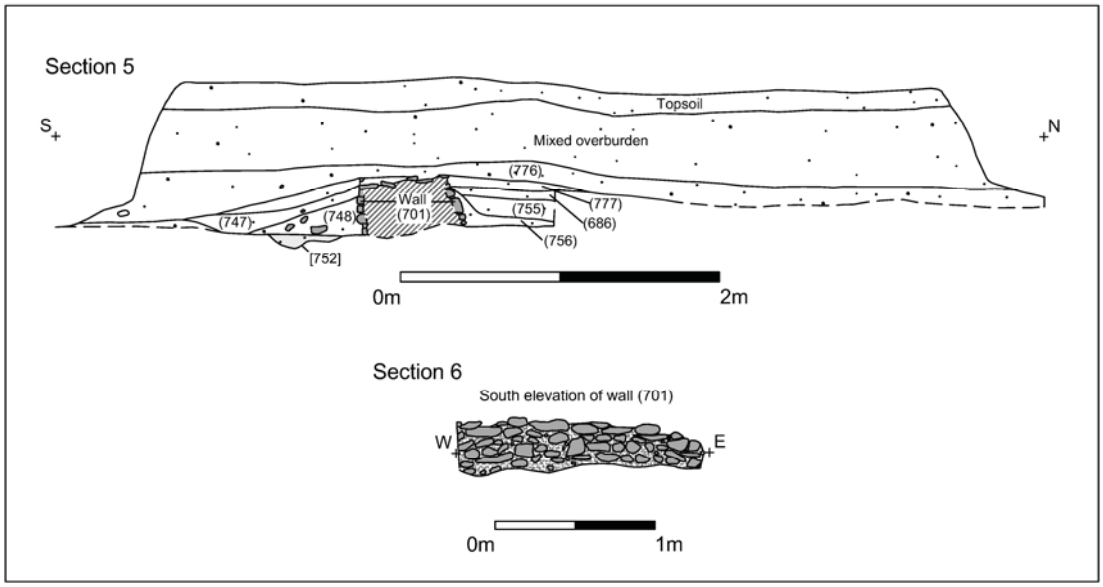

Figure 10 Area 1 – Section drawings of 13th-14th century wall 701

Later Medieval Activity (Phase C – c.1450-1550)

Much of the occupational evidence for Area 1 can be attributed to activity during the 15th and 16th centuries. This activity appears to have been centred on a timber building which was also associated with external yard areas and pit digging (Figures 11 and 12).

Layers and Surfaces

The spatial organisation of the layers apparently reflects both external and internal areas. Cobbled surfaces (730), (731) and (733), on the western and northern sides of the site, indicate yard surfaces while more silty layers in the centre of the excavation (670), (673) and (739) suggest internal surfaces, perhaps relating to earthen floors within the timber building. A spread of pottery from layer (670) included a large amount of Bourne ware as well as charcoal indicative of nearby domestic occupation.

Structural Evidence

A concentration of post-holes in the centre of the site lay in close association with the silty layers. Although somewhat disjointed as a result of later disturbance, the overall

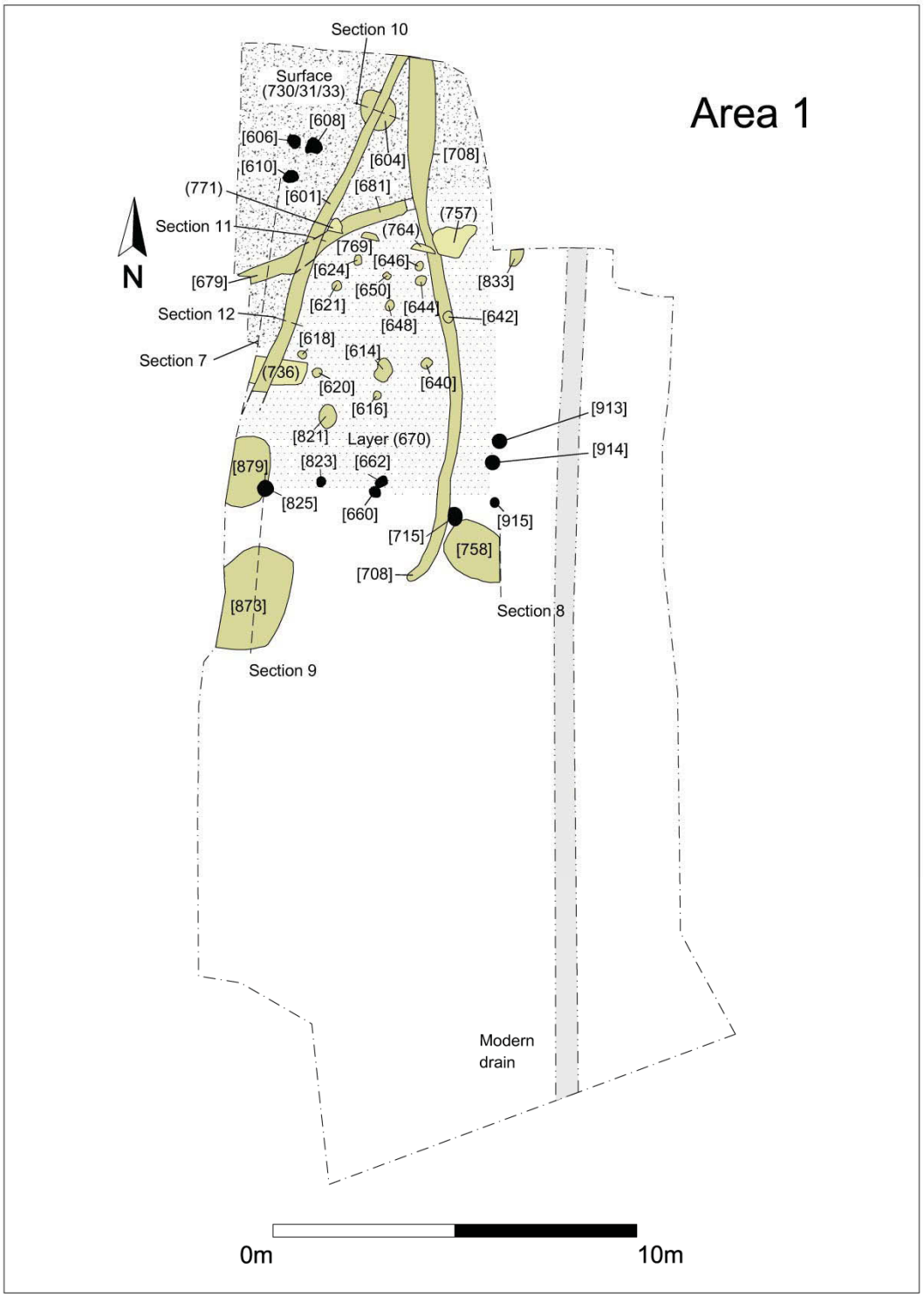

Figure 11 Area 1 – 15th-16th century structure and associated features

pattern of the post-holes (delimited by post-holes [606], [608], [610], [660], [662], [715], [823] [825] and [913], [914], [915] from evaluation trench 9) apparently reflects a rectangular timber building measuring *c.*9.6m in length by *c.*5m wide. The building plan is oriented north-east to south-west with its northern gable end closest to the street frontage. Some evidence for internal division is indicated by a number of post-holes, particularly concentrating in the northern part of the building (Post-holes

[621], [648], [642], [644], [646] and [624]) although others lay in the southern half (Post holes [614], [616], [618], [620], [640] and [821].

Although the overall plan of the structure is difficult to resolve the evidence suggests that it is likely to be a result of several phases of rebuilding and renovation on the same spot. This is particularly evident from the overlapping silty layers within the building, which display a complexity consistent with numerous phases of renewal.

A series of loosely associated spreads of compact stone and pea-gravel (736, 757 and 764) were apparently related to the later use of the building, possibly reflecting the introduction of more solid flooring at some point. These were mostly clustered near the north-eastern corner of the structure but one patch (736) straddled the projected wall-line on the western side of the building and may have served as a threshold at some stage. A scatter of post-holes in this general area of the building ([618], [620], [821]) may have formed an internal porch but their function within the building is far from certain and they could just as easily have belonged to a separate phase of construction.

Pits

A number of pits [758], [833], [873] and [879] were located around the buildings perimeter, further emphasising the space that it occupied.

To the rear of the building two pits [758] and [873] had partially removed evidence of the earlier stone wall [701]. [758] was oval with steep sides and contained numerous fills, suggesting it had become infilled over a period of time. Pottery associated with this pit consisted predominantly of Bourne wares, with occasional Lyveden-Stanion sherds also present. [873] was large, and irregularly shaped with a single fill (874) of green/orange brown silty clay. A large assemblage of domestic waste from this pit comprised pottery, oyster and mussel shells and animal bones of cattle, horse, sheep, pig and goose, some of which were butchered or gnawed. An undated pit [604] cut through the cobbled surface at the northern end of the area which may also have been associated with this phase of activity.

Drainage features

A series of drainage features was also associated with this phase of activity. It is possible that some were directly associated with the building although they may represent a number of separate attempts at removing water from the area.

A narrow gully of two distinct phases crossed the northern part of the area on a north-east to south-west alignment and lay at the meeting point of the cobbled surface and siltier layers. The earliest gully, [726], entered the western side of the site and was observed for approximately 2m before it terminated. It had a rounded profile measuring *c.*0.50m wide by 0.30m deep and was filled with mixed orange and brown silty clay (727). After [726] had silted up a second gully [679]=[681] was cut along the same alignment. This had a similar profile but was smaller, measuring *c.*0.23m x 0.15m deep, and was filled with dark brown clay silt (678). This feature was seen further to the east as gully [681] where it was severely truncated by later features. No finds were associated with either feature. It is possible a gap existed between [679] and [681] but this is difficult to be certain of due to truncation and the relative shallowness of the gully.

A sinuous gully [708] ran through the middle of Area 1, projecting from the northern edge of the site at the frontage, and terminating just beyond the back end of the building. This had a fairly shallow curving profile (*c.*0.5m x0.2m deep) and was filled with compact dark brown silty clay (675/704) containing a mixed pottery assemblage including Bourne wares, Lyveden Stanion ware and residual shelly wares. Animal bone fragments of cattle and sheep/goat were also recovered. It is possible that this feature functioned as a drain.

A well-constructed drain [601] crossed the western side of Area 1 on a north-east to south-west alignment. In comparison to drain [708] this was partially stone-lined, with a clay base and regularly placed limestone blocks forming the sides and capping. The drain had a squared profile, measuring *c.*0.4m wide and 0.25m deep, and was observed for approximately 8m within the exposed area. Pottery sherds recovered from the drains fill indicate a *c.*16th century date for the drains infilling. A scatter of domestic waste from cereal cleaning, including wheat and chaff fragments, as well as fish scales was also recovered indicating nearby occupation.

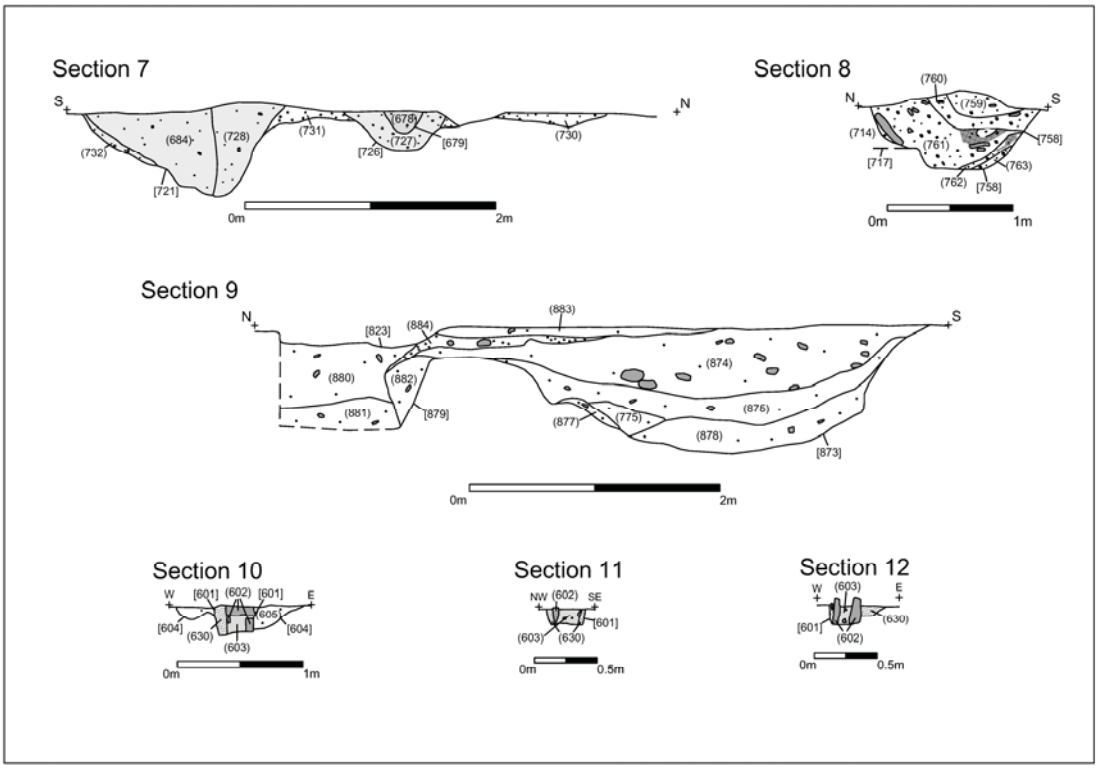

Figure 12 Area 1 15th-16th century features: selected sections

Early Post Medieval Activity (Phase D - c.1500/1550-1650+)

It is unclear when the building went out of use and it could feasibly have continued to stand into the early post-medieval period. However a number of features, predominantly dating to the 16th-17th century, encroached upon the area formerly occupied by the structure, suggesting its removal by this time (Figures 13 and 14).

Drainage features

Further drainage features were observed although these were fragmentary and had suffered truncation. [908] was recorded in the evaluation trench 9 and lay on a north-

west to south east alignment near the centre of the area. It was similarly shaped to drainage gully [708] but contained slightly later date pottery. It is possible that [908] represented a replacement of the former drain.

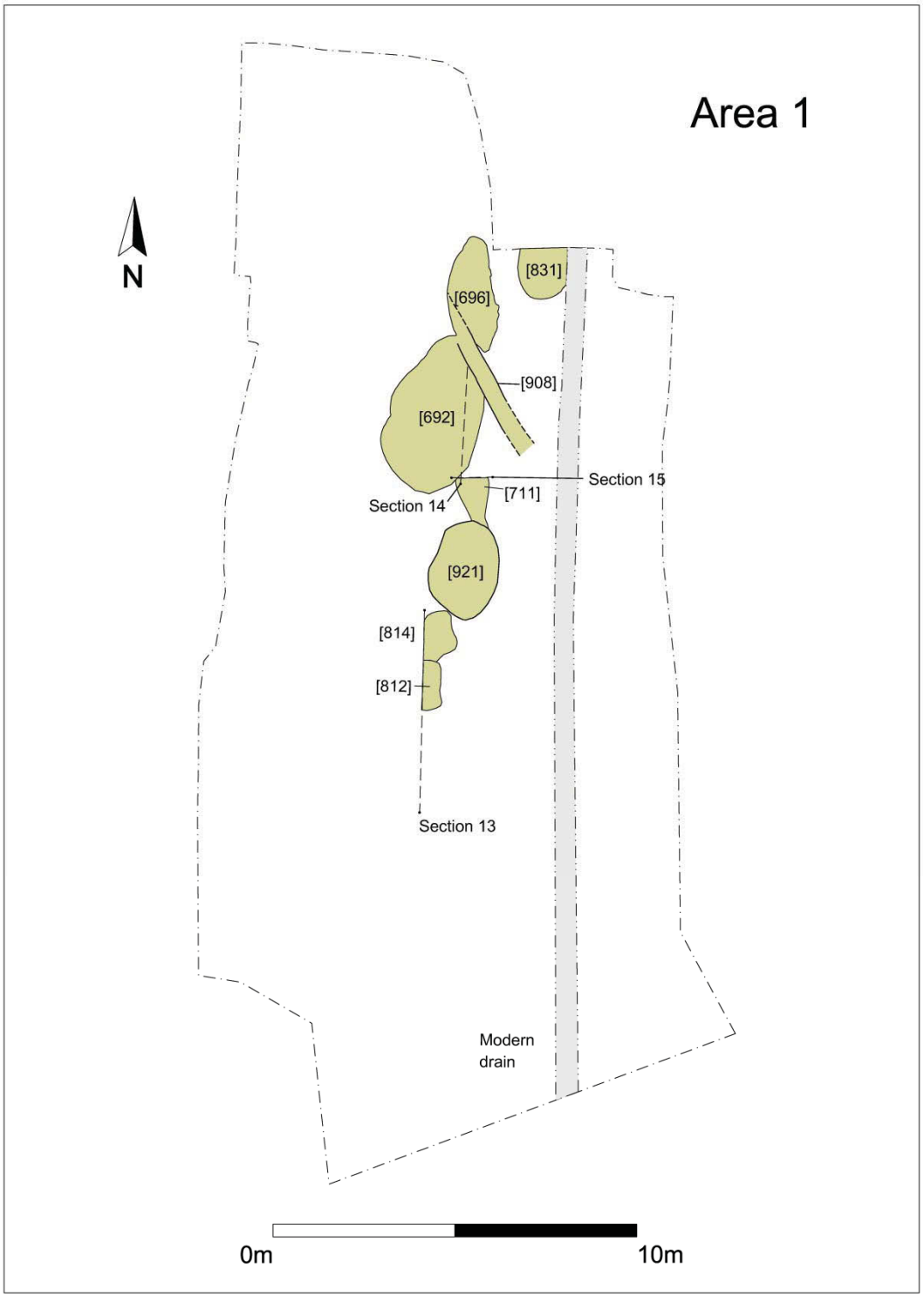

Figure 13 Area 1 – 16th-17th century features

Another linear feature [717] was observed on the south-eastern side of Area 1. This had also been heavily truncated but appeared to have once been more extensive, and had similarities to [708], perhaps also functioning as a drain. [717] was truncated to the north by an oval feature, [711], that may have been a ditch terminal or a pit but disturbance from later feature precluded further interpretation. 16th century Bourne ware pottery was recovered from [711].

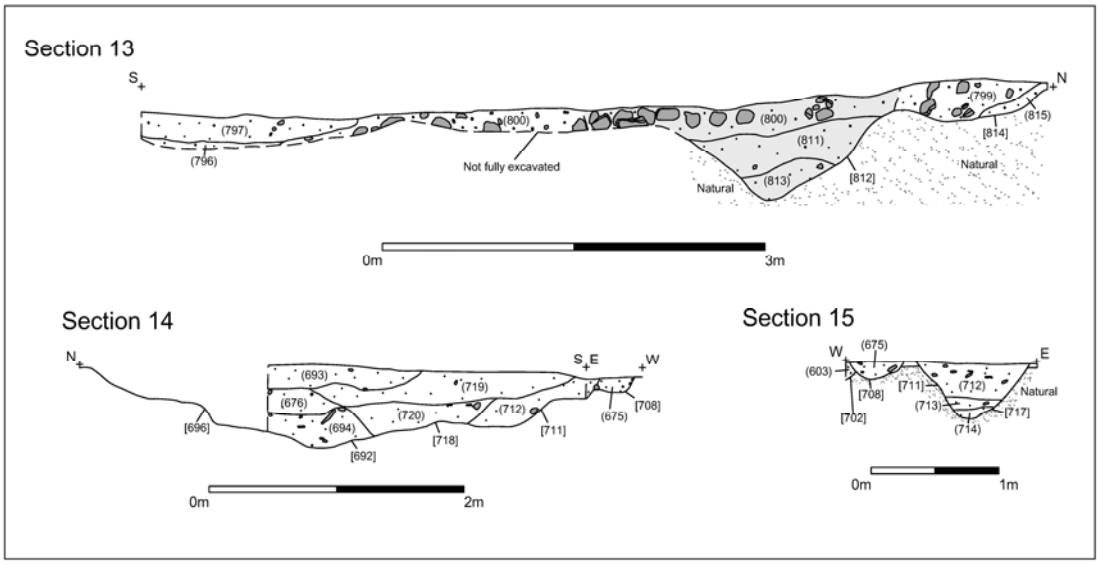

Figure 14 Area 1 – 16th-17th century features

Pits

A north-south linear spread of large pits, [692], [696], [812], [814], [831] and [921] lay in the centre of the area, truncating remains associated with the eastern side of the earlier building and some of the drainage features described above.

Successive episodes of pit digging were represented on the southern side of the area by two inter-cutting pits, [812] and [814]. Both contained large amounts of pottery, dominated by Bourne wares and occasional animal bones. [814] also contained a fragment of worked shelly limestone, possibly once part of a small architectural column. One flat side has been worn smooth through indicating re-use of the fragment, possibly as a grindstone or smoother. To the north of these a large oval pit [921] measuring *c.*2.72m x 1.93m wide x *c.*0.60m deep contained a small amount of pottery including a sherd of Post-Medieval Black ware.

A pair of inter-cutting pits, [696] and [692] lay in the centre of the area. [696] was the earliest, with an irregular oval plan, measuring *c.*3.1m in length x 1.25m in width x 0.4m deep, with concave sides and base. The main pit fill, (697) consisted of mid-dark green clay and contained a near complete horse skeleton, as well as cattle, sheep and pig remains. Quantities of pottery were also recovered, with Bourne wares dominating the assemblage. A *c.*0.1m thick compact layer of limestone rubble (674) sealed the pit, and may have served to consolidate the softer, underlying pit fill. A second, similarly shaped, pit [692] was located to the south, slightly truncating the southern edge of [696]. Pit [692] was larger, measuring *c.*4.3m in length x 2.5m in width x 0.6m deep. Unlike the earlier pit, [692] contained three distinct fills, suggesting it had been backfilled over a period of time. The earliest, (694) consisted of green clay, similar to the fill of Pit [696], from which a whetstone fragment was

recovered. This was overlaid by a layer of similar, yet more friable, soil (676), and this in turn was partially covered by a deposit of orange-green silty clay (693). Pottery, animal bone and building material were associated with both earlier fills but (693) contained only a small amount of bone.

Slightly east of [692] pit [831] was partially revealed protruding in from the northern edge of the excavation. This was circular, measuring *c.*1.4m in diameter x 0.46m deep, with almost vertical sides and a flat base. The main fill of [831] consisted of dark greyish brown silty clay containing pottery, animal bone and charcoal. After the pit had gone out of use it had been capped with a layer of yellow clay, perhaps suggesting usage as a cess-pit. High densities of charred plant remains and occasional fish bones and scales were evident, as is often the case in such features, although the lack of mineralised remains indicated that no sewage was present.

Later Post-Medieval/Early Modern Activity (Phase E - c.1600/1650-1750+)

Further evidence for activity near the Oundle Road frontage represented 17th-18th century occupation (Figures 15 and 16). Although no direct domestic remains were found the nature of the features from this phase, and the associated finds, suggest the main living areas were situated close to the excavated area.

Stone-lined well

A stone-lined well lay near the northern edge of Area 1, slightly to the east of drain [601]. The well itself was *c.*1m in diameter although it was situated within a larger construction pit [786] with a diameter of *c.*1.8m. The well was hand excavated to a maximum depth of *c.*1.18m.

The construction pit [786] had vertical sides and was filled with mixed clays (667) against which the well structure had been built. An assemblage of pottery from these deposits contained residual medieval sherds but also a substantial group of Bourne ware fragments suggesting a 16th-17th century date for the well's construction. The well structure was made of coursed limestone blocks, each measuring *c.*0.2m x 0.2m x 0.1m. The uppermost *c.*0.6m section of the well construction has a narrower diameter (*c.*1m) than lower course which widened to a diameter of *c.*1.3m. Following disuse the well was infilled with a number of deposits (688, 707, 755, 772) which were associated with pottery, tile and glass dating to the 18th century onwards.

Pond

A large pond [798] *c.*11m in diameter dominated the southernmost part of the area. The lower fills (787), (795) and (796) (*c.*0.35m in total deep) consisted of very dark grey/greenish brown humic silty clays, containing fragments of bone, pottery, clay pipe and glass dating from the 17th century onwards. Preserved plant and seed remains from (796) confirm the presence of standing water with nearby marginal vegetation.

An associated layer of limestone and flint nodules set in clay (800+803) represented ground consolidation around the northern edge of the pond. This layer also contained a range of 17th century pottery indicating that it was contemporary with the pond. It is possible that layer (800) also served as an access route to the rear of the property at this time. A similar surface (167) was observed further south but not enough was revealed to confidently connect the two layers.

The uppermost levels of the pond were filled with a uniform layer of dark greyish brown silty clay (698=747) which contained 17th century pottery, large stone fragments, clay pipe, broken brick and animal bone. This layer was between 0.2m and 0.4m deep and spread several metres beyond the northern edge of the pond, partially covering layer (800) and perhaps indicating a final period of disuse and abandonment of this part of the site by this time.

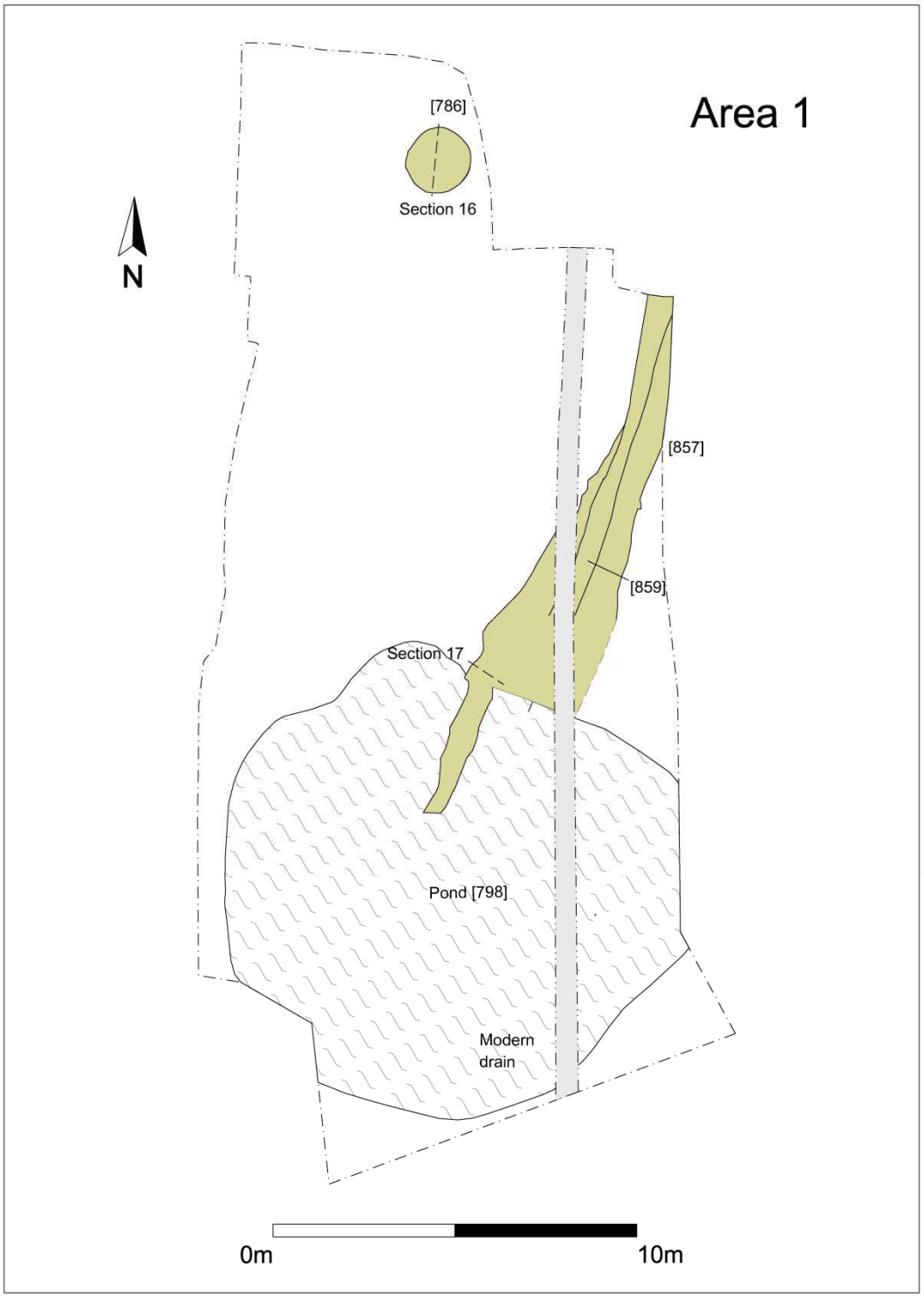

Figure 15 Area 1 - 17th-18th century features

Ditches
A sequence of frequently re-cut linear features following a similar north-east to south-west alignment on the eastern side of the area may have formed a property boundary. The earliest feature was a shallow undated gully [804] which had a square profile, only 0.12m deep. This gully was succeeded by a more substantial ditch [806] which had steeply cut edges and a curved base. An assemblage of 17th century pottery was associated with [806], as well as butchered animal bone and a large dump of demolition material containing hand-made brick fragments. A final re-cut, ditch [809] was partially revealed but due to its location on the very edge of the excavation it could not be fully examined. The relationship between the ditches and the pond is unclear and the pottery from both suggests broadly contemporary use. It is feasible that the ditches acted both as boundary features and drainage for the frontage area, taking water into the pond at the back.

Site Abandonment and Levelling
A rubble rich demolition layer (776), *c.*0.31m deep, containing modern finds, directly overlay the excavated area. This was machined off carefully prior to hand cleaning in the early stages of the excavation. Similar deposits, containing finds dating from the 18th century onwards, were also found within the upper backfills of the well [786] suggesting a phase of consolidation and ground levelling prior to new development.

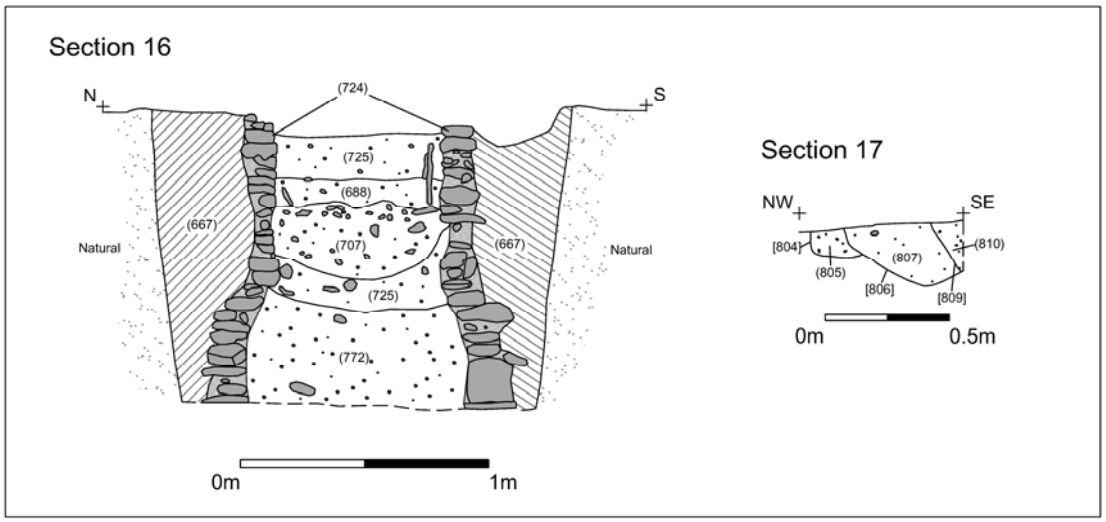

Figure 16 Area 1 – 17th-18th century feature section drawings

Areas 2 and 3
Archaeological remains revealed in Areas 1 and 2 relate to activities carried out in the backyard areas of properties fronting onto Oundle Road. As a result of the sites layout and the location of designated areas that were affected by the development, Areas 2 and 3 lay to the south-east of Area 1 making it difficult to relate episodes of activity between the street frontage area and those to the rear of the site. It seems more likely that the activity recorded in Areas 2 and 3 relates to occupation of neighbouring properties to the east of that examined in Area 1. Nonetheless some insight into the changing nature of property size and the activities therein can be gained from the excavation results, with three broad phases represented. Due to the character of the archaeology on this part of the site, with multiple boundaries crossing both areas, the archaeology of Areas 2 and 3 will be described as a whole.

Early Medieval Activity (Phase A - 12th-13th Century)

The southern limit of properties during the 12th-13th centuries was marked by an east-west boundary lying approximately 58m back from the street frontage (Figures 17 and 18). This boundary was observed in Areas 2 and 3 and consisted of inter-connected ditches [351] and [353]. Both had a similar profile with gradually sloping sides and a rounded base, measuring between *c*.0.79m-1.4m wide and *c*.0.5m deep. Ditch fills associated with the boundary were consistently mid-light greyish brown silty clay, suggesting a degree of contemporaneity. Generally a low level of finds was associated with the ditches, with only [351] producing small assemblage of Stamford and Shelly ware sherds alongside cattle and dog bones, perhaps reflecting their relative distance from the main areas of occupation to the north.

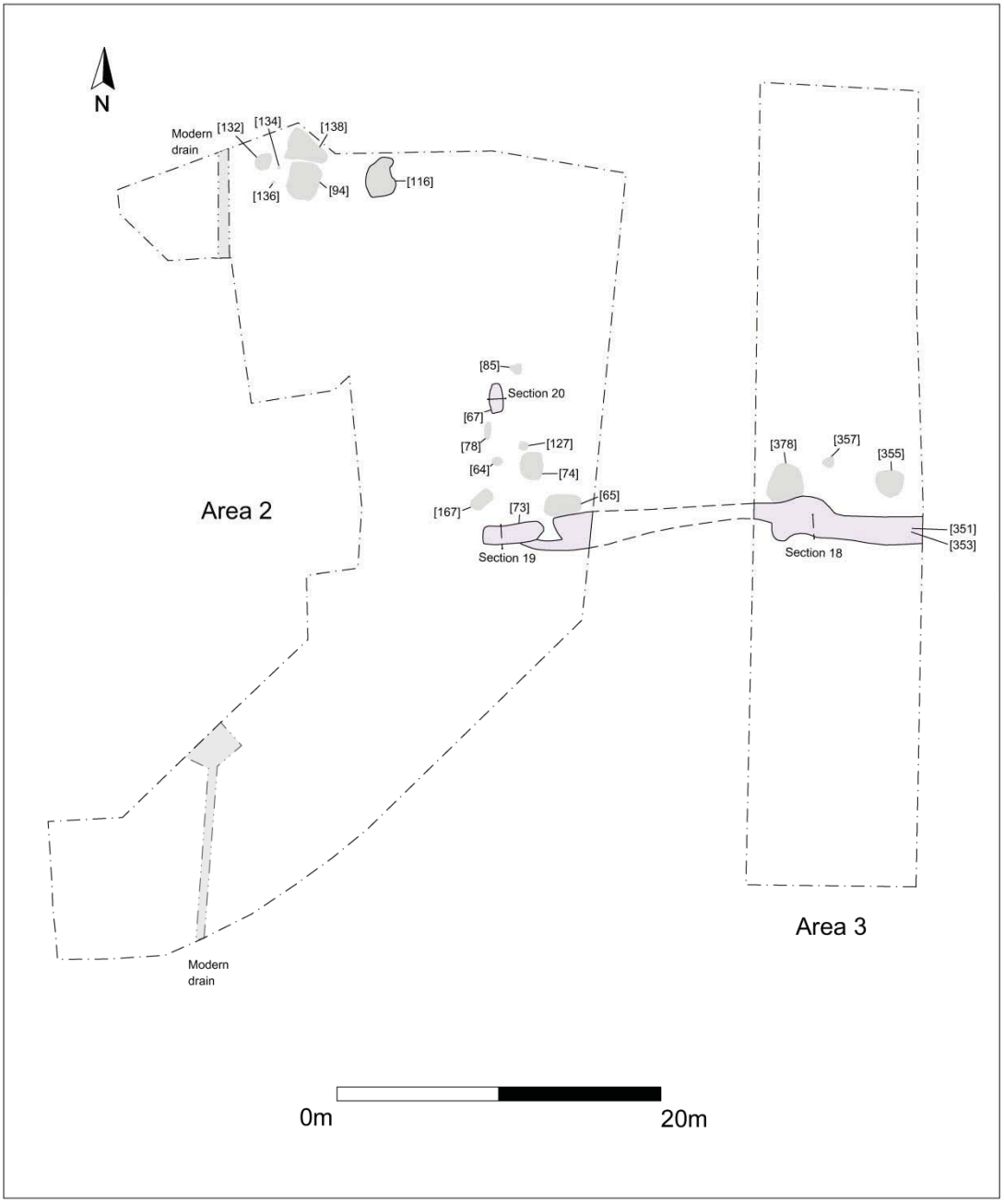

Figure 17 Areas 2 & 3 – 12th-13th century features

Several clusters of pits indicated activity areas within the area defined by the plot boundaries. Not all of the features yielded dating information but close spatial grouping suggests broadly contemporary activity. It is a possibility that a further north-south aligned boundary lay within the unexcavated part of the site between Areas 2 and 3.

Close to the northern edge of Area 2, pit [116] was irregularly shaped with a *c.*1.4m diameter and uneven, shallow profile between *c.*0.05 and 0.2m deep. It was filled with greyish brown silty clay (116) containing a single sherd of Shelly ware. Slightly to the west, a group of pits [94], [132] and [138], and two post-holes [134], [136] represent small-scale quarrying at that rear of the street frontage area.

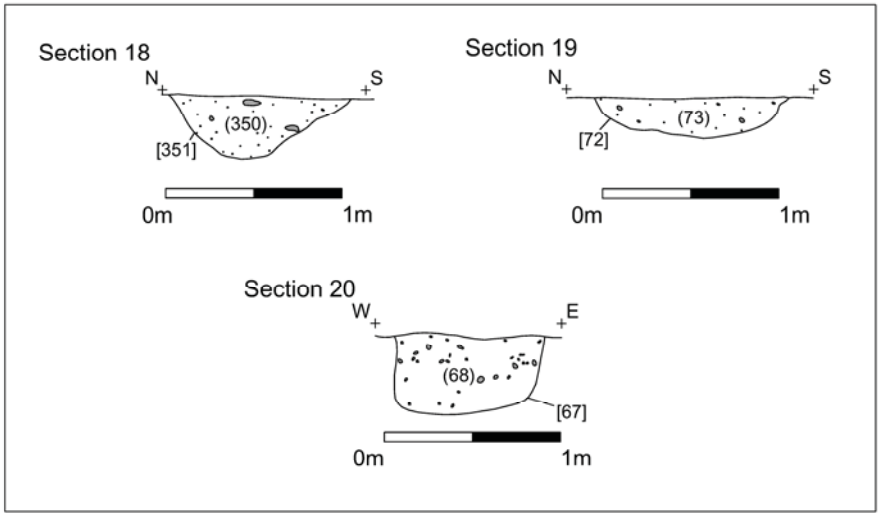

Figure 18 Areas 2 & 3 – 12th-13th century features: selected section drawings

A central pit cluster lay on the eastern side of Area 2, consisting of a linear spread of variably-sized features. Of the dated examples, a large rectangular pit [73] lay at the western end of the southern boundary, partially cutting one of the ditch terminals. This was *c.*3m long x 1m wide and had a shallow U-shaped profile with a maximum depth of 0.23m. A few Stamford ware and Shelly ware sherds were recovered from the single fill (72).

Three inter-cutting pits [67], [69] and [87] (shown as [67]) to the north may all have related to localised gravel quarrying. Pit [67] was sub-rectangular with vertical sides and a flat base, measuring *c.*0.9m x 0.85m x 0.5m deep. Excavation revealed this to be an extension of earlier quarrying represented by the remains of pit [69] which had a similar profile. Both contained mixed fills of dark brown sandy silts with limited evidence for deposition of domestic waste, possibly from nearby middens. Small quantities of Stamford ware, Shelly ware and Bourne B ware were recovered from pit [67]. Further pits [64], [74], [78], [85], [127] and [167] lay nearby. Although not dated, the general lack of inter-cutting between them suggests they may have been broadly contemporary. A number of the pits showed evidence of natural slumping around their edges, suggesting that once excavated they had remained open for some time to allow weathering to occur. This would explain why later episodes of quarrying avoided the earlier pits.

A slightly looser cluster of features in Area 3 was also located adjacent to the southern plot boundary. This consisted of several undated pits [355], [357] and [378] and possibly represented an extension of the quarrying activity revealed in Area 2 to the west.

Medieval Activity (Phase B - c.1250-1450)

The overall organisation of space within Areas 2 and 3 appears to have been maintained into the 13th-14th centuries (Figures 19 and 20) although both areas were apparently used more extensively. The southern extent of the properties was demarcated with a loose arrangement of ditches and possible pits [56], [57] and [330] which lay on a broad east-west alignment slightly south of the former 12th-13th century boundary. At the western side of Area 2 feature [57] was relatively enigmatic, perhaps either a ditch or quarry pit, but appeared related to the boundary system. This was approximately 2.8m wide and 1.3m deep and was predominantly filled with reddish brown silty clay which contained a single sherd of Bourne B ware. To the east of this ditch [56] was steep sided and had a narrow flat base. This feature measured *c.*1.9m at the top narrowing to 0.7m and was 0.7m deep. A single fill of dark greyish brown sandy silt contained single sherds of Stamford and Bourne B ware as well as a substantial group of animal bones, the majority of which were of horse, but also represented cattle, sheep and pig. In Area 3 a continuation of the boundary was represented by ditch [330] which was only partially excavated but appeared to have a similar profile and fill to [56] to the west. Undated linear features [167] to the west, and [326] to the east of the main ditch may also have formed part of the property boundary during this phase.

A north-south oriented ditch [117] was observed in the central part of Area 2, running for approximately 9.4m before terminating some 4.6m from the northern edge of the area. This ditch was *c.*1.06m wide and *c.*0.25m deep with a rounded profile and contained a single fill of greenish-grey silty clay (122=129). A range of pottery including Stamford ware, Shelly ware, St. Neots ware and Bourne B ware was recovered from this ditch. A discrete burnt deposit within the ditch terminal (130) contained charred seeds associated with food preparation and possibly represents domestic hearth waste that was disposed of in the open boundary. It seems likely that [117] represents part of a property boundary and may even define the eastern limit of the occupation represented in Area 1. Slightly to the west of [117] a stone-rich spread containing occasional 13th-14th century pottery sherds may have been an area of hard-standing for a temporary structure or specific activity.

No other obvious north-south boundaries were evident for this period although it may have been that such markers were represented by shallow fences or hedges at this time which would leave little archaeological trace. A linear arrangement of pitting [62], probably for gravel quarrying lay in the centre of the site and had apparently developed along a north-south line, possibly in respect of [117]. Upon excavation [62], measuring *c.*1m in diameter and 0.5m deep, was seen to be part of a linear arrangement of pits that had developed as a result of successive episodes of recutting. All were filled with light greyish brown silty clay with only a single sherd of Stanion Lyveden ware recovered from the whole complex.

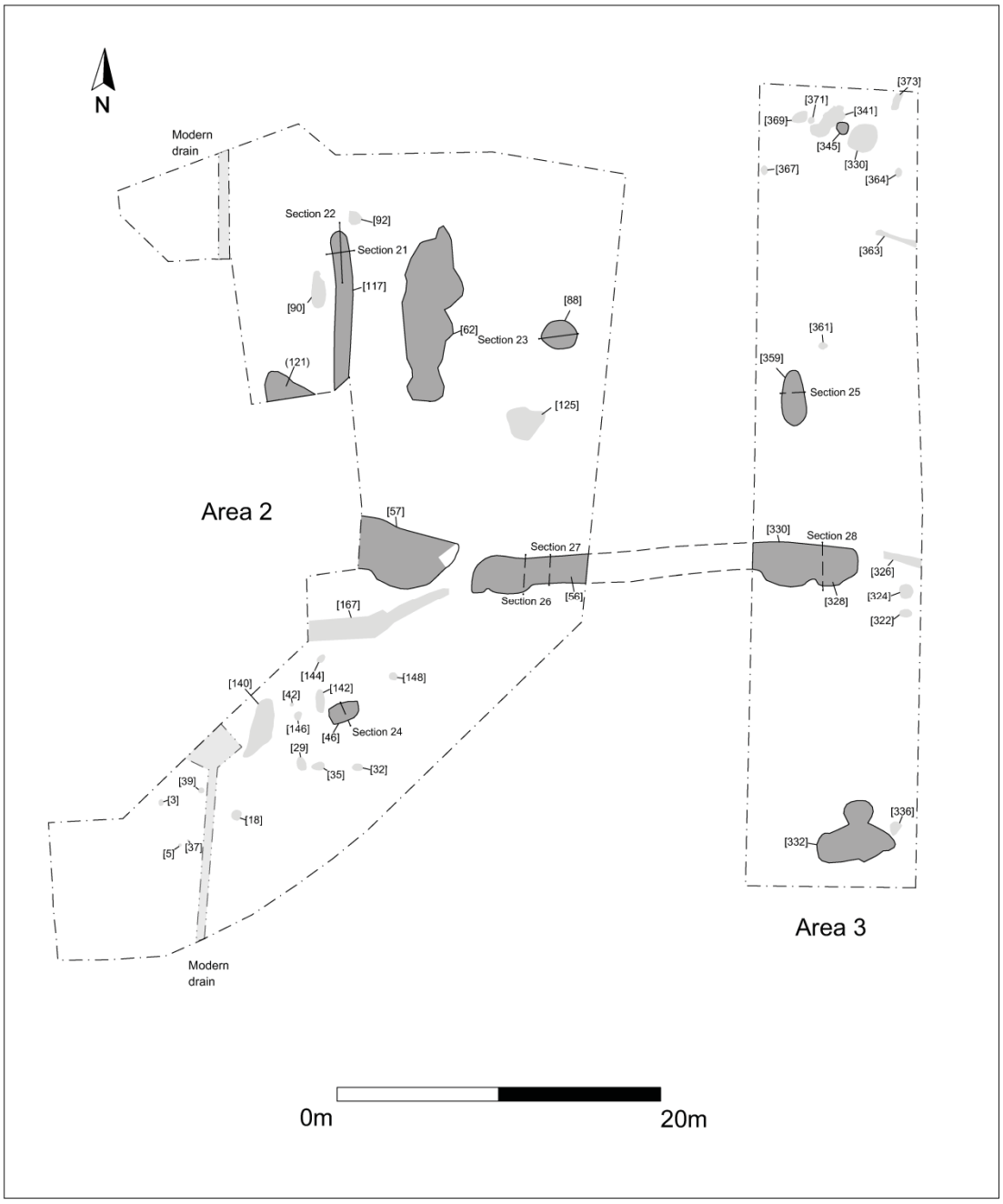

Figure 19 Areas 2 & 3 – 13th-14th/15th century features

Scattered single pits probably also represent small-scale quarrying and occasional refuse pits. Pits [90] and [92] were undated but lay in close proximity to ditch [117], suggesting they were contemporary. To the east of quarry [62] another pit [88] was oval in plan, measuring *c*.2.2m x 1.8m x 0.27m deep, with sloping sides and a flat base. This was filled with mixed silty soils containing Stamford ware, St. Neots ware and Bourne B ware. A similar range of pottery was recovered from pit [125] which lay to the south.

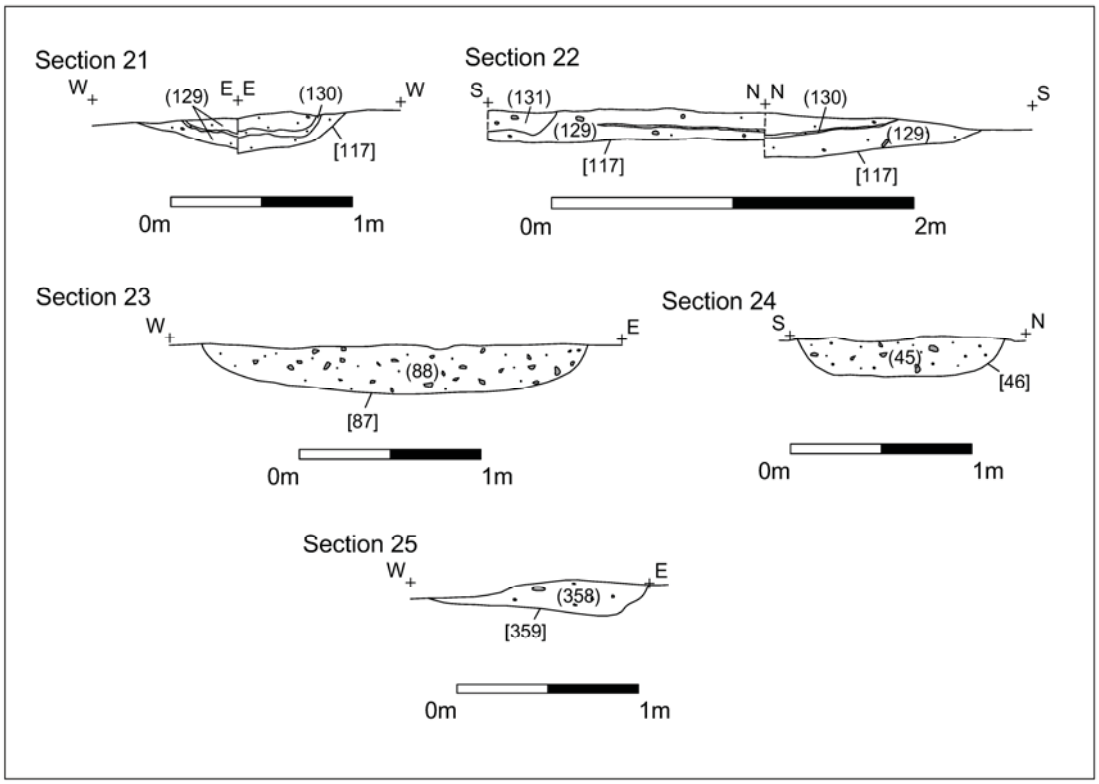

Figure 20 Areas 2 & 3 – 13th-14th/15th century features – section drawings

To the east, at the northern end of Area 3, a cluster of features including pits, post-holes and gullies indicated a relatively busy area, perhaps closer to areas of occupation on the street frontage. Generally these features were undated, but pit [345] contained a group of pottery sherds made in Stamford, Shelly, Stanion-Lyveden and Bourne B wares.

Further south a large oval pit [359] measuring *c.*3.4 x 1.4 x 0.18m deep, was also probably dug as a quarry pit. This was filled with greyish brown silty clay (358) containing a small assemblage of pottery including Stamford and Shelly wares as well as a sherd of Toynton ware.

Very little evidence for activity to the south of the plot boundary was found; the exception being a pit [46] which lay some 8m to the south of the boundary line in Area 2. This was oval with steep sides and a rounded base, measuring *c.*2m x 1.1m x 0.2m deep. A deposit of dark greyish brown sandy silt comprised the only fill which contained single sherds of Stamford ware and Bourne B ware, indicating a 13th century date for its infilling.

In contrast to the earlier phase of occupation, there was limited evidence for activity to the south of the boundary system. A cluster of post-holes [3], [5], [18], [29], [32], [35], [37], [39], [42], [144] and [148] lay in association with two quarry pits [140] and [142], all of which were undated although a third quarry pit [46] contained pottery dating to this period suggesting broadly contemporaneous use. The irregular patterning of the post-holes precludes further explanation although their presence indicates structural activity, most likely they are the remains of fences or animal pens.

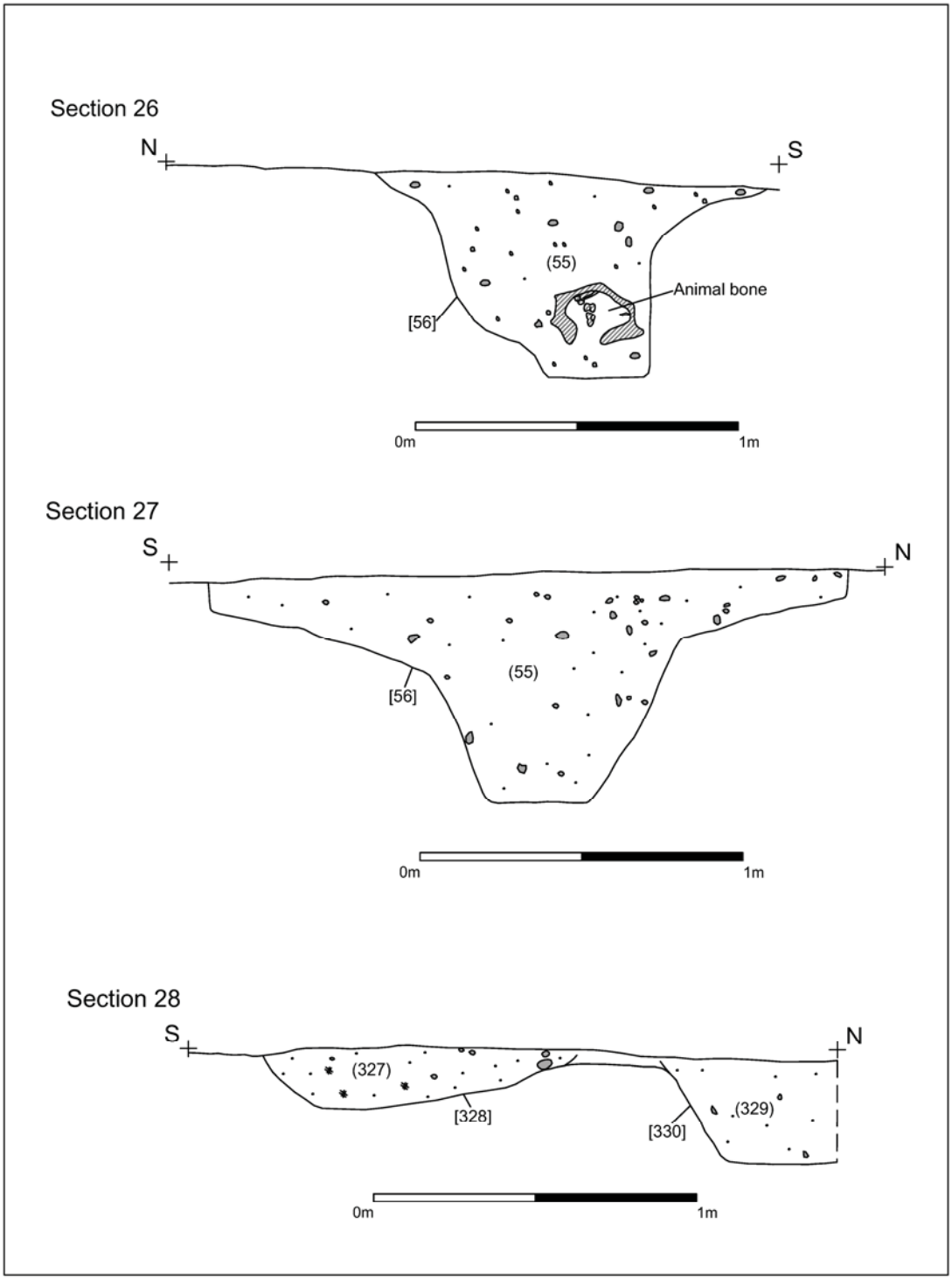

Figure 21 Areas 2 & 3 – 13th-14th/15th century boundary features

A pair of intercutting pits [332] and [334] at the southern end of Area 3 provided the only datable evidence for activity on this part of the site during this phase. The earliest was irregularly shaped with a fairly shallow, flat-bottomed profile approximately 0.15m deep. This was cut by a more regularly shaped, circular pit [334] measuring *c.*0.7m in diameter and 0.7m deep which also had a flat base. Both pits contained low numbers of 13th-14th century pottery including Bourne B and Stanion-Lyveden wares. A small undated pit [336] lay nearby while two further pits [322] and [324] were located closer to the southern property boundary.

Later Medieval Activity (Phase C - c.1450-1550)

A final phase of activity represented in Areas 2 and 3 indicates a reorganisation and expansion of the area to the rear of properties fronting Oundle Road (Figures 22 and 23). This is represented by a substantial new boundary ditch [16]=[19]=[23] and [309] running across the southern edge of the two areas approximately 76m from the Oundle Road street frontage. This new boundary measured *c.*2.2m wide with a fairly steep-sided concave profile *c.*0.45m deep and was filled with mid-greyish brown silty clay containing fragments of pottery and animal bone. The boundary may have been augmented with smaller fences, as suggested by the regular line of post-holes [347], [348], [374] and gullies [305] lying adjacent at the southern end of Area 3 or the parallel gullies [8] and [42] at the southern end of Area 2. This ditch may have functioned as a boundary by itself or could have formed the southern side of a trackway, with ditch [55]=[330] acting as the northern side. Given the broad date range of the pottery from [55] (13th-15th century) it is a possibility that both boundaries were in use together. Both follow a similar orientation and the gaps in the northern boundary may have been deliberately placed to allow access from the tofts. A small cluster of post holes [311], [313], [315], [317], [320] and [349] lying adjacent to the southern boundary in Area 3 suggested structural activity although it was impossible to interpret their overall plan.

Two phases of a ditch lay in the northern part of Area 2 on a north-south orientation. Both ditches were approximately 17m in length and appeared to have functioned as property boundaries. The earliest phase was represented by ditch [109], measuring *c.*0.4m wide x 0.5m deep with steep sloping sides and a narrow flat base. Once this had become infilled it was replaced with a wider boundary, [107], measuring *c.*0.85m wide x 0.5m deep. Both ditches were filled with similar greyish brown silty clay soils containing quantities of 15th-16th century pottery and animal bone. Undated features [92] and [114] may also have represented contemporary activity adjacent to the ditch.

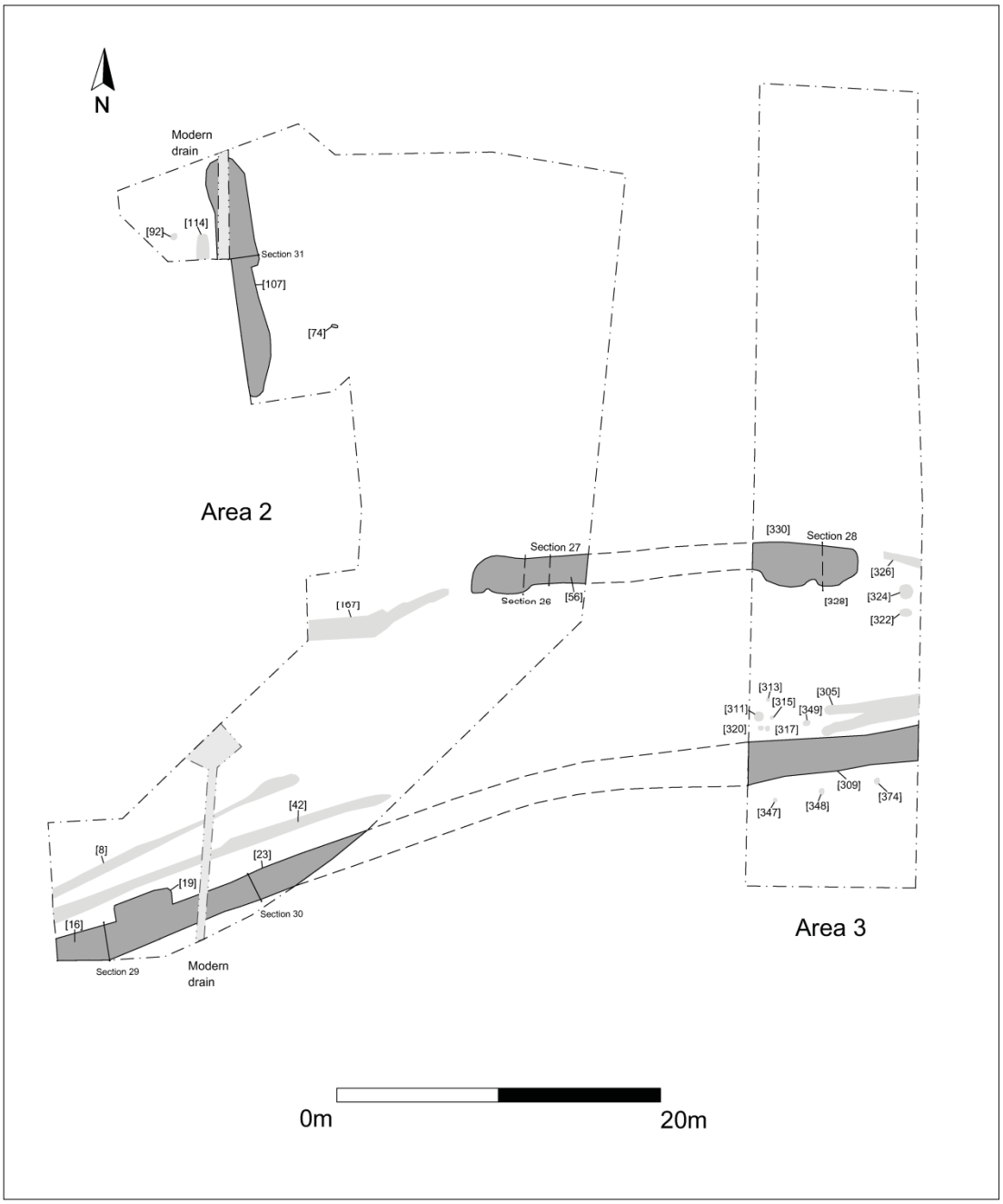

Figure 22 Areas 2 & 3 – 15th and 16th century features

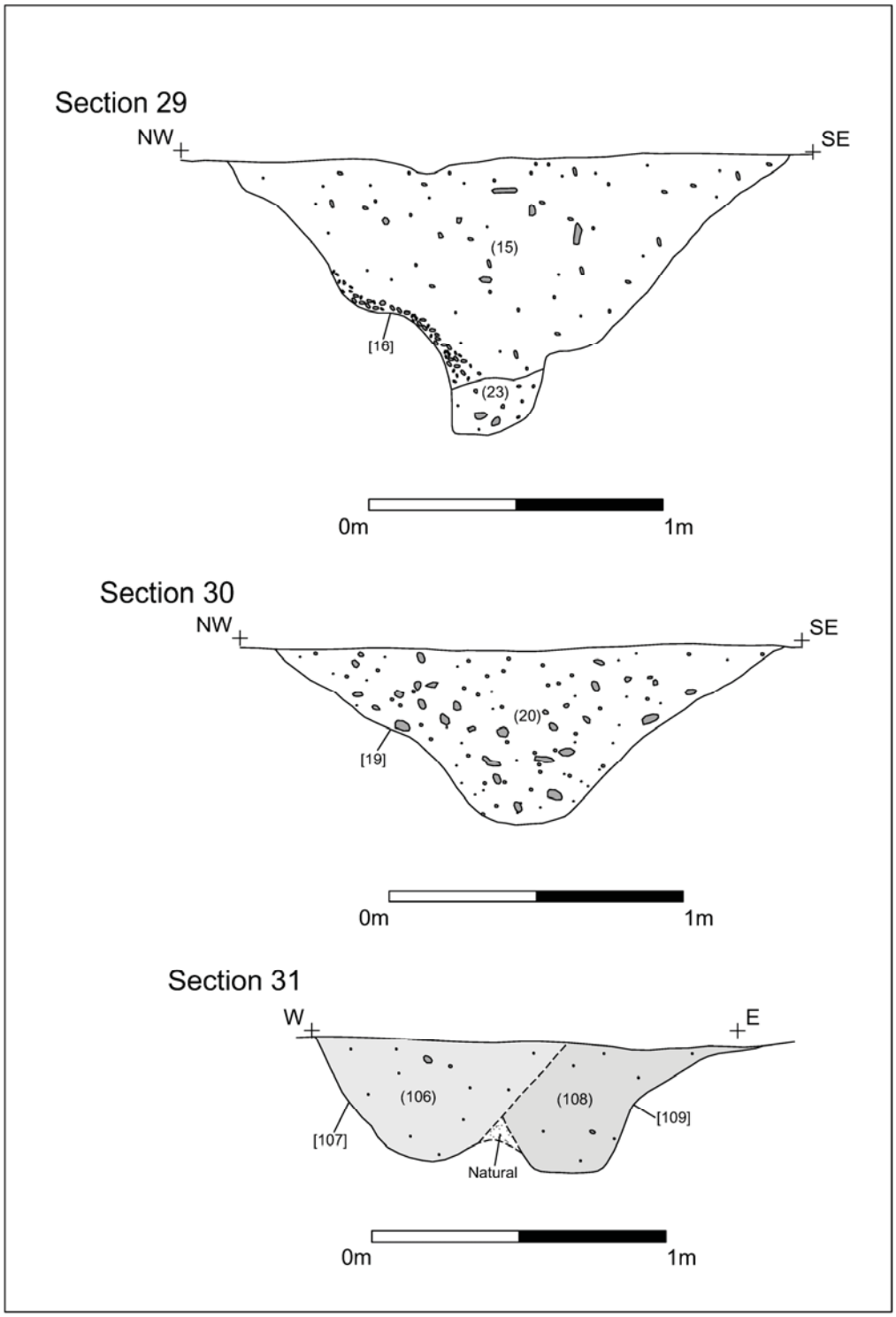

Figure 23 Areas 2 & 3 – 15th-16th century boundary features

The Finds

The Neolithic Pottery - Patrick Marsden

Introduction

Three contexts produced Neolithic pottery (Context 506 (evaluation) - 8 sherds weighing 24g; Context 107 (excavation) - 5 sherds weighing 15g and Context 308 (excavation)- 1 sherd weighing 9g). Although the material is of a small and fragmentary nature, some diagnostic sherds are present.

Discussion

Table 1 summarises the pottery from the site, showing the diagnostic material all being typical of the Peterborough Ware tradition. Context 506 contains sherds from two vessels, including one with whipped cord impressions. The fabric of this contains large fragments of flint and sand, inclusions typical of Peterborough Ware. Context 141 produced pottery from a probable two vessels, including a decorated rim sherd in a shell and sand fabric (Figure 24). The rim form and decoration would appear to place it within either the Mortlake or Fengate sub-style. The plain body sherds from both Contexts 506 and 107 may also be Peterborough Ware, although this cannot be said for certain, and a general Neolithic date may be more safely given to them. The single sherd from Context 308 displays impressed decoration and is in a fabric containing flint, rock and sand.

The flint and shell-tempered fabrics from the site are typical of those characterising Peterborough Ware in eastern England. The dating of Peterborough Ware has been re-assessed in recent years so that a date range of 3500-2500BC is suggested, placing it earlier in the Neolithic than had been previously thought (Gibson and Kinnes 1997; Gibson 2002).

Context no.	Area	Total Sherds	Weight (g)	Ceramic tradition	Fabrics	Decoration	Rim form
506	Eval	2	6	Peterborough Ware	Flint and sand	Impressed decoration of uncertain type (external) and whipped cord maggots (internal).	
		6	18	Peterborough Ware?	Shell		
107	1	1	9	Peterborough Ware (Fengate or Mortlake)	Shell and sand	Incised opposing diagonal lines on rim lip.	Expanded everted.
		4	6	Peterborough Ware?	Shell and sand		
308	1	1	9	Peterborough Ware	Flint, rock and sand	Impressed decoration of uncertain type.	
		14	48				

Table 1: Summary table of prehistoric pottery

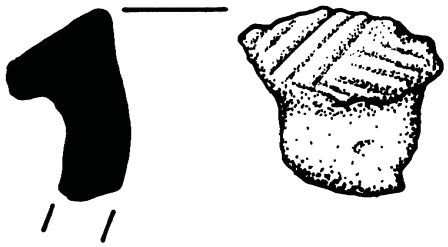

Figure 24 Peterborough Ware (Fengate or Mortlake sub-style) Rim, context (107) [103], Area 2. Fabric with shell and sand inclusions, expanded everted rim, incised opposing diagonal lines on rim lip. Scale 1:1.

Fired Clay – Patrick Marsden

Quarry pit 141 (Context 104) produced 117 fragments of fired clay weighing 864g. These are all from the same structure and most display a surface. A single fragment weighing 5g from the same structure was found in evaluation context 615.

The Roman Pottery- Nicholas J. Cooper

Introduction

A total of four sherds of Roman pottery was recovered from four contexts and has been recorded using the ULAS fabric series (Pollard 1994) with reference to the National Roman Fabric Reference Collection (Tomber and Dore 1998) and quantified by sherd count and weight (g).

Results

The analysis of the assemblage is summarised below (Table 2)

Context	Fabric	NRFC	type	form	sherds	weight	date
48	CG1		rim	Jar	1	5	L3rd-4th
860	C3NV	LNV CC	body	Beaker	1	6	L3rd-4th
876	GW3		rim	Jar	1	16	L3rd-4th
919	C2NV	LNV CC	body	Jar	1	4	L3rd-4th
Total					**4**	**31**	

Table 2: Quantified summary of the Roman pottery.

Discussion

Though small and fragmentary, the group show a consistent later 3rd to 4th-century date. Two sherds from (860) and (919) were products of the major Roman pottery industry of the Lower Nene Valley centred around *Durobrivae*, to the west of Peterborough, and belong to the later repertoire of vessels produced there (Howe *et al*. 1980). The shell-tempered ware jar from (48) with a distinctive pulley-wheel grooved rim is of a type known from excavations at Empingham in Rutland (Cooper 2000, 93

and fig.45.153), whilst the fine grey ware jar from (876) belongs to the later Roman burnished grey ware tradition and again can be paralleled with an assemblage of jars from the later 3rd or early 4th-century well at Empingham (Cooper 2000, 87 and fig.42.104)

The Medieval and Later Pottery - Deborah Sawday

Introduction

The pottery assemblage from the evaluation and excavations comprised 1656 sherds, weighing 31.646 kg. Most of this material dated to the medieval and later medieval periods.

Fabric Code – Common Name	Approximate Date Range
STAM - Stamford ware	850-1150
NEOT - St Neots type ware	850-1150
EMW - Early Medieval ware	1100-1200
SSHW - Sandy Shelly ware	1100-1400
SHW - Shelly ware	1150-1350
MEL - Medieval Ely ware	1150-1400
LYST - Lyveden-Stanion wares	1200-1350
MSW - Medieval Sandy wares	1150-1400
OSHW - Oolitic Shelly wares	1200-1450
GRIM - Grimston ware	1200-1500
NOT - Nottingham ware* (Nottingham Green Glazed wares)	1250-1300
BONA - Bourne A ware	1250-1400
TOYN - Toynton All Saints	1250-1400
BONB - Bourne B ware	1250-1450
BNBT - Bourne B type wares	1250-1450
LMSW - Late Medieval Sandy wares* (Predominantly Essex/Colchester Red ware, fabric 21 (McCarthy & Brooks 1988, 440).	1350-1550+
LMR - Late Medieval Reduced ware	1350-1550
LMP - Late Medieval Midland Purple ware*	1400-1550
BOND - Bourne D ware	1450-1650
BNDT - Bourne D type wares	1450-1650
LMT - Late Medieval Transitional wares* (Late med trans. Glazed Orange Sandy ware, including possible sherds of West Norfolk Bichrome, (*ibid* 1988, 416), and a vessel paralleled at Norwich (Jennings 1981, 61-71)	1450-1575
CSTN - Cistercian ware	1500-1600
GRE - Glazed Red Earthenwares* (As per Jennings, (*ibid* 1981)	1500-1800
PMR - Post Medieval Red ware	1500-1800
FREC - Frechen Stoneware	1550-1700
MART - Martincamp type 3 ware (or possibly an English copy).	1600-1650
PMBL - Post Medieval Blackware	1600-1700
METS - Metropolitan Slipware	1600-1700
WEST - Westerwald Stoneware	1600-1750+
STSL - Staffordshire Slipware	1600-1800
TGW - English Tin Glazed ware	1600-1800
STBU - Staffordshire Butter pot ware	1650-1700
ENGS - English Stoneware	1670-1900
STMO - Staffordshire Mottled ware	1700-1800
ENGE – Post Med/Modern Earthenwares* (includes modern white earthenwares & misc. coarse wares/butter pot wares etc.)	1650-c.1750+
TRANS - Transfer Printed wares	1780-1900+

Table 3: The medieval pottery fabrics.

Methodology

The pottery was examined under an x 20 magnification binocular microscope and classified with reference to the Cambridge fabric series, and to material from The Still, Peterborough (Spoerry and Hinman 1998), and Thorney (Thomas et al 2006, 238-240). The fabrics and their approximate date ranges are shown above (table 1). Additions to the fabric codes are marked with an asterisk.

The pottery was recorded with reference to the *Minimum Standards for the Processing, recording, Analysis and Publications of Saxon and medieval Ceramics* (MPGR 2001). The quantification of the material was by sherd number, weight and vessel rim equivalent, where one vessel is equal to 1.00 EVE. Only rims were used, as the bases were not generally a reliable indicator of vessel form. The vessel forms have been identified with reference to the Medieval Pottery Research Groups' *A Guide to the Classification of Medieval Ceramic Forms* (MPRG 1998). However, the fragmentary nature of the material meant that little Eve data was recovered, and the figures are not shown here, but are retained in the site archive and, for similar reasons, a full classification of the individual vessel forms was not undertaken. Whilst the analysis of the pottery by phase includes material from both the evaluation and the excavation, owing to lack of time, only the pottery from the excavations is included in the tables relating to the discussion of the pottery vessel types (Tables 8 and 9).

Phase A c.1050-c.1250+

Assemblage 57 sherds, 539g, ASW 9.4g.

Fabric	Sherd Nos	Weight Grams	Average Sherd Weight
STAM	23	162	7.0
NEOT	18	164	9.1
SSHW	1	11	11.0
SHW	12	171	14.2
OSHW	1	10	10.0
BONA	1	2	2.0
BONB	1	17	17.0
Totals	**57**	**539**	**9.4**

Table 4: The pottery by fabric, sherd numbers and weight (grams) in phase A.

The earliest medieval pottery assemblage on the site, 17 sherds, weighing 91+ grams - was recovered from the two pits [702] and [842] in Area 1, and the quarry [65], the ditches [107] and [114] and the post-hole [144] in Area 2. The pottery fabrics consisted exclusively of St Neots type wares, a sherd of Shelly ware and fine, predominantly glazed, Stamford wares, the latter with a terminal date in the late 12th or early 13th centuries. These sherds have a relatively low average weight of only 5.4 grams and may have been deposited in the Saxo-Norman period as part of horticultural or agricultural activity rather than representing waste from occupation in the immediate area.

The remaining 41 sherds, weighing 450 grams, with an average sherd weight of 10.9grams, were recovered from the pit [868] in Area 1**,** the quarry [67], the ditch [73] and the pit [103] in Area 2, and the ditches [351] and [353] and the pit [355] in Area 3. In some instances these features produced only one or two sherds, the bulk of the pottery being recovered from [868] on the western side of Area 1. However, all contained Shelly wares, fabrics, SHW and OSHW dating from the mid or late 12th and the early 13th centuries, or the Bourne ware fabrics BONA and BONB. Whilst there were only two sherds of the latter, in [67] and [868] they are thought to date have a slightly later starting date than the rest of the assemblage, from the mid

thirteenth century. No finds were recovered from the gulleys [726] and [679]=[681] in the northern part of Area 1, close to the street frontage.

Phase B – Medieval – c.1250 – 1450.

Assemblage 102 sherds, 1443g, ASW 14.1g.

A small assemblage of 43 sherds of pottery, including the Bourne fabrics BONA and BONB dating from the mid 13th century were associated with this phase of activity in Area 1. No pottery was associated with the stone wall [701] to the rear, or the layers of clay either side of the base of the structure. Only two sherds were recovered from the backfill of the linear feature or ditch [752], which may have represented an earlier boundary to the south, including a fragment of highly decorated LYST probably dating from the later 13th century. Nineteen sherds in an unclassified Medieval Sandy ware, dating from the mid 12th or 13th centuries, were found in the upper levels of an unexcavated feature, a possible pit (816) to the south east in the same area. The remainder of the assemblage was recovered from two pits to the east, [741] and [911], the stone spread (671) and feature [911] and contexts (816) and (912).

Fabric	Sherd Nos	Weight Grams	Average Sherd Weight
STAM	14	99	7.0
NEOT	7	40	5.7
EMW	1	3	3.0
SHW	17	166	9.7
LYST	16	451	29.0
MSW	19	118	6.2
OSHW	1	4	4.0
BONA	4	67	16.7
TOYN	1	3	3.0
BONB	19	459	24.1
BNBT	3	33	11.0
Totals	102	1443	14.1

Table 5: The pottery by fabric, sherd numbers and weight (grams) in phase B,

The remainder of the assemblage was made up of finds from the pits and post-holes to the rear in Areas 2 and 3, many of the features only producing very small amounts of pottery, making the dating evidence somewhat limited. Only 18 sherds were recovered from the backfill of the pits [46], [62] [102] and [125] in Area 2 and 11 more from [334], [345] and [359] in area 3, but all produced Bourne B and Lyveden Stanion wares, and one a fragment Toynton All Saints ware, fabric TOYN, dating from the mid or later 13th century. The Shelly ware fabric, SHW, with a general date range of between *c.*1150 to *c.*1350, and Bourne B ware were amongst the 15 sherds from the quarry pits [57], [125], [87] in Area 2 and [332] in Area 3. The ditch [56] in Area 2 produced three sherds, residual Stamford and St Neots type ware, and a large fragment weighing 128 grams, in BONB dating from *c.*1250 or later. Similarly, the 13 sherds from the ditches or gulleys [117] and [161] in the same area comprised residual Saxo Norman wares, an unclassified Early Medieval ware, fabric EMW, possibly of 12th century date, and a fragments of OSHW and BONB, the latter dating from the mid 13th century as noted above.

In spite of the small size of the assemblages noted above, the presence of the Bourne B and Lyveden Stanion wares in the majority of the contexts, and the relatively large average sherd weight of these wares does provide evidence of a convincing post *c*.1250 date for this phase group.

Phase C – Later Medieval – c.1450-c.1550+

Assemblage 488 sherds, 5851g, ASW 11.9 g.

The pottery evidence associated with the rectangular timber building fronting on to the street in Area 1 includes 54 sherds, weighing 666 grams from the backfill of fourteen post holes [606], [608], [614], [616], [618], [621], [628], [648], [655], [690], [715], [769], [823] and (915). Whilst the few sherds in six of these features, [606], [618] [628] [715] [769] and (915) are evidently residual in this phase, all the others contained sherds of the late medieval Bourne wares or type wares, fabrics BOND and BNDT and/or sherds of the Late Medieval Transitional wares, fabric LMT, and in two instances, sherds of Cistercian ware, dating from *c*.1450.

A further 171 sherds were found in the layers and spreads [765], (636), (670), (677) , (736), (739) , (742), (747), (883), (909), and (826) some if not all, related to the later use of the building, notably (736) which may have served as a threshold to the structure, and the possible internal floor surfaces, layers (670) and (739). All of these contexts, save (677), contained one or more sherds of the Late Medieval Reduced ware, LMR, dating from *c*.1350 to 1550, or the later medieval wares noted above as well as residual material. Unfortunately, the pottery evidence is too limited to see any changes in the pottery types which might be related to possible sequences of floor levels, whilst no pottery was found in the cobbled surfaces 730, 731, 733 to the west and north of the site in the same area.

Fabric	**Sherd Nos**	**Weight Grams**	**Average Sherd Weight**
STAM	22	141	6.0
NEOT	22	227	10.3
SHW	19	281	14.7
LYST	71	1020	14.3
MSW	1	6	6.0
OSHW	2	18	9.0
NOT	1	2	2.0
BONA	10	178	17.8
BONB	123	1781	14.4
BNBT	35	358	10.2
LMSW	5	26	5.2
LMR	58	519	8.9
BOND	83	940	11.3
BNDT	8	57	7.1
LMT	24	268	11.1
CSTN	3	12	4.0
GRE	1	17	17.0
Totals	**443**	**5334**	**12.0**

Table 6: The pottery by fabric, sherd numbers and weight (grams) phase C

The backfill of a drain or gulley [708] in Area 1 produced 32 sherds, some residual Stamford and St Neots types, and the medieval Bourne A, B and type wares, and the Shelly wares SHW, OSHW and LYST, including three jar rims, and a jug fragment. However just under half of this small group consisted of Later Medieval Reduced ware and Bourne D wares, fabric BOND, the only identifiable vessel being a bowl rim in LMR. This feature was superseded by a stone drain whose backfill yielded 23 sherds of chiefly residual pottery, but including also the late Bourne fabrics BOND and BNDT, LMT and a glazed sherd of Late Medieval Transitional ware, dating generally from the mid or later 15th and 16th centuries, although this sherd may be an example of West Norfolk Bichrome (McCarthy and Brooks 1988, 416) dating from the later 16th century.

The bulk of the pottery, over 200 sherds, came from the pits [758**],** [833], [873] and [879] delineating the perimeter of the building in Area 1. This pottery had a relatively low average sherd weight of only 11.3 grams, and much of the material was residual and very fragmentary, only three bowl rims and a jug rim and three jug necks were identifiable in the later medieval wares, and all of this rubbish was clearly the result of several episodes of deposition and redeposition. The remaining pottery in this phase, 17 sherds, weighing 182 grams, was recovered from the backfill of the ditches, [16], [19], [112] and [309] in Areas 2 and 3. This small group was also characterised by the presence of residual sherds as well as the later medieval wares noted above.

Phase D – Early Post Medieval – *c*.1500/1550 - 1650+

Assemblage 456 sherds, 12.290g, ASW 28.3g

Fourteen sherds, weighing 149 grams were found in the construction pit (667) on the stone-lined well [786], in Area 1, a further 20 sherds, weighing 965 grams, occurring in the well structure, layers (706) and (724). Most of this small group was made up of unidentifiable fragments of Bourne D ware and type ware and Late Medieval Transitional wares, the possible Bichrome sherds including a jug body and the rim of a bowl. The base of a vase in Cistercian ware and jar fragments in GRE, Glazed Red Earthenware were also present.

Fabric	Sherd Nos	Weight Grams	Average Sherd weight
STAM	18	107	5.9
NEOT	21	146	6.9
SHW	4	32	8.0
LYST	14	512	36.5
MSW	1	2	2.0
OSHW	2	105	52.5
GRIM	1	3	3.0
BONA	1	8	8.8
TOYN	5	278	55.6
BONB	33	613	18.5
BNBT	35	719	20.5
LMSW	2	75	37.5
LMP	1	40	40.0
LMR	36	411	11.4
BOND	214	8002	37.3
BNDT	22	474	21.5

LMT	21	785	37.3
CSTN	6	207	24.6
GRE	8	226	28.2
PMR	1	80	80.0
PMBL	6	43	7.1
ENGS	2	27	13.5
ENGE	2	25	12.5
Totals	**456**	**12920**	**28.3**

Table 7: The pottery by fabric, sherd numbers and weight (grams) phase D

The gulley [908] in Area 1, produced 16 sherds of predominantly residual pottery, save for seven sherds of possibly post medieval Bourne D ware, fabric BOND. Similarly the seven pits in the same area, [654], [692], [696], [812], [814], [831] and [906], which produced the largest assemblage in this phase: 306 sherds, weighing 9507 grams, all contained some residual pottery, chiefly Bourne B or type ware, fabrics BONB and BNBT. Of the early post medieval wares, which were present in the backfill of every pit, Bourne D wares and type wares with a terminal date of *c.*1650, were the most common, accounting for over half of the totals, 160 sherds, weighing 6855 grams

Although only 43 pottery sherds were retrieved from a large pit [696], this feature was of note as it truncated the remains of the timber building in Area 1, suggesting a terminus post quem for the building's disuse, probably some time in the 16th or early 17th centuries. This pit was cut in turn by another pit [692], which had a series of three quite distinctive fills, which suggests that the pit had been backfilled over a period of time (J. Thomas, pers. comm.) There is some evidence to support this, although only two of the layers contained pottery and in spite of a degree of residuality, with Saxo Norman and medieval pottery present in both contexts. Bourne D wares with a mid 17th century terminal date were found in the earliest layer, (694), and the uppermost fill (676) contained a large fragment, weighing 80 grams, of Post Medieval Redware, PMR, dating from *c.*1500, but with a terminal date of *c.*1800, and another sherds, weighing 11 grams, of Stoneware, ENGS, dating from *c.*1670.

The post-hole [642] was originally thought to be part of an internal division in the northern part of the phase C timber structure but the pottery evidence suggest otherwise. Whilst a few sherds of medieval pottery are present over half of the assemblage of twenty sherds is made up of the post medieval Glazed Red Earthenwares and Post Medieval Blackwares, fabrics GRE and PMBL.

Phase E – c.1600/1650- 1750+

Assemblage 433 sherds, 9027 g, ASW 20.8 g.

Fabric	Sherd Nos	Weight Grams	Average Sherd weight
STAM	5	14	2.8
NEOT	3	19	6.3
SHW	3	47	15.6
MEL	1	18	18.0
LYST	3	20	6.6

MSW	8	187	23.3
TOYN	4	134	33.5
BONB	10	142	14.2
BNBT	3	36	12.0
LMR	2	13	6.5
BOND	67	1313	19.5
BNDT	2	17	8.5
LMT	65	1222	18.8
CSTN	11	40	3.6
GRE	106	3111	29.3
FREC	16	300	18.7
MART	1	8	8.0
PMBL	39	605	15.5
METS	4	52	13.0
WEST	2	67	33.5
STSL	5	53	10.6
TGW	1	2	2.0
STBU	1	5	5.0
ENGS	16	225	14.0
STMO	1	3	3.0
ENGE	51	1358	26.6
TRANS	3	16	5.3
Totals	**433**	**9027**	**20.8**

Table 8: The pottery by fabric, sherd numbers and weight (grams) phase E

Over 45% of the assemblage by sherd numbers came from the backfill of the large pond [786] in the south of Area 1. Three of the lower fills (787), (795) and (796) contained 40 sherds of residual medieval and early post-medieval pottery, chiefly the late Bourne ware, BOND and the Transitional ware LMT, and Frechen Stoneware, but the bulk of this assemblage was made up of Glazed Red Earthenwares, GRE and post medieval and modern Earthenwares, ENGE, predominantly coarse wares dating from the 17th and 18th centuries, together with sherds of Slipware, STSL with a terminal date of *c*.1800. Pottery of a similar date, including fabric GRE as well as residual sherds in Medieval Ely, fabric MEL, Cistercian ware, CSTN, and seventeenth century Metropolitan Slipware, fabric METS, was recovered from the stone spread (800), which is thought to represent consolidation around the northern edge of the pond and possibly a path to the rear of a nearby building.

Only nine sherds of pottery dating from the late medieval and post-medieval or possibly modern periods in fabrics BOND, GRE and METS were recovered from a large ditch, [806] possibly a property boundary, in the eastern part of Area 1. The 77 sherds from an associated ditch [858] also contained some residual material, as well as later pottery**,** the relative lack of BOND suggesting a post-1650 date for the assemblage. Amongst the post medieval finds were two possible continental imports, WEST, Westerwald Stoneware, and MART, Martincamp Stoneware, which, together with a fragments of an English Salt Glazed Stoneware face jug or bellarimine in fabric ENGES, all date from the seventeenth century. Press moulded English Earthenware, ENGE; probably dating from the 17th or 18th centuries, two sherds of modern blue and white Transfer Printed Earthenware, TRANS, in and a fragment of possibly nineteenth century Black ware, catalogued as the post medieval PMBL, were also present.

The backfill of two post-holes [638] and [658] also contained small assemblages, together accounting for ten sherds of post-medieval and modern pottery, including Salt Glazed Stonewares, ENGS and miscellaneous wares, in ENGE, including modern fine white Earthenware.

The Pottery Record

The Pottery Fabrics and Forms

Fabric	Sherds	% of Total	Grams	% of Total
Late Saxon/ Medieval				
STAM	98	5.9%	581	1.8%
NEOT	83	5.0%	696	2.2%
EMW	1	0.1%	3	0.0%
SSHW	1	0.1%	11	0.0%
SHW	74	4.5%	831	2.6%
MEL	1	0.1%	18	0.5%
LYST	111	6.7%	2127	6.7%
MSW	28	1.7%	308	1.0%
OSHW	7	0.4%	138	0.4%
GRIM	1	0.1%	3	0.0%
NOT	1	0.1%	2	0.0%
BONA	17	1.0%	280	0.9%
TOYN	12	0.7%	446	1.4%
BONB	195	11.8%	3464	10.9%
BNBT	78	4.7%	1153	3.6%
Sub Totals	**708**	**42.7**	**10061**	**31.7**
Later Medieval/Post Medieval				
LMSW	8	0.5%	106	0.3%
LMR	102	6.2%	952	3.0%
LMP	1	0.1%	40	0.1%
BOND	371	22.4%	10451	33.0%
BNDT	32	1.9%	548	1.7%
LMT	118	7.1%	2472	7.8%
CSTN	27	1.6%	329	1.0%
GRE	119	7.2%	3432	4.7%
PMR	1	0.1%	80	0.3%
FREC	19	1.1%	334	1.1%
MART	1	0.1%	8	0.0%
PMBL	49	3.0%	803	2.5%
METS	6	0.4%	57	0.2%
Sub Totals	**854**	**51.5**	**19612**	**55.7**
Post Medieval/Modern				
WEST	2	0.1%	67	0.2%
STSL	5	0.3%	53	0.2%
TGW	3	0.2%	16	0.1%
STBU	1	0.1%	5	0.0%
ENGS	22	1.3%	340	1.1%
STMO	1	0.1%	3	0.0%
ENGE	57	3.4%	1473	4.7%
TRANS	3	0.2%	16	0.1%
Sub Totals	**94**	**5.7**	**1973**	**6.2**
Totals	**1656**	**99.9%**	**31646**	**93.6%**

Table 9: The relative proportions of the fabrics present by sherd numbers and weight (grams).

The Saxo-Norman Stamford and Saint Neots type wares comprised just over 10% of the pottery totals by sherds numbers The majority of the Stamford was glazed, and consisted of fine wares dating from the 12th century; this is reflected in the range of identifiable vessel forms which consisted primarily of jugs and spouted pitchers, with a few sherds with a very fine fabric, but none with the developed copper glaze, dating from *c*.1150 (Kilmurry 1980). Jars and a couple of bowls made up the identifiable Saint Neots type ware forms, and jars also dominated the Shelly ware fabric SHW

(Spoerry 1998, figs.26-27), suggesting that these may have been used concurrently with the Stamford ware as cooking wares and the latter as table wares.

The Bourne wares and Bourne type wares dominate the pottery assemblage. This is perhaps not altogether surprising given that the production centre is less than 24 km to the north of Peterborough (Healey 1973). Jars are commonly found in the medieval Bourne fabrics BONA, BONB and BNBT, and also bowls and jugs in the two latter, whilst the Lyveden Stanion fabric LYST was used almost exclusively for jugs, generally glazed and highly decorated with applied white clay strips and pads, grid stamps and rouletting (McCarthy and Brooks 1988, fig.171.1019), (Spoerry 1998, fig.29.112). The identification of the pipkin in OSHW remains tentative, only part of the body and handle stub with a single thumb print at the base survive.

The late medieval Bourne fabrics, BOND and BNDT, account for over 24 % of the totals by sherds numbers, and over 34 % by weight. The late medieval LMT and the post medieval GRE also form a significant part of the assemblage. These three wares occur here in a wide range of vessel forms, the former have been described elsewhere, (Healey 1973; McCarthy, and Brooks 1988; Spoerry 1998), whilst some of the LMT are paralleled at Norwich (Jennings 1981) and West Norfolk (McCarthy and Brooks 1998, 416). The new forms in these fabrics include wide mouthed bowls (Jennings 1981, fig.24.397-398) and a lid in LMT, (ibid 1981, fig.79.1324) and cisterns (Spoerry 1988, fig.30.136), and a pipkin in BOND. Many of the forms in GRE could also be paralleled at Norwich, including a jug (Jennings 1981, fig.75), a flared bowl (ibid 1981, fig.67.1177) and a bowl with a horizontal handle (*ibid* 1981, fig.68.1197), and pipkins (ibid 1981, fig.70).1227 and 1229). Vessel forms in Cistercian ware, CSTN, include cups and vases. Cups were also found in the post-medieval Slip ware and Black ware fabrics METS and PMBL, and multi handled drinking cups or tygs in PMBL.

fabric	jar	bowl	jug/sp. pitcher	jug	cistern	pipkin	lid	cup	vase	flask	tyg	vtu	Total
STAM	5/56	1/13	11/86	1/12								64/355	82/522
NEOT	17/116	2/52										56/451	75/619
EMW	1/3												1/3
SSHW												1/11	1/11
SHW	13/211	1/22		2/108								36/348	52/689
MEL												1/18	1/18
LYST	1/34	4/168		71/1348								28/344	104/1894
MSW		6/176		20/122								3/13	28/308
OSHW	1/10					1/57						3/22	5/89
GRIM												1/3	1/3
NOT				1/ 2									1/ 2
BONA	4/108											12/161	16/269
TOYN												7/177	7/177
BONB	9/308	18/534		14/654								142/1428	183/2924
BNBT	9/133	4/844		5/150								45/444	63/811
LMSW				5/26								1/ 3	6/29
LMR	1/ 8	46/682										50/216	97/906
BOND	15/324	33/2771		23/749	19/807	5/81						212/3596	307/8328
BNDT	2/18											18/186	20/204
LMT	11/145	26/1084		11/102			2/24					54/776	105/2134
CSTN				3/22				7/41	3/165			14/101	27/329
GRE	9/345	20/1061		1/ 8		3/178						82/1692	115/3284
PMR												1/80	1/80
FREC				14/263								5/71	19/334
MART										1/ 8			1/ 8
PMBL				14/265				5/38			16/405	11/47	46/755
METS								3/48				3/9	6/57
Totals	**98/1819**	**161/6647**	**11/86**	**185/3831**	**19/807**	**9/316**	**2/24**	**15/127**	**3/165**	**1/ 8**	**16/405**	**850/10552**	**1370/24787**

Table 10: The medieval and earlier post-medieval pottery vessel forms by sherd numbers and weight (grams). (vtu = vessel type unknown).

fabric	jar	bowl	jug	cup	saucer	dish	vtu	Total
WEST			1/42				1/25	2/67
STSL		1/33		3/18			1/ 2	5/53
TGW					1/ 2		2/14	3/16
STBU							1/ 5	1/ 5
ENGS			10/202				12/138	22/340
STMO							1/ 3	1/ 3
ENGE	14/649	9/306				3/51	31/467	57/1473
TRANS							3/16	3/16
Totals	**14/649**	**10/339**	**11/244**	**3/18**	**1/ 2**	**3/51**	**52/670**	**94/1973**

Table 11: The later medieval and modern pottery vessel forms by sherd numbers and weight (grams)

The Medieval Tile - Deborah Sawday

Methodology

The tile was classified with reference to the Cambridge fabric series, and to material from The Still, Peterborough (Spoerry and Hinman 1998), and Thorney (Thomas et al 2006, 238-240). The fabrics and their approximate date ranges are similar to those for the pottery and are shown above (Table 2). The results of the analysis for the ridge tile are shown below (Table 11).

Fabric	Fragments	% of Total	Grams	% of Total
SSHW	4		307	
LYST	8		1396	
OSHW	2		63	
BONA	7		134	
BONB	8		764	
BNBT	7		404	
BOND	36	48.6	3926	53.8
BNDT	2		117	
Totals	**74**		**7291**	

Table 12: The medieval ridge tile by fabric, fragments numbers and weight (grams).

Discussion

The ridge tile in Bourne D ware, the late medieval fabric BOND, was the most common, accounting for over 48 % and over 53 % of the totals by fragment numbers and weight respectively. Taken together, the Bourne wares and Bourne type wares dominate this small assemblage reflecting the proximity of the production centre to the north of Peterborough. No diagnostic fragments were recovered save for part of a very abraded crest in fabric BONA with thumbing along the sides and top of an applied strip placed longitudinally along the apex of the tile, which can be paralleled at Bourne (Healey 1973). The tile first occurred in phase B, dating from the 13th century, but most was residual in later post medieval and modern phases.

A fragment of tile, in fabric BNDT, with a large wedge shaped nib and a smoothed exterior surface, was also found in a late medieval context.

The Post-Medieval Brick – Deborah Sawday

A total of 51 fragments of post-medieval brick weighing over 6kg was excavated from 22 contexts. All were produced in a post-medieval earthernware fabric and dated from the 17th-18th centuries.

Context	Fabric	Nos	Grams	Date	Comment
82	EA	1	764	Mod.	Brick 108 x 65 mm, (4 ¼ x 2 ½')
131	EA	1	50	-	Brick
150	EA	3	83	-	
629	EA	1	7	C	
637	EA	3	482	E	Brick – 64 mm (2 ½ ")
641	EA	1	6	D	
657	EA	1	105	E	Brick
675	EA	1	825	C	Hand made etc., approx. 2" thick
676	EA	1	63	D	Brick
696	EA	1	612	C	Hand made, rect. Complete, 4 x 3 ¼ x 1 7/8 "
697	EA	1	20	C	
698	EA	8	385	-	brick
707	EA	2	18	-	
772	EA	3	255	E	Brick 1 ½" thick
787	EA	4	423	E	Brick, 2 ¼ " thick
797	EA	3	300	E	hand made brick
857	EA	5	326	E	ditto
858	EA	6	453	E	Hand made etc.
860	EA	1	128	E	brick
20 [19]	EA	1	10	C	
U/S	EA	1	788	-	Brick – frontage – 4 ½ x 2 ¼"

Table 13: The Post Medieval Brick

The Clay Pipe - Deborah Sawday

Over a 100 stems and 25 clay tobacco pipe bowls or fragments of bowls were recovered, predominantly from the backfill of the pond [798] and the ditch [858] in phase E. The assemblage included ten 'midland spur type' bowls, also found to the east of the midlands region at Stamford , (Higgins 1985, 291). Another bowl with a small heel was also recovered, a similar example has been dated to the mid or late seventeenth century, *c*.1650-70, at Cambridge (Flood, 1976, fig.3.D). Parallels to two more bowls have been dated *c*.1660-1680 at Cambridge (ibid 1976, fig.4.C), and another two to the mid or later 17th century (*ibid* 1976, fig.3.G. Full details of the provenance of these finds are in the site archive.

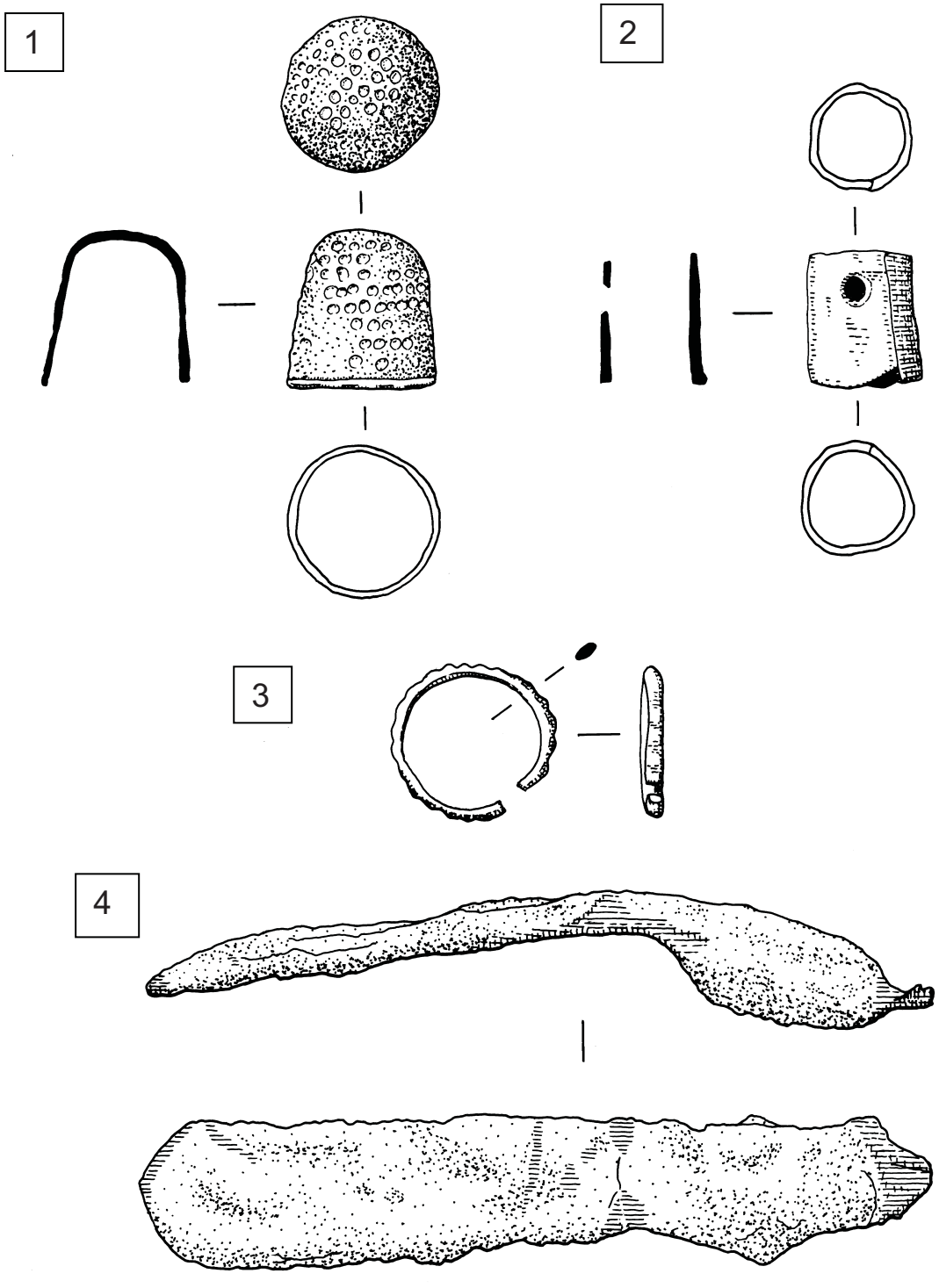

Figure 25 Selected metal finds. Scale 1:1

The Small Finds - Daniel Prior and Nicholas J. Cooper – Figure 25

A total of 47 metal objects was retrieved from 14 contexts.

Iron

The iron objects were poorly preserved and x-radiography has helped identification. Diagnostic objects included a possible chisel blade fragment of 5mm width from (845) and a pair of scissors from (787). A pair of similar size came from 17th to 18th century deposits at Southampton (Harvey 1975, fig. 258.2137). The handle of a knife or other utensil came from (698) (Fig. 25. 4), and a blade fragment from a second came from (919). A horseshoe (Sf.13) was unstratified during the evaluation stage. The last diagnostic iron object is part of a rectangular plate from (698) with the remains of possible keyhole perforation centrally along one edge, and perhaps derives from a box or door lock (for similar see Harvey 1975, fig. 258.2135).

Over 20 iron nails were also present with square or rectangular sectioned shafts, including a single complete example 84mm long from (874), These were retrieved from contexts (111), (129), (131), (653), (698), (725), (751), (787), (803), (857), (858) and (874) and presumably represent remains of timber constructional debris.

Copper alloy

The copper alloy objects comprise a thimble (Fig.25.1) a small tapering ferrule or collar from (858) probably reinforcing a wooden tool handle (Fig.25.2), a finger ring (Fig.25.3), a rectangular shoe buckle frame (Sf.3 US), and a flat headed stud (Sf.3 US).

Lead

A single musket ball (Sf.11) of 15mm diameter was retrieved, unstratified, during the evaluation stage.

Catalogue of illustrated small finds

1) Sf.12 US. Thimble. Cu alloy. Probably of 16th-century date. Parallel from London (Egan 2005,131 and fig.126.629 found with pottery dated 1530-1550)
2) Context (858). Tapering ferule or collar. Cu alloy. Single rivet hole.
3) Sf.5 US. Finger ring. Cu alloy. Simple D-sectioned hoop with crenelated outer edge. No close parallels found.
4) Sf.29 Context (698). Knife or utensil handle. Iron.

The Worked Stone – John Thomas

Five pieces of worked stone were recovered during the excavations; the assemblage comprising a quernstone fragment, a re-used column fragment and three whetstones.

Quernstone

A triangular fragment of lava quern was recovered from evaluation context (909) (Figure 26.1). The piece is triangular in shape, approximately 40mm thick with evidence of working on the outer rim. The grinding surface is worn smooth although evidence of radial striations ('furrow dressing') survives. It is unclear if the fragment represents an upper or lower stone. It is also difficult to estimate a precise date for the piece. Lava querns were imported into Britain from the Eifel region of Germany

throughout the medieval period, but were also used in the Roman period. It is presumed that the piece is medieval given the context of its discovery. Interestingly however, the practice of 'furrow dressing' to increase grinding efficiency, is seen as a particular characteristic of Roman querns and not so evident on later examples (Watts 2002, 39) perhaps indicating that this is a residual fragment.

Whetstones

Three whetstone fragments came from three separate contexts. That from (787) is of tapering circular section and manufactured from light grey micaceous sandstone (Figure 26.2). Those from (694) and (757) are of tapering rectangular section and made from a light grey metamorphic rock similar to schist (Figure 26.3&4). From the similarity of geological description relating to examples from Northampton (Moore and Oakley 1979, 280, fig. 123), it would appear that these are likely to be of Norwegian Ragstone, derived from Eidsborg, and imported on a large scale throughout the medieval period.

Re-used Column Fragment

A fragment of stone colonnette made on dark green shelly limestone from context (799) in the 15th-16th century pit [814] (Figure 27). The piece is circular with a 100mm diameter and survives to a maximum height of 70mm. No tool-marks exist and the surface of the shaft has been polished. One end surface has been worn smooth and is very slightly convex as a result of re-use, probably as a linen smoother or grinding implement.

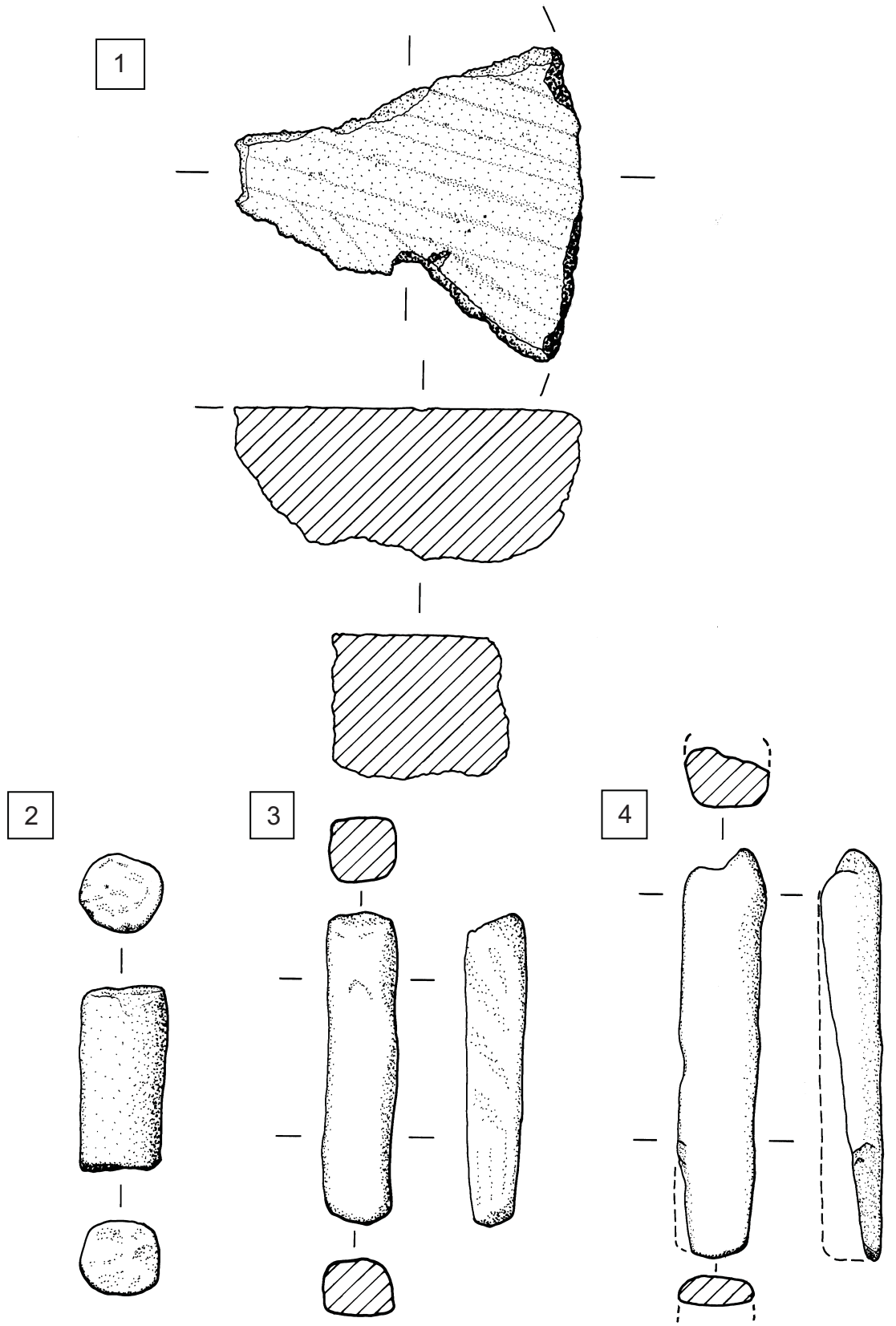

Figure 26 Worked stone from Area 1. Scale 1:2

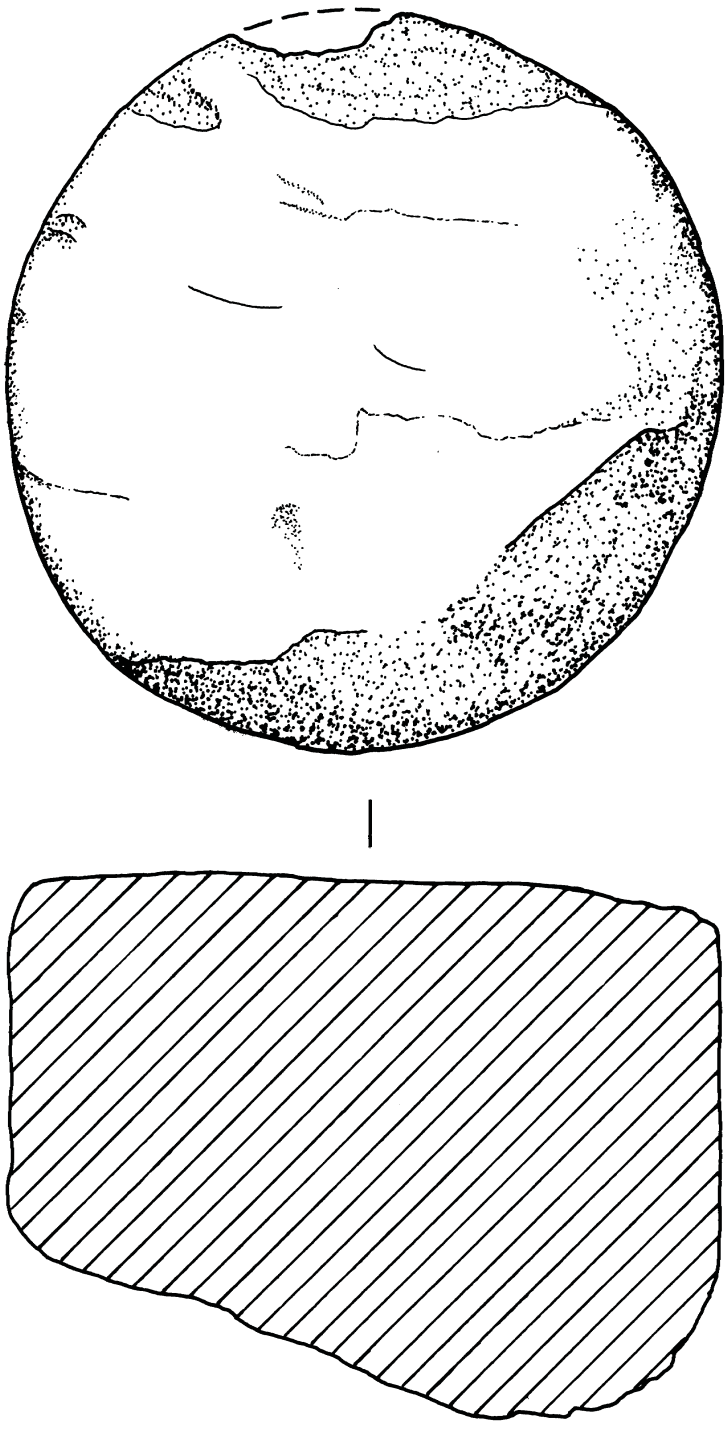

Figure 27 Re-used column fragment from Area 1. Scale 1:1

The Glass – Deborah Sawday

54 sherds of glass from 12 contexts were retrieved from the site. Half of the glass has been dated to the 17th-18th century while the other half of the assemblage is recognised as being modern.

Context	Sherd Nos	Date	Comment
131	12	Mod	modern
657	6	Mod	Includes modern material
668	9	Mod	As above
688	6	E	Wine bottle, ?later 17th – 18th C.
707	7	E	Bottle glass - ?17th – 18th C.
724	1	E	
772	4	E	Wine bottle lip & neck, ?later 17th – 18th C. At least two fragments also embedded in wall plaster.
787	4	E	?window glass, ?post med. One frag pos modern
793	1	E	Wine bottle base with kick-up, ?later 17th – 18th C.
796	1	E	Small ?bottle, ?17th – 18th C.
797	1	E	
807	1	E	?17th – 18th C.
824	1	E	?17th – 18th C.
Total	54		

Table 14: The Post Medieval and Modern Glass

The Industrial Waste – Alice Forward

A small amount of industrial waste (517g of iron slag and 12g of tap slag as well as 123g of coke) was retrieved from ten post-medieval/ modern contexts.

Context	Object	Weight	Comment
337	Iron slag	244	
668	Iron slag	115	
668	Iron slag	157	
793	Iron slag	1	
668	Tap slag	12	
668	coke	38	5 bags
667	coke	12	
688	coke	8	
787	coke	8	
697	coke	37	
772	coke	3	
797	coke	3	
858	coke	14	

Table 15: The Industrial Waste

The Animal Bone - Jennifer Browning

Summary
A small medieval and post-medieval animal bone assemblage was recovered during excavations at 'The Walnuts', Peterborough. The assemblage was found to contain a significant proportion of equid bones, including a dismembered carcass, identified as a possible donkey, which had been disposed of in a pit. There was little evidence that the carcass had provided meat for human consumption but a number of fine cut marks were indicative of skinning. The remainder of the assemblage consisted of general domestic waste.

Introduction

A small faunal assemblage totalling 425 fragments was recovered from excavated features at the Walnuts, Peterborough. All the examined bone was hand-recovered from deposits ranging in date from the early medieval to the modern period. The bone generally had good surface condition but was quite brittle and fragmented.

Methods

Bones were identified with reference to comparative skeletal material held by Leicester University, School of Archaeology and Ancient History. Species, anatomy, state of fusion, completeness and modification by human or other agents was recorded, to elicit information on species proportions, skeletal representation, age and condition. The particular part of each bone fragment was recorded where possible, following the 'zone' method defined by Serjeantson (2000), with additional zones ascribed to mandibles, based on the system outlined by Dobney and Reilly (1988). Butchery marks were described using a simple code and the occurrence of burning, gnawing and pathologies was also recorded. Measurements were taken as appropriate and followed von den Dreisch (1976). The information was compiled onto a *pro forma* computerised spreadsheet (Microsoft Excel). Age at death was estimated using Epiphysial fusion, following the figures from Silver (1969). Age was further assessed using toothwear patterns for cattle, sheep and pigs following Grant (1982) and for horse, tooth crown height following Levine (1982). For the most part it was not possible to separate the bones of sheep and goats. However where they could be distinguished only sheep was identified and there was no positive evidence for goat in the assemblage. Therefore throughout the report the term 'sheep' will be used to mean 'sheep and/or goat'. Few of the bones within the assemblage could be sexed but it was possible to separate male and female pig canines following Schmidt (1972). An attempt to distinguish equid species followed Davis (1982). Measurements taken on the first phalange were adjusted and subjected to a stepwise discriminant analysis. Using this method, the resulting variables can be plotted against other and should group according to species. In this case the position of the variables was compared with Davis's plotted examples (1982, figure 2).

Results

Phase	Suggested Groupings	Fragment no:	% of assemblage
A	Early medieval (12th-13th century)	9	2
B	Medieval (1200-1450)	65	15
C	Later medieval (c 1450-1550+)	84	20
D	Early post medieval (c.1500/1550-1650)	120	28
E	Later post medieval/modern ((c1600/1650-1750+)	147	35
Total		425	100

Table 16: Quantity of bone by phase

Species	A	%	B	%	C	%	D	%	E	%	Total
Cattle	3	*43*	5	*9*	18	*34*	5	*31*	49	*64*	80
Sheep/goat			4	*7*	12	*23*	2	*13*	12	*16*	30
Sheep					2	*4*					2
Pig	1	*14*	11	*19*	9	*17*	2	*13*	6	*8*	29
Equid (horse/donkey)			38	*66*	8	*15*	3*(81)	*19*	8	*10*	55
Dog	2	*29*			3	*6*	1	*6*	1	*1*	7
Cat							2	*13*	1	*1*	3
Deer							1	*6*			1
Domestic fowl	1	*14*									1
Goose					1	*2*					1
Total identified	7		58		53		16		77		209
Large mammal	1		5		21		18		51		96
Medium mammal	1		2		3		3		12		21
Indeterminate					7		5		7		19
Total	9		65		84		40		147		425
% identified	*78*		*89*		*63*		*35*		*52*		*68*

Table 17: Composition of the assemblage, showing number of identified specimens (NISP) * *Equid* skeleton from pit [696] counted as '1'.

Low numbers of bones were retrieved from most phases (tables 1), with phase E (Later post medieval) producing the greatest quantity of bones overall. The inclusion of a partial equid skeleton, recovered from phase D pit [697], greatly increased the identified bones and was counted as a single specimen in table 2 for the purpose of assessing species proportions (table 2). A relatively large proportion of the assemblage was identified in most phases, which may reflect the good surface condition and fairly large size of the recovered fragments. However, the assemblage clearly favours the larger mammals. Cattle were the dominant species and were recovered from all phases, with equids being the second most frequent. Other species were less well-represented, although pig was present in all phases and sheep/goat in all but Phase A. Sheep was positively identified in the assemblage but goat was not. Small numbers of dog bones were identified in phases A, C, D and E. Bird bones are particularly rare; single examples of domestic fowl and goose were identified in phases A and C respectively (table 2). No small mammals, wild bird or fish bones were recovered. The lack of environmental samples is likely to have been a major factor here since recovery of small species is greatly increased through sieving.

The low numbers of bones recovered do not permit analysis of skeletal representation or mortality patterns for any particular phase; however observations on these topics are included in the comments below.

Phase A: Early medieval (12th-13th century)
Cattle, pig, dog and domestic fowl were noted in the deposits from this phase. The bones were recovered from five different deposits, with the greatest number recovered from ditch [351]. A dog humerus and radius (forelimb) were recovered from ditch [351] and are likely to have derived from the same individual. These were both fused, which, based on the proximal humerus, indicated a minimum age of 15 months (Silver 1969, table A), although the animal was potentially considerably older. The calculated shoulder heights averaged at 0.42m, using Harcourt's factors (1974), suggesting that they belonged to an adult dog of middling size (Appendix- table 3). A fragmented cattle mandible contained all three permanent molars with the third in light wear, indicating a young adult animal a little over three years of age (Hillson 2005, table 3.4). A proximal cattle femur was un-fused, indicating an animal below 42 months (Silver 1969, table A). The only visible butchery noted on bones from this phase were fine cut marks occurring on the cattle mandible and on a sheep-size rib.

Phase B: Medieval (1200-1450)
The largest assemblage within this phase was recovered from ditch [56] (n=57), with smaller quantities of bone retrieved from pit [102] (n=2) and a stony layer (671) (n=6). Equid bones were most common, all recovered from ditch [56], however, cattle, sheep and pig were also recorded. A cattle skull had occipital perforations; a non-metric trait which is not infrequently observed (e.g. Lincoln: Dobney 1996). Unfortunately, there are no other examples of this part of the skull in the assemblage; therefore, it was not possible to assess prevalence among the cattle at the site. The animal had been horned but neither horncore was still present, having broken off. Gnawing was noted on a small number of bones of cattle, sheep, pig and horse. Butchery marks were noted on a cattle astragalus, indicating disarticulation of the hock joint. The remains of at least two pig maxillae and skulls were recovered from the ditch [56]. The first and second molars were erupted and in wear indicating an age in excess of 7-14 months (Hillson 2005, 234). The second incisor was erupting, suggesting an age of 14-20 months (Hillson 2005, table 3.5). The porous appearance of the bone suggested that they were relatively young animals.

The 38 equid bones all derive from ditch [56] (Appendix- table 6) and at least two anatomical units were observed. The first was part of the lower spine consisting of the sacrum, articulating with five lumbar vertebrae and the left and right pelvis. Similarly the lower part of a right hind leg was recovered, consisting of the tibia, metatarsal, calcaneum and first and second phalange. Greatest length measurements from the tibia and metatarsal suggest that the animal falls into the 'small' and the lower end of the 'fairly small' range using Vitt (1952), which would give equivalent withers height range of 1.20m-1.36m. An alternative method of calculation (Keisewalter 1888) produced heights of 1.36m and 1.31m. Fine cut marks were noted on one of the phalanges (part of the apparently articulated hind leg), which are likely to indicate skinning. Measurements taken on the first phalange, adjusted and plotted according to Davis (1982) suggest that the bone groups with horse (*Equus caballus)*.

Phase C: Later medieval (c1450-1550+)
The bones from Phase C were recovered in small numbers from 21 different features. Only pit [873] contained more than 10 fragments (n=23). Cattle were most abundant among the remains, followed by sheep/goat, pig and horse. Dog and goose are also represented.

Cattle were the most common species and all regions of the body were represented. A cattle skull had heavy cut marks on the occipital condyle, probably indicating decapitation. Butchery marks were noted on cattle and sheep bones only. A withers height of 1.06m was calculated from a cattle metacarpal.

The sheep/goat assemblage was the second largest in this phase. A fragmented skull, with oval-shaped horns, neither of which was complete, was positively identified as sheep. Two sheep mandibles could have belonged to the same individual, since a left and right jaw with teeth in a similar state of wear were recovered from the same context. The permanent third molar was erupting, suggesting an age of around 24 months at death (Hillson 2005, 231). A mandible from an older animal, with wear on all three cusps of the third molar, was possibly aged nearer three or four. All of these mandibles had slight to moderate calculus on the teeth, with a shiny, 'metallic' appearance. Teeth with this type of deposit have been noted on many other sites, including Vine Street, Leicester (Browning, forthcoming) and although the exact cause of the colouration is unknown, it is particularly typical of sheep and deer (Hillson 2005, 290). One of the mandibles also had a severe pathological condition. The permanent fourth premolar was visible within the jaw but was rotated, erupting at 90 degrees to the normal orientation. This appeared to have caused considerable inflammation, resulting in osteomylitis. Evidently the infection had been severe enough that a hole (cloaca) had formed on the lateral surface of the mandible, through which pus is likely to have drained.

The pig remains were predominantly from young animals. A humerus from a very young animal was recovered, just larger than a neonatal specimen in the reference collection. A deciduous fourth premolar in a pig mandible was in the process of being pushed out by a permanent molar. Lower canine teeth both from a male and a female pig were noted. The male canine was unusual; the enamel appeared to have been worn or flaked away at the tip and although it was not clear what might have caused this, it appears to be taphonomic.

There were no burnt bones but gnawing was noted on the bones of all the main species.

Equid bones were recovered in small numbers from five features; pits [873] and [879], post hole [690], spread (773) and ditch [16]. Two distal tibiae were un-fused (spread (773) and pit [873]), indicating an age below 24 months at death (Silver 1969, 286). A scapula and humerus, although not sufficiently complete to measure, were evidently from a small, gracile animal.

Isolated dog bones were identified in three features, including ditch [309] and spread (826). A bone from a juvenile dog was recovered from ditch [16]. A partial goose tibiotarsus was recovered from a pit, [873].

Phase D: Early post-medieval (c.1500/1550-1650+)
A total of 120 bones were recovered from seven deposits in Phase D. Cattle, sheep/goat, pig, equid, dog, cat and deer were identified (table 2). Gnawing was noted only on three equid elements. Butchery, consisting of both chops and cut marks, was noted on horse and cattle bones and a sheep tibia. A single burnt bone; a shaft

fragment from a large mammal, was recovered from a pit. Two cat bones, an ulna and a tibia, were among the bones from spread (747). The five cattle bones recovered were a mixture of fragmentary elements, including a femur from a juvenile animal, aged less than 42-48 months (Silver 1969, table A). A cattle-size rib had an oscillating edge to the caudal border, which might be a result of age. A lower premolar from a red deer was the only evidence for the exploitation of wild animals at the site.

The majority of fragments were recovered from a single pit, [696], and consisted of a disarticulated equid skeleton (Appendix-table 6). The head, jaw and cervical vertebra had been deposited as an articulated unit, and there was a second group to the south, consisting of ribs. A third anatomical group comprised the thoracic and lumbar vertebra and ilia of the pelves: the trunk of the animal had been deposited on its back with the pelvis extending upwards. Unfortunately, due to this position, modern damage to the acetabula and pubic symphyses had occurred. The re-assembly of the whole spine during analysis strongly suggested that the remains belonged to the same skeleton. The fourth articulated bone group consisted of a left hind leg, apparently complete from the femur to the third phalange, although the patella was missing. This was flexed and laid to the west of the torso with the third phalange resting upon the underside of the thoracic vertebrae. The other three legs (right hind limb and both forelimbs) were not recovered from the pit.

Figure 25: The partial equid skeleton during excavation

All four canine teeth are present in the jaw suggesting that this is likely to be a male animal, as these are often reduced or missing in females (Hillson 2005, 126). All permanent cheek teeth were erupted and in wear and the bones including the vertebra, were fused, which suggests a minimum age of around 5 years. It was possible to refine this estimate by assessing tooth crown height using Levine's (1982) method, which suggested age at death to be around 13 years. Greatest length measurements for the tibia and metatarsal suggest that the animal fits into Vitt's 'small' category (equivalent withers height of 1.20m – 1.28m), but the femoral length indicated that this animal was 'very small' (equivalent withers height 1.12m-1.20m). Estimation of stature using Keisewalter (1888) produced a similar result; the tibia and metatarsal provided heights of 1.35m and 1.29m but the femur suggested the smaller stature of 1.20m. This significant discrepancy between the calculated heights appeared abnormal but could possibly be explained if the limb proportions were different to those of a horse. The shorter femur and a longer tibia is one of the characteristics of a donkey, compared with a horse (Baxter 1998, 13). Measurements taken on the first

phalange, adjusted and plotted following Davies (1982), group with donkey (*Equus asinus*) rather than horse (*Equus caballus*). By contrast, measurements taken on another first phalange, not associated with the articulated remains, clearly grouped with *Equus caballus*. The articulated bones were in good condition and did not show any pathological changes that might indicate that the animal was slaughtered as it was no longer fit for work. Fine cut marks on the frontal bone above the upper orbit and on a phalange indicated that the animal had been skinned prior to deposition. The femur also had a possible cut mark. Canid gnawing was noted on the *tuber calcis* of the calcaneum (equivalent to the hock joint in life) and also on the illio-sacral border of the pelvis, which would have projected slightly at the rump of the animal. An unattached proximal femur from pit/ditch [692] denoted another animal below the age of 3½ years (Silver 1969, 286).

Few non-equid bones were recovered from the pit, suggesting that the deposition of the processed carcass was its primary purpose. It is possible that the animal may have been disarticulated in order to fit the carcass into the pit. The state of articulation and lack of butchery marks other than those associated with skinning, suggests that meat was not filleted from the bone and consumed. The missing legs and incidence of gnawing, however, prompt speculation that these may have been distributed among the dogs of the site.

Phase E: Later post-medieval/modern (c.1600/1650-1750+)
A total of 147 bones were recovered from features attributed to Phase E. Cattle were the most common species accounting for 64% of the identified fragments. Based on the number of humeri, a minimum of two cattle are represented. Ageing evidence was in short supply but two 3rd molars, one with moderate and the other with heavy wear, were clearly from older adult and elderly beasts. Of 18 Epiphysial surfaces, only two were un-fused. However, recovery of an un-fused proximal phalange, (early fusing) suggests that juvenile animals were present at the site. Sheep/goat bones were less common in the assemblage. Once again, although outnumbered by fused bones, a small number of un-fused epiphyses indicate immature animals. Dental evidence was scarce but emphasises older adults. The meagre pig assemblage only produced evidence for evidence for juvenile animals.

Gnawing, mainly affecting the more easily accessible epiphyses, was noted on 20 (14%) bones from the assemblage with all species affected, including evidence for *canid* gnawing of a dog ulna. A similar proportion of the assemblage was butchered. Cattle bones were a particular focus, with 28% of cattle bones affected. These were from the meatier parts of the skeleton, including pelvis, humerus, radius and femur, and were usually chopped, probably a result of portioning of the carcass. Vertebrae, including an atlas, were divided sagitally. Three sheep/goat bones, a tibia, fibula and mandible, were also butchered. Two proximal horse tibiae, from the same deposit (797), were butchered; one had heavy transverse cut marks, probably inflicted with a cleaver, while the other had several parallel transverse scrapes on the caudal face. In addition the shaft of an equid femur may have been deliberately split, but this may equally have been the result of taphonomic processes.

Burnt bones were recovered from ditch [858] and pond [798], both of which also contained unburnt bone. This indicates that the bone was not burnt *in situ* and also implies that the waste deposited within these contexts derived from more than one

source. None of the bone was completely calcined but most was charred to a considerable degree; only two of the heavily charred specimens, a cattle calcaneum and a sheep/goat humerus, were identifiable. A cattle radius was partially charred, possibly exposed to flame during roasting.

The only pathological bone was a cattle calcaneum with eburnation, indicating wear in the hock joint, which may suggest that it came from an elderly animal. A withers height of 0.63m was calculated from a sheep metacarpal (Appendix- table 3). Withers heights of 1.16m and 1.21m were calculated from cattle metacarpals.

Discussion

A small animal bone assemblage was retrieved from deposits dating from the medieval and post-medieval periods. In all phases the bones represent domestic animals, mostly cattle and equids. The only fragment from a wild animal is a single deer tooth recovered from phase E (late medieval). Low numbers of bones mean that would be unproductive to discuss general trends such as mortality profiles, representation of body parts and butchery techniques. For example there are particularly few sheep and pig bones with epiphyses. However all pig bones with fusion surfaces were un-fused (n=4), which probably reflects the young age at which they would have been slaughtered. There were only 25 recorded cattle epiphyses across the assemblage; the vast majority of which were fused, which is consistent with the usual patterns seen within larger assemblages. The cattle, sheep and pig bones appear to be domestic refuse and show butchery marks indicating division into carcass parts suitable for consumption. Even though equid remains were prevalent, it is notable that cattle bones were more likely to be butchered and those phases with the least equid bones (C and D) had the highest levels of butchery (Appendix: table 5). In view of the length of time that the site was occupied (Steve Jones *pers. comm.*.) these bones are likely to represent only a small fraction of the animals processed or consumed on the site and it is therefore likely that faunal refuse was also disposed of off-site.

The Horse Bones

It is not unusual for an assemblage to consist mainly of large-boned mammals; this is often a result of poor preservation or recovery factors. However the proportion of equid bones at the site is particularly noteworthy and both horse and donkeys appear to be represented. Larger assemblages with comparable characteristics have been recovered from Westminster (Cowie and Pipe 1998), Witney Palace (Wilson and Edwards 1993) and Market Harborough (Baxter 1996). There often seems to be an association between the deposition of horse and dog bones, which are not usually consumed in the medieval and post-medieval periods. The site at Westminster seemed to have been a burial ground for the disposal of carcasses, from which the remains of 76 dismembered horses and four dogs, buried as whole carcasses, were recovered (Cowie and Pipe 1998, 226). Large numbers of horse and dog bones were recovered from Witney Palace, where they are interpreted as animals butchered for their meat and skins and probably fed to hunting dogs (Wilson and Edwards 1993). At the Walnuts, equid bones were recovered from features in every phase, except A. In phases B and D, the numbers are greater than the combined total for cattle, sheep and pig bones, although this is influenced by the presence of articulated components. Examples of gnawing in all phases indicated that dogs were able to access the bones

prior to deposition. Small numbers of dog bones were noted in phases A, B, D, and E. In phase E, a dog ulna was itself found to be gnawed.

Bones evidently representing the hindquarters and part of the spine of a probable horse or pony were retrieved from a Phase B ditch deposit. In Phase C, the presence of two right equid tibiae with un-fused distal ends were recovered from Phase C contexts, indicating that both these animals were less than 24 months at time of death (Silver 1969, 286). A partially dismembered equid was recovered from phase D (pit 697) and the limb proportions coupled with measurements on the first phalange suggest the animal to have been a donkey rather than a horse. Donkeys are generally rare in the British archaeological record, with only a handful of examples confirmed, however, post-medieval examples are known from Medbourne, Leicestershire and Caldecote, Hertfordshire (Baxter 1998, 5). Further skeletal criteria will need to be assessed before confirming the current identification. Calculated withers heights suggested that the equids in all phases were on the small side. At Westminster, the horses were predominantly between 1.25 and 1.45m at the shoulder (Cowie and Pipe 1998, 243) and the Walnuts animals appear to be of slightly smaller stature and, if not donkeys, would probably be termed as ponies.

Occasional fine cuts marks were noted on some of the equid bones, which suggest that the hide was removed before deposition. The low number of cut marks accords with the evidence from other sites, such as Market Harborough, where fewer butchery marks were observed on horse than on cattle bones (Baxter 1996). The fact that the carcasses were clearly disarticulated yet displayed few cut or chop marks suggests that they were skilfully and professionally butchered. In both phase B and phase D, the foot appears to have been left with the rest of the leg rather than taken away with the hide, a trend also noted at Westminster (Cowie and Pipe 1998, 247), where it was suggested that the retrieved hide may have been used to make articles such as gloves. By contrast, there were fewer foot bones at Witney Palace, perhaps suggesting a different method of skinning (Wilson and Edwards 1993, 49).

The evidence suggests that equids were important in several phases of the site. The presence of young equids suggests that the bones do not necessarily represent animals that were knackered once they had ended their useful working lives and may suggest that they were bred nearby. Horse, pony or donkey carcasses may have been processed from time to time, or the site may simply have been used for disposal. However, there is no clear evidence that the meat was stripped from the carcass to be consumed by humans or other animals and it is possible that the animals utilised may have been natural casualties. It is important to bear in mind that the features spanned a potential date range of around 500 years (1200-1650+) and therefore the reasons behind the deposition of the animals may not be the same in every phase.

Appendix: Additional Data referred to in text

Cut	Feature	Phase	Species	Bone	Measurements	Calculated withers height
351	ditch	A	dog	radius	gl=127, bd=17.5, bp=13.3, sd=9	423.37
351	ditch	A	dog	humerus	gl=130, dp=29.1, sd=9.4, bd=24.6	419.36
56	ditch	B	equid	tibia	bd=60.0, bp=82.5, gl=313	136.468
56	ditch	B	equid	mt	bd=39.19, bp=40.14, gl=247, cd=85	131.651
56	ditch	B	equid	pelvis	LA=55.25, LAR=55.1	
873	pit	C	pig	m3	l=30.8, wa=17.6	
873	pit	C	equid	humerus	sd=22.1	
873	pit	C	equid	scapula	slc=45.0	
873	pit	C	sheep	skull	Left:MinBD=20.8, maxBD=34.9; Right: MinBD=19.2, maxBD=31.8	
	spread	C	cattle	mc	gl=17.6, bd=19.98, bp=47.69, cd=8.6	106.48
696	pit	D	equid	mt	gl=242, bp=42.2, bd=42.9, cd=85, sd=26.6	128.986
696	pit	D	equid	tibia	gl=309, bd=58.9	134.724
696	pit	D	equid	femur	gl=341, bd=83	119.691
	layer	D	s/g	tibia	bd=25.6	
814	pit	D	equid	femur	sd=13.1	
798	pond	E	cattle	radius	bp=75.6	
	consol round pond	E	cattle	tibia	bd=57.2	
	layer/pond	E	cattle	tibia	bd=64.2	
	layer/pond	E	cattle	mc	bd=55.5, sl=29.4	
	layer/pond	E	cattle	mc	gl=200, bd=51.6, sd=29.4	121
	layer	E	equid	scapula	glp=84.7	
	layer	E	s/g	tibia	bd=27.9	
798	pond	E	s/g	mc	bp=19.3, bd=23.3, gl=12.9, lwcond:10.0, wtroch; 9.7, mwcond11.1, mwtroch;9.5	63.081
858	ditch	E	cattle	humerus	bt=75.7mm	
858	ditch	E	cattle	calc	gl=13.5	
	pond	E	cattle	mc	bd=50.65, bp=49.12, gl=19.2cd=7.9	116.16

Table 18: Biometrical data from the assemblage

696	Maximum Length	Proximal width	Proximal depth	Minimum shaft width	Distal width	Distal depth	Total		
Phalanx 1	I	II	III	IV	V	VI			
meas.	75.00	48.05	34.78	27.94	38.78	22.21	246.76	Variable1	2.01
corrected	**30.39**	19.47	**14.09**	**11.32**	15.72	9.00	100.00	Variable2	2.09
696/698									
Phalanx 1	I	II	III	IV	V	VI			
Meas.	93.25	55.47	35.38	35.85	46.36	26.09	292.40	Variable1	2.73
corrected	**31.89**	18.97	**12.10**	**12.26**	15.85	8.92	100.00	Variable2	-1.22
55									
Phalanx 1	I	II	III	IV	V	VI			
Meas.	71.18	43.93	31.54	27.63	35.72	21.92	231.92	Variable1	2.52
corrected	**30.69**	18.94	**13.60**	**11.91**	15.40	9.45	100.00	Variable2	-0.13

Table 19: Measurements of first phalanges with calculations after Davis 1982 for horse/donkey distinction

Phase		Number	*% of recovered bone*
A	Burning	0	-
Total fragments=9	Butchery	2	*2*
	Pathology	0	-
	Gnaw	0	-
B	Burning	0	-
Total fragments=65	Butchery	2	*3*
	Pathology	1	*2*
	Gnaw	5	*8*
C	Burning	0	-
Total fragments=84	Butchery	8	*10*
	Pathology	5	*6*
	Gnaw	16	*19*
D	Burning	1	*1*
Total fragments=120	Butchery	7	*6*
	Pathology	1	*1*
	Gnaw	3	*3*
E	Burning	7	*5*
Total fragments=147	Butchery	21	*14*
	Pathology	1	*1*
	Gnaw	20	*17*

Table 20: Incidence of burnt, butchered, gnawed and bones with pathological changes

Phase	Context	Bone	Total
B	55	axis	1
		calcaneum	1
		cervical vertebra	1
		lumbar vertebra	5
		metapodial 4/2	1
		metatarsal	3
		metatarsal 2/4	1
		pelvis	2
		phalange 1	1
		phalange 2	1
		rib	6
		sacrum	1
		tarsal	1
		tibia	1
	55 Total		26
B Total			26
C	15	scapula	1
	15 Total		1
	691	pelvis	1
	691 Total		1
	743	tibia	1
	743 Total		1

Phase	Context	Bone	Total
	874	humerus	1
		metatarsal	1
		scapula	1
		tibia	1
	874 Total		4
	880	metatarsal	1
	880 Total		1
C Total			8
D	694	femur	1
	694 Total		1
	696	astragalus	1
		calcaneum	1
		carpals	5
		cervical vertebra	5
		femur	1
		lumbar vertebra	6
		metatarsal	1
		metatarsal 2	1
		metatarsal 4	1
		pelvis	2
		phalange 1	1
		phalange 2	1
		phalange 3	1
		ribs	26
		sacrum	1
		skull	5
		skull & mandible	1
		tibia	1
		thoracic vertebra	18
	696 Total		79
	799	femur	1
	799 Total		1
D Total			81
E	698	femur	1
	698 Total		1
	797	scapula	2
		tibia	2
	797 Total		4
	800	femur	1
		scapula	1
	800 Total		2
	698/696	phalange 1	1
	698/696 Total		1
E Total			8
Grand Total			123

Table 21: Parts of the horse skeleton represented in the assemblage, by phase and feature

The Shell – Alice Forward

A total of 625g of shell was found from 33 contexts. The predominant type was oyster shell which made up 90% (560g) of the assemblage. Mussel shell (6%) 40g, land snail

shell 3% (21g) and welk 1% (4g) were also accounted for but in small amounts. The shell is thought to be residual, including the oyster shell as the majority of it was found in layer (698) which dates to the 16th-17th century. The size of the oyster shell ranges from 90mm(l) x 86mm(w) (787), 111mm(l) x 89mm(w) (698), and 52mm(l) x 46mm(w) (697) but the majority of the shell is fragmentary.

Context	Material	Weight	bags
698	Oyster shell	277	5
675	Mussel shell	5	2
55	Snail shell	19	2
670/671	Oyster shell	7	2
697	Oyster shell	9	1
697	Mussel shell	4	1
653	Oyster shell	5	1
657	Oyster shell	42	1
651	Mussel shell	4	1
639	Oyster shell	6	1
668	Oyster shell	6	1
677	Oyster shell	6	1
693	Oyster shell	5	1
688	Oyster shell	8	1
694	Oyster shell	1	1
689	Oyster shell	13	1
U/S	Oyster shell	11	1
772	Oyster shell	3	1
787	Oyster shell	86	1
797	Oyster shell	30	1
768	Oyster shell	3	1
796	Oyster shell	3	1
826	Oyster shell	11	1
857	Oyster shell	4	1
857	Mussel shell	1	1
629	Oyster shell	4	1
629	Mussel shell	12	1
676	Cockle shell	1	1
667	Cockle shell	1	1
725	Cockle shell	1	1
667	Oyster shell	19	1
724	Oyster shell	1	1
724	Snail shell	1	1
830	Cockle shell	1	1
830	Mussel shell	1	1
875	Goose egg?		see box
615	Snail shell	1	1
905	Mussel shell	9	1

Table 22: The Shell

Charred plant remains - Angela Monckton

Introduction

Sampling was undertaken to recover charred plant remains which can provide evidence of agriculture, diet, and activities of the people in the past. The features excavated included medieval and post medieval pits, gullies, drains and a possible

pond. Two pits of prehistoric date were also investigated. Information from charred plants is now accumulating from villages and towns in the region and it was hoped that these remains would add this evidence.

Methods

Samples were processed from 16 contexts representing the main feature types and phases of the site, these were selected for examination after consideration of the dating evidence and the potential of the features to produce plant remains. The selected samples were processed by wet sieving in a York tank with a 0.5mm mesh and flotation into a 0.3mm mesh sieve. The residues were air dried and the fraction over 4mm sorted for all remains which are included in the relevant sections of the report. The flotation fractions (flots) were transferred to plastic boxes and air dried, this work was carried out at ULAS by John Tate and completed by Dave Parker.

The flots were examined and were then sorted for plant remains using a x10-30 stereo microscope. The plant remains were identified by comparison with modern reference material at ULAS in the Department of Archaeology of the University of Leicester. The remains were counted and listed (table 19), the plant names follow Stace (1991) and are charred seeds in the broad sense unless described otherwise. In order to interpret and compare the samples, for those with over 50 items of charred cereal remains the proportions and ratios of cereal grains, chaff, seeds and other remains were considered (table 20). Some of the samples also contained waterlogged plant remains which were also investigated in the drains and pond area.

Results

The cereals**:** From the medieval periods the majority of the identified grains were wheat (*Triticum* sp), mainly of the characteristic short broad shape of free-threshing variety. Wheat chaff fragments (rachis segments which form the central axis of the cereal ear) were found, some of which could be identified as bread wheat (*Triticum aestivum* s.l.), and some were of a second type of free-threshing wheat which is known as rivet wheat (*Triticum turgidum* type). These were found in two samples and although were rather broken and poorly preserved they were consistent with this type of wheat. Barley grains (*Hordeum vulgare*) and some chaff were found to be less numerous than wheat. Oat grains (*Avena* sp.) were also found in some of the samples, probably cultivated oats from the size of the grains but this could not be confirmed in the absence of chaff, while some of the grains identified as cereal or grasses may have included small oat grains. Rye (*Secale cereale*) was present only very sparsely as a possible additional cereal on the site.

Legumes: Other food plants present although not numerous were legumes perhaps because they do not require parching in their processing. These included peas (*Pisum sativum)* and some fragments identifiable only as either peas or beans (*Vicia/Pisum*). Cultivated vetch (*Vicia sativa*), a crop usually used as fodder, was possibly present, although a few fragments may have been small peas. The presence of legumes suggests that crop rotation may have been carried out.

Fruits and nuts: These were represented by an apple pip which could have been from a cultivated variety or from crab apple. Elder pips were present, and although ubiquitous on such sites because the plant grows in neglected areas near rubbish pits

as well as in hedgerows, the fruit is likely to have been consumed. Nutshell was also present suggesting that hazel nuts were gathered and used as food.

Wild plants: Numerous charred weed seeds were found which were mainly weeds of disturbed ground or arable land included stinking mayweed (*Anthemis cotula*) which was common in medieval times and is a plant of heavy and poorly drained soils. Weeds particularly associated with autumn sown cereals such as wheat, including corn cockle (*Agrostemma githago)* and cleavers (*Galium aparine*), were found. Other arable weeds included cornflower (*Centaurea cyanus*) and scentless mayweed (*Tripleurospermum inodorum*), which was sparsely present, both being plants of lighter soils. A group of weeds typical of disturbed ground such as is found in settlements, garden-type cultivation or of spring sown crops included goosefoots (*Chenopodium* sp), docks (*Rumex* sp) and chickweed type plants (*Stellaria* sp.). Leguminous plants included vetches or vetchling (*Vicia/Lathyrus)* and clover type plants (*Medicago, Melilotus* or *Trifolium*) which can occur as arable weeds but also grow on grassland. Others plants of grassy vegetation included hay rattle (*Rhinanthus* sp.). Plants of damp or wet ground were represented by sedges (*Carex* sp) perhaps from poorly drained areas of the fields or from ditch sides. The most common seeds were of the large grasses (Poaceae) including brome grass (*Bromus* sp.) which, with most of the plants here, can occur in cultivated fields as arable weeds. Additional plants and waterlogged remains are mentioned below.

Results by phase

Prehistoric
The prehistoric features sampled were two shallow pits with Peterborough Ware present. The charred cereal remains were sparse and undiagnostic. Pit context (506) contained two charred indeterminate cereal grains with a charred seed of vetch type (*Vicia/Lathyrus*) which may have been prehistoric but the presence of fragments of coal suggested that this was later material. There were also a few intrusive uncharred seeds of some of the same plants as were found in the pond. Pit context (104) contained six cereal grains including wheat and barley with 58 charred seeds. Although this sample contained sufficient remains for analysis the seeds included ten of stinking mayweed (*Anthemis cotula*) which although it does occur sporadically from the Bronze Age onwards (Murphy 2002), is more typical of medieval deposits. Occuring with great fen-sedge (*Cladium mariscus*), poppy (*Papaver* sp.) and a few more common weeds which have been found in medieval deposits at Long Causeway, Peterborough (Monckton 1996), it is likely to be intrusive medieval material.

Saxo-Norman (c. 1100-1350)
Two pits were sampled which contained high densities of 13.5 and 28.8 items per litre of soil from pit (703) and (870) respectively. The remains were mainly of free-threshing wheat with some chaff including bread wheat in both and a little rivet wheat in (870) which also contained a smaller quantity of barley grains and chaff. This sample contains about three times as many grains as chaff fragments which is close to that in complete cereal ears so this may represent threshed but uncleaned cereal. The sample from (703) includes a smaller amount of chaff. Weed seeds were relatively numerous in both samples although more grains than weed seeds were present suggesting that this may be partly cleaned cereal product, probably mixed with cereal

cleaning waste. The relatively high density samples with cereal grain, and cereal waste including both chaff and seeds, suggests production or processing nearby.

Early Medieval
A ditch terminal (118) contained a moderate number of remains at a density of 6.8 items per litre of soil, with more seeds than grains, mainly larger seeds such as cleavers and large grass, which may have remained with the grain after cleaning. These may have been sorted by hand during food preparation while the charred elder seeds may also have been food waste. This type of deposit may suggest domestic waste raked from hearths and deposited or accumulated in the ditch.

Medieval to Late Medieval
A possible cesspit (830), contained a high density of 17.1 items per litre of soil. A few segments of fish scales and broken fish bones were found as are often found in cesspits although no mineralized plant remains were found to suggest the presence of sewage. Uncharred seeds of elder and hemlock were quite numerous and may have been from plants in the surroundings as both grow in nutrient rich soils, such as are found near cesspits and animal waste. Both are robust seeds which can survive in different deposits. The remainder of the plant remains here were all charred and relatively abundant and similar in composition to those from pit (870) and may represent a similar cereal processing activity.

Late Medieval to Post-Medieval
Well: This deposit (772) contained only two charred barley grains and occasional fish scale fragments as food remains. A few uncharred seeds included nettles, elder, dead-nettles, fool's-parsley and spurges, probably as the survival of more robust seeds from surrounding disturbed ground vegetation. The deposit did not appear to have been permanently waterlogged.

Drains: Two samples from (603) were examined, one containing a moderate number of charred plant remains dominated by cereal grains with a few chaff fragments including rivet wheat as well as bread wheat with weed seeds and a few legume fragments and a nutshell fragment (table 19). This may be part of a scatter of domestic cereal cleaning waste. A fish scale fragment was also present as food waste. The second sample contained fewer charred remains including 16 cereal grains with five seeds and three legume fragments. This sample also contained uncharred seeds of docks, perhaps partially mineralized preserved in the drain deposits, possibly from plants in the surrounding vegetation.

Quarry: A sample of wet brown clay from the base of the quarry (60) was examined for charred or waterlogged remains but nothing was found.

Pond: the sample (796) contained a moderate number of charred plant remains similar to those from the drain but with only bread wheat chaff (table 19). In addition the samples contained numerous seeds from the nearby vegetation preserved by waterlogging. The water plants included duckweed and water-crowfoot which indicate standing water. Plants of the margins of the pond included celery-leaved buttercup, sedges, water-dropwort and spike-rush. Seeds of a larger group of plants could have grown in the surroundings. Plants of nutrient rich soils included nettles, hemlock and henbane, suggesting the presence of animal waste perhaps from animals

using the pond for drinking water. Other plants included dead-nettles, thistles, sow-thistle, docks, woundwort, goosefoots and fool's-parsley which are generally plants of disturbed ground although some of these could have been brought with fodder or be from animal dung. Seeds of elder and brambles suggest scrub vegetation or could be from hedges of the site. The remains suggest a pond with standing water and marginal vegetation, possibly used for animal watering, surrounded by weedy vegetation and possibly on the site bounded by hedges.

Discussion

The early to late medieval deposits from the frontage of the site contained quite abundant cereal remains compared with some sites in the midlands (Monckton 2004a). The type of cereal waste found here is from free-threshing wheat in which the grain is easily separated from the ear by first threshing. Barley is also a free-threshing cereal. After threshing the straw would be raked away and then winnowing is carried out to remove small light weed seeds and the light chaff. The grain could then be coarse sieved to remove the larger chaff fragments and then fine sieved, to retain the grains but remove small weed seeds (Jones 1990). The waste found here could be from this latter process which would be preserved if it was burnt as waste or fuel and preserved by charring. Straw remains are rarely found as it is useful for thatching and bedding, and only a few fragments were found here. Although chaff is easily removed it was present here to suggest the cereal was produced nearby and was only partly cleaned. However, such deposits have been found in suburbs such as at Leicester, which open the possibility of partly cleaned cereals being brought to the town perhaps from elsewhere as well as the town fields (Monckton 2004b). Charred grains can be present with the waste possibly burnt accidentally during parching. This may have been carried out for a number of reasons for example, to dry it for storage if gathered damp, or to facilitate milling, barley was roasted during preparation of malt and also to remove the hulls from hulled barley for human consumption (Moffett 1994). However there is no evidence for kilns or ovens on this site and it is possible that partly cleaned grain was being cleaned before being used to make foods from whole cereal grains, and the waste burnt for disposal. It is possible that grain may have been cleaned for sale to be used for pottage, a thick soup or stew which was a medieval staple food, as grain for flour would have been ground at a mill (Dyer 1989).

The identifiable free threshing wheat chaff (rachis) of not only bread wheat but also rivet wheat is an addition to our knowledge of this crop. Rivet wheat is now known from an increasing number of sites in the midlands from the early medieval period onwards (Moffett 1991), with the earliest being from Northamptonshire and having a pre Norman Conquest date (L. Moffett pers.comm.). The evidence at present suggests that this crop spread in use during the medieval period. It is known from Long Causeway, Peterborough from deposits of 13th -14th century date and may be slightly earlier here. Rivet wheat is a productive cereal with long straw useful for thatching, and also has long awns which protect the grain from insect attack (Moffett 1991); it is less favoured for bread making than bread wheat but could be used mixed with bread wheat or used in other cereal foods. More investigation of medieval villages in the Peterborough area may find if this cereal was cultivated in the vicinity or brought from further afield.

The crops include wheat, barley and possible oats, with a little rye which was possibly an additional crop. Bread wheat is the main cereal throughout with rivet wheat present in both early and later samples. Other foods are represented by peas and possibly beans, with hazel nutshell present as a gathered food. Fruits are represented by apple and possibly elder berries were consumed. The most common weeds are vetches, large grasses including brome grass, and stinking mayweed, the latter associated with cultivation using the mould board plough. Other weeds associated with lighter soils were also present. The weeds suggest that wheat was autumn sown, but weeds of garden and spring sown crops such as barley are also present. All these plants have also been found in medieval contexts elsewhere for example Long Causeway, Peterborough (Monckton 1996). However, there is much less variety of foods found at Woodston than at Long Causeway, which is in common with other villages sampled in the midlands (Carruthers 1995) where there is a lack of fruits and herbs in comparison with the towns.

In the early to late medieval samples from the frontage the presence of more cereal waste indicates cereal cleaning activity (contexts (870) and (830)). Also at this time a low density scatter of domestic waste from cereals probably from food preparation was present in ditch (118). The waste in the late medieval to post-medieval samples is also at a low density and only indicated domestic activity. However in the later phases there is evidence of a pond surrounded by vegetation, perhaps in a farmyard, with the pond used to water animals. The pond contained vegetation and possibly became filled with silt and animal waste with a scatter of cereal remains from domestic waste.

Sample/ Phase	**Type**	**Context**	**Chaff**	**Grain**	**Seeds**	**Food**	**Straw**	**i/L**
?Prehistoric.								
1E	Pit	506	-	2	1	-	-	0.5
15	Pit	104	-	6	58	-	2	16.5
Early Medieval								
7*	Pit	703	6	61	50	2	3	13.5
17*	Pit	870	33	91	42	3	1	28.8
16*	Ditch	118	-	13	22	6	-	6.8
Medieval								
14*	Pit	830	21	84	26	5	2	17.1
Post-Med								
2*	Drain	603	5	24	12	4	-	4.6
1	Drain	603	-	16	5	3	-	4.1
12*	Pond	796	3	21	13	4	1	5.3
10	Well	772	-	2	-	-	-	0.3
5	Quarry	60	-	-	-	-	-	-

Key * = samples in table 19, i/L = items per litre of soil.

Table 23: The numbers of each type of charred plant remains in samples by phase.

Date	E.Med			Med	L.Med		
Sample	**7**	**17**	**16**	**14**	**2**	**1**	
Context	**703**	**870**	**118**	**830**	**603**	**603**	
Feature	**702**	**868**	**117**	**831**	**601**	**601**	

Feature type	Pit	Pit	Dch	Pit	Drn	Drn	
Cereal chaff							
Triticum turgidum/durum rachis	-	3	-	-	1	-	Rivet wheat
Triticum aestivum s.l. rachis	2	16	-	3	3	1	Bread wheat
Triticum free-threshing rachis	-	5	-	2	-	-	Wheat, free-threshing
Hordeum vulgare L. rachis	-	3	-	12	-	1	Barley
Cereal rachis	4	6	-	5	1	1	Cereal
Culm nodes, large	3	1	-	2	-	1	Straw
Awns	-	+	-	+	-	-	Cereal barbs
Cereal grains							
Triticum free-threshing grains	4	23	-	26	7	1	Wheat, free-threshing
Triticum sp grains	6	8	4	3	-	-	Wheat
Hordeum vulgare L. grains	10	6	-	17	-	12	Barley
Secale cereale L. grains	-	1	-	1	1	1	Rye
Avena sp. Grains	-	4	-	2	-	-	Oat
Cereal grains	39	44	6	31	14	7	Cereal
Cereal/Poaceae grains	2	5	3	4	2	-	Cereal/Grass
Collected/Cultivated							
Corylus avellana L.	1	-	-	-	1	-	Hazel nutshell
Malus sp.	-	1	-	-	-	-	Apple/Crab apple
Sambuccus nigra L.	-	1	6	-	-	-	Elder
Legumes							
Pisum sativum L.	-	-	-	1	-	-	Pea
Vicia/Pisum	1	1	-	4	3	1	Bean/Pea
Vicia sativa L.	-	-	-	-	-	3	?Cultivated Vetch
Wild plants							
Chenopodium sp.	2	-	-	3	1	1	Goosefoot
Stellaria media L.	-	1	-	-	-	-	Chickweed
Agrostemma githago L.	-	1	-	-	1	-	Corn-cockle
Rumex sp	-	-	-	2	-	2	Docks
Polygonum sp	1	-	-	1	-	-	Knotweed
Anagallis/Lysimachia	-	-	-	-	-	2	Pimpernel
Vicia sp.	8	2	1	-	-	-	Vetch
Vicia/Lathyrus	7	4	-	1	-	-	Vetch/tares
Medicago/Melilotus/Trifolium	-	3	2	1	-	-	Clover type
Bupleurum rotundifolium L.	-	2	-	-	-	1	Thorow-wax
Rhinanthus sp.	1	-	-	-	-	-	Hay-rattle
Galium aparine L.	-	1	7	-	-	1	Cleavers
Asteraceae	-	1	-	2	-	-	Daisy family
Tripleurospermum inodorum (L.) S-Bip	-	1	-	-	-	-	Scentless Mayweed
Anthemis cotula L.	8	6	-	4	-	2	Stinking Mayweed
Centaurea cyanus L.	1	1	-	-	-	-	Cornflower
Centaurea nigra L.	-	-	-	1	-	-	Knapweed
Carex sp.	-	1	2	2	1	1	Sedges
Bromus sp	2	2	-	2	-	-	Brome grass
Poaceae (large)	14	17	1	-	2	3	Grasses large
Poaceae (small)	3	-	2	2	1	-	Grasses
Indeterminate seeds	3	3	7	5	3	1	Indeterminate seeds
Uncharred seeds	7	68	6	17	-	+++	Uncharred seeds
Total charred items	122	173	41	137	42	43	
Volume sample	9	6	6	8	9	8	Litres
Flot volume	45	45	120	12	20	50	Mls
Charred items per litre of sediment	13.5	28.8	6.8	17.1	4.6	5.3	items per litre

Key: Remains are seeds in the broad sense unless stated.

Table 24. Charred plant remains from medieval and post-medieval contexts (RA29.2003).

Conclusion
The prehistoric samples contained similar remains to the medieval samples which suggests they are intrusive.

Abundant cereal remains were found in medieval samples from the frontage, which contained cereal cleaning waste of chaff and weed seeds with charred cereal grains of free-threshing wheat including bread wheat and rivet wheat, with barley. The medieval samples were interpreted as containing more cereal cleaning waste suggesting that this was an important activity on or near the site. The presence of chaff and weed seeds may suggest the local cultivation of the wheat including both bread wheat and rivet wheat, and barley with some oats and a trace of rye. It is possible that threshed cereals, brought to the site from local fields or elsewhere, were being cleaned from contaminants for sale or use in foods made from whole grains. Some of the deposits were also thought to contain domestic waste from food preparation. A post-medieval deposit provided evidence of both bread wheat and rivet wheat, and the samples from the later phases contained a lower density of remains perhaps indicating domestic activity. Waterlogged plant remains from a pond suggested that the site was probably a farmyard with the pond used to water animals. Other crop remains over the phases of the site are of charred legumes, including peas and possibly beans. Hazel nutshell, apple or crab apple, and possible elder were evidence for gathered food consumed on the site, although the apple may be a cultivated variety. The site provides evidence for rivet wheat outside the town of Peterborough where it was present from the 13th-14th century onwards, and found at this site perhaps at a slightly earlier date. The site compares with other villages in the midlands, having more cereal waste and little variety of fruits and other foods such as are found in the towns.

Discussion – John Thomas and Stephen Jones

Excavation at 'The Walnuts' has revealed important new evidence for prehistoric, Roman and medieval activity in Woodston. Although slight, the prehistoric remains complement previous discoveries of similar dates from nearby archaeological sites. The main evidence reflected a long sequence of medieval and post-medieval occupation adjacent to the Oundle Road street frontage with corresponding plots to the rear, providing evidence for the early growth and development of Woodston village. The character of the archaeology closest to the street frontage, with many overlapping and inter-cutting episodes of activity, resulted in a complex archaeological sequence with mixed assemblages of datable finds in many instances. As a result the overall chronological development of the site is presented in a series of necessarily broad periods.

Prehistoric and Roman

There is little that can be said regarding the Neolithic pits, other than that they add to a growing picture of prehistoric activity in the Woodston area and offer some of the earliest evidence. Archaeological work to the north of 'The Walnuts', on the opposite side of Oundle Road, has revealed evidence of post-built structures, substantial ditches, gullies and pits associated with Late Bronze Age or Iron Age material (Casa-Hatton 2001a, Cooper 2002). Slightly further afield to the east of the site a cluster of shallow Neolithic/Bronze Age pits was discovered during excavations at Botolphs Bridge, Orton Longueville (Kemp and Spoerry 2002, 13). Further evidence from Orton Longueville, in the form of enclosures and possible droveways, indicates

probable livestock management activities dated to the Neolithic/Bronze Age (Casa-Hatton 2001b). The presence of the pits at 'The Walnuts' highlights the potential for prehistoric remains in the area and raises the probability of further contemporary remains existing in the near vicinity.

Medieval

Archaeological remains relating to activities on the street frontage and rear plots of the early village of Woodston represent the bulk of the evidence from the site. Unfortunately the disposition of the excavated areas does not enable an examination of an entire property from front to back, however evidence from the southern side of the site (Areas 2 & 3) does indicate the changing nature of the village plan over time.

The earliest evidence for medieval activity suggests 12th-13th century occupation and is characterised by a scatter of pits near the street frontage and the formative plot layouts to the rear. The domestic nature of the finds associated with the pits suggested they lay close to nearby occupation areas although no clear evidence for buildings was revealed. It is possible that any associated buildings lay to either side of the excavated area, or had been truncated by later activities. A range of pottery vessels such as jugs and spouted pitchers indicate the essentially domestic nature of the finds and these comprised predominantly of Stamford and St Neots wares, indicating the supply of pottery to Woodston from the main local production centres at this time. Butchered animal bone and charred plant remains indicative of cereal processing or bread making further supports the evidence for nearby domestic occupation. The rear yard areas during this phase were apparently loosely defined by a discontinuous system of short ditches and pits. This relatively informal boundary arrangement may suggest that it developed in piecemeal fashion over a protracted period. It might also indicate that movement between properties was unhindered, perhaps hinting that some resources were shared between properties. Alternatively less archaeologically visible boundaries such as hedges or shallow-founded fences may have been used. Limited evidence for activities in the rear yard areas is restricted to a scatter of large pits which were represented across the two southern areas. These may have originally served as quarry pits although it is clear that domestic refuse was finding its way into them during backfilling, possibly indicating the presence of nearby middens as a source.

Continued occupation during the 13th-14th centuries is indicated although the evidence for this period is relatively sparse, perhaps also suffering from truncation by later activities. Limited evidence for street frontage activity is represented by two phases of boundary which, although truncated, appeared to have once spanned the excavated area from east to west. It is likely that this boundary once separated activities on this part of the site and may have marked the rear of the main occupied area. Activities in the rear yard area appear to have been very similar, with evidence for quarrying and smaller-scale pitting occurring in discrete clusters about the site. The existing boundary system at the southern limit of the properties appears either to have been developed or replaced. This uncertainty is a result of the broad dates associated with pottery from these features, but the system seems essentially to have been maintained from the previous phase. A linear development of quarry pits on a north to south alignment appears to have developed adjacent to an existing boundary, which would have sub-divided the rear yards. As with the previous period of occupation a certain amount of domestic refuse was incorporated into the backfilling

of the boundary features and quarry pits, indicating continued settlement activity in the vicinity.

Late and Post Medieval

Occupation on the site apparently peaked during the 15th-16th centuries with much of the evidence for domestic occupation on the street frontage relating to this period. The focus of activity within the excavated area was a timber building with clearly associated internal and external surfaces relating to a succession of floors and cobbled yard areas. Although the overall plan of the building was relatively evident it was also clear that this was a product of numerous phases of renewal and repair on the same spot, perhaps a measure of its importance and continued use, or of a shortage of available space at this time. The precise nature of the buildings use is difficult to interpret although it seems not to have had a domestic function. By this period at the Botolphs Bridge settlement at Orton Longueville to the east, domestic buildings were constructed of stone, or at least had stone footings (Kemp and Spoerry 2002, 16) and it seems more likely that this structure had an agricultural function. The provision of drainage adjacent to the walls of the building may perhaps indicate its use as a livestock shelter at some stage.

Domestic occupation must have been located nearby however, owing to the number of refuse pits distributed around the perimeter of the building. Finds assemblages from these pits included large amounts of pottery, animal bone and charred plant remains. The pottery groups are dominated by wares from the Bourne production centre less than 24km to the north of Peterborough, although a smaller amount of pottery from the Stanion-Lyveden kilns is also represented. The pottery types are representative of refuse from domestic occupation, with jars, jugs and bowls all present. A range of domestic animal bones were also present within the pits, suggesting cattle, sheep and pig were eaten and/or kept by the sites occupants, with deer also having been consumed. A number of the horse and cattle bones had evidence of dog-gnawing suggesting that the bones had not been buried instantly but had perhaps become incorporated into middens, making them available for scavenging. Further evidence for nearby domestic activities included charred plant remains and fish scales from a pit that had apparently been deliberately sealed with a clay layer, suggesting its possible use as a cess pit.

The timber building was demolished towards the end of the 16th century indicating a reorganisation of the immediate backyard area, although continued evidence for pitting and drainage indicates that domestic occupation of the site had not ceased. This is further supported by the construction of a well at this time, presumably serving as a domestic water supply. The two large pits in the centre of the frontage area also provide interesting evidence of activities during this period. Although there is clearly a continued domestic element to the finds assemblages the presence of semi-articulated horse/donkey bones in Pit [696] also hint at other activities. Given that the main meat-bearing areas of the animal remained intact it seems unlikely that it was killed for consumption; in any case this was generally not accepted in medieval society except in extreme circumstances. Light cut marks on the skeleton indicate removal of the hide which was probably taken, along with the three missing limbs, and intended for processing elsewhere. A very similar example was recently discovered in Leicester where a complete horses trunk displaying evidence of hide removal had been buried within a pit alongside domestic refuse (Score 2006, 47). It

was suggested here also that the hide had been removed deliberately for re-use in leather-making. The tanning process was strictly controlled in the medieval period with only cattle hides used. However whittawying, a process similar to tanning, was allowed to use the skins of a wider range of animals, often making use of hides from animals that had died naturally (Thomson 1981, 171). The horse on this site may well have died of natural causes and the hide been removed and taken to a Whittawyer while the rest of the body was buried on site. Other examples of articulated horse remains found across the site may be indicative of similar such incidents at different times during the sites occupation.

The southern limit of properties during this period was extended southwards and defined by a more formalised boundary arrangement, perhaps involving a trackway. Not only does this indicate a major reorganisation of the properties revealed within the development area, but it provides a reflection of wider changes that Woodston experienced at this time. This new boundary, a much more permanent and formalised version of its predecessors, can be seen to have formed the south-eastern limit of a large oval shaped area of land forming the southern side of the village until at least 1811 (Figure 25), reflecting its importance and continued use into the 19th century.

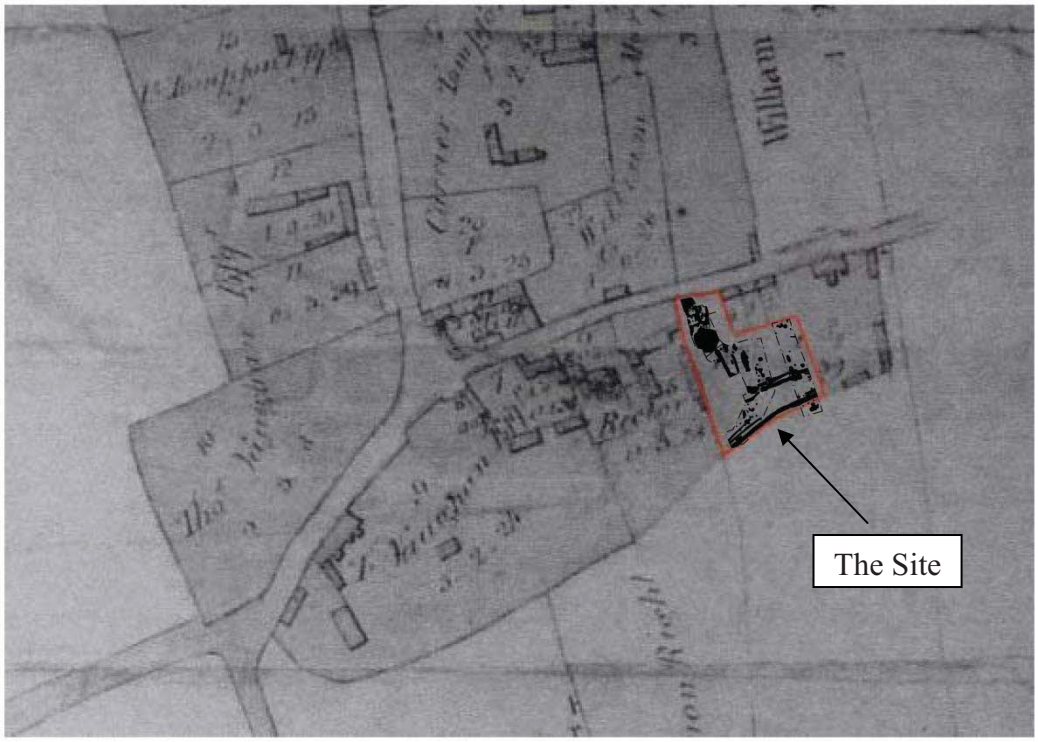

Figure 26 Excavated features in relation to the 1811 Enclosure Map for Woodston

Despite the formal nature of the southern plot boundary, distinction between individual properties appears to have remained rather vague. A single, relatively short, north-south boundary may have acted as a boundary between properties. The fact that it was recut suggests it's importance and longevity, however there was little other evidence for similar divisions of this period across the site suggesting either an informal arrangement of ownership or perhaps the use of hedges as boundaries.
Continued activity into the 17th century is characterised by the creation of a pond which effectively demarcates the southern limit of the street frontage area. Areas of hard-standing around the pond edge suggest that it was intended as a watering hole for

animals. This indicates a marked change of use for the area but the presence of domestic remains in the lower pond fills suggest that occupation was still situated nearby. The sequence of ditches dating to this period on the eastern side of Area 1 possibly acted as property boundaries but would also have helped drain standing water into the pond. Building rubble and domestic refuse within the ditch fills support the suggestion that habitation lay nearby. Abandonment of the site is marked by final infilling of the well and deposition of a demolition/levelling layer containing rubble and domestic debris dating to the 18th century after which there appears to have been little activity on the site until relatively modern times.

Overall the results of the excavation have shown a considerable history of occupation reflecting activity in the area before the village of Woodston was established, and also the development of the settlement during the medieval period. A number of smaller investigations within Woodston have revealed evidence for similar deposits however the larger scale of this project has enabled a more understandable picture of occupation in comparison. Clearly the street frontage area was a busy and important zone of activity throughout the medieval period. Although direct evidence for habitation was not revealed, the nature of the finds assemblages indicates that it lay in close proximity. Pottery finds show how Woodston fitted into the wider pattern of trade and exchange, which was essentially a local supply with changing foci as the medieval period progressed. Animal bones and plant remains provide a good measure of what was kept and consumed by the sites occupants and in the case of the dismembered horse skeleton, an insight into contemporary local industry. The changing nature of medieval village organisation is also highlighted well by the regularly reworked backyard plan.

The level of complexity and survival of archaeological remains at 'The Walnuts' highlights the potential for similar preservation in other parts of the village and will aid future planning decisions. On a regional level the excavation results will contribute important evidence for the growth and development of rural settlement, contributing to key research aims for the area (Wade in Glazebrook 1997, 52; Murphy in Glazebrook 1997, 54).

Acknowledgements

The evaluation was directed by John Thomas and the subsequent excavation by Stephen Jones. The excavation team comprised Andrew Hyam, Dan Stone, John Tate, Dave Parker and Daniel Prior. A metal-detector survey was undertaken during the work by Steve Critchley. Post-excavation analysis was undertaken by Stephen Jones and John Thomas and the site illustrations prepared by Andrew Hyam, John Tate and Martin Shore. Finds illustrations were by Michael Hawkes. Historical background for Woodston was provided by Dr. Paul Courtney. The medieval and post-medieval pottery was analysed by Deborah Sawday who is grateful to Paul Spoerry for providing advice and information on local ceramic fabrics. Jennifer Browning analysed the animal bone and the environmental information was analysed by Angela Monckton. Small finds were analysed by Daniel Prior and Nicholas J. Cooper. The project was managed by Dr. Patrick Clay. The authors would like to thank David Somerville and representatives of George Wimpey East Midlands for their interest and co-operation during the work.

Bibliography

Baxter, I., 1996. 'Medieval and early post-medieval horse bones from Market Harborough, Leicestershire, England, U.K.' *Circaea* **11** (2).

Baxter, I., 1998 'Species identification of equids from Western European archaeological deposits: methodologies, techniques and problems' in S. Anderson (ed.) *Current and Recent Research in Osteoarchaeology* Proceedings of the third meeting of the Osteoarchaeological Research Group, Oxford

Bellamy, B., 1983. 'Medieval pottery kilns at Stanion' *Northamptonshire Archaeology* **18**, 153-161.

Carruthers, W. 1995. *Charred plant remains from the medieval farmstead at Eckweek, Avon.* Ancient Monument Laboratory Report 27/95. English Heritage.

Casa-Hatton, R., 2001a. *Prehistoric Activity at Land Within the Former 'British Sugar' Factory Site, Oundle Road, Peterborough: An Archaeological Investigation.* Cambridge County Council Archaeological Field Unit Report.

Casa-Hatton, R., 2001b. *Prehistoric and Roman Occupation at Orton Longueville School, Oundle Road, Peterborough: An Archaeological Investigation.* Cambridge County Council Archaeological Field Unit Report.

Cooper, A., 2002. *Land at the Former British Sugar Factory, Oundle Road, Peterborough.* Cambridge County Council Archaeological Field Unit Report.

Cooper, N.J., 2000 *The Archaeology of Rutland Water: Excavations at Empingham, Rutland 1967-73 and 1990*. Leicester University: Leicester Archaeology Monograph **6**.

Cowie, R. and Pipe, A., 1998. 'A late medieval and Tudor Horse Burial Ground: Excavations at Elverton Street, Westminster' *Archaeological Journal* **155**, 226-251.

Davis, S. J.M., *A trivariate morphometric method to distinguish between first phalanges of Equus hydruntinus, asinus/hemionus and caballus.* For circulation at the Tubingen meet 28 April 1982

Dobney, K and Reilly, K. 1988. 'A method for recording archaeological animal bones: the use of diagnostic zones' *Circaea* **5**, pp 79-96.

Dobney, K.M., Jaques, S.D. and Irving, BG., 1996. *Of Butchers and Breeds.* Lincoln Archaeological Studies No 5.

Dyer, C. 1985. 'Towns and cottages in eleventh-century England', 91-106 in H. Mayr-Harting and R. I. Moore, (eds.) *Studies in Medieval History presented to R. H. C. Davies*. London.

Dyer, C., 1989. *Standards of living in the later Middle Ages*. Cambridge University Press.

Egan, G., 2005 *Material culture in London in an age of Transition*. London: Molas Monograph 19

Flood, R.J., 1976. *Clay Tobacco Pipes in Cambridgeshire*. The Oleander Press.

Gibson, A., 2002. *Prehistoric pottery in Britain and Ireland*. Stroud: Tempus.

Gibson, A., and Kinnes, I., 1997. 'On the urns of a dilemma: radiocarbon and the Peterborough problem'*, Oxford Journal of Archaeology* **16 (1)**, 65-72.

Grant, A., 1982. 'The use of toothwear as a guide to the age of domestic ungulates', in Wilson, B., Grigson, C., and Payne, S., (eds) *Ageing and Sexing Animal Bones from Archaeological Sites.* British Archaeological Reports: British Series **109** Oxford.

Harcourt, R. A., 1974. 'The dog in early historic Britain' *Journal of Archaeological Science* **1** pp151-176.

Harvey, Y., 1975. 'The Small Finds', *in* C. Platt and R. Coleman-Smith *Excavations in Medieval Southampton 1953-1969*, *Vol 2: The Finds*, Leicester: Leicester University Press, 254-314.

Healey, R.H., 1973. *Bourne Lincolnshire: Medieval Pottery Kilns* (unpublished notes).

Higgins, D.A., 1985. 'Leicester clay tobacco pipes', *in* P.J. Davey (ed) *The Archaeology of the Clay Tobacco Pipe*, *Vol.* ***9***, 291-307, Oxford: British Archaeological Report (British Series) **146**.

Hillson, S., 2005. *Teeth.* Second Edition Cambridge: Cambridge Manuals in Archaeology.

Howe, M. D., Perrin, R. J. and Mackreth, D. F., 1980 *Roman Pottery from the Nene Valley: a Guide*, Peterborough City Museum Occasional Paper 2.

Hurst, J.G., Neal, D.S., and van Beuningen, H.J.E., 1986. 'Pottery Produced and Traded in North-West Europe 1350-1650', *Rotterdam Papers* **6**, Rotterdam.

Jennings, S., *et al* 1981. 'Eighteen centuries of pottery from Norwich'. *East Anglian Archaeo*logy **13**.

Johnstone G., 1997. 'The Excavation of two late Medieval Kilns with Associated Buildings at Glapthorn, near Oundle, Northamptonshire'. *Medieval Ceramics*, **21**, 13-42.

Jones G., 1990. The application of present-day cereal processing studies to charred archaeobotanical remains. *Circaea* volume 6 number 2, pp91-96.

Kilmurry, K., 1980. *The Pottery Industry of Stamford, Lincolnshire, AD 850-1250*. Oxford: British Archaeological Reports (British Series) **84**.

Leach, H., 1987. 'Stamford Ware Fabrics', *Medieval Ceramics* **11**, 69-74.

Levine, M., 1982. 'The use of crown height measurements and tooth eruption sequences to age horse teeth' in Wilson, B., Grigson, C., and Payne, S., (eds) *Ageing and Sexing Animal Bones from Archaeological Sites.* Oxford: British Archaeological Reports British Series 109.

Masschaele, J. 1997. *Peasants, Merchants and Markets: Inland Trade in medieval England, 1150-1350*. New York.

Mawer, A. and Stenton, F. M. 1926. *The Place-Names of Bedfordshire & Huntingdonshire*. English Place-Name Society 3, London.

McCarthy, M.R., and Brooks, C.M., 1988. *Medieval Pottery in Britain AD 900-1600*. Leicester: Leicester University Press.

Moffett L. 1991. 'The archaeobotanical evidence for free threshing tetraploid wheat in Britain' in *Palaeoethnobotany and archaeology*, International Workgroup for Palaeoethnobotany, 8th symposium at Nitra-Nove Vozokany 1989, Acta Interdisciplinaria Archaeologica, 7. Nitra: Slovac Academy of Sciences.

Moffett, L. C., 1994. 'Charred cereals from some ovens/kilns in late Saxon Stafford.' in J. Rackham (ed.) *Environment and economy in Anglo Saxon England.* CBA Research Report 89, 1994, 55-64.

Monckton A., 1999. 'The Plant Remains.' in A. Connor and R. Buckley *Roman and medieval occupation at Causeway Lane, Leicester.* Leicester: University of Leicester. Leicester Monograph 7

Monckton A., 2004a. 'Investigating past environments, farming and food in Leicester, Leicestershire and Rutland: the evidence from plant and animal remains.' in P. Bowman and P. Liddle (eds.) *Leicestershire Landscapes*. Leicester: Leicestershire County Council 2004, 154-171.

Monckton A. 2004b. 'The charred plant remains.' in N. Finn *The Origins of a Leicester Suburb: Roman, Anglo-Saxon, Medieval and post-medieval occupation on Bonners Lane*. British Archaeological Reports British Series **372**, 2004, 156-166.

Monckton, A. 1996. *Charred, waterlogged and mineralized plant remains from Long Causeway, Peterborough.* Archive report for Birmingham University Field Archaeology Unit 1996.

Moore, D.T. and Oakley, G.E., 1979. 'The hones', in J.H.Williams *St Peter's Street, Northampton: Excavations 1973-76,* Northampton: Northampton Development Corporation Archaeological Monograph, 280-83.

MPRG, 1998. *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Groups, London

Murphy, P., 1997. 'Environment and Economy.' In J. Glazebrook (ed.) *Research and Archaeology : A Framework for the Eastern Counties. 1: Resource Assessment.* EAA Occasional Paper No. 3, 54-5.

Murphy, P., 2002. *A review of plant macrofossils from the Midlands of England and Eastern England.* Draft Report for English Heritage, Centre for Archaeology, 1998-2002.

Pantin W. A., 1957. 'Medieval Priests Houses in south-west England', *Medieval Archaeology*, **1** (1957).

Pollard, R., 1994 The Iron Age and Roman Pottery *in* P. Clay and R. Pollard *Iron Age and Roman Occupation in the West Bridge Area, Leicester; Excavations 1962-71*, 51-114. Leicester: Leicestershire County Council, Museums, Arts and Records Service.

Schmid, E., 1972. *Atlas of Animal Bones.* Elsevier, Amsterdam

Score, V., 2006. *Excavations at 72, St. Nicholas Circle, Leicester.* Unpublished ULAS Report No. 2006-113.

Serjeantson, D., 1996. 'The animal bones' in S. Needham and T. Spence *Refuse and disposal at Area 16 East Runnymede.* Vol. II Runnymede Bridge Research Excavations. British Museum Press.

Silver, I. A., 1969. 'The ageing of domestic animals.' in Brothwell, D. and Higgs, E. S. *Science in Archaeology.* London.

Spoerry, P., 1998. 'Appendix A: Pottery Form and Fabric Descriptions' in Spoerry and Hinman 1998, 96-108.

Spoerry, P., and Hinman, M., 1988. *The Still, Peterborough: Medieval Remains between Cumbergate and Westgate*. Cambridgeshire Archaeological Field Unit Mon. **1**.

Stace C., 1991. *New Flora of the British Isles.* Cambridge University Press.

Steane, J.M., 1967. 'Excavations at Lyveden 1967.' *J. Northampton Mus*. **2**.

Thomas, J., *et* a*l,* 2006. 'Evidence for the Dissolution of Thorney Abbey: Recent Excavations and Landscape Analysis at Thorney, Cambridgeshire.' *Medieval Archaeology* **50**, 179-241.

Thomson, R., 1981. 'Leather manufacture in the post-medieval period with special reference to Northamptonshire.' In *Post-Medieval Archaeology* **15**, 161-175.

Tomber, R. and Dore, J.N., 1998 *The National Roman Fabric Reference Collection: a handbook*. MoLAS Monograph 2. London.

Vitt, V.O., 1952. 'Horses of the Pazyrykh kurgans.' *Soviet Archaeology* **16** 163-205

von den Driesch, A 1976. *A guide to the measurement of animal bones from archaeological sites.* Cambridge, Mass., Peabody Museum of Archaeology and Ethnology, Bulletin no. 1.

Wade, K., 1997. 'Anglo-Saxon and Medieval Rural.' In J. Glazebrook (ed.) *Research and Archaeology: A Framework for the Eastern Counties. 1: Resource Assessment.* EAA Occasional Paper No. 3.

Watts, M., 2002. *The Archaeology of Mills and Milling.* Stroud: Tempus.

Webster, P.A., 1975. 'Pottery Report' in J.M. Steane and G.F. Byrant, 'Excavations at the deserted medieval settlement at Lyveden, Northants' *J. Northampton Mus*. **12**, 60-95.

Wilson, B. and Edwards, P., 1993. 'Butchery of horse and dog at Witney palace, Oxfordshire and the knackering and feeding of meat to hounds during the post-medieval period' *Post-medieval Archaeology* **27**, 43-56.