

Figure 4. Trench 1, location of sondage and auger hole. Scale 1:20.



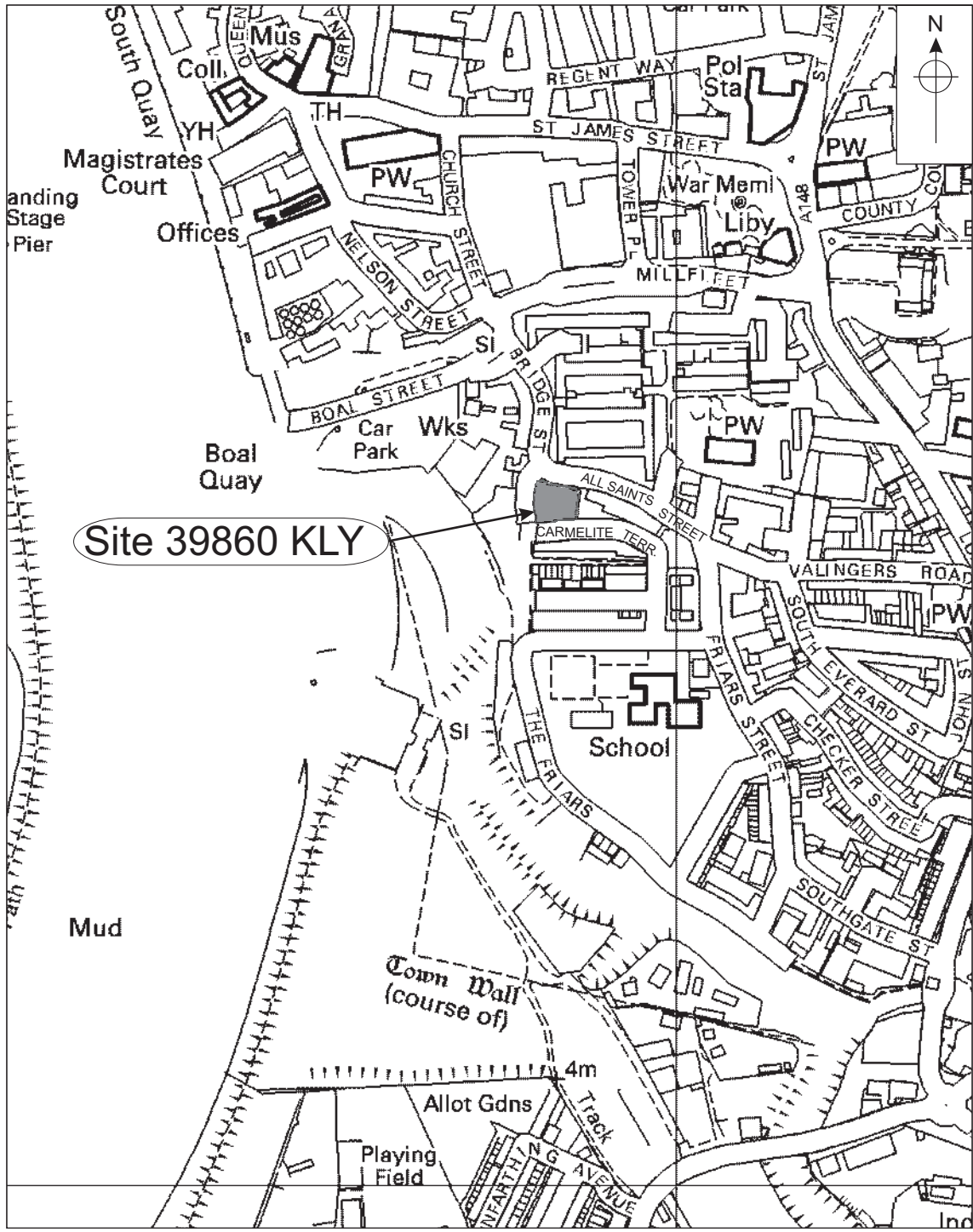


Figure 1. Site location. Scale 1:5000

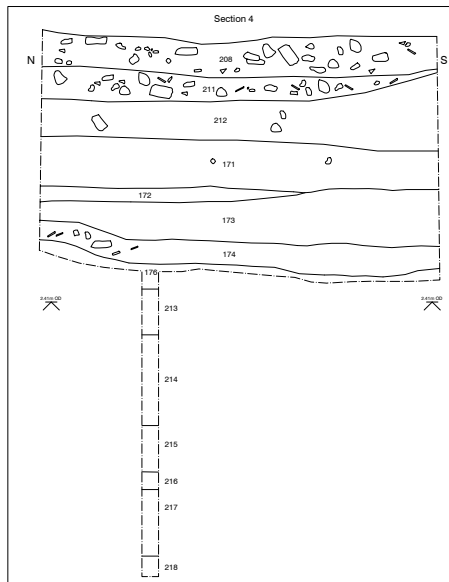


Figure 10. Trench 3, west facing section and auger hole results. Scale 1:20.



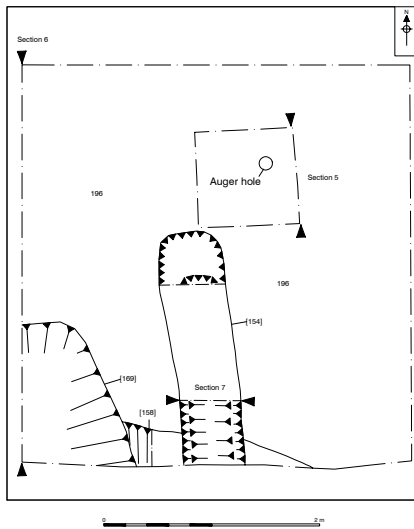


Figure 11. Trench 4, plan of features and location of sondage and auger hole. Scale 1:20.



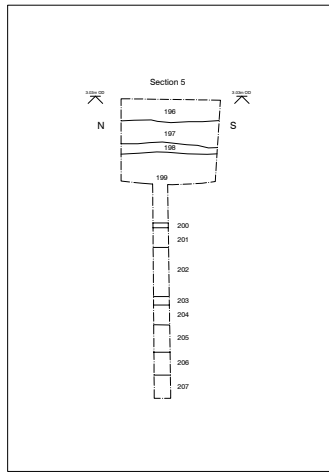


Figure 12. Trench 4, west facing section and sugar hole results. Scale 1:20.



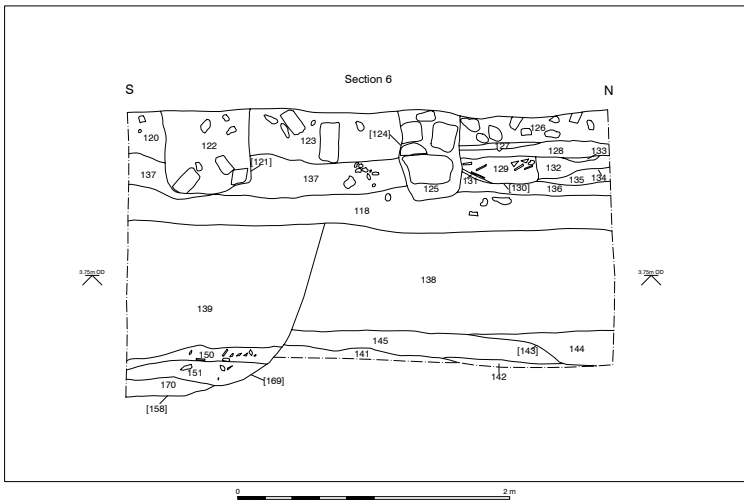


Figure 13. Trench 4, east facing section. Scale 1:20.



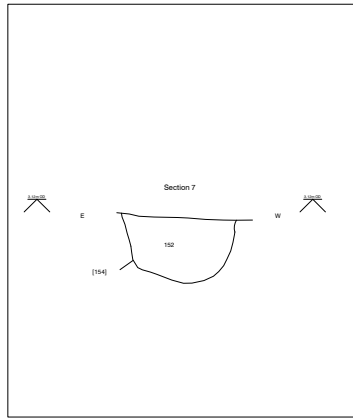


Figure 14. Trench 4, section through gully (154). Scale 1:10.



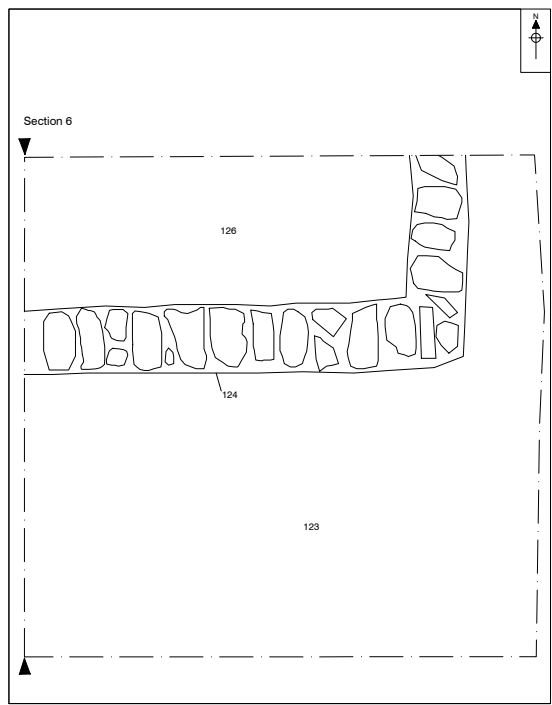


Figure 15. Trench 4, plan of wall foundation [224] Scale 1:20.



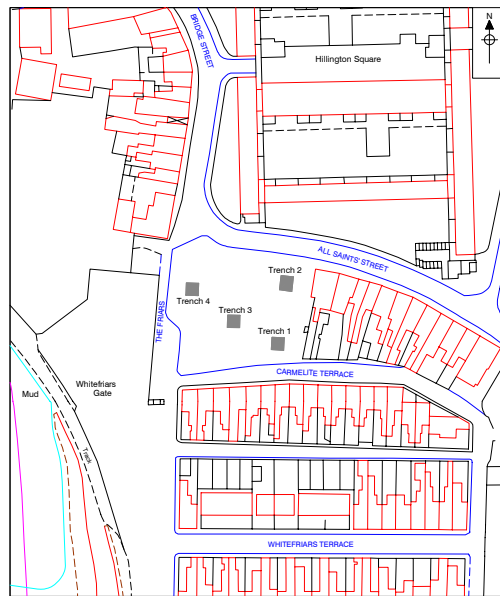


Figure 2. Trench location plan. Scale 1:1000.



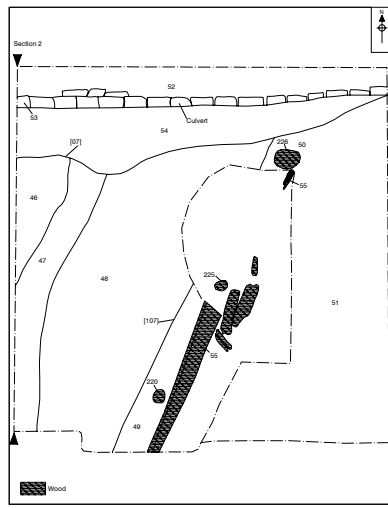


Figure 3. Trench 1, plan of features. Scale 1:20.



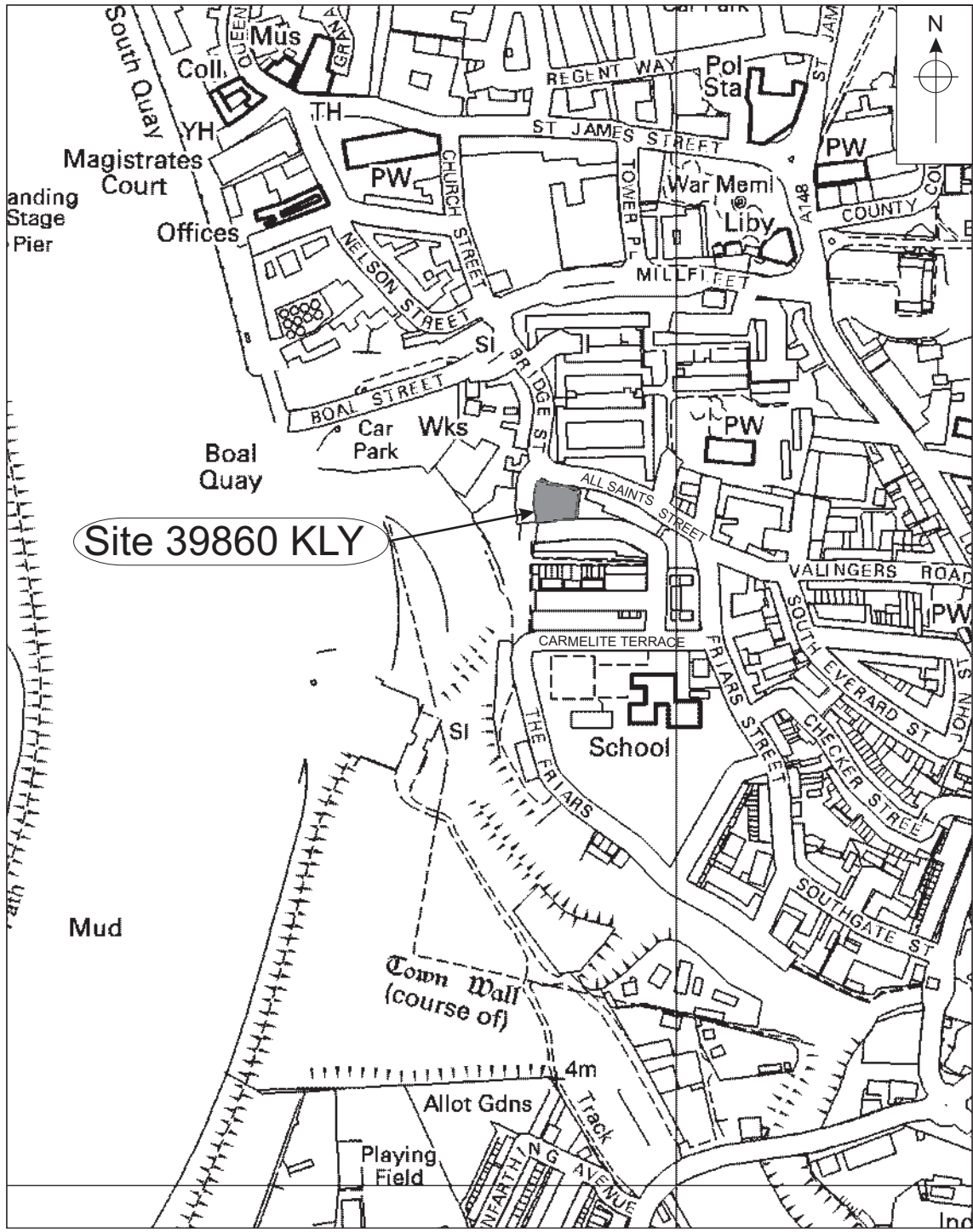


Figure 1. Site location. Scale 1:5000

NORFOLK ARCHAEOLOGICAL UNIT

Report No. 949

An Archaeological Evaluation at The Former Corona Depot, All Saints Street, King's Lynn, Norfolk

39860KLY

Gary L Trimble

May 2004

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Local Authority No. 100019340

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Location: The former Corona Depot, All Saints Street, Kings Lynn
Grid Ref: TF 6190 1952
HER No.: 39860KLY
Date of fieldwork: 6th January to 2nd February 2004

Summary

An archaeological evaluation carried out at The Former Corona Depot, All Saints Street, King's Lynn recorded the presence of a medieval watercourse which had received a considerable depth of organically rich dumped refuse deposits. A drain which ran from the friary probably drained into this watercourse. By the end of the medieval period the watercourse had become silted up and an episode of dumping was carried in order to consolidate the ground surface. Masonry walls and floors of probable 17th-century date possibly represent tenements to the north of the site and form the earliest evidence of occupation.

1.0 Introduction

(Figs 1 and 2)

The site was in an area of proposed development and occupied an area between All Saints Street and Carmelite Terrace, King's Lynn. The site covered an area measuring 35m by 45m. The work was commissioned and funded by E. N Suiter & Sons Ltd.

This archaeological evaluation was undertaken in accordance with a Method Statement prepared by the Norfolk Archaeological Unit (NAU Ref: 1510) and a Brief issued by Norfolk Landscape Archaeology (NLA Ref: AH/20/11/02).

The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in *Planning and Policy Guidance 16 — Archaeology and Planning* (Department of the Environment 1990). The results will enable decisions to be made by the Local Planning Authority with regard to the treatment of any archaeological remains found.

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

2.0 Geology and Topography

King's Lynn lies upon a solid chalk geology of the Upper Jurassic, close to the western edge of the Lower Cretaceous series. Sediments of the Kimmeridge Clay series overlie the solid geology, upon which marine and river alluvium deposits dominate (Funnell 1994).

The site overlies water-lain silts and occupies flat land at an elevation of 5.00m OD. The site is bounded to the north by All Saints Street and to the south by Carmelite Terrace. The north side of All Saints Street is occupied by a complex of flats whilst the south side of Carmelite Terrace is occupied by a row of terraced houses. To the east of the site are terraced houses flanking the south side of All Saints Street and

their associated enclosed yards. A footpath flanks the west of the site beyond which lies Friars Fleet and the River Great Ouse.

3.0 Archaeological and Historical Background

Settlement developed at King's Lynn on the estuary through which the Nar and Gaywood rivers and two small streams, the Millfleet and Purfleet flowed in to the wash. Occupation seems originally to have been based on the salt-workings which occurred along the estuary banks; trade in salt was well established by the 11th century (Owen 1984, 5). Gradually land was reclaimed and the salters moved nearer to the new shoreline while settlement developed on the new land.

With trade established and with its location at an important crossing for road, river and sea transport, King's Lynn was well placed for growth. In the late 11th-century Herbert de Losinga, the first Bishop of Norwich, founded the priory of St Margaret and obtained rights to the local fair and the 'sand market' which existed on the shore between the Millfleet and Purfleet (Parker 1971, 1; Clarke and Carter 1977, 412).

The town continued to grow and good river connections meant that waterborne trade along the east coast of England, as well as the North Sea, flourished. Trade became even more important during the 13th century, when the River Ouse became silted up at Wisbech. The changing course of the Fenland rivers allowed more water to flow through Lynn and made it accessible, via the Great Ouse, from a more extensive area. Customs returns for 1203–1205 show Lynn and Boston to be the most wealthy ports in England after London and Southampton. The main archaeological evidence for trade is the large amount of pottery recovered from excavations which includes local Grimston wares and imported pottery.

During the later medieval period there was a decline in exports due to the slowing of agricultural expansion, higher taxes on wool exports and an increase in imports of grain and salt from abroad.

By 1300 the main plan of the town was established, with staithe and quays reflecting the importance of access by water. Architectural and documentary research, as well as archaeological work on several sites as part of the King's Lynn Archaeological Survey (1963-71), has enabled the line of the medieval riverfront to be established at four different periods. In the early medieval period most of the area between the fleets probably consisted of sandhills. Construction, however, was taking place on the riverfront. A stone building stood at the west end of St Nicholas' church in 1187 and a building and quay existed to the south of St Margaret's church in 1220–30. In Newland, a pre-1270 survey mentions wharves along the west side of the Tuesday Market Place. Two houses, one to the east side of King's Street and Queen Street (Clarke 1981, 132-133; Owen 1984, 3 and 15), probably also indicated the line of the river, with private quays located across the road on the waterfront (c. 60m to the east of the present riverbank). There is no evidence for the line of the Millfleet during this period.

Between 1250 and 1350, more wharves were built. At Thoresby college a timber wharf excavated in 1964 (Parker 1965) showed that the bank of the river lay 50m east of the modern waterfront during the 13th century. By the 14th century quays were also established on the fleets, which were themselves navigable for some distance. Excavation on the south bank of the Purfleet at Baker Lane in 1968-9 revealed evidence for deliberate infilling at the waterfront with warehouses and

domestic buildings being constructed on the reclaimed ground in the 14th century (Clarke and Carter 1977, 43).

On the main Ouse frontage the land was probably not sufficiently consolidated for substantial building during this period, and 'divided properties' – with the merchants dwellings to the landward side of the street and their warehouses and private quays on the riverbank – were common.

In the later medieval period more building took place on the reclaimed land on the Ouse frontage and with further consolidation of the river frontage more quays were added. Waterborne traffic on the fleets was at its most important during the mid 15th century. Evidence supporting this was revealed at Sedgeford Lane excavation in 1965 on the south side of the Purfleet, when a brick quay supported on timbers acting as consolidation for the waterfront (Clarke and Carter 1977, 31) was revealed.

After 1500 infilling at the waterfront continued with new wharves gradually extending to the west. There was some abandonment of quays on the fleets during this period, partly due to the need for deeper water for larger vessels. At the same time there was an increase in the amount of public wharves, with the main one lying close to the Tuesday market Place at Common Staithe Yard. The only excavated evidence for the post-medieval waterfront comes from a site at Purfleet Street on the north bank of the purfleet. Here the 16th-century fleet bank was located almost 8m further north than the modern bank and had been consolidated fairly rapidly to enable substantial building on it in the 18th century.

Very little archaeological work has been undertaken in South Lynn in the locality of the present site. Work carried out in the mid 1960s to the north of All Saints Street recorded the line of a late 11th-century watercourse, possibly a fleet or the former course of the River Nar, which presently runs 85m to the west of the site. Buildings dating to the 12th and 13th centuries were also recorded (Clarke and Carter 1977, 112). The Carmelite friary of the Whitefriars lies immediately to the south of the present site with Carmelite Terrace probably defining the northern extent of the friary. Work on building the friary was begun in the middle of the 12th century. All Saints church was established c. AD1100 and lies 100m to the west.

South Lynn remained independent from King's Lynn itself until the mid 16th century, although it may be an earlier development. However, settlement did not develop to the same extent as Bishop's Lynn north of the Millfleet and probably remained a predominantly agricultural and fishing area throughout the middle ages. Frequent mentions of 'The Haven' – possibly refer to the rivers Nar or Great Ouse. A lane – Common Lane – connected the crossing of the Millfleet with the South Gate and may have followed the approximately line of Bridge Street, All Saints Street and Friars Street to join London Road just north of the South Gate.

4.0 Methodology

(Fig. 2)

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

The Brief required that a 5% sample of the area affected by the proposed development should be investigated by trial trenching. Four shored trenches were excavated each measuring 4m x 4m.

Machine excavation was carried out with a hydraulic 360° excavator using a toothless ditching bucket under constant archaeological supervision.

Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

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

A level was transferred from an Ordnance Survey benchmark of 5.28m OD on the south-west corner of a house located at the west end of Whitefriars Terrace. A non-permanent peg was used as a temporary benchmark on site, with a value of 5.03m OD.

Environmental samples were taken from organically rich waterlogged deposits in Trench 2.

The site was previously occupied by a building (now demolished) which served as a depot for a bottled soft drinks company (Corona). At the time of the evaluation no buildings occupied the site although demolition material from the Corona building was scattered, but levelled flat around the site. All hard surfaces had been removed. The area of investigation was entirely enclosed by heras fencing.

5.0 Results (Appendix 1)

(Figs 3 to 15)

Archaeological features and deposits were encountered in all trenches. Earliest deposits were represented by water-lain silts. Later medieval refuse dumping was recorded on what was probably the north bank or foreshore of a watercourse in Trench 2. A wooden revetment was recorded in Trench 1. Watery conditions had ceased by the end of the medieval period and sequences of make-up or dumped deposits to consolidate the ground surface were recorded. A Late medieval pit and two linear gullies of unknown function were recorded in Trench 4. Occupation of the north and western parts of the site was represented by walls and floors dating from the 18th century within Trench 2. Modern demolition debris comprised the uppermost deposits.

The watertable was reached at 1.20m below the present ground surface (3.90m OD).

Trench 1.

(Figs 2 to 6)

Trench 1 was located to the south-east of the site and measured 4m x 4m. It was excavated to a depth of 2.14m (2.69m OD) by mechanical excavator. At this depth a timber revetment was encountered (Figs 3, 4 and 5). Further excavation involved the hand excavation of a sondage through river silt deposits either side of the revetment (Figs 4 and 5). The sondage was excavated to a depth of 1.25m giving a total excavated depth of 3.39m. Deposits below the sondage were investigated by auger (Fig. 5). The auger hole measured 2.06m in depth.

Deposits recorded within the auger hole comprised wholly of layered, fine water-lain silts (Fig. 5). Deposits [181], [180], [179] and [178] varied in colour between very dark grey and light grey. Deposit [177] was a bluish grey silt. No artefacts were recovered from any of these deposits.

The earliest deposits in the sondage (Fig 5) were silt layers [106] and [115]. These lay either side of the later ditch cut [107] and may represent the same deposit. However, there was a slight variation in their respective colours with [115] being darker than [106]. Sealing [115] was a brownish orange silt [114] whilst [106] was sealed by a mid grey silt [105]. This was in turn sealed by a mixed deposit of mid brown and light blue silt [103]. Above [103] was a mid grey silt [48] from which five sherds of pottery dated to between the 13th and 14th century were recovered. Sealing deposit [48] to the west side of the trench and recorded in plan (Fig. 3) was a thin layer of a dark brown organic material [47] which perhaps represents partially decomposed wooden planking. A single sherd of 12th- to 14th-century pottery was recovered from [47]. Deposits [114] and [103] were truncated by cuts [113] and [217] respectively. Cuts [113] and [217] may represent the same ditch cut but this is difficult to verify as they have been truncated in turn by the overlying ditch cut [107]. Cut [113] was located to the east of the sondage. It measured 0.54m in depth and a surviving maximum width of 0.48m. It was filled by a mid blue silt [112]. Ditch cut [217] was on the west side of the sondage and measured 0.52m in depth and 0.26m in width. It was filled by a light brown silt [49] from which two sherds of pottery dated to between the 12th and 14th century were recovered. The cut was not visible in plan. Ditch cuts [217] and [113] were truncated by a recut [107] after the original ditch had become completely infilled. The cut had steep, almost vertical sides and measured 0.85m in width and 1.13m in recorded depth. The full depth was not recorded as it continued below the level of the excavated sondage. It was visible in plan (Fig. 3) for a distance of 3.57m and was orientated south-west-to-north-east. It was filled by a light bluish grey silt [108]. After recut [107] had become infilled, it was recut and remodelled with a timber revetment which followed the same line as the infilled ditch [107] (Figs 3 and 5). Three upright timbers [220], [225] and [226] were placed approximately 1.20m apart (Fig. 4). It would appear that the insertion of the wooden uprights was facilitated by the excavation of a series of pits. The post [220] which is visible within the sondage section (Fig. 5) was inserted into pit [219] which measured 0.90m in depth and 0.80m in width. The post was lain against the west side of the pit which was subsequently filled in. Deposits to the east side of the upright posts were truncated away to a depth of 0.35m [218] including the upper fill of post pit [219]. The full extent of this flat-bottomed depression eastward was not recorded though a distance of 1.10m was recorded within the sondage. Timber planking made up of reused ship timbers [55] were then placed along the western

edge of the cut. The planking did not make physical contact with the uprights and attachment must have been at a higher point above the level of survival. The depression was filled by a primary deposit of mottled light brown and blue silt [111] and an upper deposit of light orange brown silt [51]. It is uncertain as to what function the linear ditches or the revetment had. However, after two phases of ditch digging, a revetment was constructed on the same alignment. Whatever, the true function of the ditches perhaps it was deemed a longer lasting solution to build the revetment with the wide, flat-bottomed ditch [218] serving the same function as the earlier ditches but reveted to prevent collapse. Considering the close proximity of the friary to the south of the site it is likely that the ditches served as drains carrying waste water or sewage away from the friary complex into an open watercourse to the north. Evidence for the watercourse is present in Trench 2 which is described below.

After the infilling of the channel [218], the whole area within the evaluation trench was covered by a mid brownish orange silt [227] which measured 0.90m in depth (Fig. 6). The silt was very clean and with the exception of flecks of ceramic building material, no artefacts were recovered. This deposit may represent a dumped deposit laid down in order to consolidate and reclaim the ground surface.

Above the silt [227] was a series of horizontal make-up layers measuring a total of 0.95m in thickness which were recorded over the entire area of the evaluation trench (Fig. 6). Pottery recovered from these layers indicates an 18th-century date for this phase of dumping. The lowest of these layers [17] is a dump of loose rubble incorporating much stone and mortar which measured 0.30m in depth. To the south-east corner of the trench is a probable pit cut [228]. Only partially revealed in section, the pit measured 0.48m in depth and 0.60m in width. It was filled by a single deposit of light brown silt and incorporated frequent quantities of ceramic building material and mortar fragments [6]. Five horizontal layers [5], [4], [16], [15] and [14] representing dumped make-up deposits sealed pit fill [6]. All contained a high quantity of ceramic building material, mortar and some charcoal.

A large east-to-west orientated linear cut [7] for a brick culvert occupied the north side of the trench (Fig. 6). The cut measured 2.10m in depth. The culvert [53] was partially revealed in plan to the bottom of the machine excavated Trench (Fig. 3). The culvert had a circular profile and was completely filled with a dark grey silt [52]. The culvert cut was filled by inclined deposits [24], [13], [22], [21] and [20] of sandy silt which included frequent quantities of brick, tile and mortar similar in composition to the horizontal dumped deposits through which it cuts. Artefacts within the fill point to a 18th or early 19th-century date for the construction of the culvert.

A shallow bowl shaped pit [19] truncated the culvert cut [7]. The pit measured 0.30m in depth, 1.10m in maximum width and was mostly filled by a dump of concrete blocks within a matrix of dark brown sandy silt [18]. A further shallow pit [222] was located to the south side of the trench. It measured 0.26m in depth and had a revealed extent of 1.29m. It was filled by two dump deposits [3] and [23] of modern ceramic building material, concrete and mortar. The uppermost deposit in Trench 1 [1] was composed of modern ceramic building material, concrete in a matrix of brown clayey silt. The deposit represents demolition material from the Corona depot which until very recently occupied the site.

Trench 2.

(Figs 2 and 7 to 9)

Trench 2 was located to the north-eastern corner of the site (Fig. 2). The trench was machine excavated to an initial depth of 1.20m. Due to the presence of upstanding masonry walls it was impractical to machine the trench to the proposed area measurement of 4m x 4m without removal of the walls. Therefore the trench was extended by 1m to the south allow for the machine removal of deposits surrounding the walls. After recording of features and deposits at this level, the trench was further machine excavated to a depth of 3.40m within an area reduced to 4m x 4m. The extended area was not excavated beyond 1.20m. The depth included a machine excavated central sondage (Fig. 7). Augering below the machine excavated level investigated a further 3.10m depth of deposits. Augering results (Fig. 8) revealed a sequence of water-lain, mid grey or dark grey silt deposits [195], [194], [193], [192], [191], [190], [189], [188], [187], [186], [185], [184], [183], [182] and [172]. The deposits varied from light grey to dark grey, whilst several had a high organic content [185], [187], [189] and [194].

Deposits above [172] were organic rich humic silts and included layers [93], [102], [92], [86], [85], and [84] (Fig. 8). Together they measured 1.31m in depth and covered the entire area of the evaluation trench. All were very dark grey and incorporated very high quantities of cockle and mussel shell. Smaller quantities of oyster shell and animal bone were also present. The layers lay on a slight incline being highest in the north and dipping to the south. This suggests that the deposits were dumped onto the banks or foreshore of an open watercourse. Twenty nine pieces of leather were recovered – the vast majority coming from layer [86] and several from [93] below. A piece of very thick coarsely woven and felted textile was also recovered from deposit [86]. With the exception of one complete, and two fragments of, knife scabbard all the leather artefacts were shoe parts from a cobblers shoe repair shop (the leather has been assessed and reported in Section 6). Dating of the pottery and leather assemblages indicate a 13th- to 14th-century date for the accumulation of the deposits. The results of environmental sampling suggest that the deposits are predominantly derived from agricultural and/or industrial activity rather than purely domestic refuse. Cereal processing waste, possible fodder or building detritus and sewage residues were present. Little domestic refuse was identified though small amounts of animal bone, fish bone and marine mollusc shell were identified.

A 0.60m depth of deposits above the organic rich deposits described above had a considerably lower organic content and comprised contexts [83], [87], [82], [81], [78], [89], [80] and [88]. The interleaving nature of the layers suggests dumping although they all had fewer inclusions of shell and virtually no pottery sherds. The lower organic content may be due to these deposits being higher up the profile and not as susceptible to water-logging as those below. It is possible that rather than the casual dumping represented by the deposits below, these may represent a deliberate attempt at reclamation or consolidation of the waterfront area. Pottery dates point to a 13th- or 14th-century date for the deposits. Evidence from the other trenches suggests watery conditions had ceased by the early post-medieval period. The deposits are capped by an homogenous layer of light yellowish brown clayey silt [30] measuring 0.30m thick which extends throughout the evaluation trench. This layer

probably represents a deliberate capping and a platform for the earliest evidence of occupation within the trench.

Truncating deposit [30] are two wall foundation cuts [33] and [74] recorded in both section and plan (Figs 8 and 9). Cut [74] predates [33] and measured 0.77m in depth and 0.90m in width. In plan the cut is seen to form the corner of a building located within the northeast corner of the trench. Revealed dimensions were 1.24m north-to-south and 0.61m east-to-west. It was filled by inter-stratified bands of light yellow brown clayey silt and light greyish brown sandy silt [77] which included crushed mortar and frequent quantities of tile and chalk fragments. Cut [33] was positioned immediately west of [74] and measured 0.85m in depth and 0.64m in width. It was filled by a single deposit of greyish brown silty sand [32] which incorporated a high quantity of lime mortar fragments. The foundation represented by cut [33] and its fill [32] supported a brick and roughly hewn limestone north-to-south wall [31]. Individual bricks measured 0.11m wide, 0.06m thick and 0.20m in length. The wall was bonded by a light grey sand and lime mortar. The mortar was very crumbly and the wall was generally poorly constructed. The masonry was roughly coursed and the bonding pattern was not discernible. In plan (Fig. 9), the foundation cut [33] projected southward for a distance of 1.22m at which point it intersected with east-to-west construction cuts [173] and [174]. Projecting into the trench from the east section for a distance of 1.87m was an east-to-west orientated brick wall [45] built above construction cut [174]. The wall survived for a height of 0.80m and had a width of 0.72m. It was strongly cemented with white lime and sand mortar. Individual bricks measured 0.20m in length, 0.10m in width and 0.05m in thickness. Rendering on both sides masked most of the brickwork but where visible they appeared to have been bonded in a staggered Flemish style. The wall terminated within the evaluation trench and the northwestern corner had a rounded finish. The location of a modern robber cut [69] to the west of wall [45] marks the position of a continuation of wall [45] after a gap of 0.82m. Cut [69] was excavated in order to remove the wall although a brick built pier-base [223] was recorded beneath on the same alignment. The fill of cut [69] contained modern glass and plastic.

Brick floor [70] abutted wall [45] and continued through the entranceway between the upstanding wall and the wall extraction cut [69]. The straight edge formed by the brickwork at the southern end of foundation cut [33] marks the point at which the brickwork would originally have abutted the southern terminus of wall [31]. The floor covered the most part of the southern area of the trench and was constructed of yellow bricks each measuring 0.22m in length, 0.11m in width and 0.06m in depth.

An area of brickwork [60] measuring 1.90m east-to-west and 1.00m north-to-south was elevated by the height of one brickcourse above the surrounding brickwork [70]. It lay to the south of wall [45] and occupied an area of 1.90m x 1.00m.

The physical and spatial relationships between walls [45], [31], the wall represented by robber cut [69] and the brick floor [70] suggests that they are all contemporary features. Dating is uncertain though they were sealed by dumped deposits containing 19th-century refuse. The brick floor was situated just 1.00m below the present ground surface and hence not deep enough to have functioned as a cellar but not on the same level of the early 19th-century extant buildings to the east. It is likely that the masonry dates to the 16th or 17th century and represents the location of dwellings which were perhaps levelled to make way for the now demolished Corona building.

Deposits above the recorded masonry comprised demolition layers which included much ceramic building material. Taken together these deposits [29], [28], [27], [26], [40], [39], [38], [37], [36], [35], [34] and [25] measured 1.05m in depth.

Trench 3.

(Figs 2 and 10)

Trench 3 was situated centrally to the site (Fig. 2) and measured 4m x 4m. The trench was machine excavated to a depth 2.10m. Augering below the machine excavated level investigated a further 2.70m depth of deposits. Auger results (Fig. 10) revealed a sequence of water-lain, mid grey or dark grey silt deposits [218], [217], [216], [215], [214], [213] and [176]. Deposits [213] and [216] had a high organic content. Deposits ranged in thickness between 0.15m and 0.78m.

All deposits above [176] appeared to be dumped layers, perhaps laid-down to consolidate the marshy ground evidenced by the silts which constitute the underlying deposits. The earliest of these was [174], a 0.20m thick dumped deposit of dark grey silty sand which covered the entire area of evaluation trench. The deposit incorporated a high quantity of charcoal and a moderate quantity of ceramic building material fragments and mussel and oyster shell. Four sherds of pottery dating to between the 14th and 15th centuries were recovered from the deposit. Sealing deposit [174] was a 0.50m depth of light brownish orange silt [173] which incorporated several fragments and flecks of ceramic building material, charcoal and shell. The deposit was recorded throughout the evaluation trench area. Above [173] was a very stony, dark grey coarse sand deposit [172] which measured 0.12m in depth. The deposit was restricted to the north-west corner of the trench. Deposit [172] was sealed by a light orange brown silt [171] measuring 0.20m in depth which included small quantities of shell and charcoal fragments. Deposit [212] above was very similar to [171] except that it incorporated a much higher frequency of post-medieval ceramic building material fragments. The deposit measured 0.60m in maximum depth.

The uppermost deposits in Trench 3 were comprised of two layers [211] and [208] of probable demolition material which were mostly made up of post-medieval brick and tile within a matrix of dark grey silty sands. Together the deposits measured 0.55m in depth.

Trench 4.

(Figs 2 and 11 to 15)

Trench 4 was located to the north-west corner of the site (Fig. 2). It was machine excavated to a depth of 1.90m below the present ground surface. Deposits below this level were investigated by means of a small hand excavated sondage which measured 0.85m in depth and an auger hole which explored a further 2.10m of deposits. The total depth of sampled deposits measured 4.85m in depth.

The auger hole recorded a sequence of clean water-lain silts (Fig. 12). The lowest deposits [207] and [206] were made up of light green fine sands which together measured 0.44m in depth. Sealing [206] was a light greyish blue fine sand [205] which measured 0.26m in depth. Six layers of silts [204], [203], [202], [201], [200] and [199] measuring a total depth of 1.69m lay above the sand deposit [205]. Most of these were light blue in colour with the exception of [203] which was a mid brownish grey and [202] which was dark grey. Within the hand-excavated sondage (Figs 11

and 12) a clean, yellow fine sand [198] was recorded above [199]. It measured 0.10m in depth. Deposit [198] was sealed by a light blue silt [197] measuring 0.22m in depth. A further deposit of clean yellow fine sand [196] measuring 0.25m in depth formed the uppermost deposit within the hand-excavated sondage.

Further, thin deposits of silt were recorded above the clean sand [196] (Fig. 13). Although the silt deposits were truncated by cut features, the features were not apparent until revealed at the level of the yellow sands [196] at which point machine excavation was halted. Sand layer [196] occupied the whole area of the evaluation trench.

Layer [141] was a dark grey, clean silt measuring 0.09m in thickness (Fig. 13). Above [141] was layer [142] comprised of a light grey silt with striations of yellow fine sand. Sealing [142] was deposit [145] made up of mid brown sandy silt. The deposit included occasional fragments and flecks of ceramic building material and occasional shell fragments. Two sherds of pottery dating to between the 12th and 14th centuries were also recovered.

Linear gully [158] (Figs.11 and 13) truncated the silt layer [145]. Only a small portion of the feature measuring 1.76m in length and 0.34m in width was revealed to the south side of the evaluation trench. It was orientated east-to-west and was truncated at its west end by pit [169]. The base of the cut was visible running beneath the base of the pit (Fig. 13). The gully had steep sides and a rounded base with a depth of 0.17m. It was filled by single deposit of mid grey silt [170] from which eight sherds of pottery dating to between the 13th and 14th centuries were recovered.

Truncating gully [158] was a north-to-south orientated gully [154]. A length measuring 2.19m was revealed within the trench. It terminated at the centre of the trench and continued beyond the excavation limits to the south. The gully measured 0.63m in maximum width and 0.36m in depth (Fig. 14). The sides were steep whilst the base was rounded. It was filled by a single deposit of mid grey silt [152] from which four pottery sherds dating to the 15th century was recovered.

Located to the north-east corner of the trench was a small pit [143] (Fig. 13). It measured 1.00m in revealed extent and 0.25m in depth. The sides were very gently sloped at the top becoming steep at the base. The base itself was flat. The pit was filled by a mid greyish brown silty sand [144] which incorporated large fragments of charcoal.

Gully [154] and pit [144] were sealed by a thick layer of probably dumped mid greyish brown sandy silt [138] which measured 0.80m in maximum depth. It was observed to cover the entire area of the evaluation trench. The deposit incorporated occasional frequencies of shell fragments and moderate quantities of charcoal and ceramic building material fragments.

The dumped deposit [138] was truncated by a large pit [169] which was partly revealed in the south-western corner of the evaluation trench. An area measuring 1.30 north-to-south and 1.00m east-to-west was exposed. It had a depth of 1.14m. The primary fill [151] was made up of a 0.15m thick light grey silt which included frequent fragments of tile and bell-casting mould. The secondary fill [150] mostly comprised of tile and bell-casting mould (80%). This was in a matrix of light grey silt. The deposit measured 0.12m in maximum depth. The remainder of the pit fill was an homogeneous deep deposit of mid greyish brown sandy silt [139] which measured 1.02m in depth. The pit dates to between the 15th and 16th century.

Above pit [169] was a continuous layer of dark grey silt [118] which measured 0.34m in depth. Five sherds of 16th-century pottery were recovered from the layer. Sealing [118] was layer [137], a 0.32m thick make-up layer of dark grey sandy silt which included frequent quantities of ceramic building material fragments. Sealing [137] was [123] a make-up or demolition layer. It was comprised of a dark grey sandy silt with a very high quantity of brick and tile. Fragments of concrete were also present. Located to the south-west side of the trench and recorded in section (Fig. 13) was a steep sided pit [121] which measured 0.65m in width and 0.60m in depth. It was filled entirely of modern ceramic building material fragments and brick and mortar dust.

Truncating layer [123] to the north of the trench was wall foundation trench [124] (Figs 13 and 15). In plan the cut was seen to form the southeast corner of a building. The southern wall length was revealed within the evaluation trench for a distance of 3.15m whilst the eastern portion was visible for a distance of 1.40m. The cut measured 0.45m in width and 0.65m in depth. It was filled by large flint nodules and limestone fragments within a matrix of powdery white mortar [125]. Flint nodules and occasional limestone fragments measuring an average of 0.40m in length by 0.20m in width were laid in an ordered fashion side by side across the foundation cut. These were situated above a more jumbled deposit of smaller flint and limestone fragments to the base of the cut. The wall enclosed a sequence of floor and floor levelling and make-up deposits. The earliest of these was a 0.10m thick make-up/levelling deposit of dark grey sandy silt [136] which incorporated much crushed mortar. This was sealed by a similar deposit which also included small fragments of ceramic building material [135]. A thin layer of creamy white mortar measuring 0.02m in thickness [134] lay above [135] and probably represents a surviving remnant of a mortar floor. Floor [134] was sealed by a further deposit of levelling material [132] which was comprised of mid to dark grey sandy silt. Above [132] was a creamy white mortar floor [133] which measured 0.02m in depth. A further episode of levelling was represented by layer [128] which was very similar in appearance to levelling material [132] below. Mortar floor [127] which measured 0.04m in depth was situated above levelling material [128]. Floor [127] was sealed by a demolition deposit [126] which included limestone and brick fragments within a matrix of mid greyish brown sandy silt.

6.0 The Finds (Appendix 2)

The Pottery (Appendix 3)

Introduction

A total of 144 fragments of pottery were recovered from the excavation, weighing 4.389kg. Most of the ceramics are medieval in date, but a number of post-medieval wares are also present. These were mainly unstratified (48 fragments weighing 1.606kg).

Methodology

The ceramics were quantified by recording the number of sherds present in each context, the estimated number of vessels represented and the weight of each fabric. Other characteristics such as form, decoration and condition were noted, and an overall date range for the pottery in each context was established. Recommendations for illustration were also made. The pottery was recorded on *pro forma* sheets by context using letter codes based on fabric and form. The fabric codes used are

based mainly on those identified in *Eighteen centuries of pottery from Norwich* (Jennings 1981), and supplemented by additional ones compiled by Suffolk Archaeological Services (S Anderson, unpublished fabric list).

The pottery is discussed by trench below.

Trench 1

Twenty-eight fragments of pottery, weighing 0.800kg, were recovered from Trench 1. Small quantities of medieval glazed and unglazed wares were present in three deposits of river silt. A single sherd from the base of a medieval glazed vessel with a sagging base was present in [46]. Although superficially similar to Grimston ware, with a dark olive lead glaze, the fabric is harder fired and contains coarser inclusions. Grimston ware was recovered from river silt deposit [48], including a fragment decorated with an applied strip coloured with iron oxide, indicative of a 13th to 14th-century date. A sherd of a large Local medieval unglazed ware vessel was also present. Two additional glazed sherds were found in deposit [49]. One of these is from a jug with a pronounced cordon at the junction of the neck and body. A fragment of the base of a second jug with sagging base was also present. This is covered externally with a thin lead glaze which even spreads over the knife-trimmed base. Neither vessel was positively identified, but it seems most likely that they are from production sites in Yorkshire, as similar sherds have been found in other assemblages of this period in Kings Lynn (Clark and Carter 1977, 212).

A single fragment of a Grimston glazed jug was found in woody layer [47], dating between the late 12th to 14th century.

The remainder of the pottery recovered from Trench 1 consists of 19 unstratified sherds. These are wide ranging in date and include a fragment of Local medieval unglazed ware, and a Late slipped redware bowl which dates to between the 18th and 19th century. The most significant vessel is an almost complete redware bowl decorated with in trailed slip. This is likely to be a Metropolitan slipware dating to the 17th century, although it is not a form normally associated with this ware. The bowl has a worn moulded base and simple abstract decoration.

Trench 2

Sixty-nine fragments of pottery, weighing 1.971kg, were recovered from Trench 2. Most of the pottery was recovered from several humic silty deposits, but some unstratified material is also present. The largest group of pottery was found in silt layer [86]. Much of the pottery is heavily stained from the organic material in the deposit. In addition to a small quantity of medieval coarsewares and Glazed Grimston ware, a number of distinctive jug fragments were present. The most notable of these is part of a highly decorated anthropomorphic jug which has a tubular spout fashioned in the shape of a pig's snout, and two eyes impressed on either side of this under the top part of the rim. The jug has a large and long stabbed strap handle with two well-made thumbing impressions on either side at the top. It has been well covered with a dark olive lead glaze. The fabric is hard, sandy and grey with oxidised margins. The overall quality of the vessel is good, better than the usual Grimston-type wares. It is very likely that it is a product of one of the many production centres in Yorkshire which were exporting their wares via the port of Scarborough to Kings Lynn. One possibility is that it comes from the Winksley kilnsite, considered to be flourishing in the mid 13th century (MacCarthy and Brooks 1988, 246). Another likely Yorkshire production site is West Cowicke, where 'Humber wares' were produced

between the late 13th and 15th centuries (MacCarthy and Brooks 1988, 247). Further fragments of a similar, although apparently less highly decorated jug were recovered from the same context. The jug has a very similar strap handle but with even more pronounced thumbing at the top. Associated but non-joining body sherds show a cordoned neck with slim applied vertical strips coloured with white slip over which is a lead glaze. The remains of several other glazed jugs are present, and include another vessel with pronounced cordon with a globular-shaped body, and a second jug with intermittent applied strips decorated with white slip. A small fragment of Stamford ware with a developed copper glaze was also present, and an abraded rim of a cooking vessel or jar made in a fabric similar to sherds recovered from the Blackborough End site in Middleton (Rogerson and Ashley 1985). The jar is also similar in form to Grimston ware cooking pots identified from a number of sites in Kings Lynn (Clarke and Carter 1977, 191-194).

The same range of fabrics and dates was identified in the pottery from the other silty fills in the trench. Further fragments of ?Yorkshire glazed jugs were present in [102] including a large fragment of a conical jug with pronounced thumbing at the base of the strap handle. A sherd of the rim and handle of another jug found in [81] had a single central thumbing impression at the top of the handle, and a collared slightly inturned rim.

A small quantity of unstratified material [94] was recovered from Trench 2. The pottery includes a large fragment of a Local medieval unglazed ware bowl or curfew and other medieval glazed wares.

Trench 3

A total of 24 fragments of pottery weighing 0.996kg was present in Trench 3, although only 4 sherds were stratified.

Four fragments of pottery were recovered from [174] at the bottom of the excavated sequence in this trench. Two glazed medieval sherds were present, both of them probably from Yorkshire kilnsites, although resembling Grimston ware under initial scrutiny. A rounded unglazed base may be a product of a Grimston kilnsite although it is not typical. A single fragment of a heavily rilled Rhenish stoneware jug from Langerwehe dates to between the 14th and 15th century. A single fragment of pottery was found in a grey silt layer [172]. It is an abraded fragment of the lower part of a Raeren jug with a rilled base. Such a sherd is likely to come from a drinking jug rather than a larger vessel, and dates to between the late 15th to the 16th century. If the fragment is not intrusive then the other possibility is that the material in the silty deposits above it is redeposited. The condition of the pottery in these silty layers however indicates that this is unlikely to be the case.

The remainder of the pottery from this trench is unstratified, although it does appear to be a coherent group dating mainly to the middle to late 18th century. Small quantities of Staffordshire manganese ware, Nottingham stoneware, Westerwald stoneware and other English stonewares are present, together with four different tin-glazed earthenware vessels. In addition two plain creamwares date from the middle of the 18th century.

Trench 4

Twenty-two fragments of pottery were recovered from Trench 4, weighing 0.523kg. A number of sherds were found in three fills of the ditch [154]. A single fragment of a heavily sooted Dutch red earthenware skillet was found in [152], dating from the 15th to the 17th century. Pottery of an earlier date was identified in the ditch fills [170] and [153]. The local wares from [170] comprise an abraded fragment of Local medieval unglazed ware, with a sherd from a Grimston jug decorated with an iron oxide applied strip, indicative of the 13th and 14th centuries. An abraded fragment of a Scarborough jug is also present, with a small fragment of a fine and micaceous redware with a copper glaze. The base of a glazed thumbled jug made in a coarse fabric with distinctive bright red iron oxide inclusions may be another Yorkshire fabric – Hallgate ‘C’. This is described as a gritty orange to red fabric, with haematite inclusions, often with dark grey to reddish-brown surfaces of uncertain date, possibly later 12th century (MacCarthy and Brooks 1988, 243). Similar wares were recovered in [153].

Three fragments of medieval pottery were recovered from a layer [150] over a feature which may be an oven. A fragment of a very large Local medieval unglazed ware bowl or panchion was heavily sooted on the exterior. This was accompanied by two sandy glazed wares, one of which has an applied vertical strip and is likely to date to between the 13th and 14th century.

The remainder of the pottery from Trench 4 was recovered from three silty river deposits. Two sherds in silty layer [157] include a sherd of probably Grimston decorated with an applied strip with iron oxide, dating to between the 13th and 14th centuries. A fragment of Local medieval unglazed ware in [145] is accompanied by the nearly flat base of a glazed jug which has backwards slashes incised into it. Once again the jug is made from a sandy hard fabric and is partially oxidised. It has a more watery lead glaze does not cover the underneath. Such a wheel-thrown thin-walled jug may be a Cream sandy ware from Nottingham, dated stylistically to the 13th century (McCarthy and Brooks 1988, 276-7, fig 162, no 970).

The final silty deposit [118] containing pottery overlies this material and is slightly later in date. The group includes a large fragment of a Late Grimston ware cooking pot, which dates to the 15th or even the early 16th century. The vessel is glazed both internally and externally, a feature noted in Late Grimston from other Kings Lynn assemblages (Clark and Carter 1977, 233). It has a strap handle attached to a simple everted rim (Clark and Carter 1977, fig 104, no 5 from 1168 KLY).

The other significant vessel in this deposit comes from a probable glazed fuming pot, a very unusual form. A more complete example was found in a 17th-century pit at Brewhouse Lane, Southampton (Platt and Coleman-Smith 1975, 113, fig 168, no 766). Fuming pots are also known as fire pots, and it is thought that they were used to carry hot embers around the house (McCarthy and Brooks 1988, 117). This vessel however is not sooted either internally or externally. The form is reminiscent of a puzzle jug, but neither the rim nor the handle is hollow to facilitate the movement of the liquid around the vessel.

The surviving part of the vessel is from the rim, and has the remains of a stabbed strap handle. The vessel has a large cut out below the rim, and three vertical rows of stabbed holes to one side of this feature. The overall glaze is a bright copper green colour. The distinctive fabric is fine and pale pink/orange, and has the addition of

large but sparse iron oxide inclusions up to 4mm in length. It is possible that it is a Scarborough fabric, and that it is not contemporary with the Late Grimston cooking vessel with which it is associated, but was perhaps a valued vessel which was discarded many years after it was made.

Conclusions

The medieval pottery recovered from the silty riverine deposits shares many features of other groups of this date excavated in Kings Lynn. In this respect medieval assemblages from Lynn are often quite unlike those from many other parts of Norfolk. The town's location to the west of the county and near the Wash provided easy access to the products of non-local kilnsites in the Midlands and Yorkshire which do not usually reach other areas of Norfolk in any quantity. In addition the importance of this town in the medieval period in terms of international trade is well known and is often reflected in the nature of the ceramics recovered.

One of the main features of this assemblage is the large quantity of glazed jugs, many of which are highly decorated. These are made in a range of fabrics, many with lead glazes and some with copper added to the glaze to provide a lighter effect. It is highly likely that many of these wares come from a variety of kilnsites in Yorkshire and were shipped out from the port of Scarborough. Previous study of the ceramics from excavations in Kings Lynn has noted that from the middle of the 13th century Yorkshire wares were the most common non-local wares until the end of the middle ages (Clarke and Carter 1977, 212). Up until this time Stamford ware was one of the most common fabrics present. This change coincides with the diversion of the Great Ouse in the middle of the 13th century, which appears to have had the effect of opening up Lynn's market to allow other wares from the Midlands and Yorkshire to be traded (Clarke and Carter 1977, 447).

It is worth emphasising that some of these jugs have been provisionally identified, and that this has been based on verbal descriptions rather than by examining reference material in hand specimen. Further work is required to confirm and identify the individual production sites represented in order for a more accurate picture of the wares reaching Lynn to be established.

Another noteworthy feature of this assemblage is the comparatively small amount of imported wares. There are, for example, no French imports or Siegburg stoneware, which could be expected during this part of the medieval period (Brooks and Hodges 1983, 234).

6.1 Ceramic Building Material (Appendix 4)

A total of 108 fragments of medieval brick and tile were recovered from the evaluation (10.224kg). The largest amount (3.250kg) was collected from context [151] and found in association with a quantity of bell mould fragments. Many of the roof tile pieces have traces of fired clay adhering to one or more surfaces and are likely to be associated with the bell making process. A single small piece of roof tile was recovered with a fragment of wooden peg in situ in a peg hole (SF12 [86]).

6.2 Bell Mould (Appendix 5)

Introduction

A total of 2.99kg of fired clay was recovered from a deep pit [169] with fills numbered [150], [151] and [152]. In addition several large fragments of brick and tile were recovered.

The assemblage

The materials examined consist of numerous fragments of coarse baked clay, which has a variable appearance. Some of the clay fragments are fully oxidised, and are mainly pale pink with streaks of greyish yellow. A few fragments are cherry-red. The material is quite porous, showing that organic materials have been burned out. These materials are consistent with moulds made for casting large bells and other metal objects, that have been discarded after use. Fragments that can be associated with bell-founding are those showing curvature in two dimensions (i.e. neither part of a cylinder nor part of a cone); and the parts that have survived are mainly those with the greatest curvature or thickness (at the shoulder and soundbow). No fragments of false bell appear to have been recovered. Because the clay used for the cope has a high organic content, the baked fragments are fragile and easily crumbled. They do not benefit from too much friction or handling. Other less porous fragments include parts of a mould for a flat-bottomed vessel, parts of a ceramic funnel for pouring molten metal, and a tube for venting hot gases during the casting process.

The standard bell-founding process seems to have been used at Lynn and various elements of the bell-mould can be identified using this as a model. The hearth inside the pedestal would be uneven where it was laid down on the floor of the casting pit, smooth and highly baked on its upper surface where charcoal fires would have smouldered. There would also be a definite hole in the middle of the hearth, where the spindle of the strickle was made fast. The base of the mould would be a cylindrical brick structure with the core built upon it, probably using tiles. The inner surface of the pedestal and the core would be heavily baked, if not vitrified in places, from the intense heat of at least two firings. The outer surface of the core would be fully oxidised, but perhaps coated with a flux immediately before the actual casting of the bell, and discoloured by contact with molten metal. The false bell would have a very crumbly and porous texture, hardly oxidised and almost certainly eroded into amorphous fragments as it was broken up in the moulding process. The inner surface of the cope would probably remain partly unoxidised, and there may be evidence of a second thin coating of clay used for repairs. The outer surface of the cope would be relatively roughly finished, possibly showing the matrices of burned out ropes or withies used to hold the mould together, and would be oxidised. The inside of the cope would be very carefully finished and smoothed; and the fuel used for a second firing of the cope would leave a sooty deposit. Limewash and the remains of flux might be detected inside the cope or outside the core. Other ceramics expected might include amorphous lumps of clay used to fix the junction between the cope and the core, at the base of the mould. Impressions of lettering or other decoration that might be expected inside the cope are unlikely to survive, since the process of breaking the mould away from the hard metal of the finished bell would destroy the sharp outlines in the relatively friable material of the cope. Remains of the canon mould and the channels for pouring molten metal could also be expected.

The finds are consistent with founding activity, presumably from nearby, and include the making of at least one church bell. Although the pieces of ceramic are too small

to establish the exact diameter of any bell, their size and thickness is comparable with bell-founding debris recovered from other sites, (for example Norwich, Warmingers, Site No. 39789N). Other fragments show that the founder made metal vessels as well as bells.

Bell founding in Lynn

Whilst the distribution of pre-Reformation bells attributed to early Lynn founders shows that they were by no means as successful as their contemporaries at Norwich, the quality of those bells that survive shows that their makers had an excellent mastery of founding technology. Founders also operated occasionally in Lynn during the 17th century (Cattermole 1990, 204), but their bells tend to be of poorer quality. The only hint towards a date for the material recovered during excavation is from a single cope-fragment, whose profile shows a moulding wire on the shoulder. Earlier founders would have been more likely place a moulding wire close to the shoulder of a bell than 17th-century founders.

This significance of this discovery of bell-moulding debris in King's Lynn is that it adds substance to the documentary record of bell-founding in the town where a sequence of founders has been traced from c. 1300 to 1460 and beyond (Cattermole, 1990, 199 – 204). One of them, William Silisden (1376–1390), who had a house in “Stongate”, or possibly “Scougate” in the town, was also the owner of tile kilns in Watlington, suggesting a possible origin for the clays used by Lynn bell-founders; but since the location of “Scougate” has been identified north of the Purfleet (Rutledges 1978), the present excavation cannot be related to his activities. Proximity of the pit to the site of the Carmelite Friary might suggest that the debris relates to a bell cast for their church. The ceramics themselves give an insight into the process of making and firing bell-moulds, and have contributed to the understanding of the sequence of events. The survival of a possible pouring funnel is unusual, although not unique; but the identification of the possibly discarded fragments of an inscription mould requires further support.

6.3 Faunal Remains (Appendix 6)

Summary

A total of 1.961kg of faunal remains were recovered, the assemblage included both primary and secondary butchering waste and some evidence of hornworking.

Methodology

All of the bone was examined, primarily to determine species present, types of bones and any butchering that has occurred. Ages of the animals were estimated where possible from the fusion of the bones and the wear on the teeth. Bone was quantified by counting the total number of pieces in each context, the number of measurable and countable bones following guidelines supplied by English Heritage (Davis 1992) and the number of bones identified for each species. Bone was also weighed for each context. All of the information was recorded on the faunal remains recording sheets and the information input into an Excel database for analysis.

Results

Faunal remains were recovered from eighteen contexts, from Trenches 1, 2 and 4, all except one context was dated between the 13th to 14th centuries.

Trench 1

Four contexts in Trench 1 produced a total of 0.274kg bone. All of the remains were butchered and included fragments of cattle, sheep/goat and pig. Bone from contexts [48] and [49] also showed burning.

Trench 2

This trench produced 54% of the faunal assemblage from this excavation. Butchered elements from adult and juvenile cattle and sheep/goat were produced, including butchered neonatal cattle jaws. Both primary and secondary butchering waste had been deposited together so presumably the whole carcass was processed and consumed close to site. The sheep/goat remains in this trench also included a chopped sheep horncore [102], which could suggest that some hornworking was carried out in the area; certainly an area close to a water source is favoured by hornworkers.

Trench 2 also produced several bones from large fish, including eel. Two bones from a mallard were also recovered from [102], both the leg and wing bones bore knife cuts and so the bird clearly had been butchered.

Trench 4

Trench 4 yielded a total of 0.633kg of faunal remains. Of this, 0.517kg of bone was produced from the fill of pit [168]; the bone from this pit consisted of the butchered remains of cattle, sheep/goat and juvenile pig. The remaining bone from this trench included further butchered elements from cattle and sheep/goat. As with the other trenches on this excavation, both primary and secondary bone was present which further suggests that whole animals were processed and consumed locally.

6.4 Wood

A timber revetment was uncovered two metres below the ground surface in Trench 1. The revetment consisted of a number of horizontal oak plank fragments on edge, behind alder posts which varied between 0.26m and 0.10m in diameter. The planks were all heavily abraded, with several millimetres of surface missing. Those *in situ* were no longer joined together, but two pieces which were machine extracted had been joined and animal hair luting survived within the joint. The planks were all high quality slow grown oak with a straight grain, and regular annual rings. The timber was all radial in section, some pieces had nine millimetre square nail holes. The surviving useful measurements are set out in Table 1.

Plank Number	1	2	4	5	6
Thickness surviving, mm	–	22	27	30	29
Thickness original, mm	–	26+	30+	34+	35+
Length surviving, m	–	0.35	0.6	0.36	0.5
Luting	–	–	hair	–	–
Peg hole diameter, mm	–	–	–	30	–
Nail hole size, mm	–	9	9 x 9	8.5 x 8.5	9 x 9
Nail hole shape	O?	O			
Nail hole spacing, mm	–	–	145	170	170
Land overlap, mm	–	–	60	–	60

Table 1. Surviving plank, luting and peg and nail hole dimensions

The building material of slow grown, straight grained, radially converted oak, which has been joined together by overlapping the faces of the planks suggests that these pieces came from medieval boats. It was not clear from the joined section that had been damaged by machine extraction whether the joint joined two planks end to end or vertically overlapping the faces. The use of hair luting in the joint to waterproof the nail fastened seams confirms that they were parts of clinker built boats and not a land based structure. This type of boat continues in use from before 600AD to after 1500 AD, while the use of square shanked iron boat nails points to English boat building (Tyers 1994).

Not all the nail holes were square, and one round hole contains a wooden peg with an expanded head. This may be especially interesting if it is from a boat whose planks were joined together with wooden pegs rather than iron nails. There is an early group of boats joined with pegs known from Saxon deposits in London and Poland. This small lap peg (10mm in diameter), which may have been used to join the clinker planks together, must not be confused with the wooden trenails (30mm diameter) which were used to join the plank shell of the boat onto its reinforcing frames.

The plank thickness of over 30mm, land overlap (the overlap of two plank faces which are nailed and clenched together of 60mm, large nail size of 9mm square and wide spacing of the nails), suggests that these planks were parts of sea going ships. Which would probably have been over 15m long. It is impossible to say how many ships are represented from the small number of pieces surviving and the poor state of preservation.

The heavily worn and decayed surfaces indicate two periods of decay, one before inclusion in the revetment and the second after inclusion in the revetment. Initially these planks were all carefully shaped boat planks joined together to form the shell of the hull. This shell would have worn in use, and such wear is often visible in areas that were not protected by frames, nail heads or roves and treenail heads. None of these features were visible in the planks recovered from the revetment as they had been removed by surface rotting (up to 5mm of surface was missing from each plank).

Some of the planks were half widths and it is possible that they were scavenged from the hulks, still joined edge to edge but split along the thinned centres. The use of this effective but partly rotted timber and the alder posts points to a poor quality revetment that would be functional for a few years, and may have been intended as temporary shoring. This is not a high prestige structure.

A single wood sample was submitted to the Sheffield University dendrochronological laboratory for dating. The sample was from the piece of wood which contained a wooden peg. Reasons for submitting this sample were;

- To indicate the provenance of the boat timber
- To date the wooden peg to see if this is evidence of late Anglo-Saxon boat building or simply a nail hole plug.

Unfortunately, although standard dendrochronological methods were applied to the sample, it was not found to correlate with external dated site masters or regional chronologies.

6.5 Small Finds (Appendix 7)

Twenty-six small find numbers were allocated to fifty-one artefacts of leather, iron, ceramic, wool and two composite objects.

6.6 Leather

Methodology

The following assessment is the result of a rapid scan. The leather was washed and wet when examined and packed in double, self-sealing polythene bags within self-sealing plastic storage boxes.

Nature of the assemblage

The leather was recovered from four contexts [86], [93], [94] and [102] all waterlogged dumped deposits dated by pottery to between the 13th or 14th century. The leather comprises principally of medieval shoe components of turnshoe construction, with a complete knife sheath and fragments from a second, and a small quantity of waste leather. A large fragment of coarse textile was also present.

6.6.1 The knife sheaths

(Plate 1)

A complete sheath (SF13) and two sheath fragments (SF11 and 18) of bovine leather were found. The handle area of a sheath (SF11, [86]) and the tip of a sheath (SF18, [102]) may well be broken from the same knife sheath as [86] lies directly above [102]. The complete sheath (SF13) has a compartment for a second, much smaller blade, included on the moulded handle section. The sheaths have tooled ornament. The complete example has a series of birds within rondels with acanthus leaves on the front with half quatrefoils along the back. The sheath fragments have foliate motifs on the front, the tip with a backward facing animal motif, and linear tooling on the back. They differ in ornamentation to those found previously in the town (Carter and Clarke 1977, fig 169-70). The sheaths can be dated both by form and decorative style to the 13th century (Cameron type E in Mould, Carlisle and Cameron 2003, 3387). Examples with comparable decoration have been found in the City of London

in early to mid 14th century contexts (Cowgill, de Neergaard and Griffiths 1987), and in similarly dated contexts in other medieval assemblages.

6.6.2 The shoes

A total of twenty-six shoe parts, all of turnshoe construction, were found. Those from [86] were clearly debris from a cobbler's (shoe repairer) shop. Three shoe styles could be recognised, all dating to the 13th and 14th centuries and complimenting the ceramic dating evidence. A side-lacing shoe or boot (SF5, [86]), the earliest examples of this style of shoe in London come from early to mid 13th century deposits. A front toggle-fastening ankle shoe (SF14, [93]) was found with a taller boot (SF7 and 8, [86]) which fastened with at least five toggles up the leg. The front toggle fastening style used in both shoes and taller boots was popular in London in the later 13th to mid 14th century. Published illustrations (Carter and Clarke 1977, fig 164) suggest that these styles were found in earlier excavations in the town though not recognised at the time. A front toggle-fastening ankle shoe has also been found during recent excavations at the Vancouver Centre conducted by Oxford Archaeology (KLY 37719).

6.6.3 Waste leather

Two pieces of secondary waste leather (SF20, [86]) of thick cattle hide were found along with shoe parts clearly from cobbling waste. A single fragment of tapering trimming (SF17, [94]) of worn leather was also found.

6.7 Textile

A piece of very thick coarsely woven and felted textile (SF19, [86]) was also identified.

6.8 Metal Artefacts

6.8.1 Clench nails

The site produced seven iron clench nail heads (SF22) of the type used for clinker built boats.

6.8.2 Knife

(Plate 2)

An almost complete composite knife (SF1, [86]) associated with pottery, leather (SF11) and textile (SF19) of 13th or 14th century date was recovered.

The whittle-tang knife has a double makers' mark on the (incomplete) blade comprising two crosses - a very common symbol on blades (Cowgill, de Neergard and Griffiths 1987, 20). The rectangular handle which is split along part of its length is of ivory and has a ?gold hilt band which is decorated at top and bottom edges with a row of short parallel lines - the one nearest the blade is wavy. At the top of the handle is a small circular hole, perhaps originally plugged.

Handles of ivory are rare from archaeological contexts of this date, indeed none of the handles in the collection of knives from excavations in medieval London *Knives and Scabbards* (Cowgill, de Neergard and Griffiths, 1987) are of ivory, although the use of ivory began to reach a wider market during the medieval period (MacGregor

1985, 38-40). Three handles of ivory were recovered from medieval contexts in York (MacGregor, Mainman and Rogers 1999, nos. 7887, 7954 and 8169), the latter is from Fishergate and is from a similarly dated context to the example here, it too has a collar with incised line around each margin.

The presence of the knife at King's Lynn is particularly interesting given the well dated context and the presence of knife sheaths or parts of knife sheaths found from either the same context, or those directly below [102] and [93].

7.0 Environmental Evidence (Appendix 8)

Introduction

The evaluation revealed deposits of 13th to 14th century date including river silts (the site being situated across an infilled watercourse) and dumps of material, the latter possibly related to nearby medieval occupation to the north (Clarke and Carter 1977).

Two trenches were excavated, and samples for the extraction of the plant macrofossil assemblages were taken from each. Trench 1 revealed a wooden revetment and a single sample was taken from material accumulated behind the timbers (sample 1). The remaining four samples (2–5) were taken from superimposed deposits at the base of Trench 2. It should be noted that these deposits were not the basal fills of the silted watercourse.

Methods

The samples (or sub-samples thereof) were processed by manual water flotation/washover, collecting the flots in a 500 micron mesh sieve. As all samples were from waterlogged deposits, the flots were stored in water prior to sorting. The wet retents were scanned under a binocular microscope at magnifications up to x 16, and the plant macrofossils and other remains noted are listed in Appendix 8. Nomenclature within the table follows Stace (1997). Unless otherwise stated, all plant remains were waterlogged.

The non-floating residues were collected in a 1mm mesh sieve and sorted when dry. Fragments of pottery, bone, stone, shell, fish bone and brick/tile/daub were removed for further specialist analysis. During processing a small leather fragment and a large tuft of hair/wool were noted. These were placed in water filled bags to prevent desiccation.

7.1 Results of assessment

7.1.1 Plant macrofossils

Cereal grains/chaff, seeds of common weeds and wetland plants, and tree/shrub macrofossils were present at moderate densities in all five samples. The plant remains within samples 1, 2 and 3 were very degraded, and it would appear most likely that the deposits from which they were taken may have been subjected to intermittent drying and re-wetting for some considerable period. In contrast, the material from samples 4 and 5 was very robust. Charred cereal remains were present in all five samples. Most were well preserved, although occasional grains had become puffed and distorted during charring.

7.1.2 Cereals and other food plants

Charred oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were recorded from samples 1 and 5. Identifiable chaff elements were extremely rare, but a charred barley rachis node was recovered from sample 1 and waterlogged rivet wheat (*T. turgidum*) type rachis nodes were found in samples 3 and 5. A wheat glume base noted in sample 5 is unusual, as the production of glumed wheats had ceased by the Middle Saxon period. However, it cannot be ruled out that a single specimen may be derived from either earlier residual material or persistent weed cereals. Charred and uncharred oat floret bases were noted in samples 2, 3 and 5 along with numerous small fragments of indeterminate cereal/grass floret bases.

Other food plant remains were extremely rare, but included a fig (*Ficus carica*) seed, a fragmentary cherry (*Prunus avium*) stone and a small piece of walnut (*Juglans regia*) nutshell. All were from sample 5.

7.1.3 Wild flora

Seeds of both dry land herbs and wetland/aquatic plants were moderately common in all samples. Segetal taxa were predominant amongst the dry land herbs, and included stinking mayweed (*Anthemis cotula*), cornflower (*Centaurea cyanus*), corn marigold (*Chrysanthemum segetum*), black bindweed (*Fallopia convolvulus*), nipplewort (*Lapsana communis*), corn gromwell (*Lithospermum arvense*), redshank/pale persicaria (*Persicaria maculosa/lapathifolia*), knotgrass (*Polygonum aviculare*), wild radish (*Raphanus raphanistrum*), campion (*Silene* sp.) and charlock (*Sinapis* sp.). Grasses and grassland herbs including sow thistle (*Sonchus asper* and *S. oleraceus*), meadow/creeping/bulbous buttercup (*Ranunculus acris/repens/bulbosus*) and dock (*Rumex* sp.) were also recorded. Ruderal taxa were rare but dead-nettle (*Lamium* sp.) and nettle (*Urtica dioica* and *U. urens*) seeds were recovered. Rare seeds of hemp (*Cannabis sativa*) and flax (*Linum usitatissimum*) found in sample 5 may be derived from the retting of these crops for fibre extraction, although they could equally be accidental inclusions within the deposit.

Wetland/aquatic plant macrofossils were recorded from all samples. Sedge (*Carex* sp.) nutlets were present throughout, with spike-rush (*Eleocharis* sp.) and rush (*Juncus* sp.) fruits also being reasonably common along with seeds of marsh pennywort (*Hydrocotyle vulgaris*) and gipsy-wort (*Lycopus europaeus*). Given Kings Lynn's proximity to the sea, halophyte taxa were very rare, with a small number of sea club-rush (*Bolboschoenus maritimus*) fruits noted in sample 5 and a single sea arrow-grass (*Triglochin maritima*) seed recovered from sample 1.

Tree/shrub macrofossils were extremely rare, with only a single fragment of hazel (*Corylus avellana*) nutshell and a bramble (*Rubus* sect. *Glandulosus*) 'pip' being recorded from samples 1 and 5 respectively.

7.1.4 Other plant macrofossils

Charcoal fragments and pieces of charred and waterlogged root/stem were common or abundant throughout. Indeterminate moss fronds and inflorescence fragments were also common, but other remains were relatively rare. However, bracken (*Pteridium aquilinum*) pinnule and stem fragments were noted in sample 5, and indeterminate buds, leaf fragments and thorns were also recorded.

7.1.5 Other materials

With the exception of waterlogged arthropod remains, which were present throughout, other materials were very rare. The fragments of black porous 'cokey' material and black tarry material may be residues of the combustion of organic materials at very high temperatures. Possible dietary refuse included small pieces of bone, fish bone and marine mollusc shell. Terrestrial/freshwater mollusc shells were almost entirely absent, although a small fragment of *Anisus leucostoma* shell was recorded from sample 5 (not tabulated). A concentrated mass of hair/fibres and a large number of loose 'hairs' were recovered from sample 4. Shaft diameter was very variable, but most appeared to be tapering towards the tip. 'Spatulate' proximal ends were identifiable on some specimens although others appeared to be cut at the base.

Discussion

Given the nature of the deposits, that is dumps within a silted watercourse close to documented areas of intense habitation, the assemblages are somewhat unusual as very little domestic refuse (including cereals and other plant foods, bone, fish bone, shell etc) appears to be present. Conversely, arable weed seeds are abundant, possibly indicating that cereal processing waste constitutes a large part of the material recovered. A proportion of the weed seeds recorded are of a similar size to cereal grains (for example cornflower, black bindweed, corn gromwell and wild radish). This may indicate that a late stage of processing is represented, where such contaminants, which were too heavy to be removed by winnowing, would have been separated by hand picking.

Although cereal chaff is not easy to identify from waterlogged deposits, particularly when the material is poorly preserved, floret bases (probably largely 'oat flight') were common in samples 2, 3 and 5. Oat flight was commonly used as under-floor insulation in later medieval houses (for example Flordon Hall, Norfolk) and as a packaging material, and it also formed a large component of cattle fodder.

Sewage residues may also be present within the Kings Lynn assemblages. Corn cockle (*Agrostemma githago*) seed testa fragments, which are present in all five samples, are frequently seen in medieval cesspits along with Brassica (cabbage/turnip/swede) seeds and cereal bran. Although Brassicas are present in the current assemblages, bran is not recorded, possibly due to the poor preservation of the material.

Conclusions and recommendations for further work

In summary, the assemblages, which are probably derived from mixed refuse deposits, appear more agricultural/'industrial' than domestic, with cereal processing waste, possible fodder or building detritus and sewage residues all probably being present. Of the few seeds probably derived from the local flora, most are of wetland plants, and these may be related to the earlier fleet or river course. Weed seeds are very rare, and the area would appear to have been continually in use, with little opportunity for the generation of a colonising flora or scrub.

At the time of writing, it has not been possible to compare the results from the current site with those from previous excavations in the Kings Lynn area. However, compared to other known assemblages of medieval date from the eastern region, the assemblages do appear to be unusual, and further analysis is therefore recommended on the material from samples 2, 3 and 5.

Deep piling as part of the proposed development poses a considerable threat to the future preservation of organic artefacts and macrofossils on the site. Piling is likely to have the effect of lowering the level of the existing water-table and thus replacing the anaerobic conditions with aerobic conditions which will hasten the deterioration of organic remains.

8.0 Conclusions

Although occupation began to the north of evaluation area in the late 11th century as evidenced from prior archaeological work (Clarke and Carter 1977) it didn't expand onto the land south of All Saints Street until the early post-medieval period. Before this period the area lying between All Saints Street and Carmelite Terrace was occupied by a watercourse as evidenced by the successive layers of silts recorded in the evaluation trenches.

It is not clear as to whether the watercourse identified during the evaluation represents the old course of the River Nar or an as yet unidentified fleet. The respective courses of the Rivers Great Ouse and Nar during the medieval period in the vicinity of South Lynn, is uncertain. At present the River Nar flows into the Great Ouse c. 200m to the south-west of the site. Before around 1250 the Ouse may have run along the west side of Nelson Street, Bridge Street and All Saints Street with The River Nar possibly flowing into the River Great Ouse at a point near Bridge Street. Evidence for this was recorded during excavations at the junction of All Saints Street and Bridge Street in the 1960s (Clarke and Carter 1977). A silted up watercourse – thought to be the River Nar was recorded to the west of the site immediately east of Bridge Street. The river may have ran parallel to the Ouse before turning east to skirt the south side of All Saints Street and Friars Street and entered South Lynn somewhere around the South gate. The Carmelite Friary founded sometime before 1260 occupied land between Carmelite Terrace and the present course of the River Nar which suggests a considerable westerly movement of the Nar since the 11th to 12th century if Clarke and Carter are correct in their hypothesis that The Nar skirted All Saints Street. However, evidence from the current work indicates that a watercourse traversed the area of the evaluated land which lies immediately north of the friary precinct and south of All Saints Street into the later medieval period. The deep deposit of organically rich 13th- to 14th-century dumped material in Trench 2 indicates the presence of an open water course at this time. In Trench 1 a probable drainage ditch which was later reveted with timber planking probably ran from the friary and perhaps drained into this water course. Pottery dates indicate that the sequence of drainage ditches may well be contemporary with the episode of dumping in Trench 2.

It is possible that the channel may represent the course of the River Nar which shifted to the south sometime during the earlier medieval period and by the time the Carmelite Friary was founded it had shifted to follow a course approximating to its present one. Its old course along All Saints Street may still have been marked by a smaller stream during the later medieval period. Alternatively, it is known that King's Lynn was served by innumerable small streams or fleets which were later to be used as drainage channels, sewers and water sources (Clarke and Carter 1977). All these probably followed a meandered course through the flat marshland to the east of the town. The culvert recorded in Trench 1 may well have channelled water of a previously open stream into the River Nar in the post-medieval period.

The organically rich dumped deposits in Trench 2 yielded a significant assemblage of leather artefacts which almost certainly represents waste from a nearby cobblers workshop. Interestingly, the results of the environmental sampling produced evidence of dumping waste from agricultural/industrial activity with little indication of domestic waste in the assemblage. This would suggest that the activity recorded to the north of All Saints Street during the 1960s by Clark and Carter (1977) represents an area possibly devoted to industrial activity and food processing as opposed to domestic occupation. Evidence for the processing of cereals was evident and a vast quantity of marine mollusc shell was recorded. Previous excavations within King's Lynn have produced little evidence for industry compared with the documentary evidence. Industrial activity in the area seems to have carried out into the 15th or 16th century as evidenced by the large pit which contained dumped iron founding moulds and tile.

Only Trench 4 had evidence of cut features which date to within the medieval period, although it is difficult to ascertain their function. The gullies may have served a structural function perhaps as beam slots or post bedding trenches though it would appear that this area may have been susceptible to periodic flooding as evidenced by the silt layers above the gullies. The top of the gullies lie at 3.10m OD which approximates to the top of the dumped deposits in Trenches 2 and 3. This would indicate that the area of Trench 4 was a little higher in the later medieval period than the surrounding area and may have allowed for occupation though the features in Trench 4 may have associated with water management.

All trenches appear to show evidence of a purposeful deposition of dumped material laid down in order to raise to ground level. This seems to have begun in the late medieval period, perhaps in the 15th century, in order to consolidate the ground surface and raise it above the level of what must have been marshy ground. The date of the building(s) recorded in Trench 2 is uncertain though an early post-medieval date is likely considering their immediate stratigraphic position above late medieval deposits and their lower elevation in relation to the extant early 19th-century terraced houses which lie to the east. These appear to have been demolished to make way for the construction of the building which formed the Corona Depot which was in turn demolished to make way for the current proposed development.

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Appendix 1: Context Summary

Context	Trench	Category	Description	Period
01	1	Deposit	Grey/brown clayey silt layer	Modern
02	1	Deposit	Black/brown sandy silt with charcoal layer	Post-medieval
03	1	Deposit	Mottled yellow and brown clayey silt layer	Modern
04	1	Deposit	Grey/brown sandy silt layer	Post-medieval
05	1	Deposit	Yellow/brown clayey silt layer	Post-medieval
06	1	Deposit	Yellow/brown clayey silt layer	Post-medieval
07	1	Cut	Culvert	Post-medieval
08	1	Deposit	Fill of [07]	Post-medieval
09	1	Deposit	Fill of [07]	Post-medieval
10	1	Deposit	Fill of [07]	Post-medieval
11	1	Deposit	Fill of [07]	Post-medieval
12	1	Deposit	Fill of [07]	Post-medieval
13	1	Deposit	Fill of [07]	Post-medieval
14	1	Deposit	Light brown clayey silt layer	Post-medieval
15	1	Deposit	Brown sandy loam layer	Post-medieval
16	1	Deposit	Light brown clayey silt layer	
17	1	Deposit	Stone and mortar dump	Post-medieval
18	1	Deposit	Fill of robber trench [19]	Modern
19	1	Cut	Robber trench	Modern
20	1	Deposit	Fill of [07]	Post-medieval
21	1	Deposit	Fill of [07]	Post-medieval
22	1	Deposit	Fill of [07]	Post-medieval
23	1	Deposit	Light brown clayey silt layer	Modern
24	1	Deposit	Fill of [07]	Post-medieval
25	2	Deposit	Mixed brown/yellow sandy silt and silty sand layer	Modern
26	2	Deposit	Brown clayey silt layer	Post-medieval
27	2	Deposit	White crushed mortar layer	Post-medieval
28	2	Deposit	Grey sandy silt and charcoal layer	Post-medieval
29	2	Deposit	Brown clayey silt layer	Post-medieval
30	2	Deposit	Light brown clayey silt layer	Post-medieval
31	2	Masonry	Wall	Post-medieval
32	2	Deposit	Fill of [33]	Post-medieval
33	2	Cut	Foundation trench	Post-medieval
34	2	Deposit	Brown sandy silt and crushed mortar layer	Post-medieval

Context	Trench	Category	Description	Period
35	2	Deposit	Brown sandy silt layer	Post-medieval
36	2	Deposit	Mixed clayey silt mortar and ash layer	Post-medieval
37	2	Deposit	Brick and crushed mortar layer	Post-medieval
38	2	Deposit	Brown sandy silt layer	Post-medieval
39	2	Deposit	Light brown fine sand layer	Post-medieval
40	2	Deposit	Brown sandy silt and mortar layer	Post-medieval
41	2	Deposit	Brown sandy silt layer – same as [35]	Post-medieval
42	2	Deposit	Crushed mortar layer	Post-medieval
43	2	Deposit	Crushed mortar layer	Post-medieval
44	2	Deposit	Fine sand layer	Post-medieval
45	2	Masonry	Wall	Post-medieval
46	1	Deposit	River silt layer	Medieval
47	1	Deposit	Woody layer	Medieval
48	1	Deposit	Mid grey river silt layer	Medieval
49	1	Deposit	Light brown river silt layer	Medieval
50	1	Deposit	Light blue river silt layer	Medieval
51	1	Deposit	Light brown river silt layer	Medieval
52	1	Cut	Construction trench for [53]	Post-medieval
53	1	Masonry	Brick culvert	Post-medieval
54	1	Deposit	Fill of [52]	Post-medieval
55	1	Wood	Revetment planks	Medieval
56	2	Deposit	Crushed mortar and sandy silt layer	Post-medieval
57	2	Deposit	Concrete layer	Modern
58	2	Deposit	Brown sandy silt and mortar layer	Post-medieval
59	2	Deposit	Brown sandy silt layer	Post-medieval
60	2	Masonry	Brick structure	Post-medieval
61	2	Deposit	Grey mortar sand and silt layer	Post-medieval
62	2	Deposit	Brick rubble layer	Post-medieval
63	2	Deposit	Brown sandy silt layer	Post-medieval
64	2	Masonry	Wall	Post-medieval
65	2	Masonry	Brick floor	Post-medieval
66	2	Deposit	Black ash bedding layer for [65]	Post-medieval
67	2	Deposit	Light brown clayey silt layer	Post-medieval
68	2	Deposit	Fill of [69]	Post-medieval
69	2	Cut	Ditch or Pit?	Post-medieval
70	2	Masonry	Brick floor	Post-medieval
71	2	Masonry	Brick floor	Post-medieval

Context	Trench	Category	Description	Period
72	2	Masonry	Brick floor	Post-medieval
73	2	Deposit	Grey/brown sandy silt layer	Post-medieval
74	2	Cut	Foundation trench	Post-medieval
75	2	Deposit	Fill of [69]	Post-medieval
76	2	Deposit	Crushed mortar and sandy silt layer	Post-medieval
77	2	Deposit	Fill of [74]	Post-medieval
78	2	Deposit	Grey/brown sandy silt	Medieval
79	2	Deposit	Yellow/brown sandy silt layer	Medieval
80	2	Deposit	Dark grey sandy silt layer	Medieval
81	2	Deposit	Mixed brown and yellow sandy silt layer	Medieval
82	2	Deposit	Mixed humic silt and clayey silt layer	Medieval
83	2	Deposit	Brown humic sandy silt layer	Medieval
84	2	Deposit	Black humic silt layer	Medieval
85	2	Deposit	Blue/grey sandy silt layer	Medieval
86	2	Deposit	Black humic material and silt layer	Medieval
87	2	Deposit	Brown humic silt layer	Medieval
88	2	Deposit	Grey sandy silt layer	Medieval
89	2	Deposit	Grey sandy silt layer	Medieval
90	2	Masonry	Brick pier	Post-medieval
91	Void			
92	2	Deposit	Black organic layer	Medieval
93	2	Deposit	Grey silt layer	Medieval
94	2	Deposit	Unstratified finds	
95	2	Deposit	Grey silt layer	Medieval
96	2	Deposit	Dark brown organic silt layer	Medieval
97	2	Deposit	Grey sand layer	Medieval
98	2	Deposit	Black very organic silt layer	Medieval
99	2	Deposit	Stone and silt fill of [100]	Medieval
100	2	Cut	Drain or soakaway	Medieval
101	2	Deposit	Brown shell and silt layer	Medieval
102	2	Deposit	Black humic silt layer	Medieval
103	1	Deposit	Mid brown/blue silt layer	Medieval
104	1	Deposit	Light grey silt layer	Medieval
105	1	Deposit	Grey silt layer	Medieval
106	1	Deposit	Grey silt layer	Medieval
107	1	Cut	Cut for revetment	Medieval
108	1	Deposit	Fill of [107]	Medieval

Context	Trench	Category	Description	Period
109	1	Deposit	Grey silt layer with lenses of reed	Medieval
110	1	Deposit	Light brown silt layer	Medieval
111	1	Deposit	Light blue/brown silt layer	Medieval
112	1	Deposit	Fill of [113]	Medieval
113	1	Deposit	Pit?	Medieval
114	1	Deposit	Brown/orange silt layer	Medieval
115	1	Deposit	Dark grey silt layer	Medieval
116	1	Finds	Unstratified finds from the upper 1.2m of Trench 1	
117	3	Finds	Unstratified finds from the upper 1.2m of Trench 1	
118	4	Deposit	Dark grey silt layer	Post-medieval
119	4	Deposit	Fill of [121]	Modern
120	4	Deposit	Make up layer	Post-medieval
121	4	Cut	Pit	Modern
122	4	Deposit	Fill of [121]	Modern
123	4	Deposit	Make-up and demolition debris layer	Post-medieval
124	4	Cut	Construction trench	Post-medieval
125	4	Masonry	Wall	Post-medieval
126	4	Deposit	Make-up and demolition debris layer	Post-medieval
127	4	Deposit	Mortar floor	Post-medieval
128	4	Deposit	Levelling layer for [127]	Post-medieval
129	4	Deposit	Levelling layer for [133]	Post-medieval
130	4	Cut	Pit?	Post-medieval
131	4	Deposit	Fill of [130]	Post-medieval
132	4	Deposit	Levelling for [133]	Post-medieval
133	4	Deposit	Mortar floor	Post-medieval
134	4	Deposit	Mortar floor	Post-medieval
135	4	Deposit	Levelling for [134]	Post-medieval
136	4	Deposit	Make-up or levelling layer	Post-medieval
137	4	Deposit	Make-up layer	Post-medieval
138	4	Deposit	Dumping or make-up layer	Post-medieval
139	4	Deposit	Fill of [140]	Medieval
140	4	Cut	Cut of pit	Medieval
141	4	Deposit	River silt layer	Medieval
142	4	Deposit	River sand and silt layer	Medieval
143	4	Cut	Pit	Medieval

Context	Trench	Category	Description	Period
144	4	Deposit	Fill of [143]	Medieval
145	4	Deposit	River silt layer	Medieval
146	4	Deposit	Fill of [149]	Medieval
147	4	Deposit	Fill of [149]	Medieval
148	4	Deposit	Fill of [149]	Medieval
149	4	Cut	Pit	Medieval
150	4	Deposit	Fill of [169]	Medieval
151	4	Deposit	Fill of [169]	Medieval
152	4	Deposit	Fill of [154]	Medieval
153	4	Deposit	Fill of [154]	Medieval
154	4	Cut	gully	Medieval
155	4	Deposit	Light grey silt layer	Medieval
156	4	Deposit	Grey brown coarse silt layer	Medieval
157	4	Deposit	Grey silt layer	Medieval
158	4	Cut	Linear cut	Medieval
159	4	Deposit	Fill of [160]	Medieval
160	4	Cut	Ditch?/pit?	Medieval
161	4	Deposit	Dark organic layer	Medieval
162	4	Deposit	Gritty layer	Medieval
163	4	Deposit	Light brown sandy silt layer	Medieval
164	4	Deposit	mid brown clayey silt layer	Medieval
165	4	Deposit	Orange sandy layer	Medieval
166	4	Deposit	Brown layer	Medieval
167	3	Deposit	Layer containing tile identified through augering	Medieval
168	3	Deposit	Layer containing tile identified through augering	Medieval
169	4	Cut	Pit	Medieval
170	4	Deposit	Fill of [158]	Medieval
171	3	Deposit	Light brown/orange silt layer	Post-medieval
172	2	Deposit	Light grey silt layer	Medieval
173	2	Cut	Cut of foundation trench	Post-medieval
174	2	Deposit	Fill of [173]	Post-medieval
175	2	Cut	Cut of foundation trench	Post-medieval
176	2	Deposit	Fill of [175]	Post-medieval
177	1	Deposit	Blue/grey silt	Medieval or earlier
178	1	Deposit	Black/grey organic	Medieval or earlier
179	1	Deposit	pale grey/brown clean silt	Medieval or earlier
180	1	Deposit	Pale grey river silt	Medieval or earlier

Context	Trench	Category	Description	Period
181	1	Deposit	Very dark grey silt	Medieval or earlier
182	2	Deposit	Clean brown silt	Medieval or earlier
183	2	Deposit	Dark grey silt	Medieval or earlier
184	2	Deposit	pale brown mixed silt	Medieval or earlier
185	2	Deposit	Very rich organic black deposit	Medieval or earlier
186	2	Deposit	Mixed black/grey material	Medieval or earlier
187	2	Deposit	Dark grey organic material	Medieval or earlier
188	2	Deposit	Mixed dark grey brown silt	Medieval or earlier
189	2	Deposit	Black organic deposit	Medieval or earlier
190	2	Deposit	Mid grey fine silt	Medieval or earlier
191	2	Deposit	Dark brown organic material	Medieval or earlier
192	2	Deposit	Pale grey silt	Medieval or earlier
193	2	Deposit	Peaty silt material	Medieval or earlier
194	2	Deposit	Dark grey organic material	Medieval or earlier
195	2	Deposit	Mid grey silt	Medieval or earlier
196	4	Deposit	Clean yellow sand	Medieval or earlier
197	4	Deposit	Blue silt	Medieval or earlier
198	4	Deposit	Clean yellow fine sand	Medieval or earlier
199	4	Deposit	Mid blue silt	Medieval or earlier
200	4	Deposit	Mid brown organic deposit	Medieval or earlier
201	4	Deposit	Light blue silt	Medieval or earlier
202	4	Deposit	Dark grey silt with organic inclusions	Medieval or earlier
203	4	Deposit	Mid brownish grey silt	Medieval or earlier
204	4	Deposit	Light blue silt	Medieval or earlier
205	4	Deposit	Light greyish blue fine sand	Medieval or earlier
206	4	Deposit	Light green fine sand	Medieval or earlier
207	4	Deposit	Light grey sandy clay	Medieval or earlier
208	3	Deposit	Dark grey sand silt	Medieval or earlier
209	3	Cut	Pit cut	Post-medieval
210	3	Deposit	Fill of pit [209]	Post-medieval
211	3	Deposit	Grey brown sand silt levelling	Medieval or earlier
213	3	Deposit	Dark grey organic silt	Medieval or earlier
214	3	Deposit	Grey silt including organic material	Medieval or earlier
215	3	Deposit	Dark grey organic silt	Medieval or earlier
216	3	Deposit	Dark brown peaty silt	Medieval or earlier
217	1	Cut	Ditch/gully	Medieval
218	1	Cut	Ditch/gully	Medieval

Context	Trench	Category	Description	Period
219	1	Cut	Re-cut	Medieval
220	1	Cut	Timber stake	Medieval
221	1	Cut	Pit cut	Medieval
222	1	Cut	Pit cut	Medieval
223	2	Masonry	Brick pier	Post-medieval
224	4	Masonry	Flint foundation	Post-medieval
225	1	Timber	Timber stake	Medieval
226	1	Timber	Timber stake	Medieval
227	1	Deposit	Silt in Trench 1	Medieval
228	1	Cut	Cut for pit in Trench 1	Medieval

Appendix 2: Finds by Context

Context	Material	Quantity	Weight (kg)	Period
46	Pottery	1	0.016	Medieval
46	Ceramic building material	1	0.015	Medieval
46	Animal bone	-	0.045	-
47	Pottery	1	0.019	Medieval
47	Ceramic building material	2	0.082	Medieval
47	Animal bone	-	0.051	
48	Pottery	5	0.089	Medieval
48	Ceramic building material	9	0.411	Medieval
48	Leather (SF21)	1	-	-
48	Animal bone	-	0.013	-
49	Pottery	2	0.078	Medieval
49	Iron (SF22)	7	-	-
49	Animal bone	-	0.014	-
49	Shell	-	0.004	-
81	Pottery	1	0.047	Medieval
82	Pottery	5	0.165	Medieval
82	Animal bone	-	0.088	-
86	Pottery	36	1.301	Medieval
86	Ceramic building material	8	0.753	Medieval
86	Leather (SF1 to 11 and 20)	20	-	-
86	Ceramic building material (SF12)	2	0.047	Medieval
86	Wool (SF19)	1	-	-
86	Animal bone	-	0.433	-
88	Ceramic building material	2	0.048	Medieval
89	Pottery	2	0.011	Medieval
89	Animal bone	-	0.004	-
92	Ceramic building material	1	0.138	Medieval
92	Animal bone	-	0.021	-
93	Pottery	11	0.148	Medieval
93	Ceramic building material	6	0.628	Medieval
93	Leather (SF13 to 16)	13	-	-
93	Animal bone	-	0.308	-
94	Pottery	9	0.178	Medieval

Context	Material	Quantity	Weight (kg)	Period
94	Leather (SF17)	1	-	-
94	Animal bone	-	0.033	-
96	Ceramic building material	1	0.054	Medieval
97	Pottery	1	0.004	Medieval
102	Leather (SF18)	1	-	-
104	Pottery	5	0.213	Medieval
104	Ceramic building material	2	0.235	Medieval
104	Animal bone	-	0.164	-
105	Pottery	2	0.100	Medieval
105	Animal bone	-	0.148	-
116	Pottery	19	0.635	Medieval
117	Pottery	20	0.857	Post-medieval
117	Bottle glass	2	-	Post-medieval
117	Animal bone	-	0.003	-
118	Pottery	5	0.259	Medieval
145	Pottery	2	0.127	Medieval
150	Pottery	3	0.038	Medieval
150	Ceramic building material	5	0.499	Medieval
150	Bell mould (SF23 and 24)	44	1.345	Medieval
150	Metal working debris	1	0.085	-
150	Stone	1	0.307	-
150	Animal bone	-	0.297	-
151	Ceramic building material	24	4.273	Medieval
151	Bell mould (SF 25 and 26)	33	1.600	Medieval
151	Animal bone	-	0.019	-
152	Pottery	1	0.031	Post-medieval
152	Ceramic building material	18	1.603	Medieval
152	Bell mould	1	0.012	Medieval
152	Mortar	1	0.581	-
152	Metal working debris	1	0.169	-
152	Stone	1	0.238	-
152	Animal bone	-	0.210	-
153	Pottery	3	0.023	Medieval
153	Ceramic building material	12	0.440	Medieval
153	Animal bone	-	0.040	-
157	Pottery	2	0.010	Medieval

Context	Material	Quantity	Weight (kg)	Period
157	Ceramic building material	1	0.016	Medieval
157	Animal bone	-	0.074	-
167	Ceramic building material	1	0.019	Medieval
168	Ceramic building material	1	0.005	Medieval
168	Clay tobacco pipe	3	0.015	Post-medieval
170	Pottery	6	0.058	Medieval
170	Ceramic building material	1	0.043	Medieval
170	Animal bone	-	0.004	-
171	Ceramic building material	1	0.105	Medieval
172	Pottery	1	0.045	Post-medieval
172	Ceramic building material	2	0.096	Medieval
173	Ceramic building material	4	0.267	Medieval
174	Pottery	4	0.173	Medieval
174	Ceramic building material	3	0.347	Medieval
174	Animal bone	-	0.001	-

Appendix 3: Pottery

Context	Fabric	Form	Quantity	Weight (kg)	Date Range
46	Unprovenanced glazed ware	Body	1	0.016	12th to 14th century
47	Grimston type ware	Jug	1	0.019	Late 12th to 14th century
48	Local medieval unglazed ware	Body	1	0.062	
48	Grimston type ware	Body	4	0.026	13th to 14th century
49	Unprovenanced glazed ware	Body	1	0.035	
49	Unprovenanced glazed ware	Base	1	0.042	12th to 14th century
81	Yorkshire ware	Jug	1	0.047	12th to 14th century
82	Unprovenanced glazed ware	Body	3	0.035	
82	Grimston type ware?	Jug	2	0.127	13th to 14th century
86	Local medieval unglazed ware	Bowl	2	0.107	
86	Local medieval unglazed ware	Body	7	0.189	
86	Late Grimston ware?	Jug	3	0.181	
86	Early medieval ware	Cooking pot/jar	1	0.019	
86	Yorkshire ware	Jug	3	0.272	
86	Yorkshire ware	Jug	4	0.131	
86	Yorkshire ware	Jug	1	0.096	
86	Yorkshire ware	Jug	1	0.062	
86	Yorkshire ware	Jug	1	0.046	
86	Grimston type ware	Body	3	0.065	
86	Yorkshire ware	Jug	1	0.016	
86	Yorkshire ware?	Body	6	0.062	
86	Unprovenanced glazed ware	Body	2	0.039	
86	Developed Stamford ware	Body	1	0.003	
89	Local medieval unglazed ware	Body	1	0.005	
93	Local medieval unglazed ware	Cooking pot/jar	1	0.016	
93	Early medieval ware	Body	1	0.001	
93	Local medieval unglazed ware	Body	4	0.035	
93	Yorkshire ware	Body	1	0.016	
93	Miscellaneous	Jug	1	0.029	
93	Unprovenanced glazed ware	Body	2	0.031	
93	Yorkshire ware	Body	1	0.019	
94	Local medieval unglazed ware	Bowl	1	0.099	

Context	Fabric	Form	Quantity	Weight (kg)	Date Range
94	Grimston type ware	Body	1	0.013	
94	Unprovenanced glazed ware	Jug	1	0.011	
94	Yorkshire ware?	Body	3	0.011	
94	Unprovenanced glazed ware	Body	1	0.015	
94	Unprovenanced glazed ware	Body	2	0.023	
97	Unprovenanced glazed ware	Body	1	0.003	
102	Yorkshire ware	Jug	2	0.131	
102	Unprovenanced glazed ware	Body	1	0.039	
102	Unprovenanced glazed ware	Jug	1	0.028	
102	Local medieval unglazed ware	Body	1	0.004	
116	Local medieval unglazed ware	Body	1	0.027	
116	Late slipped red ware	Bowl	1	0.028	
116	Staffordshire slipware	Body	1	0.009	18th to 19th century
116	English stoneware	Body	1	0.009	
116	Glazed red earthenware	Jar?	1	0.107	
116	Metropolitan slipware?	Bowl	14	0.420	
117	Staffordshire slipware	Dish	2	0.192	
117	Glazed red earthenware	Body	2	0.090	
117	Late slipped red ware	Panction	2	0.109	
117	Staffordshire manganese glazed ware	Tank	1	0.051	
117	Nottinghamshire stoneware	Base	1	0.056	
117	Tin-glazed earthenware	Body	1	0.013	
117	Tin-glazed earthenware	Dish	1	0.016	
117	Tin-glazed earthenware	Body	2	0.005	
117	Westerwald stoneware	Chamber pot	1	0.035	
117	English stoneware?	Body	1	0.046	
117	Westerwald stoneware	Tank	1	0.035	
117	Late Glazed red earthenware	Body	1	0.007	
117	Late slipped red ware	Body	1	0.068	
117	English stoneware	Body	1	0.004	
117	Creamware	Jar?	1	0.098	
117	Creamware	Bowl	1	0.009	Mid to late 18th century
118	Late Grimston ware	Cooking pot/jar	2	0.154	
118	Late Grimston ware	Body	2	0.033	

Context	Fabric	Form	Quantity	Weight (kg)	Date Range
118	Unprovenanced glazed ware	Fuming pot	1	0.059	16th century
145	Local medieval unglazed ware	Body	1	0.016	
145	Unprovenanced glazed ware	Jug	1	0.106	12th to 14th century
150	Unprovenanced glazed ware	Body	1	0.006	
150	Local medieval unglazed ware	Bowl or panchion	1	0.025	
150	Unprovenanced glazed ware	Body	1	0.006	Late 12th to 14th century
152	Dutch type redware	Skillet	1	0.031	15th to 17th century
153	Local medieval unglazed ware	Body	1	0.003	
153	Yorkshire ware	Body	1	0.011	
153	Grimston type ware?	Body	1	0.008	
157	Grimston type ware	Body	1	0.004	
157	Grimston type ware	Body	1	0.005	13th to 14th century
170	Local medieval unglazed ware	Body	1	0.029	
170	Grimston type ware	Body	1	0.007	
170	Scarborough ware	Body	1	0.002	
170	Unprovenanced glazed ware	Body	1	0.001	
170	Unprovenanced glazed ware	Body	1	0.004	
170	Yorkshire ware	Jug	1	0.013	13th to 14th century
172	Raeren stoneware	Jug	1	0.044	Late 15th to mid 16th century
174	Yorkshire ware	Body	2	0.064	
174	Grimston type ware	Body	1	0.081	
174	Langerwehe stoneware	Body	1	0.017	14th to 15th century

Appendix 4: Ceramic Building Material

Context	Form	Quantity	Weight (kg)	Period
46	Roof tile	1	0.015	Medieval
47	Roof tile	2	0.082	Medieval
48	Roof tile	7	0.376	Medieval
48	Unidentified	2	0.035	Medieval
86	Roof tile	8	0.753	Medieval
86	Roof tile (SF12)	1	0.047	Medieval
88	Brick	1	0.017	Medieval
88	Roof tile	1	0.031	Medieval
92	Brick	1	0.138	Medieval
93	Brick	1	0.038	Medieval
93	Roof tile	5	0.590	Medieval
96	Roof tile	1	0.054	Medieval
102	Brick	1	0.183	Medieval
102	Roof tile	1	0.052	Medieval
105	Brick	1	0.017	Medieval
105	Roof tile	1	0.083	Medieval
150	Brick	1	0.033	Medieval
150	Roof tile	4	0.466	Medieval
151	Brick	3	1.023	Medieval
151	Roof tile	21	3.250	Medieval
152	Brick	4	1.197	Medieval
152	Roof tile	14	0.406	Medieval
153	Brick	1	0.005	Medieval
153	Roof tile	11	0.435	Medieval
157	Roof tile	1	0.016	Medieval
167	Roof tile	1	0.019	Medieval
168	Roof tile	1	0.005	Medieval
170	Roof tile	1	0.043	Medieval
171	Roof tile	1	0.105	Medieval
172	Brick	2	0.031	Medieval
172	Roof tile	1	0.065	Medieval
173	Brick	4	0.267	Medieval
174	Roof tile	3	0.347	Medieval

Appendix 5: Bell Mould

Context	Small find	Description	Quantity	Comment
150		Pink/cherry-red with yellow streaks, 25mm thick. Same material throughout, but built up in layers. Clay shades to grey on the inner curved surface, which has thin coats of black and white material adhering. Groove on inside of curved surface.	1	Probably part of cope shoulder. The inner surface probably coated with soot from a second firing, then smeared with tallow, to provide a flux for the casting process. The groove is probably for a moulding wire.
		As above, but with different section showing a groove on the outside of the curved surface.	3	Possibly from the top of the cope, where it meets with the crown mould. The groove on the outside could be the burned out matrix of a withy used to bind the cope before firing.
		Fragments (two matching) of conical vessel, with heavy darkening on one surface.	3	Possible fragments of ceramic funnel through which hot metal has been poured.
		Fragments of mould with no curvature, variable 10mm - 15mm thick. Both surfaces oxidised (pink) with reduced core (grey/black). One surface has white coating	9	Possibly part of the mould for a flat-bottomed vessel, baked in one firing and fluxed before casting
		Curved, one face reduced,	2	Cope fragments
		Fully oxidised, apparently amorphous fragment.	1	Possibly squashed and discarded mould for letter or ornament.
	23	Fragment of conical vessel, lip survives indicating diameter c. 7 - 8 cm. Pale pink fully oxidised with dark staining at narrow end.	1	Probably part of ceramic funnel, stained by pouring molten metal.
	24	Pale pink fragment with thickened section.	1	Probably part of the cope, the thickened section at the base of the mould forming a gauge mark to enable the cope to be aligned with the core.

Context	Small find	Description	Quantity	Comment
151		Mould fragment. Pale red shading to grey, with grey-black patina. Thickness 10mm - 14mm.	1	Possibly part of channel above canons for escape of hot gases during casting.
		Knobbly pieces of light red clay streaked with yellow.	Many	Possibly used to seal the joint between core and cope
		Fully oxidised (very pink) pieces, flattish on one side and rough on the other. Layering and cavities where organic matter has burned out.	7	Possible floor of the casting pit.
		Very eroded cope fragments showing guage mark	2	
		Apparently amorphous fragments of clay, with distorted patterns and finger marks.	2	Possible strips of ceramic letter moulds screwed up and discarded.
		Large pieces of brick (3) and tile (21). Some made from very rough pebbly pink/yellow clay. Tiles very hard with mortar adhering. Some vitrification.	24	Possibly used to build core of bell mould.
	25	Fragment of conical vessel, darkened at narrow end.	1	Probably part of ceramic funnel, stained by pouring molten metal.
26	Curved fragments, fully oxidised on the outside, shading to pale grey, very dark grey inside. Black deposit on the inner surface. Built up in layers before firing. One fragment with greenish patina inside.	2	Cope fragments: flatter piece from waist section of bell-mould, curved piece with patina possibly showin the junction between the cope and the crown-mould.	
152		Curved, one face reduced.	1	Cope fragment.

Appendix 6: Faunal Remains

Context	Quantity	Weight (kg)	Species	Age	Butchering	Comments
46	1	0.045	large mammal		chopped	
47	5	0.051	sheep/goat		chopped	femur, vertebrae fragments
			large mammal		chopped	rib fragments
48	2	0.013	sheep/goat		chopped	jaw
			pig		cut	fibula, burnt
49	1	0.014	cattle	adult	chopped	metapodial - distal fragment, burnt and from peaty soil
82	1	0.088	cattle	juvenile	chopped	metatarsal, unfused, chopped at proximal end
86	16	0.433	cattle	range	butchered	neonatal jaw, adult jaw, scapula
			sheep/goat	mature	cuts	pelvis, right jaw, cuts on inner jaw - tongue removed?
			fish	adult		eel jaw, and two other fragments
			large mammal		butchered	rib and vertebrae fragments
89	1	0.004	mammal		butchered	
92	1	0.021	large mammal		chopped	
93	14	0.308	cattle	range	chopped	neonatal jaw and fragment of adult upper jaw
			sheep/goat	adult	butchered	jaw, upper jaw, isolated molar
			fish		chopped	large fish, fragments
			large mammal		butchered	
94	2	0.033	large mammal		butchered	rib fragments
102	13	0.164	cattle	adult	chopped	metatarsal
			sheep/goat	range	butchered	skull with horncore chopped off at base, humerus(juv)
			fish			large fish, fragments
			mallard	adult	cuts	tarsometatarsus and ulna, both with several cuts
			mammal		butchered	
105	2	0.148	cattle	adult	butchered	tibia and astragalus
			large mammal		butchered	

150	9	0.297	cattle	adult	chopped	calcaneus
			sheep/goat	adult	chopped	pelvis
			pig	juvenile	butchered	jaw with Dp4 in wear
			large mammal		butchered	
		0.210	cattle	adult	chopped	metatarsal with fusion line visible-young adult
			sheep/goat	adult	butchered	jaw, radius, scapula
151	1	0.010	large mammal		chopped	rib
153	4	0.040	sheep/goat	adult	chopped	humerus, femur
			large mammal		butchered	
157	1	0.074	large mammal			
170	1	0.004	large mammal			
174	1	0.001	mammal		chopped	

Appendix 7: Small Finds

Small find	Context	Quantity	Material	Object	Description	Date
1	86	1	Iron/ copper alloy?	Knife	Composite	13th to 14th century
2	86	1	Leather	Shoe	Fragments	13th to 14th century
3	86	1	Leather	Shoe	Sole/ welting	13th to 14th century
4	86	3	Leather	Shoe	Fragment/welting	13th to 14th century
5	86	1	Leather	Shoe	Upper	13th to 14th century
6	86	2	Leather	Shoe	Heel	13th to 14th century
7	86	1	Leather	Shoe	Upper	13th to 14th century
8	86	1	Leather	Shoe	Upper	13th to 14th century
9	86	3	Leather	Shoe	Fragments/off cut	13th to 14th century
10	86	2	Leather	Shoe	Welting	13th to 14th century
11	86	1	Leather	Scabbard	Fragment-open end	13th to 14th century
12	86	2	Ceramic/wood	Roof tile/peg	Fragment	Medieval
13	93	1	Leather	Scabbard	Complete	13th to 14th century
14	93	1	Leather	Fragment	Folded	13th to 14th century
15	93	1	Leather	Fragment	Folded	13th to 14th century
16	93	10	Leather	Shoe	Sole/upper	13th to 14th century
17	94	1	Leather	Strip	Fragment	13th to 14th century
18	102	1	Leather	Scabbard	Fragment-tip end	13th to 14th century
19	86	1	Wool	Felt	Folded piece	13th to 14th century
20	86	3	Leather	Off cuts		13th to 14th century
21	48	1	Leather	Off cut		13th to 14th century
22	49	7	Iron	Clench nails	Heads only	
23	150	1	Ceramic	Mould	Same as SF25	
24	150	1	Ceramic	Bell mould	Cope	
25	151	1	Ceramic	Mould	Same as SF23	
26	151	2	Ceramic	Bell mould	Cope	

Appendix 8: Environmental Evidence

Sample No.	1	2	3	4	5
Context No.	47	86	86	102	96
Cereals and ther food plants					
<i>Avena</i> sp. (grains)	xc				xc
(floret bases)		x xc	x xc		x
Cereal indet. (grains)	xc		xc	xfgc	xxc
Cereal/Poaceae type floret bases		xx	x		xc
Large Fabaceae indet.					xcfc
<i>Ficus carica</i> L.					x
<i>Hordeum</i> sp. (grains)					xc
(rachis nodes)	xc				
<i>Juglans regia</i> L.			x		
<i>Prunus avium</i> L.					xcffg
<i>Triticum</i> sp. (grains)					xc
(glume base)					x
(rachis internode frag.)					x
<i>T. turgidum</i> type (rachis nodes)			x		x
Dry land herbs					
<i>Aethusa cynapium</i> L.				x	
<i>Agrostemma githago</i> L.	xtf	x xtf	xtf	xxtf	xxtf
<i>Anthemis arvensis</i> L.					xcf
<i>A. cotula</i> L.	x	x	x	x	x
Apiaceae indet.				x	
<i>Arctium lappa</i> L.					x
Asteraceae indet.	x				
<i>Atriplex</i> sp.	x		x		x
Brassicaceae indet.		x	x	x	
<i>Cannabis sativa</i> L.					x
<i>Centaurea</i> sp.	x	xcf			
<i>C. cyanus</i> L.		x			x
<i>Chenopodium album</i> L.		x	x		x
<i>C. ficifolium</i> Sm.					x
<i>Chrysanthemum segetum</i> L.	x	x	x	x	x
<i>Cirsium</i> sp.		x	xcf		
<i>Fallopia convolvulus</i> (L.)A.Love	x	x		x	x xtf
<i>Galeopsis tetrahit</i> L.				x	x

<i>Lamium</i> sp.	x			x	
<i>Lapsana communis</i> L.	x	x		x	x
<i>Leontodon</i> sp.				xcf	x
<i>Linum usitatissimum</i> L.					x
<i>Lithospermum arvense</i> L.		x			x
<i>Medicago lupulina</i> L.					x
<i>Papaver argemone</i> L.					x
<i>P. dubium</i> L.					xcf
<i>Persicaria maculosa/lapathifolia</i>	x	x	x	x	x
<i>Plantago major</i> L.					x
Small Poaceae indet.	x	x	x	x	x
Large Poaceae indet.		x	x	x	
<i>Polygonum aviculare</i> L.		x	x	x	x
<i>R. acris/repens/bulbosus</i>	x	xcf	x	x	x
<i>Raphanus raphanistrum</i> L. (siliqua frags.)	x	x	x		x
<i>Reseda lutea</i> L.	x				
<i>Rumex</i> sp.	x	x	x	x	x
<i>Rumex/Carex</i> sp.	x				
<i>R. acetosella</i> L.		x			x
<i>Scandix pecten-veneris</i> L.		xcf	x		xcf
<i>Scleranthus annuus</i> L.					x
<i>Silene</i> sp.	x		x	x	x xc
<i>Sinapis</i> sp.	x	xcf	x		x
<i>Solanum dulcamara</i> L.		xcf			
<i>Sonchus asper</i> (L.)Hill	x	x	x		
<i>S. oleraceus</i> L.		x			x
<i>Spergula arvensis</i> L.					x
<i>Stellaria media</i> (L.)Vill.	x	x			x
<i>Torilis japonica</i> (Houtt.)DC				x	
<i>Urtica dioica</i> L.	x	x			x
<i>U. urens</i> L.		x			x
<i>Valerianella dentata</i> (L.)Pollich		x			

Sample No.	1	2	3	4	5
Context No.	47	86	86	102	96
Wetland/aquatic plants					
<i>Bolboschoenus maritimus</i> (L.)Palla					x
<i>Carex</i> sp.	x	x	x	x	xx
<i>Eleocharis</i> sp.		x	x		x
<i>Hydrocotyle vulgaris</i> L.	x		x		x
<i>Juncus</i> sp.		xx	x		
<i>Lycopus europaeus</i> L.	x				x
<i>Menyanthes trifoliata</i> L.	x		xcf		xcf
<i>Oenanthe aquatica</i> (L.)Poiret					xcf
<i>Polygonum minor</i> (Hudson)Opiz					x
<i>Potamogeton</i> sp.	x				
<i>Ranunculus lingua</i> L.					x
<i>Triglochin maritima</i> L.	x				
<i>Typha</i> sp.					x
Tree/shrub macrofossils					
<i>Corylus avellana</i> L.	x				
<i>Rubus</i> sect. <i>Glandulosus</i> Wimmer & Grab					x
Other plant macrofossils					
Charcoal <2mm	xx	x	x	x	xx
Charcoal >2mm	x				x
Charred root/rhizome/stem	x	x	x	x	x
Waterlogged root/rhizome/stem	xxx	xxx	xxx	xxx	xxx
<i>Pteridium aquilinum</i> (L.)Kuhn (pinnule frag.)					x
(stem frags.)					xcf
Indet.buds	x				x
Indet.fruit stone frag.					x
Indet.inflorescence frags.		xx	xx	x	
Indet.leaf frags.				x	x
Indet.moss	x	xx	xx	xx	xx
Indet.thorns (<i>Rosa</i> type)	x				
Indet.seeds	x	x xc	x	x	x
Wood frags. >5mm			x	x	
Other materials					
Black porous 'cokey' material		x	x	x	x
Black tarry material	xx				x

Bone			xb		
Burnt/fired clay		x			
Cleodoceran ehippia					
Fish bone			x	x	x
Hair/fibre				xxx	
Marine mollusc shell			x		
Small coal frags.	x		x		
Waterlogged arthropods	x	xx	x	xx	x
Sample volume (litres)	2ss	2ss	2ss	2ss	2ss
Volume of flot (litres)	0.5	0.8	1	0.4	0.8
% flot sorted	c.12.5%	c.12.5%	<10%	25%	c.12.5

Key to Table

x = 1 – 10 specimens xx = 10 – 100 specimens xxx = 100+ specimens

c = charred fg = fragment tf = testa fragment b = burnt ss = sub-sample

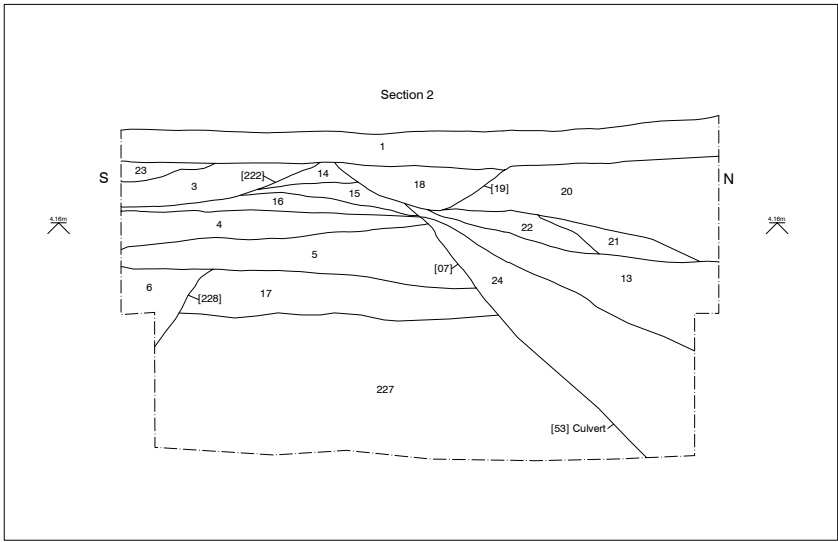


Figure 6. Trench 1, east facing section. Scale 1:20.



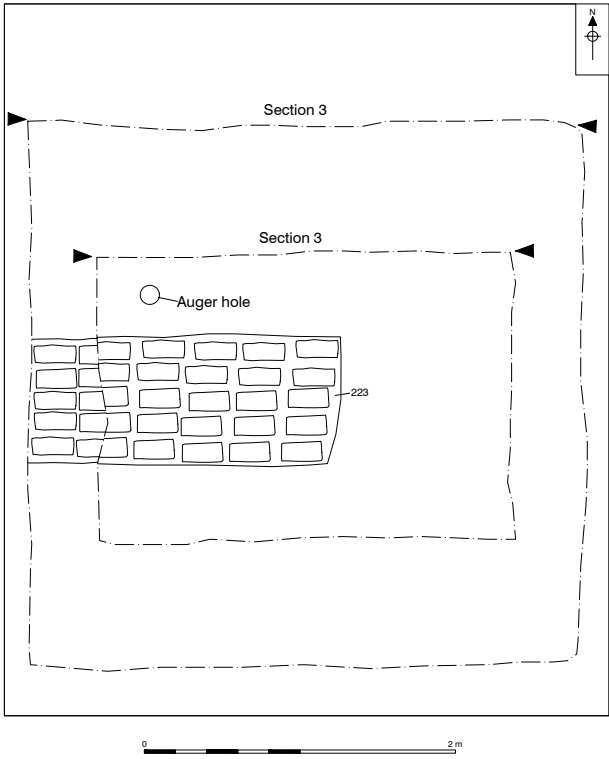


Figure 7. Trench 2, plan showing location of sondage, auger hole and brick pier [223]. Scale 1:20.



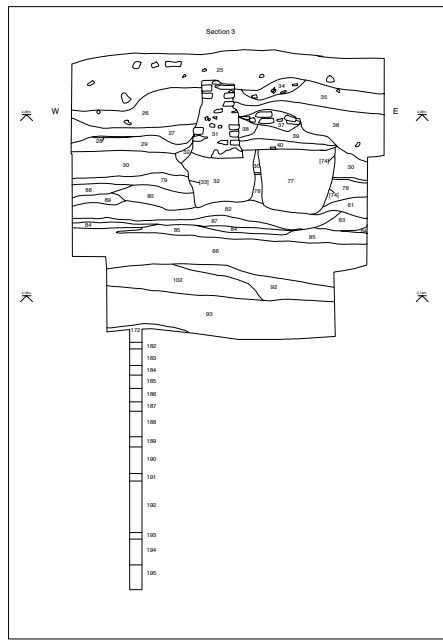


Figure 8. Trench 2 south facing section and auger hole results. Scale 1:20.



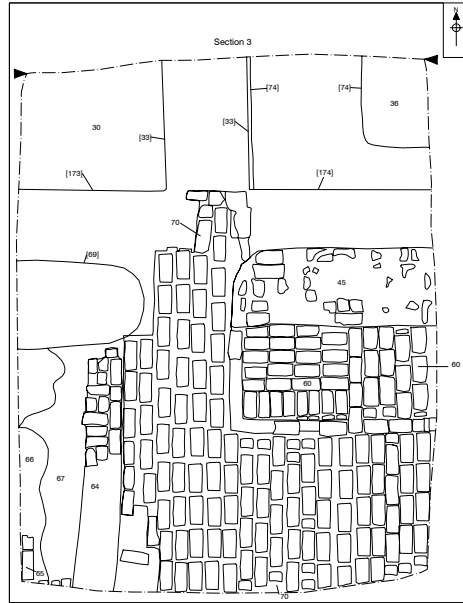


Figure 9. Trench 2, plan of features. Scale 1:20.





Plate 1. Leather knife sheath



Plate 2. Composite knife

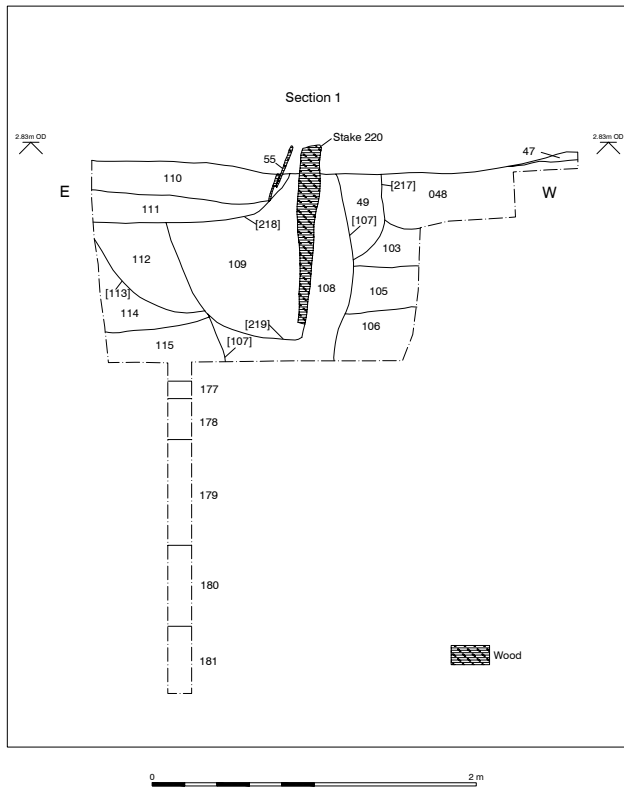


Figure 5. Trench 1, sondage north facing section and auger hole results. Scale 1:20.

